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Exploration and exploitation of business development opportunities between two countries: the case of Iran-France relations

Ehsan Soltanifar

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THÈSE

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Exploration et exploitation des opportunités de développement d'affaires entre deux pays : le cas des relations Iran-France

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Résumé

Etant donné la faiblesse des recherches qualitatives, multidisciplinaires et méthodologiques dans le domaine de l'identification des opportunités internationales pour les économies émergentes et inspirée par plusieurs rounds de dialogues entre l'Iran et les puissances mondiales, cette thèse est une tentative de développement d'un cadre d'analyse destiné à identifier les opportunités internationales et d'analyser les relations d'affaires entre deux pays. Ce cadre est mis en œuvre dans une étude de cas destinée à explorer et exploiter les opportunités de développement entre l'Iran et la France.

Le premier chapitre est consacré à une revue de la littérature dans trois domaines : les affaires internationales, le commerce international et l'entrepreneuriat. Cette revue permet d'identifier et de reconnaître les six thèmes principaux liés à la reconnaissance d'une opportunité.

Dans le second chapitre sont présentés les aspects méthodologiques de la reconnaissance d'une opportunité. La stratégie, le plan et la méthode de la recherche sont choisis : la stratégie de recherche est la méthode qualitative mixte, le plan de recherche est l'étude de cas et l'analyse structurelle est utilisée pour la collecte et l'analyse des données. La structure de la collecte et de l'analyse de données est ensuite présentée. Le cadre d'analyse est une matrice 6x n présentant les intersections entre deux listes, constituées de n lignes et de 6 colonnes. Les colonnes correspondent aux 6 « thèmes » de la reconnaissance d'une opportunité internationale (ROI) et les lignes correspondent aux n sources de données. En fin de chapitre, le choix des relations commerciales entre l'Iran et la France en tant que terrain de recherche est justifié.

Le chapitre 3 présente la mise en œuvre de la recherche, la façon dont les données sont synthétisées et les résultats obtenus. La réalisation de la recherche s'appuie sur la conduite de 26 entretiens, l'analyse de 54 documents et la réalisation de 10 observations. Le contenu des données ainsi collectées a été réparti par ligne dans les 6 colonnes de la matrice. Le contenu de chaque colonne est ensuite synthétisé au moyen de l'utilisation simultanée de quatre techniques qualitatives, ce qui permet de mettre à jour les problèmes auxquels est confrontée la promotion du commerce entre l'Iran et la France, les causes de ces problèmes, les opportunités d'affaires bilatérales et de faire quelques propositions sur leur exploitation.

Sur le plan méthodologique, il ressort que l'usage d'un processus adapté de ROI permet de mettre en relation des points épars, d'identifier une logique au sein de données, de tendances et d'événements apparemment indépendants et d'identifier finalement des opportunités d'affaires.

Pour ce qui concerne les relations Iran-France, la conclusion est que l'organisation de la France est « large et fragile, au moins dans ses relations avec l'Iran, tandis que certains de ses concurrents, comme l'Italie ou surtout l'Allemagne, ont mis en place avec l'Iran un système commercial « petit et agile ». Afin de résoudre ce problème, des explications proposées et des propositions de politiques sont faites. Fruits supplémentaires de la mise en œuvre du cadre d'analyse, des éclaircissements, des explications et une analyse socio-économique sont proposés.

Le cadre d'analyse et la méthodologie présentés peuvent être utilisés par les consultants en affaires internationales, les agences de développement commercial, les chambres de commerce, les sociétés internationales. Ils leur permettront d'analyser, d'explorer, de viser, d'évaluer et d'exploiter des opportunités d'affaires internationales dans les économies émergentes ou entre des zones d'affaires.

Abstract

With regard to lack of qualitative, multidisciplinary and methodological researches on international opportunity recognition in emerging economies (IEEEs) and inspired by rounds dialogues between Iran and world powers, this thesis is an attempt to develop a framework for international opportunity recognition and international business analysis between business blocs and then implement it as a case study to explore and exploit business development opportunities between Iran and France.

In chapter 1, the literature is reviewed in three areas: international business, international trade and entrepreneurship. Thanks to this review, six main themes for opportunity recognition are recognized and defined in a way to be operationalized.

In chapter 2, methodological aspects of opportunity recognition are presented, and the approach, design and method of research are selected. In brief, a qualitatively-driven mixed method is selected as the research approach, case study as the design and framework analysis approach for managing data collection and analysis. By the rest, the framework of data collection and analysis is presented. The framework, in a simple word, is an $n \times 6$ matrix of the intersection between two lists, setting up as “n” rows and “6” columns. In other words, six "themes" of international opportunity recognition (IOR) form columns and many sources of data are organized through rows of the matrix. At the end of this chapter, the choice of Iran-France business relations as the fields for case study research is justified, and arrangements for validity and reliability are presented.

In chapter 3, the research framework is implemented in the field, data are synthesized, and results reported. To implement the framework, 26 interviews, 54 document analyses and 10 observations are conducted and their data incidents placed in the framework divided by its column. Columns of the framework (matrix) are synthesized using four qualitative techniques into problems in front of trade promotion between Iran and France, insights about the field, bilateral business opportunities and considerations for their exploitation.

Methodologically, it is found out that passing a customized IOR process can be recruited for connecting the dots, pattern recognition among seemingly unrelated data, trends, events, and finally recognizing business opportunities.

In the case of Iran-France relations, it is concluded that international trade regime of France at least in relation to Iran is "*large and fragile*" while other competitors like Italians and mainly Germans have constructed a relatively "*small and agile*" trading system with Iran. For dealing with this issue, explanations and policy proposals are extracted. In addition, insights, explanations and socio-economic analysis regarding Iran-France trade promotion are among the outcomes of framework implementation.

In general, proposed framework and methodology can be used by international consultants, trade promotion agencies, chambers of commerce, conglomerates or international companies to analyze, explore, enact, evaluate and exploit international business opportunities in emerging economies or between business blocs in general.

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Table of Abbreviations(by alphabetical order)

No.	Abbreviation	Full-term
1	AHK	Iran-Germany Joint Chamber of Commerce
2	CFICI	Chambre Franco-Iranienne de Commerce et d'Industrie(Iran-France Joint Chamber of Commerce)
3	CIE	Comparative International Entrepreneurship
4	EMs	Emerging markets
5	EU3	It has been used to refer to the grouping of France, Germany, and the United Kingdom, especially during the negotiations with Iran from 2003
6	FA	Framework Analysis Approach
7	FDI	Foreign Direct Investment
8	GT	Grounded Theory
9	IB	International Business
10	IE	International Entrepreneurship
11	IEEEs	International Entrepreneurship in Emerging economies
12	INVs	International new ventures
13	IOR	International Opportunity Recognition
14	JCPOA	Joint Comprehensive Plan of Action
15	Matrix-Collage	Refer to proposed framework of this research
16	MEDEF	Movement of the Enterprises of France
17	MNEs	Multi-National Enterprises
18	OMOI	Overall Market Opportunity Index
19	P5+1	P5+1 refers to the UN Security Council's five permanent members (the P5), namely China, France, Russia, the United Kingdom, and the United States, plus Germany.
20	PSP	Problem Solving Process
21	QDA	Qualitative Data Analysis
22	RCA	Revealed Comparative Advantage
23	SMEs	Small and Medium Enterprises
24	TCA	Trade and Cooperation Agreement
25	TCE	Transaction Cost Economics
26	TRBC	Thomson Reuters Business Classification
27	UNCTAD	United Nations Conference on Trade and Development

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Introduction and Research Justification

After a decade of challenge on nuclear issues between Iran and six world powers (P5+1)¹, on 14 July 2015, they reached an agreement in Vienna. This agreement was grounded by initiatives of the Islamic Republic of Iran and President Barak H. Obama beside European leaders to solve nuclear issues that led to signing the agreement entitled Joint Comprehensive Plan of Action (JCPOA).

Many observers were optimistic about the consequences of this deal. It seemed that after many years of resistance against sanctions, due to the nuclear conflict between Iran and the West, Iranian nations' rights to use peaceful nuclear technologies are legitimated by western powers. Now it is the time to lift the sanctions, actualize the capabilities, and experience a new era of economic development and social welfare. Through the next 2-3 months, delegations were sent to Iran from Germany and Croatia to China and S.Korea.

Among the negotiating parties, France has shown a particular interest in the development of economic relations due to its previous presence in the Iranian market. Just about a week after signing JCPOA, they sent the largest delegation to Iran. Through the year after, many newcomer companies of French origin like *Europcar*² and *AccorHotels*³ opened a business line. Many other companies, who had left the market like Total and Peugeot, signed new contracts that showed their willingness to come back. On the other side, many French-based startups shaped around business development between Iran and France. For example, *Iranianoffice*⁴ to present coworking and employee outsourcing services to newcomers or *Cosmopolistan*⁵ to provide interested French companies with public affairs services in Iran. Everything looked good.

However, after passing a honeymoon in 2015 and 2016, existing difficulties in Iranian doing business environment, Donald Trump's election to the US presidency, and his later decisions gradually forced many European companies to get out of the market or minimize their activities.

¹ Refers to the UN Security Council's five permanent members(the P5); namely China, France, Russia, the United Kingdom, and the United States; plus Germany.

² <https://www.europcariran.com/fa/>

³ <http://www.accorhotels.group/>

⁴ <http://www.iranianoffice.com/>

⁵ www.cosmopolistan-agency.com

For example, INFOMINEO⁶, a French market research startup who had opened its branch in Iran in 2015, dismantled the office in 2017. Not only small companies but also multinationals like the PSA group, Renault, and Total stop their activity in Iran by 2018 while increasing the risk of activity in Iran.

Regardless of political factors, a series of business inefficiencies and mismanagements began to negatively affect the nuclear deal and prevent Iran and Europe from exploiting emerged opportunities. Through a series of interviews with members of the French delegation⁷, they were complaining about the lack of systematic plan among the organizing body⁸ to explore the real needs of the market and matchmaking between French prospects and Iranian clients. Moreover, they were talking about inefficiencies in *Iran-France Joint chamber of commerce(CFICI)*, lack of banking channels between Iran and France, and neglecting small and medium in comparison to large enterprises. By the time of writing this thesis⁹, despite US withdrawal on JCPOA and many obstacles in front trade promotion between Iran and Europe, European leaders still have remained in the deal. They are trying to keep the business line with Iran open not only because of Iran's inherent business charms but also for maintaining the peace in the Middle East region.

Thus, it seems so crucial to have comprehensive master plans of business development and business reinforcement when practitioners are going to enter into emerging markets like Iran. Such plans should address the following concerns; *what are real business opportunities in an emerging economy, and then which companies may have more justification to enter into the market? What trade barriers prospect companies may be confronted to when they enter into a specific market (e.g., bureaucracy and political risks)? What policies and solutions can be designed to manage the risks and increase the chance of success for prospect companies? We name these provident companies(and people), usually international entrepreneurs, and try to analyze opportunities existing for them and obstacles in front of their international entrepreneurship initiatives through a real case between Iran and France. As mentioned by Yeung(2002, P. 29), “international business activities have confronted entrepreneurs with host business environments that are fundamentally different from their home countries.” Despite*

⁶ <https://infomineo.com/>

⁷ A set of interviews conducted by researcher with members of incoming French Delegation to Iran in 2015 organized by MEDEF

⁸ Mouvement des Entreprises de France(MEDEF)

⁹ spring 2019

decades of entrepreneurship research, we know very little about these entrepreneurs and their challenge in establishing and managing transnational operations” (ibid).

In Brief, the formation of this research is inspired by recent deals and agreements between Iran and world powers on nuclear issues before and after JCOPA and perceived research gaps in fields of opportunity recognition and international entrepreneurship in emerging economies (Figure1). The next sections will elaborate on these research gaps and their theoretical utility.

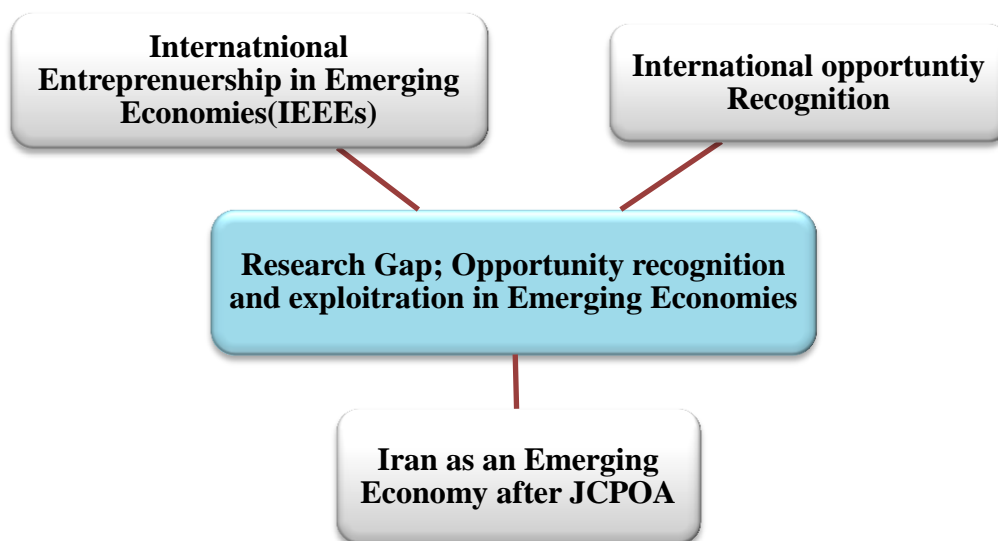


Figure 1- Positioning of the research contribution

Entrepreneurship in Emerging Economies; importance and research gap

For more than 200 years, peripheral economies in Asia, Latin America, or Africa have been minor players in the global economy. However, since the beginning of the industrial revolution, one of the most significant shifts in the global economic and geopolitical structure is triggered; *“The world is undergoing a rapid economic shift as firms in the long dominant economies of Europe, and North America are increasingly being challenged by firms from emerging economies: low-income, high growth nations principally reliant on economic liberalization for their growth”* (Bruton et al., 2013, P. 169). According to a definition given by MSCI Market

Classification Framework (2014, P.1), “An *emerging market* is a country that has some characteristics of a developed market, but does not meet standards to be a developed market.” Many scholars like Bruton et al. (2008) believe that “emerging economies are characterized by an increasing market orientation and an expanding economic foundation.”

Importance of emerging countries in the global economy

The economic shift “*is generating new business opportunities, supporting a new breed of competitive multinational companies based in emerging markets, and forcing established global leaders to adapt their strategies or face an inevitable decline*” (Ciravegna et al., 2014, P.1).

The economies of China, India, Russia, Brazil, Mexico, South Korea, Turkey, Indonesia, and Poland are considered to be the largest emerging markets. At the time, these economies comprise over a third of the world's 25 largest economies and are growing at around three times the pace of the advanced ones (*ibid*). “*By 2025, the combined GDP of the eight largest emerging economies is likely to be equal or larger than that of the eight largest advanced economies*” (World Bank, 2011, as mentioned by Kiss *et al*, 2012, P.266).

According to the MSCI Frontier Markets Index, between 2008 and 2013, emerging markets have accounted for 80% of Global GDP Growth, while unemployment, public debt, and recession have affected economies in Europe and the USA. In today's markets of energy and minerals, emerging markets like Brazil, Russia, China, Iran, Saudi Arabia, Argentina, and South Africa own the majority of the world's natural resources, ranging from fertile land to minerals and oil. Multi-national companies like IBM, Apple, Toyota, Land Rover, or Nike have transferred their production sites to emerging markets and/or survive thanks to emerging market investors. Others, such as Unilever, Renault, or Siemens, are counting mainly on emerging markets for their future growth.

“*Meanwhile, companies based in emerging markets have become global leaders in almost every sector, ranging from baked products to smartphones, oil, gas, solar panels, telecommunication equipment, personal computers, refrigerators, airlines, and commercial ports*” (Ciravegna *et al.*, 2014, P.2).

These facts reveal the emergence of a new era of economic power balance between south and north economies, which previously entitled *developing* and *developed countries*. In this situation, as mentioned by Ciravegna et al. (2014) “having an “emerging markets” strategy has become a priority, not a luxury.”

Anyway, the success of many emerging economies “*is such that they are rapidly becoming major economic forces in the world*” (Bruton *et al.*, 2008, P.1). Due to the increasing importance of these economies, investigation of how business opportunities are explored and exploited through them has been found a great attention in recent years. A majority of researches on business opportunities has been organized through the field of entrepreneurship. Thus as mentioned by Bruton *et al.* (2008), entrepreneurship plays a crucial role in the economic development of emerging economies and value creation through them. On the other side, the “*activity of setting up a business or businesses, taking on financial risks in the hope of profit*”¹⁰, in an emerging country that is the primary concern of present research and it has been mainly defined by and theorized through *entrepreneurship* as an academic discipline. However, yet to date, little is known about entrepreneurship in emerging economies (*ibid*). Thus for the rest, we should consider how much work has been done on entrepreneurship in emerging economies.

Lack of research on entrepreneurship in emerging countries

Emerging economies play a crucial role in the contemporary business environment. However, little research has been done on entrepreneurship in these economies. As mentioned by Kiss et al. (2012, P.266); “*despite the growing prominence of emerging economies on the global economic stage, and the important role that entrepreneurs play in powering their economic growth, our understanding of international entrepreneurship (IE) in emerging economies is quite limited.*” Despite the effort of authors such as Khanna and Palepu (2010) in their book *Winning in Emerging Markets*, “*academics have been slow in developing new models, strategies, and theories aimed at the thousands of companies, managers, and entrepreneurs interested in running non-financial operations in emerging markets*” (Ciravegna et al., 2014, P.1).

¹⁰ Definition of entrepreneurship from OXFORD dictionary retrieved from; <https://en.oxforddictionaries.com/definition/entrepreneurship>

SMEs in emerging countries

Globalization and information technologies have made countries more integrated, and **small and medium enterprises (SMEs)** more critical in the global economy. Globalization has been one of the most important economic events of the last decades, and this has caused a higher degree of integration and interdependence between countries, with a definite increase in the volume of business transactions across borders (European Commission 2015, as mentioned by Felzensztein, 2016, P.5). *“Within this context, not only multinational enterprises have international orientations; new and smaller firms (SMEs) are also forced to extend the scope of their business because they face a large number of international competitors into a much wider market. Although SMEs are a major source of growth and job creation, SMEs appear to be underrepresented in the international economy relative to their contribution in national and local economies (ibid).*

The emergence of small and medium companies like Spotify, Skype and Airbnb, and their global growth have highlighted the importance and value of small and medium enterprises in the global economy; *“Today, small and medium enterprises (SMEs) have become involved in the global market in a variety of ways. The growing internationalization of the small and medium-sized firms has stimulated the creation of a field of studies aimed at understanding this new phenomenon, the so-called “international new ventures,” “born global,” “global start-ups” or “international entrepreneurship” (Guimarães, 2012, P.235).*

Role of born globals and international entrepreneurship for national and international development have been perceived by many countries; *“Many SMEs have advanced on their internationalization processes, and many countries are adopting specific policies and programs to enhance SMEs’ internationalization potentials to encourage their further participation in global markets” (Felzensztein, 2016, P.5).*

Thus, with the increasing globalization of markets, expanding the role of new ventures in the global economy, the liberalization of emerging economies and their integration into the worldwide economy, interest in international entrepreneurship (IE) has increased rapidly over the past two decades (Kiss et al., 2012).

International Entrepreneurship in Emerging Economies

Most entrepreneurship research has focused mainly on **advanced countries** to develop and deduce the theories with IE research showing a similar pattern (Kiss et al., 2012 & Zolfaghari et al., 2013).

As mentioned by Bruton et al. (2013) “*Yet, despite the importance of emerging economies to the world’s economy, scholars too often fail to recognize that emerging economies challenge theories developed to explain phenomena in mature economies, which are relatively stable and efficient.*” There is also “*a strong need to develop a better understanding of international entrepreneurship (IE) in this domain*” (Bruton, et al., 2013, P.169).

Actually, despite the growing role of emerging countries in the global economy and their fast economic growth, past scientific researches have focused much less on international entrepreneurship in emerging economies or so-called IEEEE. Fragmentation of IE “*is even greater due to the fact that existing literature reviews about cross-country entrepreneurship and other IE research issues have mainly focused so far on advanced countries*” (Zahra and George 2002 Bruton et al. 2013, Yamakawa et al. 2008 as mentioned by Zolfaghari et al., 2013, P.116). From among pretty limited IEEEs researches, some countries (especially, but not only Brazil, Russia, India, and China) have been widely overlooked, thus leaving a substantial research gap to be filled for other emerging economies (*ibid*).

Despite the current focus of IE researches on advanced countries, boosted by the increasing role of emerging economies in the world economy, the literature of IEEEE is proliferating. On the other side, much of the existing literature in IEEEE pays insufficient attention to **contextual influences and institutional approach**, which limits the contribution to mainstream entrepreneurship theories (Smallbone et al., 2014).

There have been done some referable institutional researches in emerging economies. Manolova et al. (2008, P.203) have found “*important differences in the three dimensions (regulatory, cognitive, and normative) of the institutional profiles across the three emerging economies (Bulgaria, Hungary, and Latvia), reflecting their idiosyncratic cultural norms and values, traditions, and institutional heritage in promoting entrepreneurship*”.

Recent debates by scholars “*has emphasized the need to view entrepreneurship within the wider political, economic and social contexts in which it takes place*” (Baker and Nelson, 2005; Davidsson, 2003; Welter, 2011; Zahra and Wright, 2011 as cited by Welter and Smallbone et al., 2011, P.1). There are challenges of deficient institutions and institutional change for entrepreneurship in emerging market economies and the need for supporting entrepreneurial activities through contextualized policies (micro finances and other government supports (*ibid*)).

Lim et al. (2016, P.1) have examined “*how various macro-level institutional conditions may help direct individual-level financial and human capital toward entrepreneurship. Their results indicate that the direct effect of individuals’ household income on their engagement in entrepreneurship is persistent, regardless of institutional conditions, but the influence of education level varies contingent upon various institutional conditions*”.

Thus Kiss et al (2012) in their critical review and research agenda on international entrepreneurship research in emerging economies (IEEEs) have encouraged “*using a comparative business systems approach as one way to achieve better contextualization in IE research to examine how institutions in different national domains interact to form distinctive configurations that generate a particular systemic logic of economic action and competitive advantages related to complementarities among those institutions*” (Jackson and Deeg, 2008, p. 541: 541 as cited by Kiss et al., 2012, P.279).

Other scholars like Tracey & Nelson (2011) have focused on the importance of the institutional context in shaping the nature of entrepreneurship in emerging markets. Khanna et al. (2010, P.14) have described “*how **institutional voids**- the absence of intermediaries like market research firms and credit card systems to efficiently connect buyers and sellers - create obstacles for companies trying to operate in emerging markets.*”

Another critical research gap is about **opportunity recognition** as a research topic. International opportunity recognition(IOR) is defined as follows: “*The way an entrepreneur discovers the opportunity to exchange products and services with a new or existing partner in a new international market for the first time*” (Angelsberger et al., 2017, P.19).

Despite their critical importance in the field, the concept of opportunity, and international opportunity recognition itself are among issues, that less attention has paid to them through the literature (Mainela et al., 2014). *“Alongside this body of literature, an alternative view of the domain of international entrepreneurship – centering on ‘**opportunity**’ – has emerged.”* (Oviatt & McDougall, 2005: 7 as cited by Reuber et al., 2018a, P.396). Oviatt & McDougall (1994) have defined IE as *“The discovery, enactment, evaluation, and exploitation of opportunities – across national borders – to create future goods and services”* (ibid). In other words, at the heart of IE studies is opportunity recognition, as opportunity exploration and exploitation is the core concept of entrepreneurship. As mentioned by Mainela et al. (2014, P.114) *“International entrepreneurship (IE) as a field of research has emerged at the intersection of internationalization and entrepreneurship theories. At this intersection it has come to emphasize the activities centered on international opportunities”*. However, there is a lack of empirical research on international opportunity recognition (Chandra et al., 2009; Kontinen & Ojala, 2011a; Zahra et al., 2005, as mentioned by Mainela et al., 2014). Despite burgeoning research in international entrepreneurship (IE), very little is known about the processes of how entrepreneurs recognize and pursue opportunities in international markets (Chandra et al., 2009).

New venture creation involves *“the discovery, evaluation, and exploitation of opportunities by individuals. Opportunity recognition and evaluation are critical mechanisms that precede the creation and emergence of new businesses. However, comparative entrepreneurship research tends to concentrate on explaining differences in actual new business creation, without acknowledging cross-country variations in the complete set of activities that encompass new business creation”* (Lim et al., 2016, P.1). As mentioned before, the role of institutional and contextual factors here is so important.

The final shortcoming that is worthy to note is *“the tendency of IEEE research to **focus on a relatively limited number of regions and countries**”*(Kiss et al., 2012). As mentioned before, the literature is dominated mainly by cases and research initiatives on Brazil, Russia, India, and China or Central and Eastern European Countries (Kiss et al., 2012; Zolfaghari et al., 2013). Accordingly, to expand the field's geographic reach, Kiss et al. (2012, P.279) have invited researches from under-researched countries *“who are not only likely to have deeper contextual understanding but may also be able to assist with access to data, which are often difficult to*

access in such countries". Thus it seems necessary to initiate researches on IEEE in new and unexplored countries where there is no record of research about through the literature.

Some scholars have tried to review the existing literature in IEEE and present some topics for future researches;

Kiss et al. (2012, P.284), in their systematic analysis of 88 journal articles published over the last two decades, have proposed a research agenda in comparative entrepreneurship. That agenda includes "**a-Cross-country**, multi-level research focused on the interplay between individual level variables, networks, and institutional factors to explain new venture initiation, growth and entrepreneurial innovation"..." **b-Comparative** research that focuses on **opportunity recognition processes** and **c-Comparative** research that incorporates **institutional differences** and their impact on various firm level variables (i.e. resources, capabilities and strategies) and subsequent firm performance".

Terjesen et al. (2013, P.17), after a systematic review on 259 articles published in 21 leading journals from 1989 to 2010 about comparative international entrepreneurship (CIE) have suggested topics for research in comparative international entrepreneurship as follows;

- *“Develop integrative approaches studying **multiple levels and/or determinants** and outcomes of entrepreneurship at the same time or different types of entrepreneurship simultaneously.*
- *Prioritize research that explicitly builds, develops, and/or **contributes to theory.***
- ***Integrate multiple theories** to explore complex cross-country phenomenon by testing competing theories.*
- ***Include underexplored countries**, particularly those from the developing world.*
- *Use theory-based rationale to select countries/regions studied.*
- ***Utilize qualitative and quantitative methods** from the same set of individuals, firms, industries, and/or countries.*
- ***Utilize existing publicly available data and/or build new longitudinal data sets** through cooperation with supra-national agencies, industry associations, and government agencies.*

- *Pursue more diverse and sophisticated analytical techniques, such as content analysis of secondary sources, **qualitative research**, meta-analysis, and multi-level methodology.*
- *Establish and reference sample selection and data collection equivalence criteria.*
- *Gather data from multiple informants.*
- *Leverage data from multiple levels of analyses.”*

The final issue that was found worthy of considering in emerging economies is **problems** that impede entrepreneurs to exploit opportunities beyond the borders. Thus a part of educational courses on international entrepreneurship in emerging economies and IEEE research initiatives is problem recognition. *“To provide a framework (and multiple lenses) through which to think about the salient economic and social **problems** of the developing world and plausible solutions to these **problems**, to encourage a bias toward action by enabling students to understand the importance of individual agency in addressing these **problems** AND to shepherd students through the development of a business plan/grant proposal for their own enterprise that is informed by team members with diverse backgrounds, in order to addresses a relevant social or economic **problem** in the developing world”* (Khanna et al., 2018, P.1). In general, problem recognition can be considered as a beginning step in many research processes and initiatives and shall be tuned for present research as a start point.

To conclude in this section, from abovementioned discussions, it can be understood following research gaps:

- Comparative researches on IE in emerging economies
- With a focus on opportunity recognition process and the role of SMEs.
- To determine and analyze contextual and institutional factors and challenges
- With a focus on under-researched emerging economies
- That includes not only opportunity exploration but also problem recognition and arrangement for opportunity exploration
- Based on a theoretical background

Based on these points, it appears suitable to focus on “International Business Opportunities in Emerging Markets.” As a consequence, the primary question is:

Primary question;

- How can we recognize international business development opportunities in emerging economies? (in cooperation with a foreign economic partner)

Here it is planned to find opportunities in Iran as an emerging economy from the viewpoint of cooperation between French and Iranian companies and entrepreneurs. From the viewpoint and introduction, we have explained above although we are working on business development between Iran and France, our research viewpoint is to consider opportunities for business development in Iran(as an emerging economy) in cooperation with French resources.

Secondary question;

- What are problems in front of trade promotion between an emerging economy and a foreign economic partner?
- What institutional and contextual conditions affect international opportunity exploration and exploitation environment between an emerging economy and a foreign economic partner?
- What are the opportunities for international business development in emerging economies?
- What policies can be proposed to exploit bilateral opportunities?

The main aim of this research is not theory building. However, while it includes inquiries about opportunities and internationalization of SMEs in business, blocs can provide a so-called *Middle range theory*¹¹ on this issue.

In the next section, it will be justified why trade between Iran and France has been chosen as the field of the present research. The following section can provide an analogy for narrowing down the research questions into one specific field and selecting the research design.

¹¹ Middle-range theory, developed by Robert K. Merton, is an approach to sociological theorizing aimed at integrating theory and empirical research. Based on Wikipedia.com

Implementing the Research; Case study between Iran and France

Our research design, in general, is a case study. As explained by Yin (2014), case studies are preferred research design when:

1. ‘How’ or ‘why’ questions are being posed,
2. The investigator has little control over behaviour events
3. When the focus is on a contemporary phenomenon within some real-life context

As mentioned by Yin(1981), a case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident.

Refer back to the primary research questions. Research questions are mostly about *how*. The control on the behaviour of merchants and traders is limited. Research has focused on present trade streams between Iran and France, the present time, and the necessity of investigating a specified phenomenon. Thus it is justified to use the case study as the research design. Among descriptive, exploratory, and explanatory case studies, it seems necessary to do an exploratory study. Thus, based on Swanson & Holton (2009 as cited by Yin, 2004), a qualitative method for that exploration will be used.

Iran as an Emerging Economy, lack of master plans for business promotion with target markets

As mentioned by many benchmarks and indexes, Iran is a brilliant emerging economy. Iran is a member of the N11 classification (Figure 2). *“Goldman Sachs led the trend, back in 2001, and much before anyone predicted the financial crisis of 2008, pointing to the BRICS¹² and then in*

¹² BRICS is the acronym coined for an association of five major emerging national economies: Brazil, Russia, India, China and South Africa.

2005 to the N11¹³ as locations for new investment opportunities. Another comparable list to BRICS and N11 is Civets¹⁴ (Ciravegna et al., 2014, P.1).

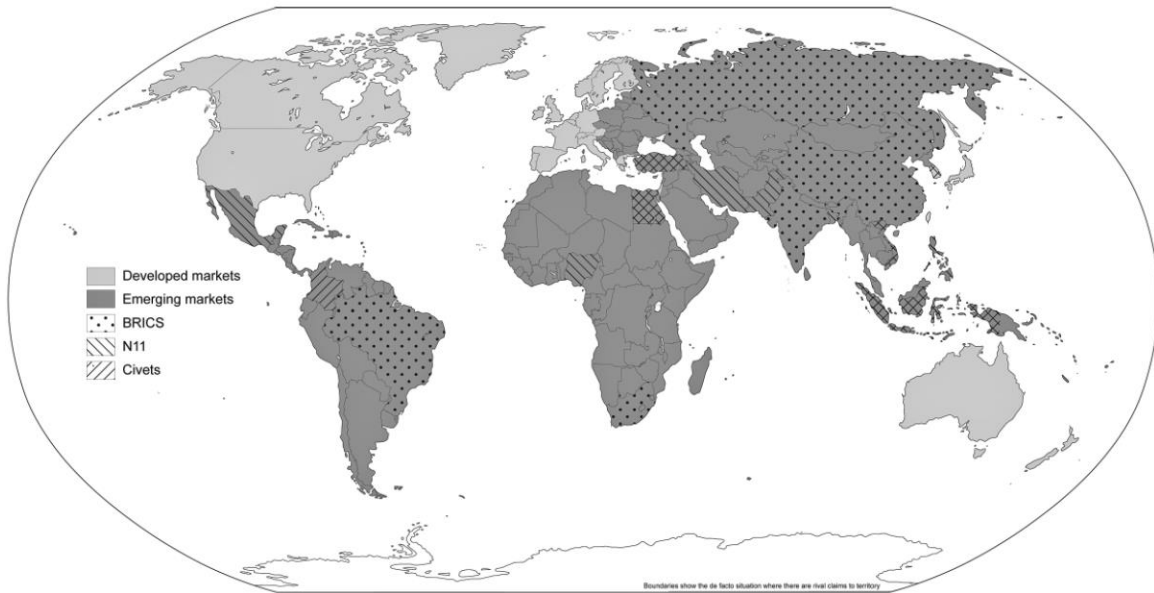


Figure 2-A depiction of Emerging Markets, BRICS, N11, and Civets. Iran can be considered as emerging markets and member of the N11 classification. Source; Ciravegna et al.(2014)

Extracted from www.safaribooksonline.com on 26 June 2018.

World Economic Forum(2018), through their Inclusive entitled *Growth and Development Report 2017* have classified and then ranked economies into *advanced* and *emerging* economies. Based on this benchmark for 2018, Iran, after China has attained 27th place among emerging economies (Figure3).

¹³ Next Eleven; are the eleven countries – Bangladesh, Egypt, Indonesia, **Iran**, Mexico, Nigeria, Pakistan, the Philippines, Turkey, South Korea and Vietnam – identified by Goldman Sachs, investment banker and economist Jim O'Neill in a research paper as having a high potential of becoming, along with the BRICS countries, among the world's largest economies in the 21st century

¹⁴ The CIVETS are six favored emerging markets countries – Colombia, Indonesia, Vietnam, Egypt, Turkey and South Africa devised by Robert Ward, Global Director of the Global Forecasting Team of the Economist Intelligence Unit (EIU) in late 2009.

TREND ● RECEDING ● SLOWLY RECEDING ● STABLE ● SLOWLY ADVANCING ● ADVANCING

ADVANCED ECONOMIES				EMERGING ECONOMIES							
RANK OVERALL	ECONOMY	OVERALL IDI SCORE	5 YEAR TREND IDI OVERALL (%)	RANK OVERALL	ECONOMY	OVERALL IDI SCORE	5 YEAR TREND IDI OVERALL (%)	RANK OVERALL	ECONOMY	OVERALL IDI SCORE	5 YEAR TREND IDI OVERALL (%)
1	Norway	6.08	-0.77	1	Lithuania	4.86	4.90	40	Sri Lanka	3.79	-0.74
2	Iceland	6.07	12.58	2	Hungary	4.74	8.10	41	Bolivia	3.76	-3.80
3	Luxembourg	6.07	0.15	3	Azerbaijan	4.69	-2.07	42	Mongolia	3.74	3.39
4	Switzerland	6.05	1.92	4	Latvia	4.67	8.60	43	Serbia	3.70	1.28
5	Denmark	5.81	4.76	5	Poland	4.61	3.39	44	Guatemala	3.70	2.83
6	Sweden	5.76	0.48	6	Panama	4.54	4.80	45	Armenia	3.66	0.62
7	Netherlands	5.61	0.43	7	Croatia	4.48	2.89	46	Honduras	3.61	2.03
18	France	5.05	-0.55	18	Algeria	4.22	-1.22	57	Rwanda	3.24	-3.31
19	Slovenia	4.93	-2.39	19	Russian Federation	4.20	0.48	58	Lao PDR	3.22	-4.87
20	Slovak Republic	4.90	1.49	20	Paraguay	4.19	1.86	59	Uganda	3.21	2.39
21	United Kingdom	4.89	0.42	21	Dominican Republic	4.19	3.08	60	Mali	3.10	-5.71
22	Estonia	4.74	1.77	22	Nepal	4.15	8.53	61	Senegal	3.09	-1.30
23	United States	4.60	1.62	23	Argentina	4.13	0.93	62	India	3.09	2.29
24	Japan	4.53	1.14	24	Mexico	4.12	0.66	63	Nigeria	3.08	-3.11
25	Israel	4.51	3.57	25	Macedonia, FYR	4.10	9.24	64	Madagascar	3.03	-3.78
26	Spain	4.40	-2.12	26	China	4.09	2.94	65	Sierra Leone	3.02	0.06
27	Italy	4.31	-1.69	27	Iran, Islamic Rep.	4.08	-0.92	66	Mauritania	3.00	-5.12
28	Portugal	3.97	-1.42	28	Albania	4.08	2.59	67	Zambia	2.99	-0.64

Figure 3-a part of *The Inclusive Development Index (IDI)* based on *Growth and Development Report 2017*, provided by the World Economic Forum(WEF)

Iran, at the heart of western Asia, benefits from a unique geo-economic position. Provided by large reservoirs of oil, gas, and other raw materials, a young educated workforce, and especially an 80 million people internal and a 150 million neighbouring market, Iran usually has been considered as a lovely market for European companies. Accordingly, when after a decade on 14 July 2015, Iran and P5+1 agreed on JCPOA many Iranian and foreign trade practitioners were excited and motivated to contact their counterparts and recover past business relations.

In this regard, European companies showed a particular interest in revitalizing past business connections or creating new ones. As reflected in section 3-1 on analyzing the trade between Iran and France, through a decade of conflict, European companies had loosed a considerable part of their market over Turkish, Indian, South Korean, and mainly Chinese competitors.

Only during the first 9 months of 1394 SH¹⁵ (April-December 2015) after signing JCPOA, more than 145 business delegations from 48 countries with more than 3800 participating companies entered the country, and they met Iranian officials and business owners (Badri, 2015). Germans with 12 sent delegations had the most number of outgoing delegations, and Italians sent the largest delegation with 360 members.

The first sizeable European delegation was from France who arrived in Tehran just a few days after signing JCPOA with 130 companies arranged by *Movement of the Enterprises of France* (MEDEF). However, the researcher's observations and interviews with trade practitioners (from Germany, France, and Croatia) revealed a lack of well-grounded plans and programs among Iranian officials and/or incoming foreign companies to enable the opportunities and topics of cooperation.

Researcher's investigations until the time of defining this research found no master plan for business opportunity exploration between Iran and foreign countries, not only European states but also other traditional trade partners of Iran like Iraq, Turkey, or China.

Iran trade promotion organization (www.tpo.ir) periodically publishes booklets regarding trade between Iran and selected countries entitled *trade road maps*. However, these booklets just report economic indicators and main imports, exports, and trade competencies of the target country, and their information is very superficial, outdated without periodical updates.

On the other side, not only medium enterprises in Iran but also large companies and holdings and conglomerates do not have a systematic or coherent plan for international opportunity recognition or trade promotion with foreign countries. These companies are so cautious and usually have a passive and reactive approach in this regard. This situation, of course, is rooted in a high level of uncertainty at doing business environment on the one side and Iranian deals with the west on the other side. So not only business practitioners but also officials cannot have a long-range planning or vision on trade with foreign countries, especially with western states. However, it seems still necessary to design updatable, dynamic, methodological plans, and

¹⁵ Solar Hijri Calendar

methods for exploring and analyzing and exploiting business development opportunities between Iran and target countries.

While on May 8, 2018, the United States officially withdrew from the agreement after Donald Trump signed a Presidential Memorandum ordering the reinstatement of harsher sanctions, a new structure on JCPOA formed in which Iran relied more on deal with Europe and European promises to keep JCPOA still alive.

Inspired by such context, the researcher defined the research problem primarily as below; how can we recognize international business development opportunities in Iran as an emerging economy? As a case, this research looks for opportunities to be exploited through cooperation between French and Iranian authorities, resources, companies, and entrepreneurs.

Concerning the necessity to narrow down the domain and importance of the European Union as a trade partner for Iran (mainly after USA withdrawal from the JCPOA), the researcher has been focused on exploring opportunities between Iran and one of the key members of the European Union. In the rest of this section, the research questions and the case will be explained.

Research questions and Objectives

With regard to the abovementioned discussions, we found a set of opportunities that have emerged after JCPOA and threats after USA withdrawal. Moreover, we can provide a list of shortcomings and research gaps about trade promotion between Iran and target countries.

We find a set of opportunities that have emerged after JCPOA;

1. After reaching the agreement entitled JCPOA between Iran and world powers in July 2015, Iran was faced with many opportunities and hoped to develop international trade and revitalize the loosed place in the world economy. Many merchants and investors travelled to Iran to hunt information and opportunities just after signing the agreement.
2. In this situation, there is a need for trade roadmaps, including explored opportunities and advised to exploit them.

3. Although the progress has been slow as yet, the reelection of Hasan Rouhani by May 2017 has revitalized the hopes for international business development between Iran and abroad.
4. US withdrawal from JCPOA means more reliance on Iran on EU Three¹⁶'s promises and proposals.
5. Applied, cross-disciplinary, methodological, and qualitative researches in the field of international business and entrepreneurship are advised by many scholars (Refer to sections 1-1 and 1-3).
6. On the other side, quantitative tools and methods that usually used in international trade literature are past-oriented and not comprehensive enough to capture opportunities in a fast-growing business environment. To compensate for these shortcomings, we should merge these tools with qualitative methods and insights.
7. Finally, conducting methodological and scientific researches on international opportunity recognition is claimed to be necessary to incubate international entrepreneurship literature by many scholars.

Thus, doing practical, methodological, qualitative, and cross-disciplinary research regarding international opportunity recognition between Iran and Western states is shaped as the main concern for this research. This concern has been elaborated through many specific research questions with regard to the researcher's capabilities, possibilities, and interests.

Developing research questions regarding the field;

Under the case study design, primary and secondary research questions have been reformulated to confront with abovementioned concern. It is tried to approach the answers based on the researcher's possibilities and resources. For narrowing down the field, it is necessary to select an advanced country to capture bilateral business development opportunities with Iran. *France has been selected* as the dealing partner of Iran to explore and exploit opportunities in between;

- First of all, as mentioned above, after the formation of JCPOA and US withdrawal, the role of EU3 (three large European states) in trade with Iran has been more critical.

¹⁶ UK, France & Germany

- Among EU3, France has been a permanent member of the security council and a key member of P5+1, negotiating side to Iran through JCOPOA negotiations
- France is the second economic power and the leading political power of the European Union.
- France has been among the leading international investors in Iran, while many French MNEs (e.g., Renault, Peugeot, or Total) have had long-lasting footprints in Iran.

These facts generally justified the importance of France as a strategic partner of Iran to define a case study in between and reformulate the research questions as below;

Primary Question;

- How can we recognize and analyze international business development opportunities in Iran as an emerging economy?

Secondary Questions;

- What problems are in front of trade promotion between Iran as an emerging economy and France as an advanced economy?
- What institutional and contextual conditions affect the opportunity exploration and exploitation environment between Iran and France?
- What are the opportunities for international business development in Iran as an emerging economy?
- What policies can be proposed to exploit bilateral opportunities?

When we talk about "opportunity," we mean topics for direct import/export and/or mutual investment of Iranian or French companies in Iran or France. There is no doubt that opportunities for investment in third parties (e.g., joint investments of Iranian and French companies in Iraq or Poland) have been considered out of the scope of this research. Although third-country business opportunities between Iran and France are considerable, working on them made the research too complicated and should be followed through another thesis title.

As mentioned later in the literature review, in most international business researches, we suppose a fixed industry to capture opportunities. However, the scope of this research as an entrepreneurial dominated initiative has not confined to a fixed industry because what industry

has more justification for being focused between Iran and France is under question per se. As proposed by the end of the research, exploring opportunities between business blocs for a fixed-selected industry can be a topic for future researches.

In fact, a case of business development between an emerging economy and a developed economy has been defined in the field of international business. However, this research should consider business relations at the macro level and then focus on micro issues and opportunities that exist in front of companies interested to work between selected pairs of countries.

Research objectives

Defining research with abovementioned questions is hoped to achieve a set of objectives as below;

- providing entrepreneurs with a framework for international opportunity recognition
- Recognizing the main challenges in front of trade promotion between an emerging economy and an advanced economy?
- Recognizing institutional and contextual conditions affect international opportunity exploration and exploitation environment between Iran and France?
- Recognizing opportunities for international business development in emerging economies?
- developing policies that can be suggested to exploit bilateral opportunities

opportunity vs entry modes

based on a thorough review have done by the research, an opportunity can be defined as *a possibility to create new profitable solutions to perceived problems, needs, or ideas originated from the market.*

This research has distinguished between opportunity and entry modes of international business(import/export, investment, and contractual agreements like licensing). In fact, entry modes are the ways of opportunity exploitation but not opportunity itself. As mentioned by Grffin and Pustay(2013), international companies first look through the opportunities that exist in a market and then decide on the entry mode they need for exploiting opportunities through the market.

Thus this research look for opportunity as topics of creating a solution for a problem or need or prioritized fields of activity between country pairs and do not focus on entry mode choices. However, prioritized fields of business will be reported divided by investment in Iran, Investment in France, the export of goods and services(including licensing) to France, and export of goods and services(including licensees) to Iran.

Emic versus etic approach?

Another important characteristic of research is to define its approach to field researches that can be summarized into emic and etic. In the emic approach, the researcher understands the behaviour based on what local people or objects think, while in the etic approach researcher focus on his understanding of what has been happened and what he has found to be essential to be observed.

“The emic approach investigates how local people think”(Kotak, 2006, p.47). “The etic (scientist-oriented) approach shifts the focus from local observations, categories, explanations, and interpretations to those of the anthropologist. The etic approach realizes that members of a culture often are too involved in what they are doing... to interpret their cultures impartially. When using the etic approach, the ethnographer emphasizes what he or she considers important”(Kotak, 2006, p.47). On the other side, “emic knowledge and interpretations are those existing within a culture, that are ‘determined by local custom, meaning, and belief’(Ager and Loughry, 2004: n.p.). These insights are best described by a 'native' of the culture. Etic knowledge refers to generalizations about human behaviour that are considered universally valid, and commonly links cultural practices to factors of interest to the researcher, such as economic or ecological conditions, that cultural insiders may not consider very relevant (Morris et al., 1999).

This research is going to find some rule and a framework for opportunity recognition in a systematic and replicable way, thus use the etic approach for opportunity recognition to form a framework and rules for OR that can be replicated in other cases. However, for an understanding of cultural and social constructs between two business blocks researcher needs to investigate how local people think about business with their counterparts thus need to have an emic

approach. Respectively some sort of finding mainly the framework and rules could be generalizable and some others like bilateral opportunities not.

Marco, Meso, or Micro approach?

There are some levels through which research may consider the phenomenon; *micro*, *meso*(industry) and *macro*. Research may consider macro factors that affect opportunity recognition between two countries or select a specified industry and try to recognize opportunities through that industry. Research also may consider one or more companies working in a field and try to consider their issues for opportunity exploration and exploitation between two countries.

Professional readers may ask what is the position of present research at different macro, meso, and micro levels? This research has no presumption about the industry that has priority for business development between two countries.

The main research question was exploring and exploiting opportunities. To address this question researcher needs a holistic approach to consider international business relations, institutional and organizational issues(at macro level). Then he should consider fields of doing business and then find prioritized industries and business topics at meso level. Finally, the researcher should find challenges and opportunities that companies may be confronted for business development at the micro-level.

The present research will aim to recognize problems and opportunities at both governmental and organizational levels; thus at both macro and meso levels, it hoped to provide useful results. Finally, there may be tips that are useful for companies for their business development. Thus all three levels will be considered in this research, although this breath may affect the depth of inquiry. More explanations about this issue will be present at 4th chapter(conclusion).

Conclusion and structure of the thesis

In this chapter necessity of research on international entrepreneurship in an emerging economy has been justified. It was discussed why it is worthy of analyzing opportunities between Iran and France. Research question mainly is formed around how can we recognize and analyze

international business development opportunities in Iran as an emerging economy? The main research design should be a case study, and the following structure will be followed to address the research question.

In chapter1, three mother disciplines of this research, *international business* and *international trade* and *international entrepreneurship*, are reviewed. In section 1-1-main definitions, themes, and topics of international business, techniques for market ranking beside overall theories and factors for market entry choice are explained. Section1-2 is focused on quantitative methods of trade potential assessment in international trade literature. In section 1-3 in search of more opportunity oriented concepts, entrepreneurship literature is reviewed; first international entrepreneurship as a field is explained, and its research gaps are presented. Then opportunity and opportunity recognition is defined, then factors affecting the opportunity recognition process, and models of opportunity recognition are reviewed. Finally, after a discussion on the relation between problems and needs for initiating opportunity recognition process and reference to most cited models of opportunity recognition, six themes for opportunity recognition are induced and operationalized.

In chapter2, methodological aspects of opportunity recognition are explained and reviewed. In section 2-1, research objectives are explained. Then in section 2-2, based on what has been determined in section 2-1, the qualitatively driven mixed method, case study, and framework analysis approach are selected as the research approach, research design, and research method, respectively. In section 2-3, the field for implementing the case study is justified between Iran and France. In section 2-4, anticipated strategies for managing validity and reliability of research has been explained. Finally, in section 2-5, elements of the case study are elaborated based on what Robert K. Yin is presented for case studies.

Chapter 3, entitled research implementation, is arranged into three main parts. In section 3-1, the field is introduced, and an initial theoretical framework is presented. Then in section 3-2, data collection sources and how to complete the framework with data are explained. Finally, in section 3-3, the results of implementing the framework for opportunity recognition and business analysis between Iran and France are reported. Results of data analysis and synthesis are

presented into five main parts; *problems, preparation, incubation, insight and evaluation of opportunities*.

The final chapter is devoted to the conclusion. In section 4-1, validity and reliability of research are discussed. In section 4-2, specific and general questions of the research are answered. Section 4-3 is devoted to a discussion on opportunities and problems. Section 4-4 presents conclusion and research contributions, and finally, section 4-5 provides researchers backgrounds, limitations, and proposals for future researches.

Chapter1, Literature Review; in search of a framework for International Opportunity recognition

In order to find a methodology for international opportunity recognition first the literature on international business, international trade and international entrepreneurship has been reviewed around the central question of this research; *how to recognize business opportunities across borders*. The general outline of chapter1 is presented below;

1-1-International business; Lack of qualitative, methodological, cross-disciplinary designs and entrepreneurial approaches

1-2-International Trade; A review on trade potential assessment and opportunity recognition tools

1-3-International entrepreneurship and opportunity recognition

By the rest, first, main definitions, actors, actions of international business, and present and emerging research themes in the field are presented. With regard to discussed research gaps in international business, including opportunity recognition and market assessment, overall market opportunity index, entry modes, internationalization theories and risk effects are presented. Finally, in this part, a fixed industry proposition is induced as the main limitation of international business in present research(section 1-1). Then International trade literature is explored, and main related techniques for market assessment using export potential assessment techniques are presented, and limitations of quantitative analysis on trade statistics are highlighted (section 1-2). Finally, entrepreneurship, international entrepreneurship, and the concept of international opportunity recognition are reviewed toward opportunity recognition factors and processes (section 1-3).

Many different definitions of opportunity recognition process are discussed and concluded on through section 1-4-2-4. A broader definition of the problem can include not only problems in front of an entrepreneur but also any other form of disturbance in the market or organization including needs, pains, gaps, inconveniences, complaints, and comments. If an entrepreneur can

find a solution for the disturbance (that he/she has been recognized), he/she potentially has entered into opportunity exploration and exploitation process.

Finally for presentation of the conceptual framework, this review induced six main themes to cover the opportunity process, including *problem/need recognition, preparation, incubation, insight, evaluation, elaboration* (refer to section 1-4-2-5).

1-1-International business;

International business can be considered as a mother and originating discipline for the present thesis. In this section, many definitions of the field are presented, and then the main research themes are explained. By the rest, research gaps are discussed. The research gap highlights the importance of more in-depth reviews on opportunity recognition and qualitative designs. Finally, related literature on opportunity recognition in the field of international business has been presented.

1-1-1-International business; definitions, main themes, and research topics

As a classic business discipline, many definitions for international business have been presented in books and papers; According to Wild and Wild (2012), international business is any commercial transaction that crosses the borders of two or more nations. They consider international business as a for-profit *activity* that crosses national borders. On the other side, Hill (2012, P.33) defines international business as an *international company* (not international business activity); “*international business is any firm that engages in international trade and investment. A firm does not have to become a multinational enterprise or foreign investors to engage in international business. Even if it has a form of import and export from other countries it is involved in international business*”.

In general, references which define international business as an “*international activity*” found out to be more than definitions formed around the concept of “*international company*”. “*In its purest definition, international business is described as any business activity that crosses national boundaries. The entities involved in business can be private, governmental, or a mixture*

of the two” (Ajami et al. 2006, P.4). Griffin & Pustay(2013) assert that international business consists of business transactions between parties from more than one country. The business that engages in cross-border commercial transactions with individuals, private firms, and/or public-sector organizations; also refer to cross-border transactions can be considered as international business. They simplify their comparison as below; “*How does international business differ from domestic business? Simply put, domestic business involves transactions occurring within the boundaries of a single country, while international business transactions cross national boundaries*” (Hughes and O'Neill, 2008, p.27).

Thus it seems that there are two views to define international business; one as an *international business actor* and the second as an *international business act*. Anyway, a prevalent issue among the above definition is that they consider any business actor or action that goes beyond national borders as a topic under international business. By the rest, it is suitable to explain the *actors* and *actions* of international business and the concept going beyond national borders.

1-1-1-1-Main actors of international business

As mentioned by many references of the field (e.g., Griffin and Pustay, 2013), the main types of actors that can be recognized in the field of international business include Multinational enterprises (MNEs), Small and medium enterprises (SMEs) and other international companies.

- **Multinational enterprises(MNEs) or Multinational companies(MNCs);**

The term of *multinational enterprises*(or sometimes called a transnational enterprise) is used to identify firms that have extensive involvement in international business. They usually have foreign direct investments outside their mother country. According to Rugman and Collinson(2006) and Wall et al.(2009), a multinational enterprise is a company that has headquarters in one country but has operations in other countries.

- **Small and medium enterprises(SMEs);**

The second group of international actors are Small and medium enterprises(SMEs), whose employee numbers are less than a threshold. These thresholds differ for each economy and are defined by domestic authorities and economic. For example, in the USA these companies

defined with less than 500 employees (Wall et al., 2009, P. 73), while in the United Kingdom, this threshold is 250 (Mid-sized businesses, 2015) and 100 for Bangladesh (thedailystar¹⁷, 2015).

SMEs may be suppliers to MNEs or have their particular niche markets. *SMEs are proving to be the backbone of many industries because of their efficiency and flexibility.* Also, a number of SMEs compete effectively against large companies in niche markets (Rugman & Collinson, 2006). A famous manifest of well internationalized SMEs are Mittelstands. They are usually family-based German SMEs that account for near 60% of national export (Griffin & Pustay, 2013); *“Germany's small and medium-sized enterprises are the envy of the world and the backbone of the German economy. The country's “Mittelstand” companies, as they are known, include more global market leaders than those of any other nation. They tend to be firmly anchored in their region and to have a strong connection with their employees and the local community”* (Schaer, 2018, p.1).

Schaer (2018, p.1) based on Christoph Müller¹⁸, has attempted to answer the question of why exactly does Germany have so many global leaders? He found the main reasons including;

1. Mittelstand's familial origins and long histories that increase their potential to be trusted by international clients; *"New customers are more likely to trust the owner than a manager who might not even be there anymore in a year's time,"* (ibid)
2. SMEs' ability to adapt their products to different markets.
3. They are leaving the country and opening up new branches, partnership, and license takings in foreign countries.
4. Acquiring other competitive companies in target markets and, more importantly,
5. Occupying a niche market and
6. Developing new technologies.

German SMEs are perfect examples of SMEs as international actors. As mentioned by Rugman and Collinson (2006), thanks to innovation, technology, and a well-trained workforce, international SMEs can compete effectively and perform functions that multinationals cannot do

¹⁷ <https://www.thedailystar.net/supplements/24th-anniversary-the-daily-star-part-2/potential-small-and-medium-enterprises-70927>

A professor of business economics who specializes in small and medium-sized enterprises, or SMEs, at the HBM ¹⁸ business school in St. Gallen, Switzerland,

as efficiently. German SMEs have benefited “continuous innovation” and “ownership” as two main sources of their international competitive advantage.

Typically a type of SMEs seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries. These companies have introduced as “Born Globals” and attracted considerable attention from researchers of international business. Start-ups like Airbnb.com¹⁹ or transferwise.com²⁰ are among famous born globals. Moreira et al.(2019) define born global company as a “*type of company that from the beginning of its activities pursues a vision of becoming global and globalizes rapidly without any preceding long term domestic or internationalization period.*”

Globalnegotiator(2019, p.1) has distinguished between two types of born global: “*export/import start-up and global startup, whereby the latter, contrary to the former, involves many activities coordinated across many countries. Usually born global companies are small companies, technology-oriented companies that operate in international markets from the earliest days of their establishment*”.

1-1-1-2-Main actions of international business

International business actors use different actions to enter into foreign markets. These actions usually called entry modes or modes of entry. These international business activities can be broken down into four types: foreign trade, trade in services, portfolio investments, and direct investments(Ajami et al. 2006). As mentioned by Griffin and Pustay(2013), historically, international business activity first took the form of export and import. However, in today’s complex world of international business, many other forms of international business are also common.

Exporting and importing; exporting is selling of products made in one’s own country for use or resale in other countries(*ibid*). Imports are goods and services produced in one country and brought in by another country(Rugman & Collinson, 2006). Advances in transportation and

¹⁹ Established in 2008, Airbnb, Inc. is an online marketplace for arranging or offering lodging, primarily homestays, or tourism experiences. The company does not own any of the real estate listings, nor does it host events; it acts as a broker, receiving commissions from each booking. Source; Wikipedia.com

²⁰ TransferWise is a British online money transfer service founded in January 2011 by Kristo Käärman and Taavet Hinrikus and is based in London. Source; Wikipedia.com

communication technologies, reduction of tariff and non-tariff trade barriers, the formation of economic unions, and generally integration of economies and what often called Globalization in the 20th century mainly after world war two have led to remarkable growth world export. Estimations have made by Ourworldindata.org²¹ shows an extraordinary growth in the value of global export over the last century; exports in 2000 are more than 40 times larger than in 1913.

International investments; the second major form of international business activities is international investments that means equity funds invested in other nations. Griffin and Pustay(2013) have divided international investments into two categories; foreign direct investment(FDI) and foreign portfolio investments. FDI is investments made usually to actively control property, assets, or companies located in host countries. There are different forms of FDI among them are *greenfield investment* that leads to *wholly-owned subsidiary*, *brownfield investment* that means the *acquisition* of a property, *joint ventures* that is a type of *partnering*, and *strategic alliance* between two parties or more. *Foreign portfolio investments* are purchases of foreign financial assets(stocks, bonds, and certificates of deposit) usually to collect a portfolio of different profitable stocks from different companies in which usually investor has as no dominant share and control.

Contractual agreements; The last groups of international business activities can be defined based on an agreement between two parties or more. Licensing, franchising, management contracts and contracting are primary forms of contractual agreements. In both licensing and franchising, a licensor or franchisor provides access to some of its intellectual properties(patents, trademarks, brands, or technology) for a specified period and determined goal to another firm in exchange for a fee or royalty(Rugman & Collinson, 2006). Typically, there are some little differences between licensing and franchising; the extent of control of franchisor is more than the licensor; licensing is more prevalent in the production of goods, but franchising is more famous for the production of services. In general, it depends on what has been agreed between parties through the contract; they may do licensing in a contract entitled to franchising or vice versa. In management contracts, one side provides the other side with its managerial services, for example, when Hilton Hotels & Resorts provides a newly constructed hotel with its managerial service on hotel management. In contracting forms of international business, finally, one side

²¹ A report entitled “trade has changed the world economy” retrieved in 5th October 2019 from Ourworldindata.org

provides building, construction, and operationalization services to another party. Iranian constructors recently have attained many contracting projects in countries like Iraq, Syria, and Tajikistan to build power plants, dams, and Roads.

International business actors usually use different entry modes depending on their external and internal situations. External factors include market size, market growth, government regulations and market barriers, level of competition, level of risk (political, economic, and operational) and production and shipping costs in the home and host countries. Internal factors include company objectives, available resources, level of commitment to its home/host community, organizational and operational flexibility, and finally, international experience.

This last factor has found great attention from scholars, and many references in international business have tried to correlate it with entry modes. In general, the concept of internationalization is among the main topics in international business literature.

1-1-1-3-The concept of internationalization in international business

Companies of all sizes, when coming to the international context, become internationalized to some extent. Internationalization “*is the process of increasing the involvement of enterprises in international markets. It involves a strategy carried out by firms that decide to compete in foreign markets. It involves cross border transactions of goods, services, or resources between two or more firms or organizations that belong to two different countries*” (IGI Global Dictionary, 2019, p.1). Rugman and Collinson (2006) have depicted and exemplified the relation between internationalization, time, and entry mode choices in Figure 4. This graph, however, is a generalization as firms ultimately make decisions depending on their particular circumstances and abovementioned mix of factors (*ibid*).

*“In this **internationalization** process, the firm regards foreign markets as risky due to the fact that, as these markets are unknown to it, the firm faces export marketing costs. To avoid such information costs and risk, its strategy is to go abroad at a slow and cautious pace, often using the services of specialists in international trade outside the firm. Over time, familiarity with the foreign environment will reduce the information costs and help to alleviate the perceived risk of*

foreign involvement. There is a “learning” effect as firms become familiar with a foreign market”(ibid. p.40).

In fact, based on the level of risk companies perceive in their process of internationalization, they use less risky modes like export over high risky methods like foreign direct investments. Initially, the firm may seek to avoid the risks of foreign involvement by arranging a joint venture or a license.

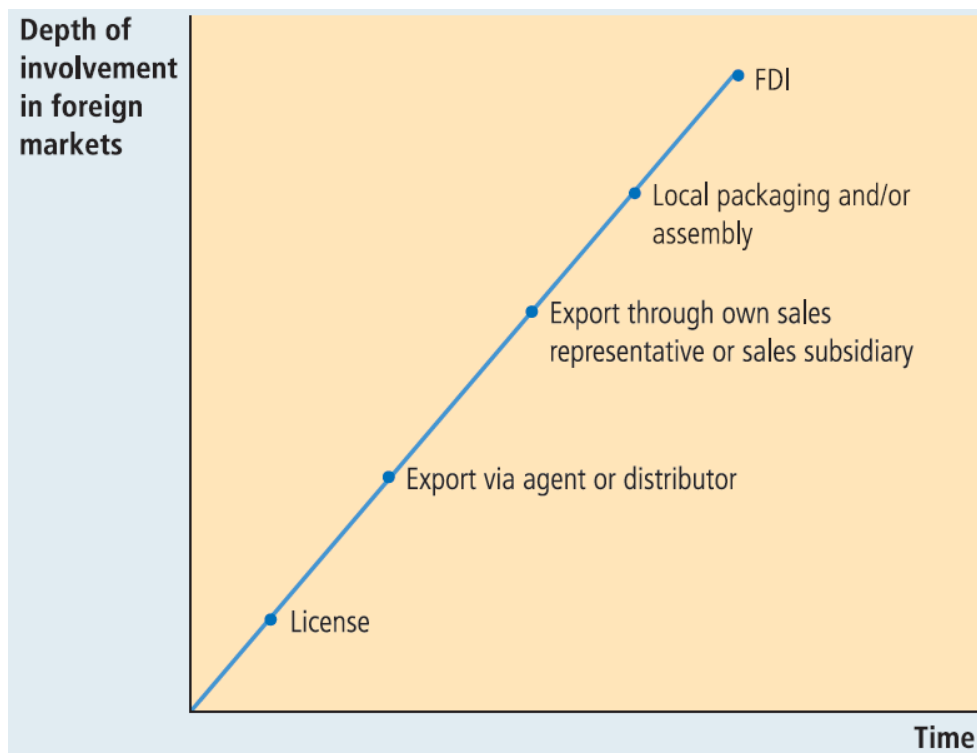


Figure 4-Entry into foreign markets: the internationalization process. source; Rugman and Collinson(2006)

International business, by its extensive definition, has found many research themes and topics and has recruited issues from different fields from social science to economics to consider transactions of goods, services, and capitals across national borders. Now to find research gaps, it is useful to present the main existing and emerging research gaps through the literature.

1-1-1-4-Emerging research themes of the internationalization process

In past decades mainly after World War II, by developing transportation, information, and communication technologies, international business topics have found many new topics that have reflected into many research topics and issues.

The search for literature reviews in the field of international business led to limited researches. Probably the broad scope of this field has prohibited researchers from entering into such initiatives. One of the most comprehensive literature review initiatives has done by Griffith et al.(2008) in which they have tried to find 1-*Which recent contributions have been driving the research agenda in international business?* Moreover, 2- *Which emerging themes in the literature are likely to set the stage for future work?* To examine these questions, they have clustered papers published in six leading international business journals²² from 1996 to 2006 have addressed significant themes in most frequently cited articles in this period. Table1 shows Major themes addressed in most frequently cited articles.

Table 1- Major themes addressed in most frequently cited articles during 1996–2006, source: Griffith et al.(2008)

Department Area- No. of articles/ Subtheme articles
Finance 0
Comparative capitalism, institutions and international business 6
<i>Marketing, consumer behaviour, and supply chain management 13</i>
<ul style="list-style-type: none"> • Relationship marketing 4 • Channel management 2 • Alliances 3 • Market Orientation 2 • Consumer Behavior 2
Business Dynamics and Strategy 47
<ul style="list-style-type: none"> • Entry mode 16 • Exporting 6

²² Journal of International Business Studies, Management International Review, Journal of World Business, International Marketing Review, Journal of International Marketing, and International Business Review

- Internationalization process 9
- Knowledge management 6
- Joint ventures 3
- Subsidiary management 2
- Governance issues 2
- Other3

Organization and management 5

Culture, conflict, and cognition 15

- Cultural distance conceptualizations 1
- Methodology in cross-cultural research 2
- Culture's influence on entry mode 2
- Culture's influence on international joint-ventures 2
- Culture's influence on general management issues 6
- Culture's influence on performance 2

Economics and international political economy 10

Entrepreneurship and new ventures 2

Strategic human resource management and industrial relations 11

Technology and innovation 3

Total(112)

The thematic analysis done by Griffith et al.(2008) in Table1 on 112 most frequently cited articles were analyzed, shows that areas of research include:

- Business dynamics and strategy (47 articles, 41.96%);
- Culture, conflict, and cognition (15 articles, 13.39%);
- Consumer behaviour and supply chain management (13 articles, 11.61%);
- Marketing, strategic human resource management, and industrial relations (11 articles, 9.82%);
- Economics and political economy (10 articles, 8.93%);
- Comparative capitalism, institutions, and international business (six articles, 5.36%);
- Organization and management (five articles, 4.46%);
- Technology and innovation (three articles, 2.68%);
- Entrepreneurship and new ventures (two articles, 1.79%).

Moreover, most of these areas have some significant subthemes. Table1 also shows that entry mode choices and internationalization process, exporting and economics, and international political economy are the most cited topics for papers.

Researchers then have used a Delphi study of the most prolific authors in these journals over the same period to delineate a future research agenda in international business. Table2 shows 47 themes for future researches in international business into primary, secondary, and tertiary priority.

Table 2- selected future research themes and questions based on Griffith et al.(2008).(FULL body of the table has been present in Appendix)

No.	Themes		Research questions	
1	Primary category	Management and performance issues	<u>Cross-national market segmentation and foreign market opportunity assessment</u>	• <u>How can we go about identifying and validating them?</u>
7		in the international firm	<u>Global brands</u>	• <u>How do SMEs manage branding in international markets?</u>
12			<u>Management, strategy, and structure</u>	• <u>What is the relative importance of the manager, strategy, and structure in the success of MNEs?</u>
13		Company internationalization process	<u>Internationalization of firms and industries</u>	• <u>What contextual factors moderate the internationalization process?</u>
15			<u>SME experiences in internationalization</u>	• <u>What unique strategies do small and medium-sized firms employ in going international?</u> • <u>How successful are they?</u>
16			<u>Managerial orientations of internationalizing firms</u>	• <u>What effect do factors such as global mindset and global culture have on IB success?</u>
19		Focus on the multinational enterprise	Regional and global MNEs	• <u>What are the differences between regional and global MNEs?</u>
21				
29	Emerging markets (EMs)	<u>Operating in EMs</u>	• <u>How does operating in EM markets influence firm success?</u>	
42	Secondary category	Methodological issues	<u>International research design (e.g., country selection, sample selection, data sourcing)</u>	<u>How can qualitative research be effectively used in IB research?</u>

1-1-1-5-Conclusion on research gaps

International business as a scientific discipline is looking to develop our understanding of nature, origin, and consequences of business beyond national borders (Cheng et al., 2014). This field is inherently about complicated business situations and solving business problems beyond the borders; thus, it should be cross-disciplinary and pragmatic (Cuervo-Cazurra, 2013). Any business subject that goes beyond national borders can be a potential issue of study in international business. In fact, multi-cultural, multi-dimensional, and dynamic nature of the field is the primary source of its complexity (Tung et al., 2009).

As stated by Cuervo-Cazurra (2013), unfortunately, a majority of international business researches have not been applied enough for managers or public authorities (*ibid*). Consequently, in recent years many researchers in the field, such as Ovitatt and McDougall (2005), Peiris et al. (2012) and Cheng et al. (2009, 2014) have emphasized the need for doing applied, policy-oriented and cross-disciplinary researches in the field of international business. By the same motivations respected journals like *Journal of International Business Studies*(JIBS)²³ as yet have devoted a number of their issues and calls of paper on applied and interdisciplinary researches and have proposed strategies for development of such initiatives.

Reflected in Table 2, the study of emerging themes in international business research by Griffith et al.(2008) propose exciting themes and questions for future researches in international business;

Interestingly, opportunity identification across borders and foreign market opportunity assessment are perceived of high importance. In terms of *Management and performance issues in the international firm*, the **first theme** of the above research highlights the importance of ***Cross-national market segmentation and foreign market opportunity assessment*** with research questions like ***how can we go about identifying and validating cross-national opportunities?*** The need for researches on opportunity recognition in international business had been stated in the introduction of this thesis, and its importance replicates here in the field of international business.

²³ affiliated to academy of international business

29th theme refers to operating in Emerging Markets with questions like **how does operation in emerging markets influence firm success?** The need for researches on emerging economies had been stated in the introduction of this thesis, and its importance replicates here in the field of international business.

Moreover, SMEs and MNEs continue to be an attractive research topic as **21st theme** refers to the importance of research on regional and global MNEs with questions like **what are the differences between regional and global MNEs?** The **12th theme** on **Management, strategy, and structure** refers to **what is the relative importance of the manager, strategy, and structure in the success of MNEs?** Moreover, the **15th theme** asks **what unique strategies do small and medium-sized firms(SMEs) employ in going international?**

Finally, in terms of methodological issues, **42nd theme** refers to *international research design (e.g., country selection, sample selection, data sourcing)* as an emerging research theme with the following research question; *How can qualitative research be effectively used in IB research?*. In other words, the inherent complexity of international business has highlighted the use of qualitative studies for a more in-depth understanding of this field and its cases.

As mentioned by Tung et al.(2009, p.81); *“While there are clear merits associated with quantitative methods, the multi-cultural, multi-dimensional and dynamic nature of the field of international business lends itself to many different research methodologies – including qualitative methods. In order to understand the complexities and relative newness of some of the topics under investigation in international business, it is often inappropriate to engage in large sample studies or reductionist (quantitative) methods. Rather, thick description, exploratory research, and comparative analysis that focus on theory building and hypotheses generation, to cite a few approaches, may be more suitable. Indeed, many of the landmark studies in international business, such as Chris Bartlett and Sumantra Ghoshal’s Managing across Borders and E.T. Hall’s Silent Language, were built explicitly around qualitative insights.”*

However despite their importance, qualitative researches in the field of international business are very limited, and the mainstream of researches in this field usually have been based on quantitative methods (Nummela and Welch, 2006, Doz, 2011). This fact highlights the

importance of mixed and qualitative researches to attain more normative, dynamic and pragmatic outputs (Nummela and Welch, 2006 and Doz, 2011).

Based on the above discussion and extracted themes for future researches in international business, it seems that opportunity identification across national borders with a focus on emerging economies and markets is among the leading research gaps in the field. Moreover, the roles of international actors, including SMEs and MNEs in this process, should be specially considered. Finally and methodologically, elaboration of robust, serious, and methodological basis for qualitative or mixed-method researches is a necessity in the field of international business; however, this issue is neglected as yet (*ibid*).

By the rest, opportunity recognition and market assessment methods in international business literature have been reviewed. A search through the international business literature using keywords; opportunity recognition+international business led to researches like Anderson and Evers (2015) and Kontinen and Ojala (2011b) that can be classified into a newborn field, *international entrepreneurship*. This field will be discussed in sections 1-3 and 1-4.

1-1-2-Market ranking techniques and overall market opportunity index

In general, the literature on international marketing research includes many marketing research techniques that could be useful for opportunity development(Prime and Usunier, 2018). Among them are studies on market research in emerging economies, including the use of qualitative methods(like the Delphi method). However, more in-depth inquiry reveals that most of them have recruit market research for internal strategy development(e.g., Wright et al.(2003, 2005)) but they are not exclusively developed for opportunity recognition.

The search for “opportunity recognition” concepts in international business (those not mentioned in entrepreneurship or international entrepreneurship) mainly led to *overall market opportunity index(OMOI)* as an index of so-called *international (exporting) market selection* for a specific industry. Mentioned by Sheng and Mullen (2011), three main analytical approaches for market potential assessment or screening and selecting foreign markets for opportunities beyond the

home market in the field of international business are *market grouping*, *market estimation*, and *market ranking*.

“**Market grouping** is closely linked with country/market clustering, segmentation, and country classification methods. International country clustering has been recognized as an important tool for analyzing a large number of countries with varying market potential. Firms already in international markets are likely to be more comfortable entering countries in the same cluster in which they have been successful. Such an approach is intuitive and appealing, but the limitations are apparent. Rather than assess market potential, clustering merely forms groups based on some set of variables, and quite often, it relies on general country indicators, not product-specific market indicators. Thus it can be used for primary market assessment and followed by later techniques focused more on product-specific market indicator. In fact, large companies use a *funnel approach* for market selection in which they start from macro criteria like GDP and continue with more specified indexes like specific product consumption at each social class.

Market estimation aims to differentiate and evaluate foreign markets according to criteria that measure market potential. Country-level methods attempt to assess and screen all possible countries, regions, or sets of countries. For example, *shift-share analysis* identifies export market opportunities by tracking the change in the growth of a selected product for each importing country. Shift-share analysis is flexible and product-related, but it limits the quantity of information. It reveals only relative opportunities (the change in the market), termed the amount of market potential, but the underlying factors are unknown.

Market ranking approach typically employs a linear compensatory model to rank countries or markets on some meaningful indicators of market potential. The models assume that market attractiveness is a linear (additive) function of a set of weighted factors(*ibid*).

A manifest of the abovementioned techniques of international (exporting) market assessment and selection has been implemented as the overall market opportunity index (OMOI).

For the first time, OMOI introduced by Cavusgil (1997) to measure and rank the potential for 23 emerging markets. “Cavusgil ranks the market potential of these countries in eight dimensions: *market size*, *market growth rate*, *market intensity*, *market consumption capacity*, *commercial infrastructure*, *economic freedom*, *market receptivity*, and *risk*. The weights are set by several rounds of a Delphi process among international business scholars and professionals before applying a linear compensatory model to rank market potential (*ibid*). This OMOI initiative is

updated annually through GlobalEdge²⁴ at Michigan State University. Cavusgil et al. (2004), as mentioned by Sheng and Mullen (2011), presented several new indicators of export potential and combined country market ranking and clustering. In general, OMOI is used to rank the best-to-worst prospects across countries and within each cluster to identify the best market(s). Sheng and Mullen (2011) finally have applied the overall market opportunity index (OMOI) to find 25 most attractive markets by total export and by selected industries (alcoholic beverages, food processing machine, and optical goods). Table 3 shows a part of their ranking on markets by total export and a selected industry (food processing machine) as an example.

Table 3- The 25 most attractive markets by total export and by selected industry; Redrawn based on Sheng and Mullen (2011)

Total Export				SITC727; food processing machine			
Country	Actual Rank	OMOI index	Predicted rank	Country	Actual Rank	OMOI index	Predicted rank
Canada	1	100	1	Canada	1	100	1
Mexico	2	82	3	UK	2	74	5
Japan	3	74	6	Mexico	2	83	2
UK	4	77	4	China	4	79	3
China	5	83	2	Australia	5	71	8

Aghazadeh and Soltanifar (2017) based on Hill (2012), Wild&Wild (2012) and Griffin&Pustay (2013) have induced four steps to be proposed for companies to filter their international markets in a funnel approach.

1. **General filtration;** In the first step based on general factors like diplomatic relations or sanctions or geographical distance, some markets will be rejected quickly. For example, Iran for the USA or USA for Iran is filtered in this step.

²⁴ <https://globaledge.msu.edu>

2. ***Assess the national business environment***; at the second step based on doing business factors like trade regulation or the need required permits for export, the pool of markets o can be filtered into 10-12 markets.
3. ***Measure market or site potential***; in this step, a set of indicators will be used to measure demand and market volume in detail. At the end of this step, it is hoped to attain 2-3 markets.
4. ***Cost-benefit analysis and select the market or site***; main tasks in this phase are to have personal travel to the market, doing financial feasibility studies, competitive analysis, and finally doing a cost-benefit analysis on the entrance. At the end of this step, the target market is selected. Now an entry mode or method for the selected market should be selected.

All techniques mentioned above can be applied almost under a fixed industry proposition. Thus it can be said that that formal techniques for international opportunity recognition are used to assess market attractiveness and rank the markets for each category of industry. Now a question remains:

What should be done if there is not a pool of countries to select among them and if there is just one market in hand? On the other hand, how can we find business opportunities in a predetermined market? As the case of present research that is opportunity recognition between two countries, OMOI tools may be considerable but not satisfying.

These techniques are mainly shaped around a fixed industry proposition. In other words, based on international business literature we usually suppose a fixed industry and specified set of products (or services) and then filter (reduce) the markets and prioritize them based on some indexes²⁵ to attain from a pool of markets to 2-3 target markets (Wild & Wild, 2012). This approach is applicable in many places but has two pitfalls. First of all, the international-business approach supposes a fixed industry. It then prioritizes the markets, so in this approach, a company working in a specified industry should look for opportunities inside that industry and not beyond. Here the unit of analysis is industry or the firm, so it is pretty far from a comprehensive and entrepreneurial approach that is needed to grasp opportunities where the unit of analysis is the *opportunity* itself. Based on the entrepreneurial approach, if a company, for

²⁵ Indexes like market size, market intensity

example, is working in textile industry while textile industry in a specific market has no more justification, this company should pull out and seek new opportunities may be in new industries and fields. Thus in the entrepreneurial approach, there is no insisting on keeping business in a specified industry and have no fixed industry proposition. Secondly, as mentioned before, market filtration methods are usually focused on large and multinational companies which are confronted with a pool of potential markets. These methods may not work for small and medium enterprises that may welcome any market, offering a semi-related opportunity for doing business.

Methods like market ranking are developed mainly for direct export market assessment. On the other side, some models and theories have been presented to explain entry mode choice and justify foreign direct investment (FDI) initiatives. Among them are Transaction cost economics (TCE), Institutional theory to foreign investment, Dunning eclectic theory, Networks, Home/Host country, International Product Life Cycle, and cultural distance theory (Aghazadeh & Soltanifar, 2017). Mainstream in these models are effects of location advantage, ownership advantage and internalization advantage to justify a foreign direct investment in a target market over direct export or contractual agreements (e.g., licensing). However, these theories also consider a fixed industry to analyze why to invest in a region and why not.

So it seems that the concept of opportunity recognition is pretty neglected in international business literature. In general, although international business opportunities are of high importance for international business (Mainela et al., 2014), the literature is satisfied with filtration techniques (that suppose a fixed industry), and no applied models of opportunity exploration and exploitation have been developed yet.

By taking a look at the table of contents of international business books, it can be observed that classic training at international business starts by analyzing international business environments (social, cultural, economic, political, etc.) and become formulated through international business theories. Then with the proposition of a fixed industry, markets are analyzed, and the target market is selected. Then an appropriate mode of entry is selected, the required organization organized, and a suitable international marketing mix is developed. Finally, international operations and production, international payment, and human resource management are considered and planned.

1-1-3-Market entry choice's theories and factors

As mentioned by Griffin and Pustay (2013), *selection of the right markets to enter and proper entrance modes and methods* for each selected market are two essential decisions in international business. How to decide on entry modes and its underlying theories and affecting factors is the subject of this section. Explaining these theories is important to understand factors affecting entry more decisions.

Whitelock (2002), in his review on theories of internationalization and their effects on entry modes and methods, has noted four theories to elaborate entry modes; *dunning eclectic, industrial networks, transaction cost economics, and Uppsala model of internationalization*. Laufs & Schwens (2014) also through their systematic review on foreign market entry mode choice of small and medium-sized enterprises have recognized eight research theories on entry modes; *Transaction costs economics, dunning eclectic (OLI), institutional theory, home/host markets, cultural/psychic distance, industry effects and firm age, social capability/network theory*. Table 4 shows a review of theories applied to entry mode research.

Table 4- Entry mode research, a review of theories applied. Source; Mroczek, 2014

Theory/Concept	Chosen author	Entry mode determinism
Transaction cost theory	Gatignon and Anderson(1998), Hennart(1991), Meyer(2001), Brouthers(2002), Trabold(2002), Brouthers and Brouthers(2003)	Transaction costs; asset specificity, frequency, uncertainty
Institutional theory	Delios and Beamich(1999), Brouthers(2002), Lu(2002), Yiu and Makino(2002)	Institutional structure; norms, rules, policies, values
Cultural distances	Kogut and Singh(1998), Agarwal(1994), Erramilli(1996), Hennart and Larimo(1998), Brouthers(2002), Drogendijk and Slangen(2006)	Informal structure; cultural background and differences in values between host and home country

Resource-based view	Erramilli, Agrawal, and Dev(2002), Chen and Chen(2003), Claver and Quer(2005)	Core, inimitable competencies
OLI paradigm	Pan and Tse(2000), Brouthers, Brouthers, and Werner(1999), Nakos and Brouthers(2004)	Ownership, Location, Internalization
Knowledge-based view	Kogut and Zander(1993), Pak(2002), Elango(2005), Herman and Datta(2006)	Competitive advantage through sharing and transferring knowledge
Organizational capabilities	Contractor and Kundu(1998), Erramilli, Agrawal, and Dev(2002), Claver and Quer(2005)	Internal structures; channels of transferring resources and capabilities
Risk	Anderson and Gatignon(1986), Brouthers(1995), Delios and Henisz(2000)	Level of perceived risk
Control	Anderson and Gatignon(1986), Pan and Tse(1996)	Preferred level of control

Some of these theories are briefly presented below for the purpose of being able to find some propositions for future researches.

Transaction Cost Economics (TCE); this theory can be considered as the most common approach to entry mode choice (Laufs and Schwens, 2014). Transaction costs are expenses incurred when buying or selling a good or service and become so important when dealing with a foreign country. *“Transaction cost economics (TCE) has a long past since what we generally speak of as ‘transaction costs’ have been present in economic discourse for centuries. It should be clear, therefore, that TCE, understood as the study of the economic consequences of “costly exchange,” existed a long time before becoming a research program within the framework of economics. It has a long past, but as a science, it has a short history. That history began in the 1970s with the work of Oliver Williamson. The first appearance of the term ‘transaction cost*

economics' was in the title of Williamson's article in 1979, "Transaction cost economics: the governance of contractual relations" in the Journal of Law and Economics and, as far as the study of transaction costs usually leads to the study of institutions" (Hardt, 2009, p.29).

Sources of transaction costs in international context are *trade barriers in host country, access to information, uncertainty in the business environment, and asset specificity* that the more they will, transaction costs will increase (Williamson, 1998). Based on this theory, when foreign companies are confronted with transaction costs (e.g., because of limited suppliers), they tend to have a direct investment in that market and vertical integration to internalize and decrease their operational costs. These include costs for monitoring and controlling the business, costs incurred by market data collection, and less commitment of suppliers and other partners in that company (Whilelock, 2002).

Institutional theory; Institutional theory suggests that a country's institutional environment affects a firm's scope of action because the environment reflects the "rules of the game" according to which firms must behave (Laufs& Schwens, 2014). This institutional environment includes formal organizations (constructed through laws, political conditions, and social and commercial regulatory) and informal constructs (cognitive patterns, cognitive, and normative dimensions) (*ibid*). Based on this theory, a foreign company that-enters the market should seek to be legislated through the institutional structure of the host country, and this adaptation affects the entry mode choice of the company (Schwens et al., 2017). Based on past researches, high commitment modes like whole acquisition and Greenfield investment have facilitated dealing with institutional challenges for quest companies.

Institutional conditions of emerging economies may be far different from capital economies. Sheth(2011, p.166) believes that "*five key characteristics—market heterogeneity, sociopolitical governance, chronic shortage of resources, unbranded competition, and inadequate infrastructure—of emerging markets are radically different from the traditional industrialized capitalist society, and they will require us to rethink the core assumptions of marketing, such as market orientation, market segmentation, and differential advantage.*"

- **Market heterogeneity;** heterogeneity in emerging markets is high, and they are very long variant because they are local, fragmented, low scale, and mostly served by owner-managed small enterprises(*ibid*).
- **Sociopolitical governance;** emerging markets are more governed by government-owned companies and less by competition business real private sector. These companies, in many cases, have a monopoly and affect the market with their political and social interests. Examples include Gazprom (Russia), Petrobras (Brazil), CNOOC (China), and NIOC (Iran) in the energy sector
- **Chronic shortage of resources;** *“Emerging markets tend to have a chronic shortage of resources in production, exchange, and consumption. For example, chronic shortage of power (electricity), spotty supply of raw materials, and lack of skill-based labor tend to make production sporadic, inconsistent, and nonreplicable. Consequently, it results in diseconomies of scale. Similarly, exchange has high transaction costs as a result of lack of scale and inadequate financial, physical, and other support mechanisms. Finally, consumption also tends to be constrained with respect to time and location because of the lack of electricity, running water, and physical space”*(*ibid*, p.169)
- **Unbranded competition;** *“As much as 60% of consumption in emerging markets so far has been for unbranded products and services”*(*ibid*, p.169) because branded products and services are not available in rural markets and because and more important, reason is that a household in rural markets is not just a consumption unit but also a production unit(e.g. They provide the dairy products they need.).
- **Inadequate infrastructure;** *“another characteristic of emerging markets is inadequate infrastructure. Infrastructure includes not only physical roads, logistics, and storage but also market transaction enablers, such as point-of-sale terminals, and basic banking functions, let al.one credit cards. It also means lack of communication, information, and transaction technologies, such as telephones and electricity”*(*ibid*, p.169)

Dunning eclectic theory (OLI); Presented by John H. Dunning (1988), this theory believes that companies make foreign direct investment to attain three advantages; location advantage, ownership advantage and internalization advantages. In fact, companies directly invest in a

foreign market where and when three abovementioned advantages can be attained there (Griffin & Pustay, 2013).

Ownership advantages (a resource-based view) include tangible and intangible resources that provide the company with a competitive advantage in comparison with other competitors. **Location advantages** (Institutional theory) consider past mentioned institutional factors that increase the utility of production in the host country instead of production in the home country. In other words, these factors make production in the host country more desirable than the home country. Wages and salaries, the cost of resource collection, customer needs, unused production capacity in present factories, access to research and development services, suitable legal conditions, low management costs, and low political risks are among the factors that can provide a location advantage (*ibid*). Finally, **Internalization advantage** (transaction cost economics) are factors that motivate a company to be involved in entry mode and methods with more commitment (e.g. FDI) in its target market and manufacture the product on its own or in cooperation with local partners to decrease or *internalize* transactions costs. For example, Renault of France manufactures its products in its primary target markets (Iran, Turkey, Brazil, and Romani) by assembling spare parts and making interconnections among a network of contractors in these countries to internalize transaction costs in these markets.

Mroczek(2014) has recognized three main perspectives on entry mode choice determinants (Figure 5); 1-**transactions costs** assesses the efficacy of conducting transactions between the seller and the buyer. 2-**cultural distance** refers to the cultural environment that generates costs for transaction costs for a company; however, it evokes not a company-company but a home-host country perspective. For example, the cultural distance between Iran and Kenya is much more than the cultural distance between Iran and Turkey that may lead Iranian companies to take more risks in Turkey while less risks Kenya in when going to choose their entry mode. Finally, 3-**institutions** as determinants refer to legal frameworks, taxation, international trade policy that expand the scope of the transaction and add another factor into the equation. Through this analogy Mroczek (2014) certifies the proposition that TCE may be the most comprehensive concept for theorizing entry mode choices and describing its factor.

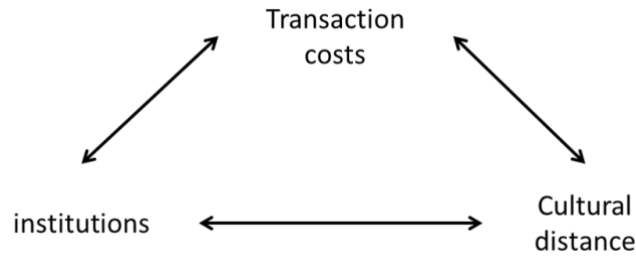


Figure 5- Perspectives on entry mode choice determinants Redrawn based on Mroczek(2014)

Another main issue in entry mode choices is the recognition of factors influencing these types of decisions. A comparison between these *factors* and abovementioned *theories* shows many resemblances that can be used for a conclusion.

Morschett et al. (2014) have examined decades of research on the choice of a mode of market entry examined by meta-analyzing data from 72 independent primary studies and have found affecters of entry mode choice as “cultural distances between home and host countries”, “host market attractiveness (e.g., market size)”, “stability or instability of demand in host market”, “political-economic-social uncertainty”, “legal environment of the host country”, “competition among companies at host country” and “host country's culture (e.g. power distance, uncertainty avoidance, etc.)”. Additionally, Lee and Huang(2009) have reviewed factors affecting entry mode for companies (Table 5).

Table 5- Determinants of Entry mode in previous studies extracted by Lee and Huang(2009)

Determinants	References
Firm size (Number of employees)	Leung et al.(2003), Nakos and Brouthers(2002), Evans(2002).
International experience	Reuber and Fisher(2003), Evans(2002); King and Tucci(2002), Nakos and Brouthers(2002)
Firm-specific assets	Hill et al.(1990), Hennart(1991), Erramilli and Rao(1993), Mahdok(1998).

Market potential	Nakos and Brouthers(2002), Eicher and Kang(2002), Cheung and Enderwik(2001)
Cultural Distance	Leung et al.(2003), Evans(2002), Cristina and Esteban(2002)
Production cost	Jiang and Fuming(2002), Cui, Jiang, and Stening(2007)
Host government regulations	Brouthers(2002), Mutinelli and Piscitello(1998), Cui, Jiang, and Stening(2007).
Country risk and environmental uncertainty	Cristina and Esteban(2002), Brouthers and Brouthers(2000), Tahir and Larimo(2006).
R&D intensity	Larino(2000); Tahir and Larimo(2006); Brouthers and Brouthers(2000).
Scale economics	Hwang & Kim(1992), Phatak et al.(1996), Tahir and Larimo(2006)

A comparison between theories behind entry mode decisions (in Table 4) and their affecting factors (in Table 5) shows many resemblances between them. *Theories* like home-host country, cultural distance, institutions, and transaction costs include *factors* like cultural similarity, host government regulations, and firm size. Thus it can be said that most of the theories on entry mode choices include affecting factors of entry mode choice, and many factors of entry mode choice may be summed up into theories. In other words, there are many conceptual overlaps between *theories* of entry mode and *factors* affecting entry mode choices. This claim has been operationalized by Hollensen (2007, 2011) in his book²⁶ where has explained the criteria of entry mode choice. He has recognized four groups of factors that influence the entry mode decision (Figure 6). As mentioned by Hollensen(2011), most of the abovementioned criteria are qualitative in nature, and quantification is challenging.

²⁶ Hollensen, Svend,(2011). Global Marketing; A decision-oriented approach,. Prentice Hall, 5th Edition

1. **Internal factors** include firm size and its international experience, its product complexity and differentiation advantage ;
2. **External factors** include the sociocultural distance between home and host country, country's risk or demand uncertainty, market size and growth, direct and indirect trade barriers, the intensity of competition in the industry, small number of relevant export intermediaries available for company;
3. **Desired mode characteristics** of the company like its risk averseness and desired control and flexibility on initiated business ;
4. **Transaction-specific behaviour.** These factors motivate the company to internalize its operation in a target market and consider foreign direct investment. Tacit nature of know-how insights in a target market, opportunistic behaviour in a target market all have a positive impact on motivating a company to internalize its transaction costs by selecting more so-called hierarchical modes of entry.

After selecting the market, a series of entrance modes are available that can be picked up by companies. These modes include production at domestic factory and direct export (**export modes**), production at a wholly-owned factory abroad (foreign direct investment or **hierarchical modes**) or cooperative production in a foreign country through licensing, franchising or other contractual agreements (**intermediate modes**) (Hollensen, 2011) (Figure 6).

A firm's choice of its entry mode for a given product/target country is the net result of several, often conflicting factors. Each factor has its positive or negative effect on the pressure of internalizations of transaction costs for a company (Figure 7). The need to anticipate the strength and direction of these forces makes the entry mode decision a complicated process with numerous trade-offs among alternative entry modes.

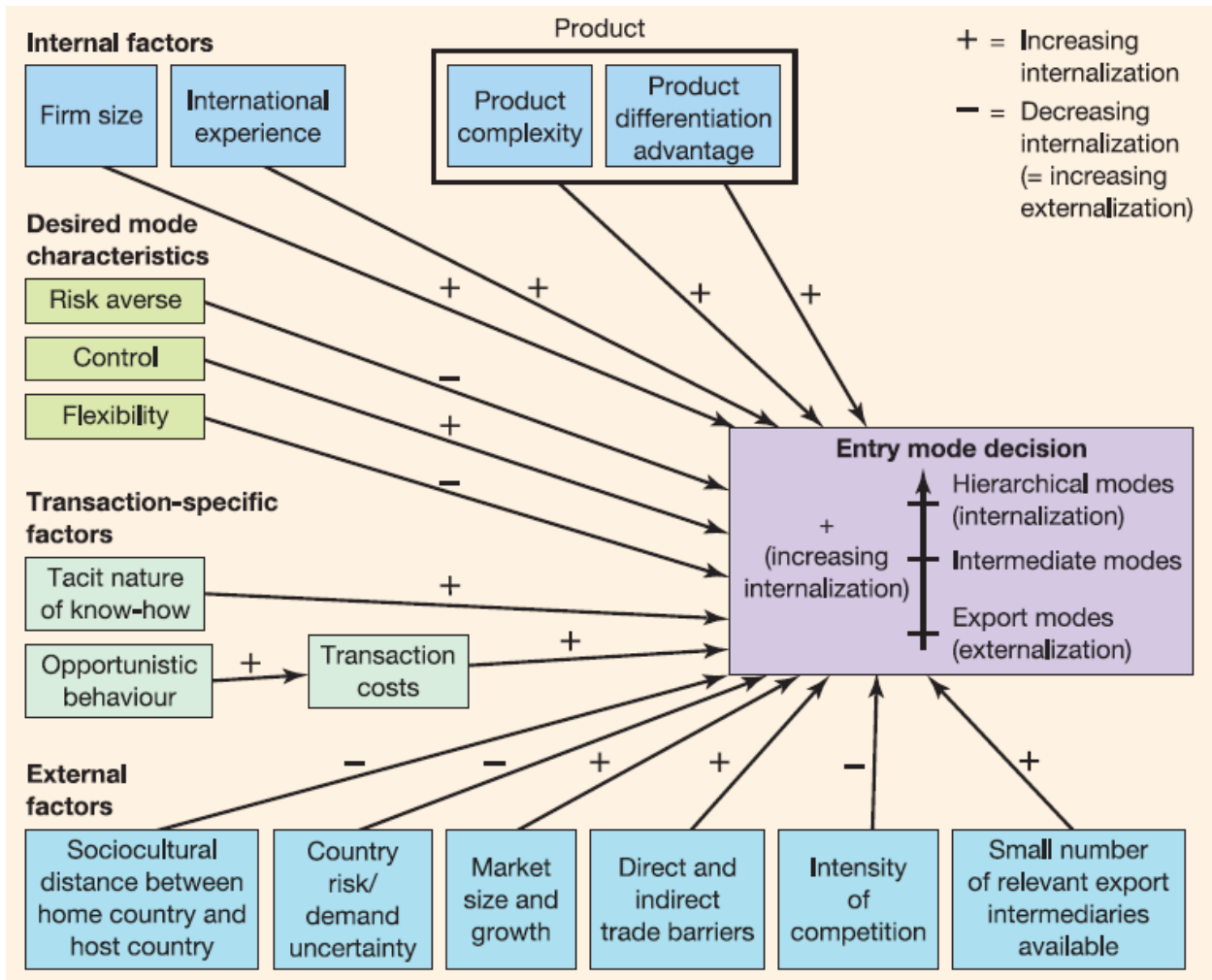


Figure 6-Factors affecting the foreign market entry mode decision, from Hollensen(2011, p.322)

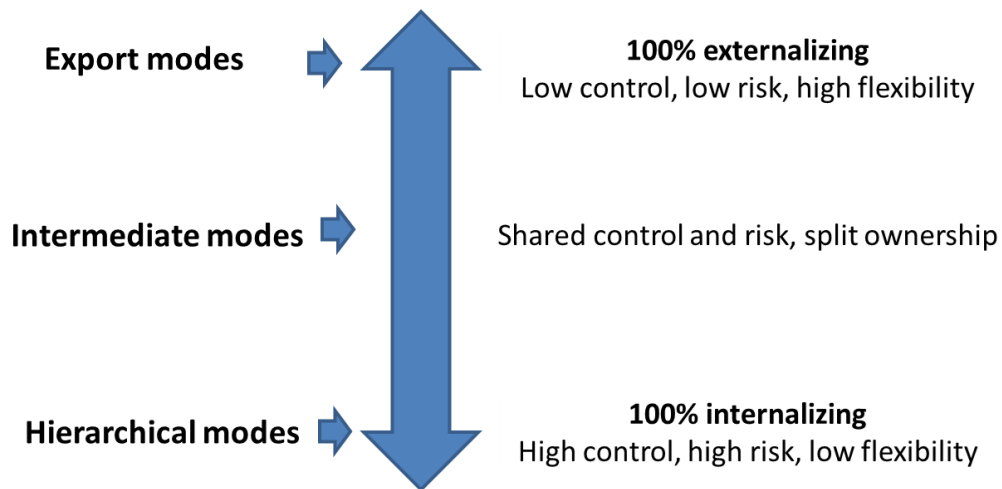


Figure 7-Classification of market entry modes. Redrawn based on Hollensen(2011).

The model mentioned above can be considered as a conclusion on many theories and factors that have presented yet to articulate entry mode decisions. As reflected in Figure 7, there is a set of factors that increase or decrease the need for internalization of transaction costs in a host country. For example, high exporting tariffs in a host market is leading international companies to internalize associated costs by making a foreign investment in that market. Based on Figure 7, depending on the extent of required internalization in a market, a set of entry modes is available. Hierarchical modes (investment modes) is preferred when more internalizing is required and provide the international company with low control, low risk and high flexibility. Export modes can be advised when least internalizing of transaction costs is needed for a market and provides the international company with high control, high risk but low flexibility. In the middle of this spectrum, there are intermediate modes (contractual modes) with shared control and risk and split ownership (*ibid*).

Classic educational texts like Griffin & Pustay (2013), Wild&Wild (2012), and Hill (2012) generally have referred to *dunning eclectic theory* as the main paradigm describing entry modes and methods because this theory encompasses three main past mentioned theories; *location advantage*, *ownership advantage*, and *internalization advantage*.

In fact, many entry mode theories describe one or more factors affecting entry mode choices. Thus a set of entry mode theories provides a set of factors affecting decisions on entry modes.

In the above discussion, a set of theories on entry mode choice have been presented and discussed. Most influential theories of entry mode choice can be described as below (this sentence is not clear-explanations added above);

- **Transaction cost economics** (TCE) (Laufs and Schwens, 2014, Whilelock, 2002)
- **Dunning eclectic paradigm** (Whilelock, 2002, Laufs and Schwens, 2014, Morschet et al., 2010, Griffin&Pustay, 2013, Wild&Wild, 2012 and Hill, 2012)
- **Cultural distance theory** (Sharma, 2000, Morschet et al., 2010, Laufs and Schwens, 2014) and the **Uppsala model of Internationalization** (Whitelock, 2002)
- **Institutional theory** (Laufs and Schwens, 2014)
- **Home market conditions** (e.g., culture, Laufs and Schwens, 2014, Morschet et al., 2010)

- **Host market conditions** (e.g., uncertainty and market size, promotions and barriers for foreign investment)(Sharma, 2000, Laufs and Schwens, 2014, Morschett et al., 2010)
- **Networks and social capital** (Laufs and Schwens, 2014), Whitelock, 2002)
- **Industry structure and competition** (Laufs and Schwens, 2014, Morschett et al., 2010)
- **Firm age and size** (Sharma, 2000, Laufs and Schwens, 2014, Morschett et al., 2010)
- **Being the first mover** (Sharma, 2000)

In general, there seem to be three main perspectives to theories and factors of entry mode choice; 1-cultural distance, 2-transaction costs, and 3-institutional approach.

Until now, the process of market selections using techniques and theories of international business has been presented. After the selection of the target market and entry modes and methods, a proper marketing mix for each market should be provided. Here the extent of standardization and adaptation for each product presented to the target market is an essential question. Standardization versus adaptation is among popular research topics in international marketing.

Companies may select three approaches to face this dilemma (Griffin&Pustay, 2013); *Ethnocentric approach*, *Polycentric approach*, and *Geocentric approach*. In the ***geocentric approach***, a single marketing mix will be developed for all markets, and based on that company will develop a pretty same product or service for all markets. In the ***polycentric approach***, the company customizes the marketing mix for each market. This approach consequently is costly; however, the company believes that by customizing its product, customers are able to pay more or buy more, and this offset the cost of customization. Finally, the ***ethnocentric approach*** seems to be easy because the company extends its home marketing mix to other markets where it is going to enter. In this third approach, ethnographic elements of the home market are used as a reference for developing a marketing mix for other target markets. In general, by selecting each approach, we impose a level of customization through our marketing mix that includes product, price, place, and promotion.

Until here, related concepts from international business literature have been reviewed into three parts; *general research gaps*, *market ranking techniques*, and *entry mode choice theories and factors*. However, this review shows that international business has limited tips for the

development of an IOR framework because, as stated by Wild & Wild (2012), this field usually considers a fixed industry and filters the markets based on this analogy. The main concern here is about exploring opportunities without any previous fixation on industries. The review is therefore continued by another related field entitled international trade and then international entrepreneurship in search of more essential tips and notes.

1-1-4-risk assessment as an approach for opportunity recognition

The risk of doing business has a considerable effect on opportunity formation and entrepreneurial process in international markets(Chandra et al., 2009). A considerable amount of researches and also practical works have focused on assessing the risk of doing business in international markets. These types of initiatives have relations to international opportunity recognition because the less risky a market is, the more attractive it is for opportunity exploration. This issue is also dependent on the entrepreneurial traits of entrepreneurs and his/her perception of the risk in a market. Private companies like COFACE²⁷, MOCI²⁸, and Euromonitor or large international investment banks, e.g. BNP Paribas, estimate the risk of doing business in countries or market attractiveness of each market using techniques like Multi-Criteria Decision Making(MCDM).

BNP Paribas, through its *tradesolution*²⁹ uses data mining to find related reports or surveys have provided about a country or about a product and then divert the researcher to the originating website. However, anyway, do not present pure opportunities.

In general, these techniques and their subsequent reports do not include a systematic and scientific methodology for opportunity recognition in international markets or international business analysis of foreign markets with a focus on qualitative data!

Finally, some authorities provide reports on the ease of doing business in different business ecosystems and compare them. The most important benchmark in this group is “Ease of doing business index” presented by the World Bank Group and consists of ten sub-indices;

²⁷ Compagnie Française d'Assurance pour le Commerce Extérieur(COFACE) is a credit insurer operating globally, offering companies solutions to protect them against the risk of financial default of their clients, both in their domestic and export market. Source; Wikipedia.com

²⁸ Le Moci - The Monitor of International Trade(www.lemoci.com)

²⁹ <https://www.tradesolutions.bnpparibas.com/fr/explorer/etudes-marches-secteur>

1. Starting a business – Procedures, time, cost, and minimum capital to open a new business
2. Dealing with construction permits – Procedures, time, and cost to build a warehouse
3. Getting electricity – procedures, time, and cost required for a business to obtain a permanent electricity connection for a newly constructed warehouse
4. Registering property – Procedures, time, and cost to register commercial real estate
5. Getting credit – Strength of legal rights index, depth of credit information index
6. Protecting investors – Indices on the extent of disclosure, extent of director liability, and ease of shareholder suits
7. Paying taxes – Number of taxes paid, hours per year spent preparing tax returns, and total tax payable as a share of gross profit
8. Trading across borders – Number of documents, cost, and time necessary to export and import
9. Enforcing contracts – Procedures, time, and cost to enforce a debt contract
10. Resolving insolvency – The time, cost, and recovery rate (%) under a bankruptcy proceeding

The A.T. Kearney Global Retail Development Index³⁰ is another benchmark that ranks emerging countries based on a set of twenty-five variables, including four key variables: *country risk*, *market attractiveness*, *market saturation*, and *sales growth*(globaledge, 2020). GRDI is a “*bi-annual study of the global retailing landscape and retailers, consumer goods manufacturers, and international service providers use it as the definitive source to find which economies are growing, stagnant or declining, and why*”(Chaindrugreview, 2020, p.x). Unfortunately, Iran was not found through its list of ranked countries(including 30 countries) probably due to the sanctions imposed by the USA. Thus this benchmark can not be applied to specific markets like Iran. Moreover, its focus is on retailing and not on the business opportunity as a broader concept.

The abovementioned channels have not concentrated on opportunity recognition directly, and some of them(e.g., risk assessment methods) are related to international finance. However, their review is fruitful for the present research.

³⁰ <https://www.kearney.com/global-retail-development-index>

The effects of risk and perception of the risk by entrepreneurs on international opportunity recognition can be an independent research theme and need to be considered through other doctoral theses. However, the researcher will analyze this effect implicitly when asking interviewees to appraise 49 topics to be work in Iran and/or France. This appraisal indirectly is a reflection of the risk they have perceived and the effect of this risk on opportunity formation in the Iranian or French market.

In fact, the present research is limited to a time period, and through that period, the effect of risk will be reflected in the words of interviewed people and what is observed in the field by the researcher. During the research period(2016-2018), the perceived risk of doing business In Iran and France by Iranian and French entrepreneurs affects their understanding of existing opportunities and their priorities and is reflected in their expressions of existing opportunities. Thus in this way of analysis, the effect of risk has been considered indirectly. There is no doubt that through another research period, the average perceived risk is different, and consequently, the estimation of interviewed people of existing opportunities will be different.

1-2-International Trade; A review on trade potential assessment and opportunity recognition tools

1-2-1-An Introduction

International trade as a discipline usually has an economic and quantitative approach to international business problems. A primary search on topics related to opportunity recognition at international trade's literature led to limited research topics (e.g., Opportunities and Challenges for Trade in somewhere) not related to IEEEs. However, topics, including export potential assessment and trade potential assessment between two countries or business blocs found to be the most related topics to our research question. The abovementioned topics usually use a series of quantitative methods like *Cosin Index*, *Drysdale*³¹, *Revealed Comparative Advantage (RCA)*, and *Econometrics gravity models* that are applied on trade statistics (based on HS codes³²).

³¹ Peter Drysdale

³² Harmonized System Codes (HS Code) Commodity Classification

These techniques usually assess the trade potential assuming removal of trade barriers between two countries (or business blocs). These techniques are explained at the rest of this section.

Custom statistics usually are presented using an international coding system entitled *Harmonized System Codes (HS Code) Commodity Classification*. This classification includes six digits at the international level; the first two digits refer to the chapter number, the next two digits refer to heading number, and the last two digits refer to subheading number (Figure 8). As exemplified in Figure 8, for HS code 080430 (at international level), 08 refer to *edible fruits and nuts*, 0804 explicitly refer to *dates, figs, and pineapples* among fruits and nuts and finally 080430 accurately refer to *pineapple* as a tradable commodity. So depending on 2, 4, or 6 digits of HS codes, more details of a product group will be determined. In the same way, international trade techniques can be applied to different levels of analysis. However, statistics are past-oriented and have less foresight.

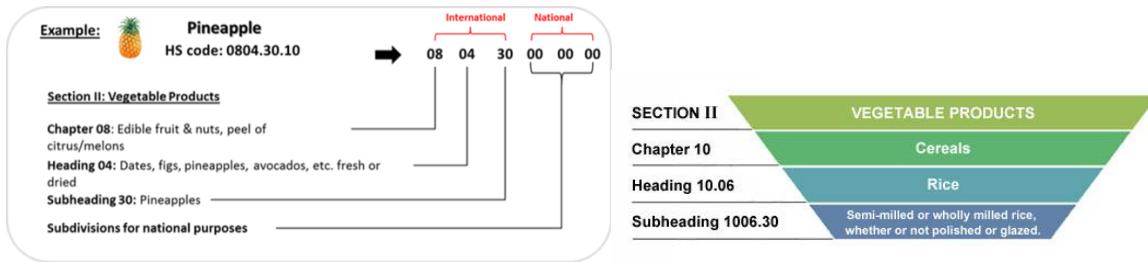


Figure 8-an example to introduce HS codes

1-2-2-A review on quantitative methods of trade potential assessment

Related researches are reported as below and classified by recruited quantitative method;

Cosine Index: This index is used to analyze trade complementarity between the two countries. As a related example, Hosseini et al. (2007) between Iran and 28 EU member states, Masomzadeh et al. (2011), between Iran and Caspian Sea states and Sadeghi-Yarandi (1999) between Iran and Caucasus states have used this index. The *cosine index* is a measure or index designed to estimate the trade complementarity between pairs of countries, applicable to predict

the possibility of their trade potential expansion. Roy Allen first introduced this index (1956), to be later developed and enhanced by Linnemann (1966), (Pourrostami et al., 2018).

Mathematically, cosine similarity is a measure of similarity between two non-zero vectors of an inner product space that measures the cosine of the angle between them. Cosine=1(angle between vectors=0) means maximum similarity or two vectors with the same orientation and the angle. Cosine=0, on the other side, means two vectors oriented at 90° relative to each other and have a similarity of 0.

Estimation of trade complementarity using cosine index means the measurement of conformance between one country's import vector to another country's export vector. This index is estimated on the basis of the *cosine* of the angle between the vector of exports of one country with imports of another country in an n-dimensional commodity space(Raghavan, 1995). Then index is estimated as below;

$$\text{COS} = \frac{\sum_k X_{ik} M_{jk}}{\sqrt{\sum_k X_{ik}^2} \sqrt{\sum_k M_{jk}^2}}$$

Where the variable X and M refer to exports and imports respectively, and the subscripts I, j and k refer to exporting country, importing country, and commodities(or commodity groups), respectively. This method will be used more in chapter3 when trade complementarity between Iran and France is analyzed.

Drysdale's index: This index has been used to investigate bilateral trade potentials between two countries. As an example, Sagheb and Norowzi (2009) for deals between Iran and Turkey have used this technique.

“The trade complementarity index defined by Drysdale (1967) is an appropriate measure to incorporate in the gravity equation to capture the trade structure of countries as it compares the trade structure of both countries in relation to world trade” (Pourrostami et al., 2018, p.297).

The extent of trade complementarity between countries *i* and *j* using Drysdale (1967) can be calculated as below:

$$c_{ij} = \sum \left[\frac{X_{iw}^k}{X_{iw}^t} \cdot \frac{M_{ww}^t - M_{iw}^t}{M_{ww}^k - M_{iw}^k} \cdot \frac{M_{jw}^k}{M_{jw}^t} \right]$$

“ X_{iw}^k is the value of exports of commodity k from country i to the world, X_{iw}^t is the value of the total exports of country i to the world, M_{iw}^k and M_{jw}^k are the value of imports of commodity k of countries i and j from the world, M_{iw}^t and M_{jw}^t are the value of total imports of countries i and j from the world, M_{ww}^t and M_{ww}^k are the value of total imports from the world and the value of world import of commodity k . Drysdale’s index always takes values bigger than zero, and when larger than one, it indicates a similarity of pattern between country i ’s exports and country j ’s imports and consequently a trade potential for the two countries” (Pourrostami et al., 2018, p.297).

Revealed Comparative Advantage (RCA) This index is very popular for calculating the relative advantage or disadvantage of a certain country in a certain class of goods or services, as evidenced by trade flows. Its concept relies on the Ricardian comparative advantage concept.

RCA most commonly refers to an index, also called Balassa index, as has been introduced by Béla Balassa (1965). In particular and very simple form, the revealed comparative advantage of country j in product/commodity/good i is defined by;

$$RCA_i = (X_{i,j} / \sum X_j) / (X_{i-world} / \sum X_{world})$$

where RCA_i is revealed comparative advantage for good i . X_{ij} is exports of good i by country j , $\sum X_j$ is total exports by country j , $X_{i-world}$ is world exports of good i and $\sum X_{world}$ is total world exports. If $RCA_i > 1$, then a comparative advantage is "revealed," and country j has a comparative advantage in good i . If $RCA_i < 1$, then country j has a comparative disadvantage in good i ³³.

A recent initiative at the International Trade Center and University of Geneva entitled *export potential map*³⁴ have upgraded the RCA method to develop an export potential assessment

³³ https://www.rbi.org.in/scripts/bs_viewcontent.aspx?Id=2255

³⁴ <https://exportpotential.intracen.org>

methodology.”*It is based on a decomposition of a country’s potential exports of a product to a given target market into three factors: supply, demand, and easiness to trade. Depending on the country’s particular needs, two approaches are available. (i) The Export Potential Indicator(EPI) serves countries that aim to support established export sectors in increasing their exports to existing and new markets. Inspired by a gravity-type framework, the EPI identifies products in which the exporting country has already proven to be internationally competitive and which have good prospects of export success in a given target market. (ii) The Product Diversification Indicator(PDI) serves countries that aim to diversify and develop new export sectors”* (Decreux and Spies, 2016, p.1). For example, Hashemian & Hassanpour's research (2003) for extraction of prioritized commodities for trade between Iran and South Korea and Sadeghi-e-Foroshani 's work (2006) between Iran and Arab states of Persian Gulf can be mentioned in this regard.

Simple (Trade Potential) Estimation Method (Naïve Assessment of the Potential for Trade); this method is explained in Figure 9. Based on Figure 9 for estimating export potentials from country *B* to country *A*, for each code of commodity (*i*) at the first column, the import value of country *A* from the world will be put at the 2nd column. Then the export value of country *B* to the world for each code (*i*) will be put at 3rd column. Finally minimum of the values of 2nd or 3rd columns divided(separated) by each code (*i*) will be selected and put in 4th column that can be considered as total trade potentials for export from country *B* to country *A*. Now if we want to rank codes of commodities based on their priority to be exported from country *B* to *A*, we should resort priority the codes ($i=1, \dots, n$) from the highest to lowest values in 4th columns. In other words, the sorted 4th column from max to min ranks potential exports from *B* to *A* from highest priority to lowest priority. Since the exporting country will not fill all importer country’s needs in each category, and vice versa, only twenty to thirty per cent of the trade potential will be considered”, as suggested by Arnon et al. (1996: 119).

The most famous development and application of this method came back to a research initiative by Arnon et al. (1996) for assessment of *The Potential For Trade Between Israel, The Palestinians, and Jordan*. As mentioned by Arnon et al. (1996, p.116); “*One way of evaluating the potential for trade between Israel and Jordan is simply to compare the composition of the two countries’ imports and exports. The underlying economic logic of this is the assumption that*

the composition of a country's exports represents its supply of exports, while the composition of its imports reflects its demand for imports. An examination of the composition of trade between two countries reflects a situation - at a given point in time-which arises from their specific demand patterns, classical comparative advantages, product differentiation, economies of scale, etc. The picture thus obtained, which is accurate only for a given situation, is static, disregarding dynamic processes which may lead to future comparative advantages arising from trade agreements, institutional arrangements, economic policies, etc. Nonetheless, the most informative basis for assessing the short-term potential for trade is an analysis taking the existing situation as its point of departure”.


Codes of Commodity(HS)	Import of Country A from world	Export of Country B to world	Min of 2 nd and 3 rd columns
01			
02			
<i>i</i>			
99			

Figure 9- how Simple Estimation Method works for export from country B to country A

This method is implemented before by Rahmani (2013) between Iran and D8 member states³⁵.

Gravity models

Besides the abovementioned indexes, some researchers have recruited econometrics models for trade potential assessment. For example, Tayyebi and Azarbaijani (2002) between Iran and Ukraine and Shamseddini et al. (2003) for the trading of agricultural products between Iran and Europe have used extended gravity models of econometrics. ***The gravity model of international trade*** in international economics is a model that, in its traditional form, predicts bilateral trade

³⁵ Bangladesh, Egypt, Indonesia, Iran, Malaysia, Nigeria, Pakistan, and Turkey

flows based on economic factors like economic size (by GDP) and distance between two business blocs. The model for trade flow between countries i and j was first introduced in the economics world by Walter Isard (1954) in a form like below (Wikipedia.com³⁶);

$$F_{ij}=G*M_i*M_j/D_{ij}$$

“*In this formula, G is the constant, F stands for trade flow, D stands for the distance, and M stands for the economic dimensions of the countries that are being measured. The equation can be changed into a linear form for the purpose of econometric analyses by employing logarithms*” (*ibid*). In such researches, econometricians, in general, try to find augmented gravity models include a set of determinants to model trade flows between their target business blocs. In other words, econometricians build a quantitative, pretty comprehensive function that recruits many variables to estimate the expected trade flow between two business blocs.

In conclusion, quantitative methods in international trade are very objective and accurate but simultaneously have their own limitations. They are past-oriented and applied mainly to HS-code. Thus although these tools provide initial anchors, need to be elaborated more with the qualitative method and inquires.

1-3-International entrepreneurship and opportunity recognition

After a detailed review of international business and international trade, now it is time to review international entrepreneurship. Oviatt and McDougall (2005) define international entrepreneurship as “...*the discovery, enactment, evaluation, and exploitation of opportunities—across national borders—to create future goods and services.*” (Oviatt and McDougall, 2005, p. 540).

Why focus on international entrepreneurship? In the introduction of the present thesis, a thorough explanation was presented about the necessity of research on international

³⁶ The Article under this title; *Gravity model of trade*

entrepreneurship. However, it is useful to review the reasons presented by Kiss et al.(2012, p.267) in their reference paper³⁷;

- *“First, there is a need to understand the global, industry and firm-level mechanisms that have driven more than a quarter of the world's firms to derive substantial revenues from international markets early in their existence; of these firms, many are founded in various emerging economies, in particular, the BRIC countries*
- *Second, there is a need to assess whether theoretical perspectives developed in mature market contexts are valid in emerging economies.*
- *Third, given that base of the pyramid markets comprise more than 70% of the world population, there is a need also to understand necessity-based entrepreneurship and the methods entrepreneurs in these regions use to overcome not just economic hardship but also institutional, political and cultural barriers.*
- *Finally, we need to improve our understanding of cross-national differences in entrepreneurial phenomena (e.g., opportunity recognition, new venture growth) that result from different historical backgrounds, institutional heritages, and cultural norms and values”.*

“International entrepreneurship (IE) research draws from work in both international business (IB) and general entrepreneurship” (Verbeke and Ciravegna, 2018, p.1). Starting points for IE as a discipline can be introduced by the concept of early internationalization, which has been recognized in international new ventures and born Global startups. As internationalization of firms, mostly international new ventures become an increasingly widespread phenomenon, international entrepreneurship (IE) has been recognized as a significant force in the global economy (Zolfaghari et al., 2013). Definition of International New Ventures(INVs) came back to the prominent paper of Oviatt & McDougall(1994) that some say have given birth to the field of international entrepreneurship;

“International new ventures (INVs) represent a growing and important type of start-up. An INV is defined as a business organization that, from inception, seeks to derive significant competitive

³⁷ Kiss, Andreea N., Danis, Wade M., & Cavusgil, S. Tamer.,(2012). International entrepreneurship research in emerging economies: A critical review and research agenda. Journal of Business Venturing. No. 27 pp266–290

advantage from the use of resources and the sale of outputs in multiple countries (Oviatt and McDougall 1994). Their increasing prevalence and important role in international competition indicates a need for greater understanding of these new ventures (Oviatt and McDougall 1994)”(McDougall et al., 1994).

As mentioned above, early internationalization is the central presumption of IE and characteristics of Born Globals and INVs; “*The field-defining event for international entrepreneurship was the publication of a 1994 paper by Oviatt and McDougall in Journal of International Business Studies (JIBS) (Oviatt & McDougall, 1994). At that time, the extant international business theory was focused on multinational enterprises. A widespread assumption was that companies become more internationalized as they became older, more established, and more knowledgeable. Oviatt and McDougall (1994) noticed that some firms were entering foreign markets soon after start-up and set out to explain how they were able to do so. Their explanation is based on the premise that entrepreneurs can overcome the resource constraints of new firms”*(Reuber, 2018b, p.1). Reuber(2018b) explains the main factor enabling early internationalization under resource constraints among them are human capital of founding partner or management team, capabilities of a startup like exporting or technological capabilities, environmental conditions of the home country, and international networks of the entrepreneur.

1-3-1-International business versus international entrepreneurship

How does international business differ from international entrepreneurship? Verbeke and Ciravegna (2018, p.388) have differentiated international entrepreneurship researches from international business through 3 axes;

1- International business theory follows a *gradual internationalization* process of usually large companies and predicts firms usually internationalizing when they reach a certain age and size while international entrepreneurship focus on International New Ventures (INVs) and Born Globals that experience early and immediate internationalization.

2-“*IB research focuses mainly on large, established firms, typically multinational enterprises(MNEs) with dispersed operations, thereby disregarding the internationalization path*

of young, small ventures. Latter suffer from severe resource constraints, understanding their internationalization requires new theory” (ibid). This research is about opportunities and internationalization of SMEs in business blocs, thus provides a so-called Middle range theory³⁸ on this issue.

3- *“IB research was viewed as paying insufficient attention to the importance of individuals (whether entrepreneurs or managers), precisely because of its focus on established MNEs” (ibid).*

However, the above variety of definitions suggests that IE, as an area of study, has a somewhat fuzzy border with IB (*ibid*) or can be included through IB. (Oviatt & McDougall(2005, p.538) have defined IE as *“the discovery, enactment, evaluation, and exploitation of opportunities – across national borders – to create future goods and services.”* This definition of IE can be applied to most, if not all, international transactions. On the other side, all international transactions are initiative for opportunity exploration, and exploitation; thus have an international entrepreneurial side.

1-3-2-Research questions and gaps in IE

As mentioned by Verbeke and Ciravegna(2018, p.387), *“two influential IE articles have been bestowed with the JIBS Decade Award, namely Oviatt and McDougall (1994) and Knight and Cavusgil (2004). Both articles suggested the need for a new theory to explain the empirical phenomenon of ‘early internationalization.’ These papers developed the concepts of International New Venture (INV), and Born Global (BG), respectively, and stimulated a lively debate on early internationalizing companies. Usage of the words ‘new’ and ‘born’ in the definitions of INV and BG highlights the importance of ‘earliness’ in internationalization.”*

According to Oviatt and McDougall (2005, p.540); *“There are two branches to the study of international entrepreneurship; one focusing on the cross-national border behaviour of entrepreneurial actors and internationalization of entrepreneurial businesses (labelled IA :international actors) studies by Kiss et al., 2012) and another focusing on the cross-national*

³⁸ Middle-range theory, developed by Robert K. Merton, is an approach to sociological theorizing aimed at integrating theory and empirical research. Based on Wikipedia.com

border comparison of entrepreneurs, their behaviors, and the circumstances in which they are embedded (Labeled CE(comparative entrepreneurship) studies by Kiss et al., 2012)". In fact, the first branch of researchers tries to find the main traits and characteristics of entrepreneurs who have worked beyond national borders and the process of their internationalization. For example, the effect of education, place of birth, the extent of alertness and other traits can be among research topics in this branch. The second branch, on the other hand, focuses on the comparative entrepreneurial ecosystem where business becomes international and business comparison of national cultures that are associated with entrepreneurial activities. In brief, as mentioned by Reuber et al. (2018b), these two research paths reveal two distinct clustering of concepts: one around entrepreneurs and one around foreign markets.

The development of a normative framework of international entrepreneurship is among the main research gaps in the field. Autio(2018) believes that a gap remains in terms of the development of normative implications for INVs, as well as in the development of practitioner-oriented planning frameworks for implementing early and rapid internationalization.

Another research gap rooted in the definition of IE; how to explore and exploit opportunities beyond national borders; "*Since 2006, the role of international opportunity recognition became an emergent research stream in international entrepreneurship*"(Angelsberger et al., 2017, p.19). "*The increasing interest in this topic was most likely triggered by scholars who asked for further research (e.g., Dimitratos & Jones, 2005; Styles & Seymour, 2006; Zahra, Korri, & Yu, 2005 as cited by Angelsberger et al., 2017, p.20) or by scholars who perceived that the notion of entrepreneurial opportunities had rarely been developed in their previous studies*" (Angelsberger et al., 2017).

International entrepreneurship and opportunity recognition in emerging economies (like Iran) has become of great importance mainly after the economic growth of emerging economies by the last of the 20th century. As mentioned in the introduction, international entrepreneurship in emerging economies (IEEE) is a significant research gap in the field. "*While the field can be still described as rather phenomenally based, potentially fragmented and suffering from theoretical paucity, notable contributions towards theoretical and methodological integration are also evident (Jones et al. 2011 as mentioned by Zolfaghari et al., 2013, p.115). Thus as mentioned by Chandra et al.*

(2009) Kontinen & Ojala (2011a) and Zahra et al. (2005), there is a lack of empirical research on international opportunity recognition. But before that, the concept of opportunity and its definitions should be reviewed.

1-3-3-Defining the Opportunity

Cambridge dictionary³⁹ defines “opportunity” as *“an occasion or situation that makes it possible to do something that you want to do or have to do or the possibility of doing something.”* The Oxford dictionary has presented the same definition⁴⁰ as *“A time or set of circumstances that makes it possible to do something.”* A possibility of doing something is a core concept through both definitions. In business management and entrepreneurship, “opportunity” finds a more utilitarian meaning and manifest. It is not easy to distinguish between “business opportunity” and “entrepreneurial opportunity.” The concept of opportunity found to be introduced typically in the form of entrepreneurial opportunity or with entrepreneurial prefix.

“Following Casson (1982), Shane and Venkataraman define an entrepreneurial opportunity as a situation in which the discovery of new means-ends relationships can result in the introduction of new goods, services, raw materials, and/or organizing methods which can be sold at greater than their cost of production” (Shane and Venkataraman, 2000:220 as cited by Reuber et al., 2018a, p.396); *“These new means-ends relationships – new resource combinations – underlie the innovation that is inherent in the entrepreneurial pursuit of opportunities. In contrast, “opportunity” in scholarship on internationalization tends to describe possibilities for cross-border profit-seeking behaviour by firms. These tend to be conceptualized as market opportunities, especially new market entries”*. Thus there seem to be two main approaches to opportunity one consider the opportunity as an innovation and another as an outcome of considering market needs.

Hansen et al. (2011) have examined 19 years’ worth of definitions of entrepreneurial opportunity and opportunity-related processes. They have summarized *conceptual definitions of opportunity* and *conceptual Definitions and Labels of Opportunity-Related Processes*, respectively, through Table 6 and Table 7.

³⁹ dictionary.cambridge.org

⁴⁰ en.oxforddictionaries.com

Table 6- Composite Conceptual Definitions of Opportunity-Source; Hansen et al. (2011)

1. An opportunity is the possibility of introducing a new product to the market at a profit

Dominant and Identifying Common Elements: Introduce; New/Novelty; Product; Possibility (feasibility); Internal value/Profit; Market need/Demand

Authors (Year): Alsos and Kaikkonen (2004); Companys and McMullen (2007); DeTienne and Chandler (2007); Dutta and Crossan (2005); Eckhardt and Ciuchta (2006); Eisenhauer (1995); Gaglio (2004); Ko and Butler (2003); Lee and Venkataraman (2006); Plummer, Haynie, and Godesiabois (2007); Smith, Matthews, and Schenkel (2009)

2. An opportunity is a situation in which entrepreneurs envision or create new means-ends frameworks

Dominant and Identifying Common Elements: Situation/External environmental conditions; Cognitive connections/Create new means-ends frameworks; Resources; Entrepreneur

Authors (Year): Companys and McMullen (2007)a; Koen and Kleinschmidt (2005); Sarason et al. (2006)

3. An opportunity is an idea that has developed into a business form

Dominant and Identifying Common Elements: New business form; Idea/business idea; Progression of development

Authors (Year): Anderson (2000); Ardichvili, Cardozo, and Ray (2003); Davidsson, Hunter, and Klofsten (2004); Dimov (2007)

4. An opportunity is an entrepreneur's perception of a feasible means to obtain/achieve benefits

Dominant and Identifying Common Elements: Entrepreneur; Possibility (feasibility); Perception; Internal value/Profit

Authors (Year): Brunetto and Farr-Wharton (2007); Casson and Wadeson (2007); Dimov

(2003); Gnyawali and Fogel (1994); Krueger (2000)

5. An opportunity is an entrepreneur’s ability to create a solution to a problem

Dominant and Identifying Common Elements: Entrepreneur; Market need/ Demand; Problem-solving; Creative process/creativity

Authors (Year): Chandler et al. (2003)

6. An opportunity is the possibility to serve customers differently and better

Dominant and Identifying Common Elements: Possibility (feasibility); Value to the market

Authors (Year): Alsos and Kaikkonen (2004)

Table 7-Composite Conceptual Definitions and Labels of Opportunity-Related Processes

1. A cognitive process of recognizing an idea and transforming it into a business concept “Opportunity development.”

Dominant and Identifying Common Elements: Cognitive processes (Recognize/Perceive/Identify/etc.); Transform idea

Authors (Year): Alsos and Kaikkonen (2004); Anderson (2000); Davidsson, Hunter, and Klofsten (2004); Kickul and Gundry (2000); Lumpkin and Lichtenstein (2005)

2. A process of scanning or being alert (Opportunity scanning/Alertness)

Dominant and Identifying Common Elements: Scan/Search; Alertness
Authors (Year): Casson and Wadson (2007); Eisenhauer (1995); McCline, Bhat, and Baj (2000); Ucbasaran, Westhead, and Wright (2003); Yu (2000)

3. A cognitive process of matching supply and demand (Opportunity Matching)

Dominant and Identifying Common Elements: Cognitive process (Recognize/Perceive/Identify/etc.); Match/Fit: Market need/Demand; Supply

Authors (Year): Ardichvili, Cardozo, and Ray (2003); Grégoire and Shepherd (2004, 2005) ,

Koen and Kleinschmidt (2005); Schindehutte, Morris, and Kocak (2008)

4. Perception of a felt need (“Need perception”)

Dominant and Identifying Common Elements: Cognitive process (Recognize/Identify/etc.); Market need/Demand; External suggestions

Authors (Year): Haugh (2007)

5. A creative process of generating new alternatives (“Opportunity creating”)

Dominant and Identifying Common Elements: Creativity

Authors (Year): Christensen and Petersen (1990); Gaglio (2004); Hills, Shrader, and Lumpkin (1999)

6. A special case of problem-solving (“Problem solving”)

Dominant and Identifying Common Elements: Problem-solving

Authors (Year): Gaglio and Taub (1992); Harper (2008)

7. Perceiving a possibility to profitably create a new business or improve an existing one (“Business possibilities”)

Dominant and Identifying Common Elements: Cognitive process (Recognize/ Identify/etc.); Improve/Transform business; New business form; Possibility (feasibility); Profit

Authors (Year): Craig and Lindsey (2001); Hills, Lumpkin, and Singh (1997); Ropo and Hunt (1995)

8. A process of social construction within a window of time (“Social construction”)

Dominant and Identifying Common Elements: Cognitive process (Recognize/ Perceive/Identify/etc.); Selection; Timing; Social construction

Authors (Year): Fletcher (2004)

Based on summarizations reported through Table 6 and Table 7, Hansen et al. (2016) have found a fragmentation in the definition of opportunity and its process among scholars through the past two decades. This study “*systematically highlighted the degree of fragmentation in the entrepreneurship literature regarding opportunity and opportunity-related processes. It also clearly pointed out what appears to be a serious disconnect between theory and empirical examinations*” (Hansen et al., 2011, p.297). Finally, Hansen et al. (2011) prevent from giving a conclusion on opportunity definitions and opportunity-related processes and prefer to open up a starting point for discussion of typologies of opportunities and typologies of opportunity-related processes. However, there are a set of keywords at each definition that can be used for synthesizing a new definition of business opportunity;

- Diffinition1; introducing a new product to the market at a profit
- Diffinition2; create new means-ends frameworks
- Diffinition3; an idea that has developed into a business form
- Diffinition4; entrepreneur’s perception of a feasible means to obtain/achieve benefits
- Diffinition5; create a solution to a problem
- Diffinition6; possibility to serve customers differently and better

Thus a business opportunity can be synthesized as below;

An opportunity is a possibility to create new profitable solutions to perceived problems, needs, or ideas that originated from the market.

With regard to the importance of opportunity in entrepreneurship, this concept is reviewed in the next subsection.

1-3-4-Entrepreneurship and opportunity recognition

Timmons(1994) defines entrepreneurship as how to create or capture an opportunity and follow it with regard to resources and teams that are available at the time. According to the Timmons’ model of entrepreneurship, three critical factors of a successful venture are opportunities, team, and resources. A successful entrepreneur is one who can balance these critical factors.

“To most, opportunity recognition and exploitation are the key activities of entrepreneurship” (Schwartz and Teach, 2000, p.93). Entrepreneurship also can be considered as the study of how to recognize, evaluate, and exploit opportunities that create future goods or services (Shane &

Venkataraman, 2000 as cited by Kuepp and Grassman). In brief, entrepreneurship can be considered as “*The process of opportunity exploration and exploitation*” (Ekhart & Shane, 2003, as stated by Mainela et al., 2014).

So *exploration and exploitation of business opportunities* can be considered as a core concept through entrepreneurship (Keupp and Gassmann, 2009; short et al., 2010). However, in practice, there has been less focus on how to explore and exploit opportunities, and researches in this field are very fragmented and empirically undeveloped (George et al., 2016).

1-3-4-1 International entrepreneurship and opportunity recognition

A subset of entrepreneurship is international entrepreneurship, a young field with no more than two decades of age that is a combination of entrepreneurship and international business (Peiris et al., 2012). As mentioned above, first studies under this title goes back to Oviatte & MacDougal (1994)'s research on the evolution of International New Ventures (INVs). However, today this field encompasses a wide range of topics around international entrepreneurial behaviours and International entrepreneurs (Mainela et al., 2014).

Hisrich (2013) defines international entrepreneurship as a process through which entrepreneur designs and manages business activities beyond home country borders. Mainela et al. (2014) think international entrepreneurship consists of innovative, probative, and risk-taking behaviours across the borders. Finally, Oviatte and MacDougal (2005, 540), in their famous elaboration, define international entrepreneurship as *the discovery, enactment, evaluation, and exploitation of opportunities across national borders to create future goods and services*.

The past mentioned definition is pragmatic and insists on the importance of Opportunity Recognition (OR) and exploitation at international entrepreneurship. However, a review on researches in this field shows that opportunity recognition is somewhat neglected because most of the research initiatives have devoted to topics like internationalization, networks effects and other affecting factors like entrepreneur's personality, education, alertness, experience and other traits (Peiris et al., 2012) and less focused on IOR processes.

As mentioned by Cheng et al. (2009), despite international business, the unit of analysis at international entrepreneurship is not the firm but rather the opportunity itself. In other words, in

international business firms and their activities abroad will be considered but in international entrepreneurship opportunity, its exploration and exploitation internationally is the main subject of study.

From this point of view, international entrepreneurship can be considered as a process through which an entrepreneur governs and manages business activities and opportunities across national borders or, as mentioned above, “*exploration and exploitation of opportunities across national borders to create future goods and services*” (Hisrich, 2013, p.7). This task may include foreign direct investment, exporting, licensing, and opening an office in a foreign country or even customization of an advertisement to be published at the French version of the Herald Tribune newspaper (*ibid*). However, as mentioned before, international entrepreneurship suffers deeply from fragmentation in literature, theoretical and applied weakness and lack of proper connection between entrepreneurship and international business as its two mother disciplines (Oviatt & McDougall, 2005, Peiris et al., 2012, Terjesen et al., 2013). Accordingly, scholars like Al-aali and Teece (2014) have highlighted the necessity of opportunity recognition, their documentation and dynamism at organizations to exploit the opportunities, and Mainela *et al.* (2014) have proposed research topics in this regard. Oviatt and McDougal (1994, 2005) and Peiris et al. (2012) also insisted on the need for doing cross-disciplinary researches between entrepreneurship and international business. In general, although the researchers like Shane and Venkataraman (2000), Lehner and Kanyskas (2012) and the Ahmadian (2012) introduce international opportunity recognition (IOR) as the heart of international entrepreneurs, the process of opportunity recognition has attracted little attention to be investigated as far as Jones et al. (2011) believe that opportunity recognition(OR) is a new concept in entrepreneurship literature.

Anyway, the concept of opportunity recognition can be introduced at the heart of international entrepreneurship (Kontinen and Ojala, 2011a; Ahmadian, 2012; Mainela et al., 2014). Moreover, international entrepreneurship and opportunity recognition have relied on new ventures, and less focused on existing enterprises as yet (Fendt, 2014).

A comparison and review on definitions of international opportunity and international opportunity recognition is presented by Kiss et al. (2015) and reflected in Table 8. Table 8 shows how many definitions of such fundamental issues are fragmented and need to be developed. A

comparison between this table and past tables provided by Hansen et al. (2011) on (general) opportunities shows that definitions have made through Table 6 focus on the creation of new (creative) products and services or solutions for markets while the second table (Table 8) mainly defines (international) opportunity as possibilities for *exchange* of goods and services between partners across national borders. These two approaches represent two different views to opportunity *Kirznerian* and *Schumpeterian* that will be entirely explained through the next section.

Table 8- A review on the definition of international opportunity and international opportunity recognition by Kiss et al. (2015)

Author	International opportunity recognition	International opportunity
Casulli (2009)	No definition	“an opportunity to create value in the organization through a combination of innovative, proactive and risk-seeking behaviour that crosses national border” (p.22)
Chandra et al. (2009)	“the way people and firms discover opportunities to enter international markets for the first time or to go into other international markets” (p. 31).	No definition
Ciravegna, Majano, and Zhan (2014)	No definition	“the first finalized contract for the sale of products to the client based in a foreign market where the firm had not previously operated” (p. 1084).

Ellis (2011)	No definition	“the chance to conduct exchange with new partners in new foreign markets” (p.101)
Humerinata et al. (2015)	No definition	“The potential the decision-maker sees for exchanging goods and services in selected markets” (p. 1084)
Mainela et al. (2014)	No definition	“is a situation that both spans and integrates elements from multiple national contexts in which entrepreneurial action and interaction transforms the manifestations of economic activity” (p.120)
Muzychenko and Liesch (2015)	“the emergence of the situational condition which immediately precedes the formation of a commitment to proceed with an exchange in a new international market” (p.705)	“the likelihood of conducting exchange with new existing partners, such as foreign customers, in new international markets” (p.705).
Peris et al. (2015)	No definition	“a situation in which new goods and services are (?) introduced across national borders through the formation of means-ends relationships that delivers superior value” (p. 196).

Zahra et al. (2005)	No definition	“ in an interactive process, where the entrepreneur revises her (his) concept several times” (p. 139).
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As mentioned by Jones et al. (2011 as cited by Peiris, 2012), international entrepreneurship after two decades of evolution is still phenomenally based, fragmented, and suffers from methodological and theoretical paucity. In the other word, although the concept of opportunity recognition at international entrepreneurship is a core and determining concept, least attention is paid to that and suffers from a methodological paucity (Mainela et al., 2014) because no normative model or framework is proposed or developed for that. Among limited descriptive models to be reviewed is presented by Hills et al. (1999) and developed by Lumpkin et al. (2004) focused on domestic opportunity recognition that will be introduced in section 1-4.

In general, as can be discovered from reviewing the IE literature, lack of researches on opportunity recognition and methodologies for OR are discussed by many scholars like Söderqvist (2011), Ahmadian (2012), Peiris et al. (2012), Tarjesen et al. (2013) and Mainela et al. (2014).

1-3-4-2-Kirznerian and Schumpeterian approach to opportunity

In the above section(1-3-3- Defining the Opportunity), two elaborations of opportunity (*innovation vs market opportunities*) were presented. They represent two main definitions or approaches to opportunity and opportunity recognition, Schumpeterian and Kirznerian, that should be explained here.

The concept of opportunity is elaborated usually based on two approaches or schools of thought entitled *Schumpeterian*, and *Kirznerian* presented by Joseph Schumpeter and Israel Kirzner, respectively (Angelsberger et al., 2017). Schumpeterian approach sees entrepreneurship as creating new business opportunities, so it focuses on innovation and creations of opportunities through innovation. Kirznerian approach, on the other hand, believes that opportunities exist and entrepreneurs should be alert enough to explore them (*Opportunity creation vs Opportunity discovery*, Mainela et al., 2014). Schumpeterian view knows entrepreneurship as the product of

creative disruption and creating an imbalance in the market (Fuduric, 2008). In return, Kirzner has a more contemporary viewpoint that has attained more popularity these days. In this latter viewpoint entrepreneurship is the product of creating a balance at an imbalanced market that manifested through arbitrage; *“the practice of taking advantage of a price difference between two or more markets: striking a combination of matching deals that capitalize upon the imbalance, the profit being the difference between the market prices”*(Wikipedians, 2019, p.362). Therefore, in this approach, opportunities are not necessarily innovative.

It can be noted that Schumpeter believes in *opportunity creation* (via innovation), and Kirzner believes in *opportunity exploration*. In the Kirznerian approach, it is essential to be *alert* enough to capture (existing) opportunities, so there is not a considerable need for new information and doing innovative synthesis on them. However, in a Schumpeterian approach, there is a need to have new synthesis, *creative disruption*, and creating new ideas based on new incoming information (Shane, 2003).

Basically, Schumpeter presents a creative understanding from opportunity in which opportunities provide the possibility to form new means and ends. These opportunities are new and innovative and can transform the economy and increase employment and national product. In this viewpoint, the entrepreneur uses creative disruption to make the market imbalanced and uses this imbalance situation to provide more entrepreneurial opportunities. Opportunities in this approach are sourced by technological, political, social, and ethnographical changes (*ibid*, 2003). Studies have shown that in Schumpeterian form of entrepreneurship, many factors are needed to be including transparent rules, strong institutional environment, complicated information, information and communication technologies, high educational levels, high levels of income, diverse markets, advanced industrial structures, etc. (Fuduric, 2008). It is evident that this type of entrepreneurship is less prevalent in developing countries; thus, Kirznerian entrepreneurship has been more focused as yet. However, Schumpeterian definition of entrepreneurship with regard to its important and considerable effects on societies has attracted the attention of many researchers and policymakers as far as have been introduced as the most common form of entrepreneurship (*ibid*). Table 9 provides a comparison of these approaches to entrepreneurship.

Table 9- A comparison between opportunities, Source: Shane(2003)

Schumpeterian opportunities	Kirznerian Opportunities
Imbalance	Balance
The need for new information	No need for new information
Very innovative and creative	Less need for innovation
Rare	Common
Have creativity and creation	Limited creation

As mentioned before, in recent researches, the Kirznerian approach to opportunity has found more advocates. Moreover, a comparison between definitions of opportunity and international opportunity reflected in Table 6 and Table 8 reveals that international opportunities are considered to be more Kirznerian because in most of the definitions of international opportunities terms like exchange across borders have been replicated a lot.

Some scholars believe that these two approaches cannot be integrated. However Chiasson and Saunders (2005) and Vaghely and Julien (2010) have presented frameworks to integrate Schumpeterian, and Kirznerian approaches and empirical researches done by Edelman and Yli-Renko (2010) show that these two approaches are connected to each other, and each of them can lead to valuable opportunities (Mainela et al., 2014). However, despite past expectations, the number of extracted opportunities is less through the Schumpeterian approach (Fuduric, 2008).

Note#1; there are two viewpoints toward opportunities; *creation and exploration*. Based on the last research results, these two approaches can complement each other through the opportunity recognition process.

1-3-5-Opportunity recognition process and its affecting factors

Different studies have been done about “opportunity recognition” and have examined this issue from different viewpoints. The concept of *opportunity recognition* has been introduced as the core of entrepreneurship and noticed by many studies however methodological and practical researches on the normative models of opportunity recognition have been rare; “*despite burgeoning research in international entrepreneurship (IE), very little is known about the processes of how entrepreneurs recognize and pursue opportunities in international markets*” (Chandra et al., 2014, p.199).

Most of the researches have focused on determinants and affecters of OR, networks effects, or descriptive models of OR process, but further researches are needed; “*The work of Kontinen and Ojala (2011a,b) has laid an important foundation stone. Although their study delivers valuable insights into international opportunity recognition and the influencing factors network ties, prior knowledge, entrepreneurial alertness, and activeness (systematic search), further examinations are needed*” (Angelsberger et al., 2017, p.20). Based on the review done by Ajdari *et al.* (2016) and Soltanifar *et al.* (2017) on IOR literature, the related researches can be classified into different groups as below:

1. Affecting factors on OR
2. Network effects
3. Unique viewpoints

And finally the most important to this thesis

4. OR process models

These classifications will be followed to present opportunity recognition process and its affecting factors;

1-3-5-1-Factors affecting opportunity recognition

Some researchers have articulated the factors and determinants of IOR. One of the first streams of research examined the effect of cultural differences on opportunity identification. Dana (1995, 1996) found out that entrepreneurship should not be viewed as a function of an opportunity, but

as a function of cultural perception of an opportunity. Many other researchers have investigated and deduced the effective factors of the IOR process. In other research, Bergmann (2011) determined decisive factors that are more likely to have a significant influence on IOR as *progress in the entrepreneurial process (previous experience)*, *entrepreneurial education*, and the *variety of business idea sources*. From the other scholars' perspective, there has been presented a review on factors such as *systematic search and search process*, *alertness*, *social capital*, *strong and weak ties with social networks*, *prior knowledge*, and *education*, *personality traits*, *owner-manager's socialization patterns*, *previous experience* and *environment* (García-Cabrera and García-Soto, 2009; Macpherson et al., 2004; Chandra et al., 2009; Baron, 2006; Baron and Ensley, 2006; Grégoire et al., 2010; Shi and Dana, 2013).

- *Personality traits*; personality traits of entrepreneurs like passion, motivation, optimism, risk-taking, creativity can affect his/her opportunity recognition.
- *Alertness*; this particular form of traits has been referred while explaining the Kirznerian approach. Entrepreneurs need to be alert in order to be able to perceive economic opportunities that others cannot yet see, such as the need for new goods or services.
- *Prior experience*; an entrepreneur's prior knowledge and experience in entrepreneurship and opportunity recognition play a critical (usually positive) role in his ability to identify and exploit entrepreneurial opportunities.
- *Education*; Entrepreneurship education and non-entrepreneurship education usually have a positive effect on opportunity recognition abilities and entrepreneurs.
- *Environmental conditions*; institutional, legal, political, social, and economic conditions at national and regional levels can affect the opportunity recognition of entrepreneurs.
- *Systematic searches*; this way of opportunity recognition usually explains versus entrepreneurial alertness. In this way, the entrepreneur systematically search for opportunities and follow some protocols and processes to discover them.
- *Social capital (networks)*; social networks, and social capital (including the cognitive, relational, and structural aspects) of entrepreneur usually have a positive effect on his/her opportunity recognition.

Lim and Xavier (2015) have presented a conceptual model of relations between the abovementioned factors. On the other side, George et al. (2016) have made a thorough literature

review on IOR literature and developed a framework to communicate critical insights regarding the OR process in two ways (Figure 10). Although they have reviewed IOR literature, they present their model as a conclusion on OR factors. Moreover, Kontinen and Ojala (2011a) indicate how network ties, activeness and alertness, and prior knowledge that are formal affecting factors of OR, affect international opportunity recognition. Thus it can be said that factors affecting OR are pretty same to IOR.

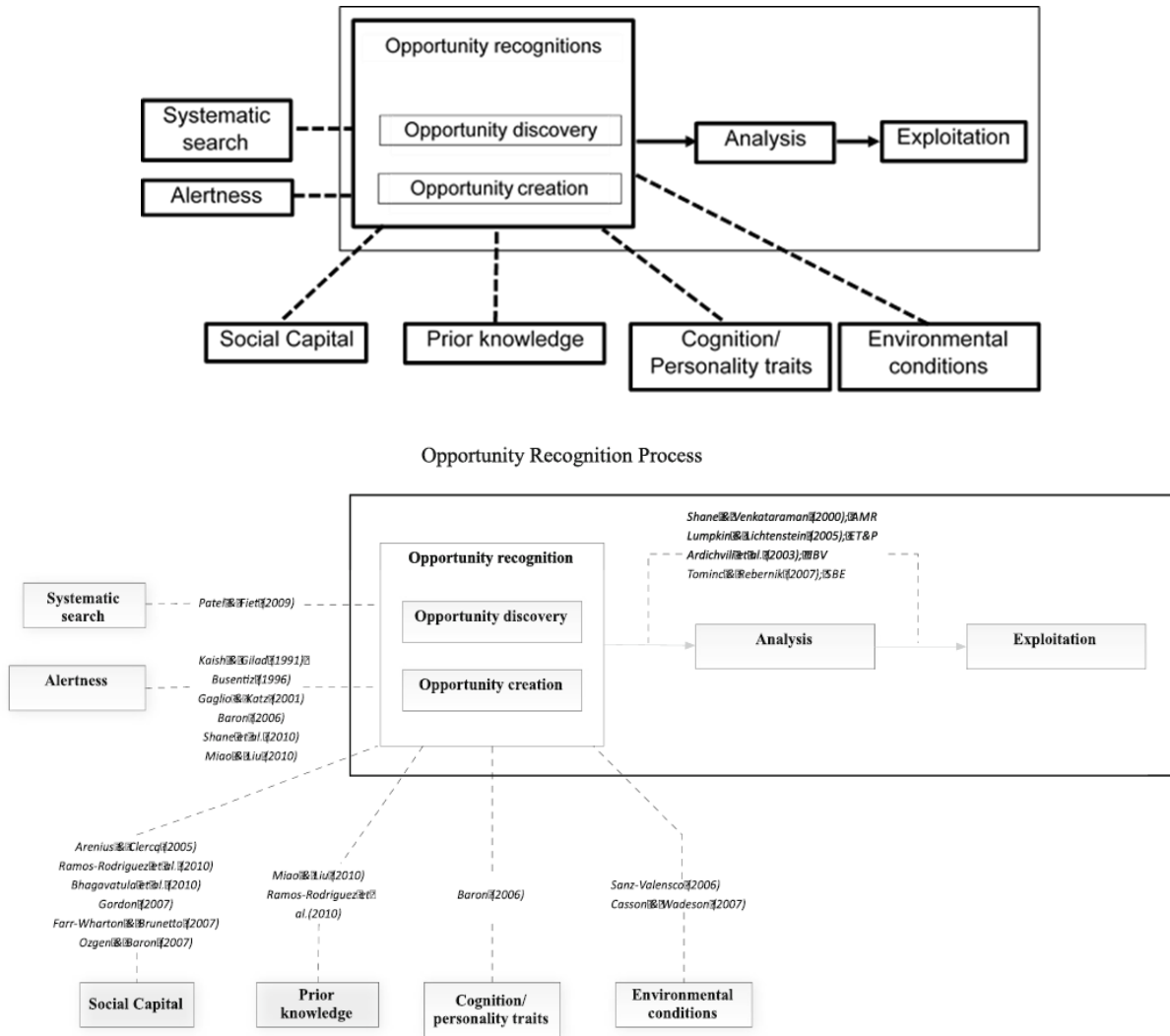


Figure 10-Two illustrations of the opportunity recognition process and its affecting factors by George et al. (2016)

Douglas and Craig (2011) have grouped all factors into a wide range of contextual factors (macro-level, micro-level, and situational) that can exert an influence on consumption choices and

contribute to within-country heterogeneity. In general, as noted by Li et al. (2015), major elements affecting OR are *entrepreneurial experience, alertness, and prior knowledge*. As mentioned by Kraus et al. (2017, p.1); “*The empirical results demonstrate that entrepreneurs of born global firms tend to recognize the first international opportunity through a combination of entrepreneurial alertness and systematic search. Furthermore, network relationships are essential for entrepreneurs within these firms because they can aid in identifying the initial international opportunity. The findings also illustrate that the entrepreneur's prior international knowledge, as well as prior international experience positively, contribute to the initial international opportunity recognition*”.

1-3-5-2-Networks effects on the OR process

Networking is an integral part of the entrepreneurial process and has played a crucial role in entrepreneurship research since the 1990s (Arenius and Clercq, 2005). According to Hoang and Antoncic's (2003) definition of networking, network research is alleged to be problematic (Jack et al., 2010). Networks can constitute associations, colleagues, and family business networks, and even virtual social networks. Dana (2000) and Etemad et al. (2001) have theorized the networking shaped between small firms and larger companies internationally into *symbiotic IB networks*. Through these networks, smaller firms enter the value chain of larger firms to the benefit of both sides. In fact, the focus of the new paradigm of IE shifts from firms towards relationships among multi-polar networks of firms, including SMEs and MNEs (Wright and Dana, 2003). Cesário and de Noronha Vaz (2014) have investigated the type of competitive strategies that are likely to be associated with different networking profiles in which the firms were grouped according to the use of regional, national and international geographic scales for supply, distribution and sales networks. Collectively, this research revealed that there is a relation between the capacity to improve the geographic scale of networking and the capacity to react to changing market conditions strategically. Analyzing network effects on the OR process is among ongoing research topics in this regard. As Kontinen and Ojala (2011b) argued, the findings mentioned above indicated that intermediary ties are useful for SMEs in order to recognize a business opportunity in foreign markets. Networks are so important that Schwens et al. (2017) consider them alongside traits and internationalization of SMEs as three main pillars in international entrepreneurship literature.

1-3-5-3-Other unique viewpoints

Some authors have even had unique viewpoints to IOR, such as *effectuation theory* offered by Sarasvathy's (2001) and the *dynamic capabilities approach* to IOR is done by Anderson and Evers (2015). Maine et al. (2015), through a qualitative study, investigate effectuation and causation as two opposing decision-making modes leading to opportunity creation and recognition and entrepreneurs can shift from effectuation to causation, remain in one particular mode, or adopt a combination mode. In general, causation is defined as a goal-driven and deliberate model of decision-making. In contrast, effectuation as a decision-making mode allows for greater resilience to external shocks and setbacks (Maine et al., 2015). "Effectuation framework describes how expert entrepreneurs utilize resources within their control in conjunction with commitments and constraints from self-selected stakeholders to fabricate new artifacts such as ventures, products, opportunities, and markets"(Zucchella et al., 2018, p.84). In a fairly different view, Hansen et al. (2016) have attempted to depict a comprehensive model of opportunity elements. Their model has grouped 81 elements extracted from the entrepreneurial opportunity literature into four groups: *person (s)/organization*, *cognitive/behavioural process*, *environmental context*, and *outcomes*.

Anderson and Evers (2015) have depicted a conceptual framework of how *dynamic capabilities* of managers can be used for their opportunity recognition and company growth (Figure 11). These scholars have enumerated three dynamic capabilities for managers; *managerial social capital*, *managerial human capital*, and *managerial cognition*. These three components are interrelated and collectively led to recognizing international opportunities and growth in companies under investigation. In this framework, managerial social capital is referred to trained skills and learning of a manager. Managerial human capital refers to trust and networking abilities among managers and business owners or frequency of interactions among different elements of the organization under management. Finally, managerial cognition refers to cognitive patterns and traits that a manager (entrepreneur) uses them to recognize and capture opportunities. Note that this tertiary collection of capabilities has integrated all notes of 5 abovementioned approaches (e.g., traits, networks effects, educations, experience).

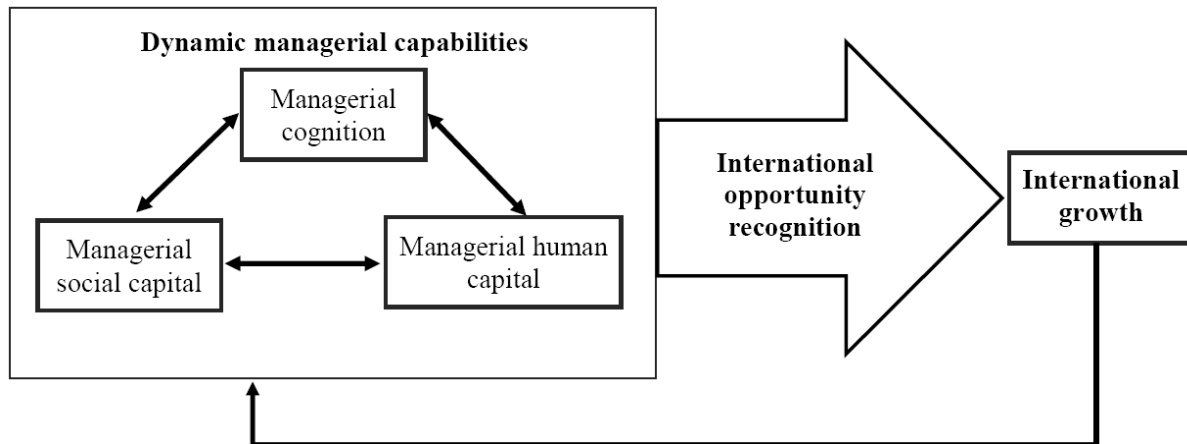


Figure 11-Dynamic capabilities and International New Ventures (INVs) by Anderson & Evers (2015)

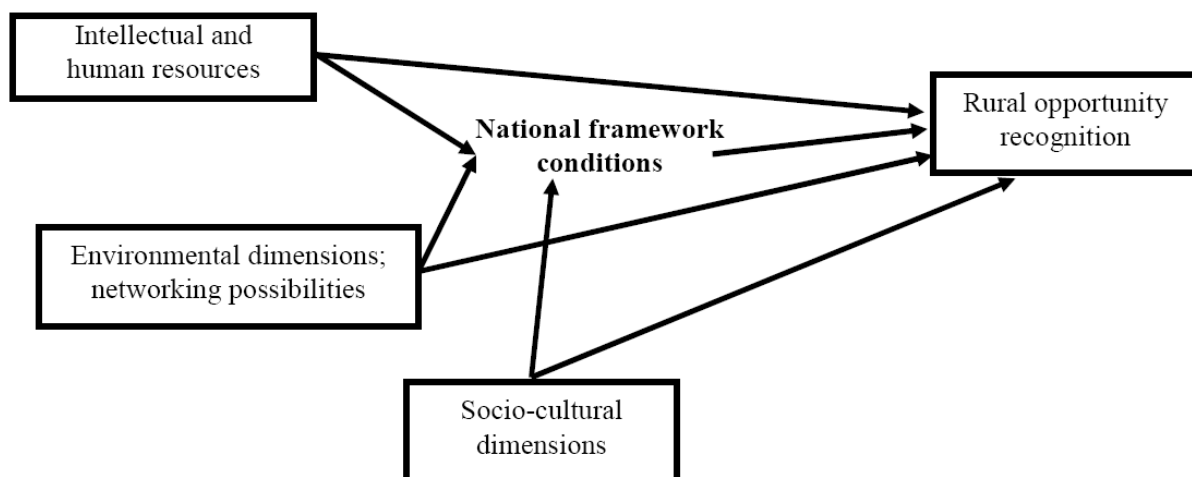


Figure 12-Opportunity recognition in deprived rural areas, by Ozgen&Minsky (2007)

From among limited normative models on opportunity recognition, the model of Ozgen and Minsky (2007) has been introduced as a policy proposal for the rural areas (Figure 12). Based on this model, *intellectual and human resources* (including knowledge, education, and entrepreneurial training), *environmental dimensions* (access to networks and rural development partnerships) and also *socio-cultural dimensions* (like entrepreneurial infrastructure) may lead to rural opportunity recognition. In this process, there is an intermediate factor that is the interference of *national framework conditions* (like access to financial resources, physical infrastructures, legal infrastructures, and government regulations). As can be seen, this model can be used by public policymakers more than the private sector and business practitioners.

1-4-The opportunity recognition process: presentation and comparison of models

George et al. (2016) in their systematic literature review of entrepreneurial opportunity recognition have recognized the main contribution of key studies with regard to prominent factors and classified them into *prior knowledge*, *social capital* and *networks*, *cognition* and *personality traits*, *environmental conditions*, *alertness*, *systematic search*, and ***opportunity recognition process***. This last factor (OR process) has a vital role in the present research. In reference to the importance of this section to construct a framework applied in this thesis, two keywords *opportunity recognition process*, and *opportunity recognition model* were used to search via electronic academic databases⁴¹ in search of any relevant paper. Surprisingly the number of papers on the OR process/model was not so much. In other words, there is no considerable number of models and processes on opportunity recognition in the field of entrepreneurship. A presentation of papers containing a model or process of opportunity recognition is proposed in Table 10.

It should be emphasized that a majority of researches on opportunity recognition has devoted to affecting factors or network effect as presented above. Thus the number of normative models that can be used for this research is limited.

George et al. (2016) have listed the main contributions to the opportunity recognition process. Their study has been recruited by the researcher to develop a table reflecting the main researches on the OR process (Table 10). Among these publications, Shane and Venkataraman (2000), Ardichvili et al. (2003), and Lumpkin and Lichtenstein (2005) are worthy of being discussed more.

In their model, Shane and Venkataraman (2000) define entrepreneurship as *the process by which opportunities to create future goods and services are discovered, evaluated, and exploited*. (based on Tominc and Rebernik. 2007)(Figure 13). As mentioned by Ferreira et al. (2015), this paper has been among the most influential paper with most citations in entrepreneurship

⁴¹ Mainly through <https://scholar.google.com>

literature over the past three decades. They have modelled entrepreneurship into three main milestones; *opportunity discovery, opportunity evaluation and opportunity exploitation.*

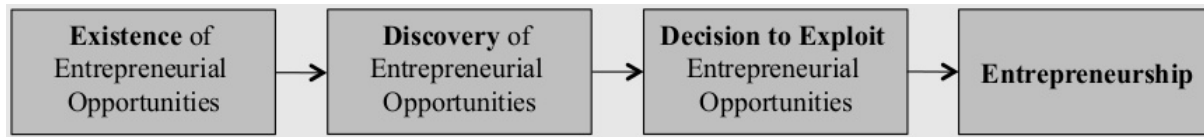


Figure 13-The The process of entrepreneurship and opportunity discovery through that, based on Shane and Venkataraman (2000).

Ardichvili et al. (2003) propose a theory for opportunity identification and identifies entrepreneurs' personality traits, social networks, and prior knowledge as antecedents of entrepreneurial alertness to business opportunities (Figure 14). Still, it can be seen that most models on the IOR process show how factors affect identification and formation process.

The “core process” outlined in Fig-14 “*begins when the entrepreneur has an above-threshold level of entrepreneurial alertness. The level of entrepreneurial alertness is likely to be heightened when there is a coincidence of several factors: certain personality traits, relevant prior knowledge and experience, and social networks. Personality traits like creativity and optimism are critical determinants of this alertness, as are the domains of knowledge: Domain 1 (special interest) and Domain 2 (knowledge and experience in a specific product and customer market). The nature of social networks (including weak ties, action sets, partnerships, and inner circle) also determines the level of this entrepreneurial alertness. Finally, the type of opportunity plays an important role in shaping this “core process.”* (Ardichvili et al., 2003, p.118). This model incorporated affecting factors into a process model, however as mentioned by the authors, “*opportunity development*” rather than “*opportunity recognition*” has been their focus. They believe that opportunity recognition means recognition of elements of opportunity, but these elements should be incubated through a process of opportunity development to become a real opportunity; “*While elements of opportunities may be “recognized,” opportunities are made, not found....Careful investigation of and sensitivity to market needs and as well as an ability to spot suboptimal deployment of resources may help an entrepreneur begin to develop an opportunity (which may or may not result in the formation of a business). But opportunity development also involves entrepreneurs’ creative work. Therefore, “opportunity development”*”

rather than “opportunity recognition,” should be our focus. The need or resource “recognized” or “perceived” cannot become a viable business without this “development.””(ibid, p.106).

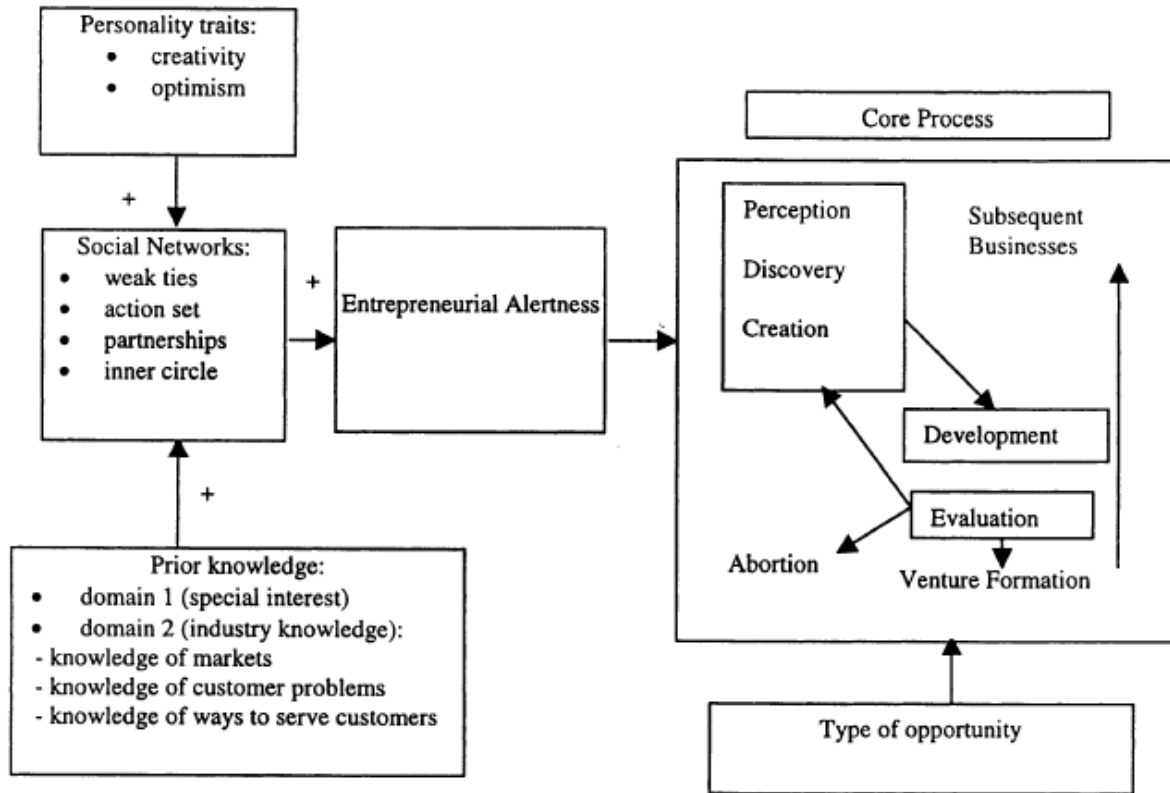


Figure 14-The model and units for the opportunity identification and development theory. Developed by Ardichvili et al. (2003).

In another attempt to incorporate affecting factors into a process model of OR, Moreno (2008) has tried to depict a form of OR process for Spanish companies by introducing the interrelation among the abovementioned factors (Figure 15). Moreno’s model showed how entrepreneurs’ traits (affecting factors) would affect their cognition, moreover, how prior knowledge with human capital in the society can form a social network of opportunities that can lead to OR with the benefit of entrepreneurial alertness as an intervening variable.

In a psychological approach to entrepreneurship, Pech and Cameron (2006), in their model of entrepreneurial information-processing (I-Pefor architecture mapping information and decision processes of entrepreneurs), have highlighted the role of informational cues for opportunity

recognition (Figure 16). From their point of view, “*Opportunity recognition may require a large number of informational cues, and if these cues find congruence with the entrepreneur’s sense of passion and knowledge as well as meeting intrinsic needs, the opportunity diagnosis process becomes relatively simple*” (ibid, p.73). “*The resulting I-Pe framework, while in no way claiming to be comprehensive, does provide a clearer understanding of entrepreneurial opportunity seeking and opportunity recognition processes*” (ibid, p.75).

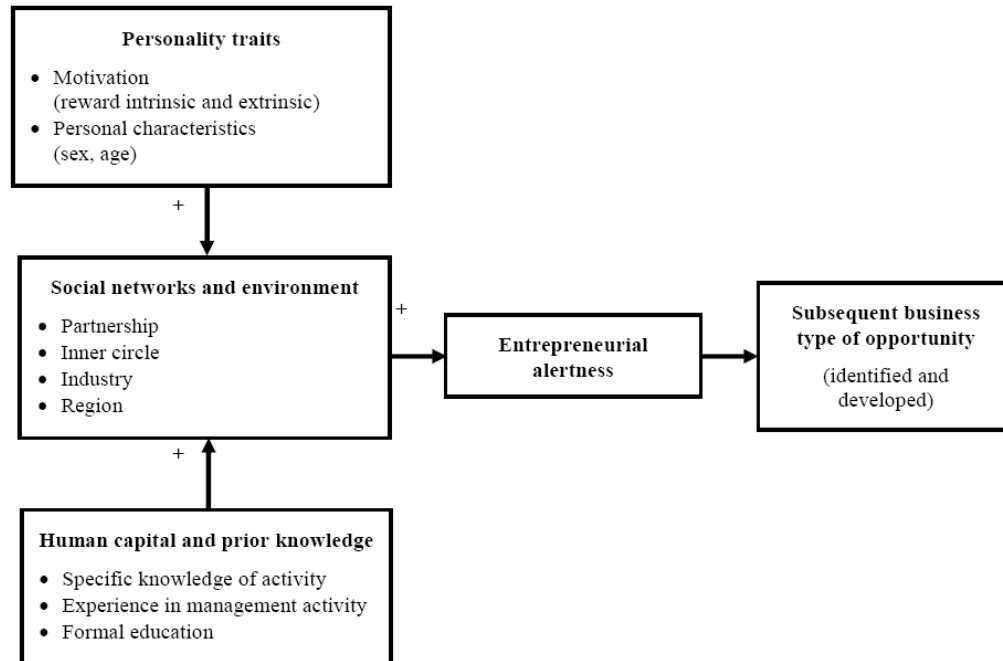


Figure 15-Opportunity recognition and development theory by Moreno (2008)

One notable research about OR in distribution systems is done by Zulfiu et al. (2015), who have tried to model the process in which distributors participate in the OR process of a company. This process mainly consists of generating more ideas and transmission of information gathered from customers to a company (Zulfiu et al.,2015).

Schwartz & Teach (2000), as a part of their research entitled “*A Model of Opportunity Recognition and Exploitation: An Empirical Study of Incubator Firms,*” have suggested a model of opportunity recognition and exploitation that is more inclusive than other models. This process would include the following steps: *Criteria for development, Search for information, Identification, Investigation, Evaluation, Prioritization, Action, Reevaluation, New Business entry, Re-evaluation, Success or Failure, Reevaluation.* In this model, various steps may be

sequential, or some may be skipped. Time and industry specifics would play a role in how the steps are taken. However, they have not explained their proposed milestones in detail.

Although not presented in the form of a process or a model, one of the most influential theorizations of opportunity recognition has been proposed by Baron (2006) and Baron & Ensley (2006). These authors have modelled opportunity recognition as connecting the dots and detection of meaningful patterns; “*Entrepreneurs use cognitive frameworks they possess to “connect the dots” between changes in technology, demographics, markets, government policies, and other factors. The patterns they then perceive in these events or trends suggest ideas for new products or services—ideas that can potentially serve as the basis for new ventures*” (Baron & Ensley (2006, p.1).

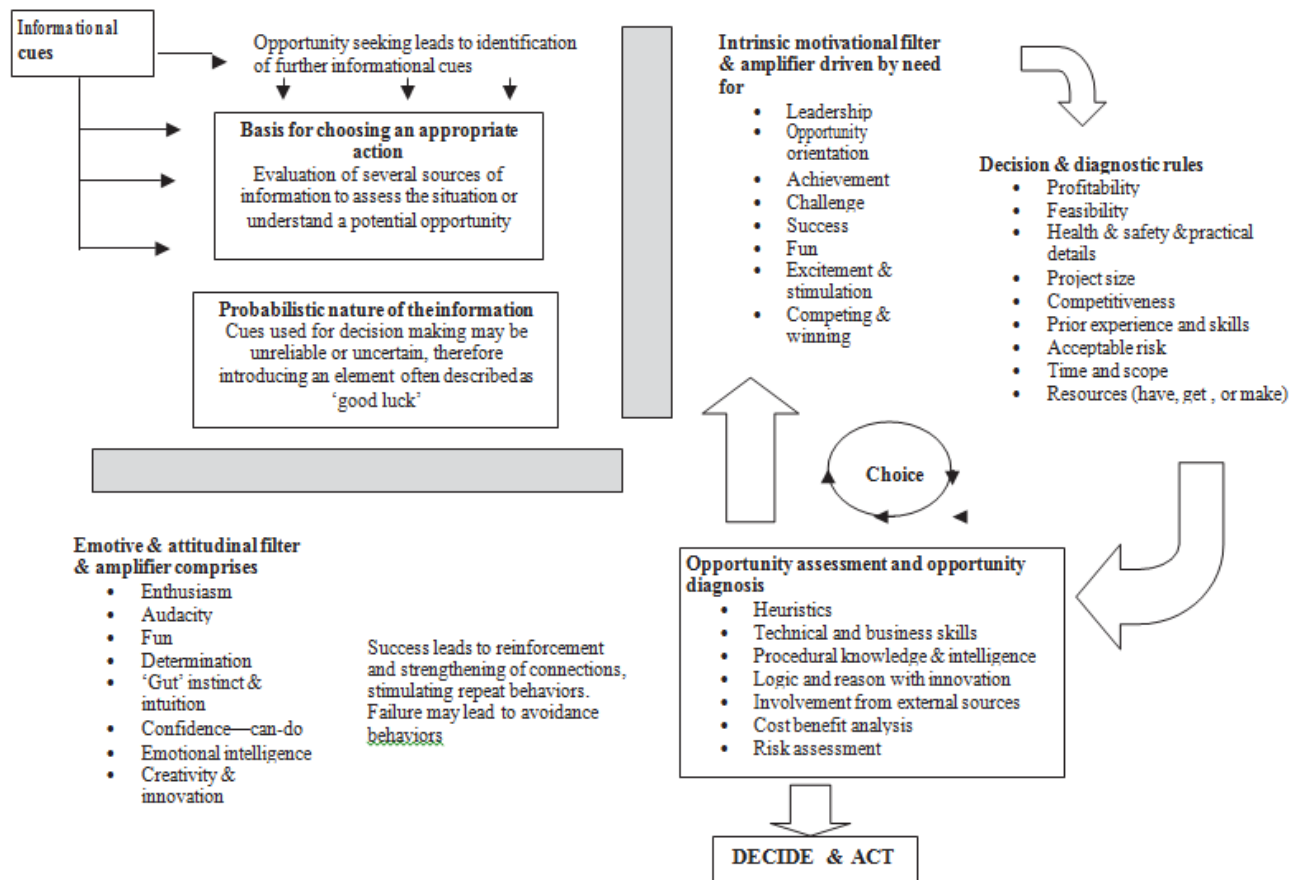


Figure 16-An entrepreneurial information-processing (I-Pe) architecture mapping information and decision processes, Source; Pech & Cameron (2008)

Table 10- main models and/or processes on opportunity recognition

Process-Based Models of Opportunity recognition		
Author (s)'s name	Bibliography	Model's presentation
Shane & Venkataraman (2000)	Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. <i>Academy of Management Review</i> , 25 (1), 217–226.	<p>Have adopted a definition of entrepreneurship as the process by which opportunities to create future goods and services are <i>discovered</i>, <i>evaluated</i>, and <i>exploited</i>. (based on Tominc and Rebernik. 2007)</p> <p>The entrepreneurial process includes at least three main stages: the “discovery” of opportunities, their evaluation, and their exploitation (Shane and Venkataraman, 2000).</p>
Lumpkin et al. (1999) Lumpkin et al.'s (2004) Lumpkin et al. (2005) Lumpkin and Lichtenstein (2005) Hansen et al. (2011)	<p>Lumpkin, G.T., Hills, G.E. and Shrader, R.C. (1999) ‘Opportunity recognition as a creative process’, <i>Frontiers of Entrepreneurship Research</i>, Babson College, Wellesley.</p> <p>Lumpkin, G.T., Hills, G.E. and Shrader, R.C. (2004) ‘Opportunity recognition’, in Welsch, H.P. (Ed.): <i>Entrepreneurship: The Way Ahead</i>, pp.73–90, Routledge, London.</p> <p>Lumpkin, G, T., Lichtenstein, Benyamin Bergmann (2005). The role of organizational learning in the opportunity-recognition process. <i>Entrepreneurship Theory and</i></p>	<p>Lumpkin et al.'s (2004), Lumpkin et al. (2005) and Lumpkin and Lichtenstein (2005) creativity-based model of entrepreneurial opportunity recognition consists of five differentiated sub-processes <i>preparation</i>, <i>incubation</i>, <i>insight</i>, <i>evaluation</i>, and <i>elaboration</i>.</p> <p>Hansen et al. (2011) then have examined the model empirically and have determined to be the best-fitting model. They have claimed that Fostering opportunity recognition processes that are iterative and involve multiple stages is likely to promote more creative entrepreneurial outcomes.</p>

	<p>Practice. July 2005. pp451-472.</p> <p>Hansen, D. J., Lumpkin, G. T., & Hills, G. E. (2011). A multidimensional examination of a creativity-based opportunity recognition model. <i>International Journal of Entrepreneurial Behavior and Research</i>, 17 (5), 515–533.</p>	
Schwartz & Teach (2000)	<p>Schwartz, Robert G., and Teach, Richard D., (2000). A Model of Opportunity Recognition and Exploitation: An Empirical Study of Incubator Firms. <i>Journal of Research in Marketing & Entrepreneurship: Volume 2, Issue 2, 2000</i> pp93-107</p>	<p>The authors have suggested a model of opportunity recognition and exploitation that is more inclusive than other models. This process would include the following steps: <i>Criteria for development, Search for information, Identification, Investigation, Evaluation, Prioritization, Action, Reevaluation, New Business entry, Re-evaluation, Success or Failure, Reevaluation.</i></p>
Ardichivil et al. (2003)	<p>Ardichvili, A., Cardozo, R., & Ray, S. (2003). A theory of entrepreneurial opportunity identification and development. <i>Journal of Business Venturing</i>, 18 (1), 105–123.</p>	<p>Utilizes Dubin’s theory for building a framework to propose a theory for opportunity identification and identifies entrepreneurs’ personality traits, social networks, and prior knowledge as antecedents of entrepreneurial alertness to business opportunities.</p>
Pech & Cameron (2006)	<p>Pech, R.J. and Cameron, A. (2006) ‘An entrepreneurial decision process model describing opportunity recognition,’ <i>European Journal of Innovation Management</i>, Vol. 9, No. 1, pp.61–78</p>	<p>The I-Pe framework suggests that opportunities are recognized as a result of the entrepreneur’s search for informational cues and questioning of those things that most people take for granted.</p> <p>Business-related informational cues</p>

		are sought and processed to calculate profit potential, the level of risk, and the cost of enactment.
Wang et al. (2013)	Wang, Yu-Lin., Ellinger, Andrea D., and Wu, Yen-Chun Jim., (2013). Entrepreneurial opportunity recognition: an empirical study of R&D personnel. <i>Management Decision</i> . Vol. 51 No. 2, 2013. pp. 248-266	The results show that an individual's self-efficacy, prior knowledge, social networks, and perception about the industrial environment on opportunities all had positive effects on entrepreneurial opportunity recognition. Also, entrepreneurial opportunity recognition contributed significantly to individual-level innovation performance.
Moreno (2008)	Moreno, J.J. (2008) An Empirical Analysis of Entrepreneurial Opportunity Identification and their Decisive Factors. The Case of New Spanish Firm [online] http://www2.uah.es (accessed March 2015).	He has incorporated three affecting factors (human capital and prior knowledge, traits, and networks) into a process model of opportunity recognition.
Monllor & Attaran (2008).	Monllor, J., & Attaran, S. (2008). Opportunity recognition of social entrepreneurs: an application of the creativity model. <i>International Journal of Entrepreneurship and Small Business</i> , 6 (1), 54–67.	The study reveals that social entrepreneurs follow the creative opportunity recognition process presented by Lumpkin et al. (1999, 2004), although some stages may include different activities.
Other (not necessarily process-based)models		
George et al., 2016	George Nerine, Mary., Parida, Vinit., Lahti, Tom., & Wincent, Joakim., (2014). A systematic literature review of entrepreneurial opportunity recognition: insights on influencing factors. <i>International Entrepreneurship and Management Journal</i> . 29 November 2014	Have recognized key studies with regard to prominent factors Opportunity recognition process as; <ul style="list-style-type: none"> • Shane and Venkataraman (2000) • Ardichvili et al. (2003) • Lumpkin and Lichtenstein (2005)

		<ul style="list-style-type: none"> • Tominc and Rebernik (2007) • Görling and Rehn (2008) • Monllor and Attaran (2008) • Mitchell and Shepherd (2010) • Hansen et al. (2011) <p>They also have developed a framework to communicate critical insights regarding the opportunity recognition process in two ways (Figure10-up).</p>
<p>Baron & Ensley (2006)</p> <p>Baron (2006)</p>	<p>Baron, Robert A. & Ensley, Michael D. (2003). Opportunity Recognition as the Detection of Meaningful Patterns: Evidence from Comparisons of Novice and Experienced Entrepreneurs, <i>Management Science</i>. Vol. 52, No. 9, September 2006, pp. 1331–1344</p> <p>Baron, Robert A. (2006). Opportunity Recognition as Pattern Recognition; How Entrepreneurs “Connect the Dots” to Identify New Business Opportunities. <i>Academy of Management Perspectives</i>. February 2006. Pp104-119</p>	<p>Both studies have modelled opportunity recognition as connecting the dots and detection of meaningful patterns.</p> <p>Entrepreneurs use cognitive frameworks they possess to “connect the dots” between changes in technology, demographics, markets, government policies, and other factors. The patterns they then perceive in these events or trends suggest ideas for new products or services—ideas that can potentially serve as the basis for new ventures.</p>
Ozgen and Minsky (2007)	Ozgen, E. and Minsky, B.D. (2007) ‘Opportunity recognition in rural entrepreneurship in developing countries’, <i>International Journal of Entrepreneurship</i> , Vol. 11, pp.49–73.	Based on this model, intellectual and human resources, environmental dimensions, and also socio-cultural dimensions may lead to rural opportunity recognition.
Anderson and Evers (2015)	Andersson, Svante, & Evers., Natasha(2015).International opportunity recognition in international new ventures—a dynamic managerial capabilities perspective. <i>Journal of International Entrepreneurship</i> 13(3)	have depicted a conceptual framework that how dynamic capabilities of managers can be used for their opportunity recognition and company growth

Finally, the review done through Table 10, introduced Lumpkin et al. (1999, 2004)'s *creativity-based model of entrepreneurial opportunity recognition* as the most considerable and referred normative model of opportunity recognition through the literature (Figure 17). It consists of five steps; *preparation, incubation, insight, evaluation* and *elaboration*. This model is not claimed to be the best or most appropriate model of opportunity recognition, but about the review done above, it can be considered as the most reputed and available applied model of opportunity recognition, which has been proposed by the researcher. As mentioned later, it is hoped to provide an anchor for later initiatives.

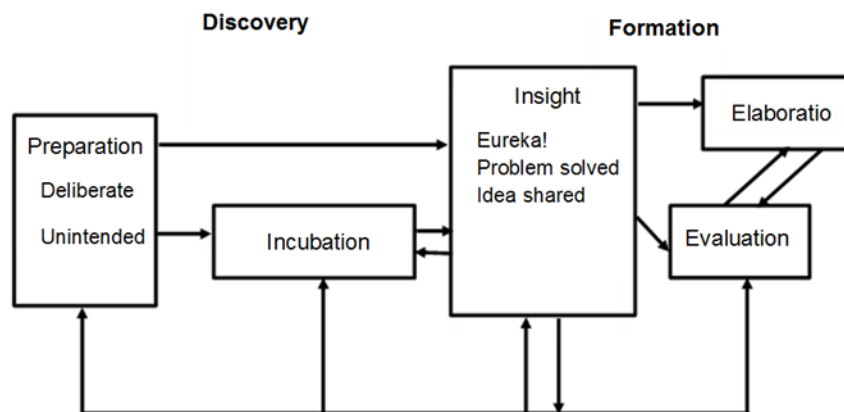


Figure 17-The creative based model of opportunity recognition by Lumpkin et al. (2004)

1-4-1-A presentation and discussion on Lumpkin's model

Some scholars like Bhave (1994) have modelled opportunity recognition as a one-step model in which the outcome is defined as "recognition". Bhave(1994) have found two sources of stimulation and paths for opportunity recognition: internally and externally. In externally stimulated opportunity recognition, the decision to start a venture precedes opportunity recognition. In internally stimulated opportunity recognition, opportunity recognition precedes the decision to start their ventures. *"Both externally and internally stimulated opportunity recognition processes culminated in the identification of the business concept. Its identification is evidence of the successful completion of the sub-processes of opportunity filtration, opportunity selection, and opportunity refinement in venture creation"*(*ibid*, p.229) as indicated

in Figure18. In general, such models consider a process of gradually opportunity formation, incubation and development.

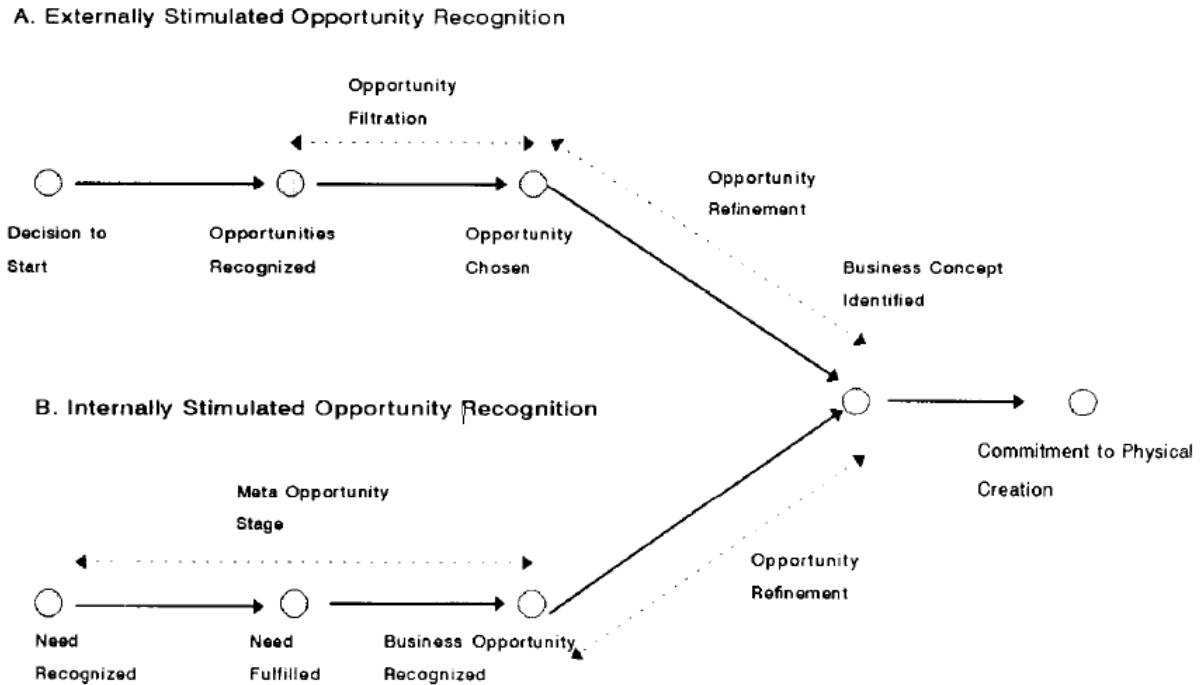


Figure 18-Opportunity recognition sequences in entrepreneurial venture creation. Source; Bhave(1994).

On the other side, most of the scientific initiatives to model opportunity recognition (e.g. Ardichivil et al. (2003) and Moreno (2008)) have modelled opportunity recognition as an intersection between many factors including experiences, education, alertness, business environment, firm atmosphere and general business environment in the home and host countries (Lumpkin & Lichtenstein, 2005). Hill et al. (1999), in one of the first initiatives to model recognition process, presented a five steps model of opportunity recognition (Hansen and Lumpkin, 2009). This model was derived from past researches by Wallas (1925) and Csikszentmihalyi (1996) who have proposed five steps for a creative cognitive process.

Graham Wallas’ four-stage model of the creative process includes preparation, incubation, illumination and verification. Brainpickings⁴²(2019) have explained these steps as below;

⁴² <https://www.brainpickings.org/2013/08/28/the-art-of-thought-graham-wallas-stages/>

“...During the **preparation** stage, the problem is “investigated in all directions” as the thinker readies the mental soil for the sowing of the seeds....

...Next(**Incubation**) comes a period of unconscious processing, during which no direct effort is exerted upon the problem at hand — this is where the “combinatory play” that marked Einstein’s thought takes place....

...Following Incubation is the **Illumination** stage, which Wallas based on French polymath Henri Poincaré’s concept of “sudden illumination” — that flash of insight that the conscious self can’t will and the subliminal self can only welcome once all elements gathered during the Preparation stage have floated freely around during Incubation and are now ready to click into an illuminating new formation....

...The last stage(**Verification**), unlike the second and the third, shares with the first a conscious and deliberate effort in the way of testing the validity of the idea and reducing the idea itself to an exact form...”.

Above steps have been developed by Mihaly Csikszentmihalyi a Hungarian-American psychologist as five steps of creativity; *Preparation, incubation, insight, evaluation and elaboration* that equals with main steps of Hill et al. (1999) and Lumpkin et al. (2004). For the elaboration of those researches and steps, two models have been proposed by Hill et al. (1999) and Lumpkin et al. (2004) with regard to the role of organizational learning and creativity in opportunity recognition process. The model has organized these five steps into two phases; *Discovery and Formation* (Figure17).

In fact, Lumpkin et al. (2004) have defined opportunity recognition into two parts, *discovery* and *formation* and have proposed a five steps model for that. *Discovery* part includes *preparation, incubation* and *insight* and *Formation* part includes *evaluation* and *elaboration*. Importantly, similar articulations have been proposed by scholars like Pech and Cameron (2006) and Swartz and Teech (2000) and also Barringer and Ireland(2016) in pretty same milestones and by Ireland (2008) in their reference book on entrepreneurship⁴³. As mentioned before, the model has the following steps (Figure 17);

Preparation; A conscious effort to develop expertise in the domain and develop sensitivity to the issue or problems in a field of interest (Csikszentmihalyi, 1996). It also includes knowledge

⁴³ Barringer, Bruce R. & Ireland, R. Duane.,(2016). *Entrepreneurship : successfully launching new ventures*. Prentice Hall. Fifth Edition

and experience that are gathered unintentionally without aiming to discover opportunities (Lichtenstein & Lumpkin, 2008). As mentioned by Hansen *et al.* (2011, p.519); “**Preparation** refers to the skills and knowledge one acquires or accesses to bring to the creative process (Lubart, 2000-2001). Wallas (1926) describes it as consciously accumulating knowledge and Csikszentmihalyi (1996) describes this element as one where individuals immerse themselves in solving a **problem**. In an entrepreneurial context, preparation would include identifying an “imprecisely-defined **market need**” (Chen and Yang, 2009, p. 400) or **finding problems or “pain”** in the market (Sanz-Velasco, 2006). The most useful knowledge would be knowledge of markets, ways to serve markets and customer problems (Shane, 2000), but other knowledge sets would also be valuable”.

Incubation; refers to a part of the opportunity recognition process in which an entrepreneur or an entrepreneurial team contemplates an idea or a specific problem consciously or unconsciously (*ibid*). In this step, various possibilities, options, primary solutions or new combinations for perceived idea or problem are considered; “**Incubation** is where the knowledge domains collide to create new associations (Lubart, 2000-2001). The creativity literature often describes this as a subconscious activity. Wallas (1926) described it as resting the mind and focusing on other issues. Csikszentmihalyi (1996) describes it as subconsciously mulling things over. Lumpkin *et al.* (2004, p. 79) state that it is not necessarily a “**conscious problem-solving or systematic analysis**. Instead it is typically an intuitive, non-intentional style of considering possibilities or options” (Hansen *et al.* (2011, p.519)” for confronting a problem.

Insight; refers to Eureka moment or "Aha" experience where final ideas, solutions or answers are given to birth. Whereas incubation refers to an ongoing process, insight refers to a moment of recognition (Csikszentmihalyi, 1996). Hansen *et al.* (2011, p.520) describe this step as; “*ideas coming forth from the subconscious mind or brought to the attention of an entrepreneur by others. In a **problem-solving context**, it is a moment of realization – either that a **problem** is clearly formed or that a solution is at hand (Csikszentmihalyi and Sawyer, 1995). Wallas (1926) describes it as a “flash” and Csikszentmihalyi (1996) describes it as an “aha” experience interspersed with incubation, evaluation and elaboration. Indeed, many terms have been used to describe this element in the opportunity recognition literature, such as “eureka” (Gaglio and Taub, 1992), “aha” and “point of vision” (Long and McMullan, 1984). Whether the insight*

*occurs instantly or iteratively, it involves “breaking the means-ends framework” (Gaglio and Katz, 2001) that is, conceptualizing the **problem** or **solution** in a new way.”*

Evaluation; evaluation starts the second phase of the opportunity recognition process, *formation*. This step involves in-depth analyzing workability and viability of extracted solutions and resources required for their exploitation and see whether it is worthy of working on an alternative or not. This step *“involves investigating the idea to determine whether or not it is viable. Csikszentmihalyi (1996) describes it as the conscious decision of whether an insight is valuable and worth pursuing”* (Hansen et al. (2011, p.520).

Elaboration; final step is about how to put the idea into practice and to capture the value from the creative act or to exploit the extracted opportunities. Hill (1999) proposes this step to include business planning, organizing, consideration of legal issues, selection of operational options, and creating a support system. *“Elaboration, which refers to the work needed to refine the creative insight. Csikszentmihalyi (1996) describes this element as one where the creative individual (the entrepreneur) must pay close attention to and incorporate: 1-Their own feelings; 2-new **problems** that arise; and 3-The outside world (e.g., customers).”*(Hansen et al., 2011, p.520).

Abovementioned steps and pretty same elaborations have been reintroduced, induced or replicated through many other pieces of research. Before Lumpkin’s model, Schwartz and Teach (2000) have looked at this issue from the viewpoint of managers and after doing a survey on about 400 managers in the USA had attained to the pretty same process. These steps are reciprocal and include *identification, investigation, evaluation, prioritization, action, reevaluation*. This model also has been induced in social entrepreneurship by Monllor & Attaran (2008). Their study reveals that social entrepreneurs follow the creative opportunity recognition process presented by Lumpkin et al. (1999, 2004), although some stages may include different activities.

1-4-2-A discussion on the relation between opportunity recognition, problem and problem solving

Replications of words *problem* and *creativity* during the presentation of the model mentioned above shape a proposition that five steps model relies on *problem recognition* for *preparation*

and a form of *creative problem solving* for the rest of the steps. As stated by Hansen et al. (2011, p.519); “*In an entrepreneurial context, **preparation** would include identifying an “imprecisely-defined **market need**” (Chen and Yang, 2009, p. 400) or finding problems or “**pain**” in the market (Sanz-Velasco, 2006)*”.

In other words, it can be imagined that two primary sources for starting OR process or so-called Preparation are; 1-*problems/pains* and 2-*needs*. Essence of *pains* is problems. But what about *imprecisely-defined market need*? Are they possible to be defined in terms of problems/pains? Two formal definition of need is “*to have something, or to want something very much* (Cambridge dictionary, 2019)” and “*a lack of something requisite, desirable, or useful* (Merriam-Webster, 2019)”. Both definitions transfer a sense of *deprivation* or *disturbance* that customer may be aware of that or even not, but unconsciously has such sense. This deprivation and how to eliminate it can be a potential problem that needs a problem-solving. For entrepreneurs, they may not recognize the problem and look for the solution consciously but anyway when she/he says “*Aha! This may be a business opportunity*”, he has recognized a disturbance in the market al.so imagined a solution for that.

Finding solutions for each problem takes place through a creative problem-solving process. The final aim of a utilitarian entrepreneur from solving a problem or satisfying an imprecisely-defined need is making a profit, thus eventually he/she should solve the puzzle of how to make the profit from the market. “*The key to successful domestic and international entrepreneurship is to develop an idea that has a market for the new product/service idea conceived*”. *The ideation process through creative problem solving should be thought of in terms of satisfying a specific market need or as one entrepreneur stated, “making the customer whether a business, a consumer, or a government more profitable”* (Hisrich et al., 2016, p.121).

Hsieh et al. (2007, p.1258) believe that “*The association between opportunity discovery and problem-solving is not new*. Stevenson and Jarillo (1990, p. 23) argue that “*basic entrepreneurial skills’ involve accumulated knowledge that ‘assist[s] in problem-solving*”. Shane (2003, p. 47; see also pp. 52–3) explains that *discovery of opportunities is often like solving puzzles because a new piece of information is often the missing element necessary to see that an opportunity is present.*’ He also makes clear that *‘establishing a new means-ends framework...involves*

identifying, defining, and structuring novel solutions to open-ended problems' (p. 56). Finally, both opportunity discovery and problem-solving relate to 'value creation' similarly in the literature (e.g. compare Alvarez and Barney, 2005; Jones and Butler, 1992; Ramirez, 1999; to Hansen and Nohria, 2004; Heiman and Nickerson, 2004; Kanter, 1989 as mentioned by Hsieh et al., 2007)."

It should be clarified that present discussion does not prove that *opportunity recognition process* and *problem-solving process* are identical! Instead, opportunity recognition starts by recognizing a form of need or problem in market or organization where needs can be defined as a form of disturbance (or problem). Then when an entrepreneur can find a solution for that disturbance, he/she potentially starts opportunity exploration and exploitation process. The process of preparation of the solution requires creative problem-solving basically.

In general, many commonalities between opportunity recognitions models(Including Lumpkin et al.(2004)) and the classic problem-solving process can be found. Opportunity recognition consists of three differentiated sub-processes: *perception, discovery and creation* of the opportunity-related concept while the evaluation penetrates the whole process. In other words, these sub-processes are accompanied by a continuous evaluation in which the entrepreneur questions and evaluates the opportunity in the different stages of the process (see Figure 17). Same task often takes place in the problem-solving process where somebody perceives a problem, discover alternative solutions and evaluate them for implementation. Lumpkin model has been duplicated by Pech and Cameron's (2006) entrepreneurial decision process model describing OR. In their research, business-related informational cues are sought and processed to calculate potential profit, the level of risk, and the cost of enactment.

Before more discussion in this regard, it is necessary to have a review and explanations on the problem-solving process.

1-4-2-1-A Review on Problem Solving Process

A problem-solving process usually consists in 5-7 steps that generally include *become aware of the problem, define the problem, choose the particular problem to be solved, identify potential*

solutions, evaluate the valid potential solutions to select the best one and develop an action plan to implement the best solution.

Karl Raimund Popper, a reputable Austrian-British philosopher of science, in his book *All Life is Problem-Solving* asserts that the starting point of natural science as well as social science is a problem (Popper, 1999). He describes the *problem-solving process* as involving three steps: (a) problem recognition, (b) attempted solutions, and (c) elimination. ***The problem arises when a disturbance takes place.*** In Popper's view, this means either an innate expectation or an expectation that has been discovered or learnt by trial and error (Popper, 1999). The second stage of Popper's model is to try to solve the problem (Popper, 1999). This stage is where decision-making enters to select among alternatives and choices. The final stage in the model is the elimination of unsuccessful solutions; this involves implementing, learning and feedback loops.

Before Popper, the most prominent educational philosopher was John Dewey (1910), described problem solving as the basis for a new paradigm in learning and education: *learning through problem-solving* (which suggests that it is possible to learn through another way, like reading or sharing). This is conducted using critical thinking that Dewey and his colleagues believe should be developed in the educational system. John Dewey elaborated critical thinking and divided it into two stages. The first stage is *sensing complexity, scepticism, and hardship*. This stage leads to the second step: *curiosity and the quest for a solution to eliminate the scepticism*. In this quest, Dewey proposed five steps to problem-solving (Meyers,1986):

1. Problem/need recognition
2. Information search and determination of problem cause
3. Generation of alternative solutions
4. Evaluation of alternatives and making decisions
5. Implementation and feedback

Reference to various applications of problem-solving process in different fields, Soltanifar and Ansari(2016) have tried for find different elaborations of problem-solving process manifested in different fields of study and synthesized them as reflected in Table 11. This brief synthesis comprises a comprehensive problem-solving process as follows:

1. Problem definition/opportunity recognition; includes a status review
2. Collecting information and determining causes
3. Developing a hypothesis and/or using theories or frameworks on the issue
4. Generating alternatives and/or solutions
5. Assessing alternatives
6. Selection and implementation of a solution
7. Outcome evaluations and revision of the plan, if necessary

In Table 11, some manifests of the problem-solving process in different fields from social science to engineering are presented and addressed and then synthesized into 7 steps as mentioned above. These steps conform to the five steps of the problem-solving model described by John Dewey, plus two additional steps (steps 3 and 7) respectively for generation and consideration of hypothesis and theories about the phenomena and thoroughly revision of plan after implementation.

Table 11- Extracted steps of the problem-solving process for different fields. Source; Soltanifar and Ansari (2016).

Name	Field	Source	Steps;							Tools
Visual model of managerial problem solving	Management	Meyer, 1986	Problem Identification (Opportunity detection)	Determination of Cause	Generation of alternative solutions	Evaluation of tentative choice	Potential Problem Analysis	Final Choice and Implementation		
Systems Decisions Process	System Science	Parnell, Driscoll, & Henderson, 2011	Problem Definition		Solution Design		Decision Making	Solution Implementation		
Problem-solving process	Engineering	Yazdani and Tavakkoli-Moghadam, 2012	Recognition of a problem exists and determining its importance	Identifying, defining & recognizing the problem	Constructing & finding alternative solutions		Assessing alternatives & selecting one of them	Imposing the selected solution		Brainstorming, Fishbone, AHP method
Problem-solving model	Behavioural science	Newton et al. 2009	Review Status and Identify Problems		Develop and refine hypotheses		Discuss and select solutions	Develop and implement an action plan	Evaluate and revise the action plan	

The classic approach to decision making	Social Science	Adair, 2007	Define the objective	Collect relevant information		Generate feasible options	Make the decision		Implement and evaluation	
Wilson's problem-solving model	Social Science	Wilson, Ford, Ellis, Foster, & Spink, 2002	Problem Identification	Problem Definition		Problem Resolution		Solution Statement		Case-based reasoning
Conclusion	General	Soltanifar & Ansari, 2016	Problem recognition & definition (Opportunity detection)	Collect information, determination of causes	Develop and refine hypotheses	Generate Alternatives	Assessing alternatives	Final Choice and Implementation	Evaluate and revise action plan	

1-4-2-2-Problem solving, decision making and opportunity

As Gobbo (2008, p. 240) insisted, "*Although all problem-solving involves some decision-making, decision-making does not always involve problem-solving.*" The comprehensiveness and prevalence of problem-solving in social science means it does not seem wrong to consider its steps as **major themes** for all human inquiry primarily based on qualitative data; "*A human confronting a disturbance tries to recognize the problem, gather information about it, find and attempt solutions, implement the selected solution, and apply modifications based on outcomes*" (*ibid*).

Decision-making process generally commences by identifications and resolving of opportunities or capitalization of opportunities (Lewis et al., 2007, 146). Lewis et al. (2007) describe managerial decision making into seven steps as below;

1. Identifying opportunities and diagnosing problems;
2. Identifying objectives
3. Generating alternatives
4. Evaluating alternatives
5. Reaching decisions
6. Choosing implementation strategies
7. Monitoring and evaluating

The first stage in this model includes clear identification of opportunities or diagnosis of problems that require a decision. An assessment of opportunities and problem will only be as accurate as the information on which it is based. It can be found that they commence decision making by an opportunity or problem.

Lewis et al. (2007) have defined *decision making* as the process through which managers identify and resolve problems and capitalize on opportunities. Here *problem* is a situation in which some aspects of performance or outcome is less than desirable. *Opportunity* is a situation that has the potential to provide additional beneficial outcomes. In other words, organizational and entrepreneurial decision making "*begins with recognition or awareness of **problems and opportunities** and concludes with an assessment of the results of actions taken to solve those*

problems” (*ibid*, 147). Based on the comment made in the past section, it can be said that problem recognition can be an originating step before opportunity formation. However, all problems may not lead to an opportunity. They may either not be perceived by the entrepreneur or have not passed incubation and insight steps successfully.

1-4-2-3-Opportunity recognition as a puzzle solution

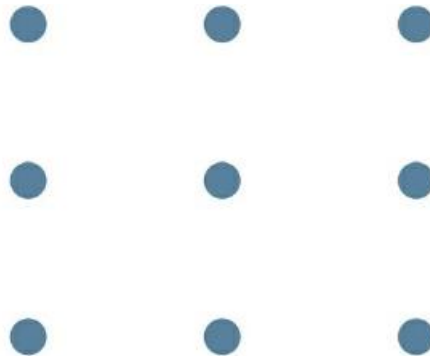
The problem in the case of opportunity recognition can find a broad set of manifests; *imprecisely-defined market needs, pains, inconveniences expressed by customers, employers, employees, opportunity costs and opportunity gaps* or as expressed by Karl Popper (1999), *any form of disturbance takes place* can be a problem that should be solved.

Other Scholars have modelled the opportunity recognition as a puzzle that an entrepreneur should solve it. Shane (2003, p. 47; see also pp. 52–3) says that “*discovery of opportunities is often like solving puzzles because a new piece of information is often the missing element necessary to see that an opportunity is present*”. He believes that placing pieces of data and finding missing elements are a type of problem-solving. He also makes clear that “*establishing a new means-ends framework... involves identifying, defining, and structuring novel solutions to open-ended problems*” (Shane, 2003, p. 56 as mentioned by Hsieh et al., 2007, p.1258).

Baron (2004), 2006) and Baron & Ensley (2006) believe that opportunity recognition mostly includes pattern recognition among incoming pieces of data; *a cognitive process through which people try to find meaningful patterns among seemingly unrelated events or trends*. Neck et al. (2018, p.402) explain this issue; “*Another key factor in building and recognizing opportunities is pattern recognition: the process of identifying links or connections between apparently unrelated things or events. Pattern recognition takes place when people “connect the dots” in order to identify and then build on opportunities*”.

These cognitive patterns usually formed at entrepreneurs' mind through the experience (e.g. prototypes) and provide a base for people to find connections between apparently independent events or trends and finally attaining meaningful pattern through these connections (Baron & Ensley, 2006).

“The “nine-dot exercise” (Figure 19) illustrates the limitations of our thinking. The challenge is to connect nine dots by drawing straight lines without lifting your pen from the paper and without backtracking. If you have difficulty completing the task, your mind may be blocked by the imaginary “box” created by the dots. To help overcome such limitations, try to think of the dots beyond any of the imaginary constraints” (Neck et al., 2018, p.402).



Puzzle: Copy the above image to paper. Draw no more than four straight lines (without lifting the pencil) and connect all nine dots. No back-tracking either.

Figure 19-Nine-Dot Exercise. Source; Neck et al. (2018)

Baron and Ensley (2006) believe that ideas about new product and services often shaped after understanding such new patterns. New business opportunities are recognized when entrepreneurs use related cognitive pattern and *"connect the dots"* to find the main statue. In other words, they find a pattern among seemingly unrelated events or information and this pattern finally led to a business opportunity on product or services. Moreover connecting the dots model a process of unconscious problem solving for shaping new solutions for a perceived need or problem.

Note#2; Opportunity recognition can be modelled as the process of connecting the dots and finding patterns among seemingly unrelated notes or events.

Baron (2006)’s model of pattern recognition and Lumpkin et al. (2004)’s model of opportunity recognition are trying to model the process of opportunity recognition as an unconscious process of opportunity discovery. *“Besides improving deliberate search, greater learning ability also relates to the process of opportunity recognition, an unconscious process of discovery (e.g.*

Baron, 2006; Gaglio and Katz, 2001; Kirzner, 1979, 1997; Lumpkin and Lichtenstein, 2005)” (Hsieh et al., 2007, p.1270).

Here again, as mentioned by Hsieh et al. (2007) finding and guessing missing parts of information can be a puzzle and needs a type of *creative problem solving*; “*Entrepreneurial opportunity has increasingly been associated with **creativity** in the entrepreneurship literature. A number of authors have described the opportunity recognition process either as being influenced by creativity or more specifically as a creative process in-and-of itself (see Ardichvili et al., 2003; Baron, 2008; Corbett, 2005; DeTienne and Chandler, 2007; Long and McMullan, 1984 as mentioned by Hansen et al, 2011). Additionally, recent researchers examining opportunity recognition have used methods borrowed from the creativity literature such as **creative problem solving** (Kitzmann and Schiereck, 2005) and divergent thinking (Walton, 2003), or idea generation exercises (Corbett, 2007; Shepherd and DeTienne, 2005; Ucbasaran et al.,2009)*”(Hansen et al., 2011a, p.517).

1-4-2-4-Role of *problems* in opportunity recognition process

Barringer and Ireland (2016) have highlighted the role of *problems* in opportunity recognition process. From their point of view, there are three approaches entrepreneurs use to identify an opportunity their new venture can choose to pursue; 1-*observing trends*, 2-*solving a problem* and 3-*finding gaps in the marketplace (ibid)*. If we compare and synthesize this proposition with claims of the preceding section, it should be reminded that in fact, market gaps reveal pains and problems or needs in a market. All three channels talk about a disturbance that has taken place in an organization, market or society. Barringer and Ireland (2016, p.43) also have emphasized that “*An entrepreneur recognizes a problem or an opportunity gap and creates a business to address the problem or fill the identified gap*”. Moreover, when entrepreneurs *observe* the *trends* they are looking for unsatisfied needs, existing pains or gaps that could be faced with by a solution originated from a creative problem-solving process. If they can solve this problem, then they have explored an opportunity and may go forward for its exploitation.

First approach of opportunity identification is observing trends, mainly economic and social trends, technological advances, and political action and regulatory changes. Here the difference

between what's available and what's possible can provide new business, product, and Service Ideas.

Second way is *“to recognize problems and find ways to solve them. Problems can be recognized by observing the challenges that people encounter in their daily lives and through more simple means, such as intuition, serendipity, or chance”* (ibid, p.50). This approach can foster opportunities mainly in the form of organization entrepreneurship. For example, trying to flare gases in oil fields initially is an operational and environmental problem, but recovering them using innovative technologies and process line up can provide a new way of profit for oil companies.

Finally, the third source of business opportunities is finding gaps in the marketplace. *“There are many examples of products that consumers need or want that aren't available in a particular location or aren't available at all”* (ibid, p.53). This type of apparent or hidden need have made consumers inconvenient and should be satisfied. In other words, consumers have an *innate expectation* that is not satisfied and is reflected in the form of a marketplace gap. For example *“Part of the problem is created by large retailers, like Wal-Mart and Costco, that compete primarily on price and offer the most popular items targeted toward mainstream consumers. While this approach allows the large retailers to achieve economies of scale, it leaves gaps in the marketplace. This is the reason that clothing boutiques, specialty shops, and e-commerce websites exist. These businesses are willing to carry merchandise that doesn't sell in large enough quantities for Wal-Mart and Costco to carry”* (ibid, p.53). Here some aspects of performance or outcome are less desirable in the consumers' viewpoint. Consumers have expectations that may be expressed by them as a dilemma, need, expectations or generally a problem in the market. These problems have not been addressed by product and service providers (here large retailers). Thus, problems of customers in the form of the market gap may provide a base for business opportunities.

Note#4; To consider the role of *solving problems* and finding of *gaps in the market*, and to store and arrange problems for business development and opportunity exploitations between business blocs as is advised by entrepreneurial decision making, it is worthy to consider an initiating place

for “*problems, needs, pains and dilemmas expressed by customers or practitioners working on business development in a market or between business blocs.*”

Barringer and Ireland (2008), believe that “*opportunity recognition maybe, at least in part, a creative process*”. This creative process can be broken into five stages *Preparation, Incubation, Insight, Evaluation and Elaboration (ibid)*. Schwartz and Teach (2000) have proposed the same process for OR and exploitation that again have commonalities (mainly around problem recognition) to *classic creative problem-solving process* and includes iterative steps; *identification, investigation, evaluation, prioritization, action and re-evaluation.*

As shown in Figure 17, Lumpkin's model has commonalities with classic (creative) problem-solving process. Barringer and Ireland (2016, p.43) states that “*An entrepreneur recognizes a **problem** or an **opportunity gap** and creates a business to address the problem or fill the identified gap*”. “*Opportunity gap is when an entrepreneur recognizes a problem and creates a business to fill it. A market opportunity a company or individual is not addressing*” (*ibid*).

Chandra et al. (2009) believe that international business opportunities can be shaped through a serendipitous encounter with new information from networks and referrals but need to be interpreted into new matches between pre-existing means (resources, skills and new technologies) and new ends (international market) through a problem-solving process. This means that the international opportunity recognition process can be a matching between tools and available resources with new means through a problem-solving process

In other words, the entrepreneur will be encountered with new information serendipitously (in the form of recognizing a problem, or market gap or unsatisfied need) that is equal with preparation step in Lumpkin’s model. Then he tries to find new solutions (means) to this market gap (end) in a problem-solving process. This process may be conscious or unconscious and equals with incubation and insight in Lumpkin’s model. Thus resemblances can be found between the problem-solving process and opportunity recognition.

In three abovementioned elaborations of opportunity recognition (5 steps model mainly known by Lumpkin’s model, opportunity recognition as pattern recognition presented by Baron (2003) and opportunity recognition as a match between means and ends mentioned by Chandra et al. (2009)), opportunity recognition has been modelled as the process starts with a position of

disturbance and is continued by solving a puzzle, finding a solution, recognition a pattern or finding a mean for an end.

Note#3; with regard to the thorough literature review done on opportunity recognition process, five steps including *preparation, incubation, insight, evaluation and elaboration* have been found as more replicated and only normative steps of opportunity recognition. Meanwhile in this process, *problem* in the form of *market gap, unsatisfied needs, costumer's inconveniences* for *preparation* step and then *creative problem solving* for *incubation*, gaining *insights* and *evaluating* solutions play a key role to generate and form business opportunities. As mentioned by Shane (2003, 56); “*establishing a new means-ends framework involves identifying, defining, and structuring novel solutions to open-ended problems*”. A problem can be defined as finding a right need, inconveniencies, complains, pains or any disturbance that takes place in market or organization. If an entrepreneur can find a solution or insight for this problem (need) through abovementioned five steps, he/she has solved the puzzle and explored an opportunity.

1-4-2-5-Conceptual framework; excluding problems/need from preparation and shaping a new set of OR themes

Now it is the time to conclude on the theoretical and conceptual framework for opportunity recognition in this thesis that will be presented into a set of process-based themes.

In the preceding section, the importance of *problems* and *needs* in the *preparation* step of the opportunity recognition process (based on Lumpkin et al.(2004)) was reviewed. Now it is necessary to explain what will be final themes of an opportunity recognition process.

Consider again the creative process of Lumpkin et al. (2014) that was concluded and presented in 5 steps through section 1-4-1. A reciprocal non-linear process through Lumpkin's model and other similar and affiliated models can be found through which entrepreneurship investigates perceived pains, gaps and needs in the market, then become *prepared* with the general business environment, past experience and knowledge(*preparation*), *incubate* the ideas and store *insights*, then *evaluate* the opportunities and *elaborate* them (Lumpkin & Lichtenstein, 2005). As mentioned above a form of problem-solving is included in the above process that initiates by recognition of disturbances in the market. It is not the first time that a fingerprint of problem-

solving is found in a field of science. Many scholars have shown traceability of the problem-solving process in social science; some of them are presented in Table 11.

In section 1-4-2-4, it was discussed that needs as a situation of disturbance could be defined as a type of pain or problem. Thus based on discussions done in sections 1-4-2-1, 1-4-2-2, 1-4-2-3 and 1-4-2-4 about the position of pains and problems on OR process and their relation with needs, five steps mentioned mainly by Lumpkin's have been *operationalized* with modifications to cover main themes among related data and recognize international business opportunities. This task means operationalizing Lumpkin et al. (2004) and other affiliated models of opportunity recognition. Thus, in line with the opportunity recognition process and Note#3 & Note#4, problem/need recognition part of *preparation* step have been separated, extended and introduced through a new initiating step in Lumpkin model (creative process). In other words, *preparation and recognition* can be divided into two steps (*problems and need recognition* and *preparation*) and a new process, including six steps with pretty different meanings, can be shaped.

As reflected in Figure 20, the modality of these six steps is changed, and they are operationalized based on the case study of present research that *was exploring and exploiting business opportunities between two countries*.

Problems/Needs ;	Preparation ;	Incubation;	Insight;	Evaluation;	Elaboration;
Problems, pains, needs, gaps or any other disturbance perceived in front of trade development between two countries	Knowledge or experiences precede IOR gathered from informants, observation or Document analysis	Contemplation of an idea or a specific problem	Theories or insights shaped through incubation process, literature review or a Eureka moment	Evaluation of proposed and discovered alternatives or result of their implementation	Explaining how to implement and storing what has happened through implementation

Figure 20-The 6 steps perceived model for opportunity recognition between Two Countries

A Schumpeterian approach to opportunity can be followed by the replication of word *creativity* mainly through 4th step of Figure 20. On the other side, with regard to the definition of Kirznerian opportunities (that mainly rely on arbitrage), if at the 2nd step of Figure-20 price differences in two places are registered, Kirznerian opportunities can be captured too. Then in 5th and 6th steps, these opportunities will be evaluated and elaborated. Differences in supply and demand are among different types of information that can be considered to provide business opportunities so they should be stored at the preparation step to be incubated by the next steps. Thus both *Schumpeterian* and *Kirznerian* approaches are followed through this process.

To conclude on this section, concerning the aim and subject of this research and based on Figure 20, to explore and exploit business opportunities between two countries and conducting the case study, following steps are induced;

1. **Registering problems** and disturbances on front of business development between two countries and **needs of all stakeholders** observed by researcher, expressed by business practitioners through interviews or extracted from strategic documents
2. Trying to **recognize the business environment and trade ecosystem** between two countries and to be **prepared** by collecting related information, data and experiences from different sources
3. **Contemplating and incubating** collected data with the participation of interviewed people and referring to documents and observations consciously or unconsciously to find some match choices between means and ends
4. Alertness to opportunities and **insights** shaped through dialogues with informants, observation and document analysis.
5. **Evaluating** insights and opportunities
6. **Elaborating** opportunities and planning for their exploitation, moreover registering experiences gathered from past, present or other similar initiatives

As mentioned by Lumpkin et al. (2004) and Barringer and Ireland (2016) this process, in general, is from left to right, although in general is reciprocal and there are many organic-non-sequential relations between different steps of the model.

In section 1-4-2-4, it was noted that opportunity recognition process (represented mainly by Lumpkin et al. (2004) in 5 steps started by either problems/pains or market needs. It was discussed that needs are a form of disturbance and the way a solution will be shaped to satisfy them can be a problem-solving process too. Moreover, comprehensiveness of the problem-solving process to cover many themes of social inquiries and its commonalities with OR process was explained (Note#4). Past proposition was strengthened when we discussed three-way of opportunity recognition; *observing trends, solving a problem* and *finding gaps/need in the marketplace*. To consider the role of problems, we excluded the problem definition part from elaboration section in the creative process (Lumpkin's model) and highlighted it in front of the process (Note#4). In this definition, the entrepreneurial process may be initiated by a need, gap, pain or any other disturbance recognized in an organization or perceived in the market. This process then will be followed by preparation of information and trends, incubation of information and generating solutions, contemplation of insights, evaluation of solutions and their elaboration. The whole process of opportunity recognition recruits a creative problem-solving process in terms of generating solutions. However, these two processes are not identical (Figure 20).

Abovementioned six steps model can be considered as a modification and operationalization of past related models from Wallas (1925) and Csikszentmihalyi (1996) to Hills et al.(1999) and Lumpkin et al. (2004) that were related models found by the researcher to be able to operationalize for OR.

Note#5; a six steps model including *problem/needs/disturbance recognition, preparation, incubation, insight, evaluation* and *elaboration* can be proposed as covering themes of data for international opportunity recognition process.

Conclusion on chapter1

In this chapter literature in international business, international trade and international entrepreneurship was reviewed. Especially research gaps in the above field were presented and to find a framework for opportunity recognition main themes of an opportunity recognition process was induced. In general, this review induced six main themes to cover opportunity process,

including problem/need recognition, preparation, incubation, insight, evaluation, elaboration. These steps have been presented as a *conceptual model* in section 1-4-2-5.

Concerning discussions on many different definitions of opportunity recognition process through section 1-4-2, a broader definition of the problem considers not only problems in front of an entrepreneur but also any other form of disturbance in the market or organization including needs, pains, gaps, inconveniences, complaints and comments. If an entrepreneur can find a solution for the disturbance that he/she has been recognized, he/she potentially has entered into opportunity exploration and exploitation process.

Chapter2-Research method

Introduction

In this chapter, it is tried to explain the research method that is recruited for opportunity recognition and environmental analysis between two countries or business blocs in this thesis. This method then can be developed and introduced into a framework of international opportunity recognition and business analysis. Such a method should be constructed upon the literature reviewed and insight induced through the past chapter. In this regard, the present chapter addresses three topics.

In section 2-1 entitled **Research objectives**, first main aims of such method are presented. Opportunity from the viewpoint of research and literature is defined, characteristics of opportunity and method are extracted, and then primary sources of data collection for such method are presented. Moreover, in subsection 2-1-2, four approaches to recognize international opportunities plus some other rules and tips have been recognized. These approaches include *1-immersion in business environment through observation, 2-interaction with trade statistics and commercial trends between two countries, 3-investigating and recording speeches, words, actions and 4-daily problems/needs expressed by entrepreneurs working between countries all can be used as sources for opportunity recognition.*

Based on what is determined in section 2-1 on research objectives, section 2-2 presents the main issues related to **Research Method**. Inspired by Creswell(2013)'s framework for research, in this section, the research approaches are firstly reviewed, and then the *qualitatively driven mixed method* is selected as the primary research approach of the present research. Consequently, due to the *qualitative* nature of the research, rules of qualitative data analysis, qualitative metaphors and three primary forms of qualitative reasoning are reviewed. By the rest of this section, provided by above insights, first *case study* has been selected as a strategy, and then *framework analysis* has been chosen as the *method* for data collection and analysis. Finally, in this section, epistemological positioning and other characters of the present research are determined.

In section 2-3 on **Research Implementation**, it is justified why case study is implemented between Iran and France. Then sources of data collection for the selected field are presented, and

the final modality of data analysis based on framework analysis is induced. Finally, in section 2-4, dimensions of the case study are described based on the recruited method and for the selected field.

2-1-Research objectives

As reflected in the introduction, the primary question of this research are; *how can one recognize international business development opportunities in emerging economies? (in cooperation with a foreign economic partner)*. Moreover, secondary questions were;

- What are problems in front of trade promotion between an emerging economy and a foreign economic partner?
- What institutional and contextual conditions affect international opportunity exploration and exploitation environment between an emerging economy and a foreign economic partner)?
- What are the opportunities for international business development in emerging economies?
- What policies can be proposed to exploit bilateral opportunities?

Concerning those concerns, the main objectives of this research are expressed into developing a method aimed at;

- Exploring and analyze business opportunities in emerging economies in cooperation with a foreign economic partner
- Finding problems in front business development between emerging economies and their foreign economics partners
- Finding affecting factors and policies that can be applied for business development between emerging economy and its foreign economic partner.

These exploration and exploitation will be considered through partnership and cooperation with a foreign partner.

Determining the opportunity and problem that is targeted by the methodology is so important and specifies how to form the methodology. Thus it is necessary before to consider what opportunity and problem should be trapped. The concept of international opportunity was thoroughly

discussed and defined in the previous chapter. In brief with regard to the thorough literature review done on opportunity recognition process, five steps including *preparation, incubation, insight, evaluation and elaboration* have been found as more replicated and only normative steps of opportunity recognition. Meanwhile in this process, *problem* in the form of *market gap, unsatisfied needs, customer's inconveniences* for *preparation* step and then *creative problem solving* for *incubation*, gaining *insights* and *evaluating* solutions plays a key role to generate and form business opportunities. As mentioned by Shane (2003, p.56); "*establishing a new means-ends framework involves identifying, defining, and structuring novel solutions to open-ended problems*".

A problem can be defined as an unsatisfied needs, inconveniences, complains, pains or any disturbance that takes place in market or organization. If the entrepreneur can find a solution or insight for this problem (need) through abovementioned five steps, he/she has solved the puzzle and explored an opportunity(Note#3).

Thus a potential opportunity in this research is defined as any form of *problems, needs, pains and dilemmas expressed by customers or practitioners working on business development in a market or between business blocs*(Note#4).

On the other side, this research focuses mainly on problems that potentially provide an opportunity or lead to it. However, there may be some other problems that should be addressed to improve the business environment between the two countries. This type of problems will also be considered to be presented to policymaker and used for policymaking.

A six steps model includes *problem/needs/disturbance recognition, preparation, incubation, insight, evaluation and elaboration* can be proposed as covering themes of data for international opportunity recognition process(Note#5).

In general, based on the above-mentioned discussions, the main characteristics of methodology should be as below;

- Be able to find the right needs, inconveniences, complains, pains or any disturbance that takes place in market or organization

- Consider extracted themes(problem, preparation, incubation, insight, elaboration, evaluation) to classify incoming data related to opportunity recognition in a systematic approach
- Should be more exploratory in comparison with explanatory or descriptive. Present research needs to explore opportunities rather than describing the existing trade regime.
- Should collect data from different sources(as mentioned in note#6) and analyze them
- Be able to synthesize data into problems and opportunities, policies and insights

Before entrance into research methods, it is necessary to consider most related sources of data for opportunity recognition.

2-1-1-data Sources for opportunity recognition

In this section, main sources of data where entrepreneurs can explore opportunities through are reviewed. Only limited researches have been found on the main sources of opportunities. Seifert *et al.* (2008) and Kontinen and Ojala(2011a) have introduced seven sources for opportunity recognition based on past seminal work of Peter Drucker on entrepreneurship and innovation. These sources include *unexpected events, dissimilarities or incongruities, process needs, changes in market and industry, demographic changes, changes in attitudes and perceptions* and *new knowledge*. Ellis (2008 as cited by Kontinen and Ojala, 2011a) has recognized four different means for opportunity recognition in foreign markets: *formal searches, participation in international trade fairs, social ties* and *response to advertisements*. Hence, not all opportunities arose from existing networks, although networks and social ties played a prominent part in IOR.

Hisrich et al.(2016, p.122) have introduced many sources of information for opportunity recognition; “*There are many sources of information both on competitive companies and products/services and the market size, characteristics, and growth rate available to the entrepreneur in identifying an appropriate opportunity. These will be discussed in terms of general assistance, general information sources, industry and market information sources, competitive company and product/service information, government sources, search engines, trade associations, and trade publications*”;

- **General Assistances** are information and assistances that are readily available for entrepreneurs, starting or growing a new venture they will be provided by authorities and centre or foundations for small and medium business development (*ibid*).
- **General Information Sources** mainly includes web-based information provided by chambers of commerce for startup development from evaluating an idea of developing a business plan, accessing capital, and launching the venture (*ibid*).
- **Industry and Market Information;** There are a wide variety of databases that provide important information about the industry and market. Among them are *Euromonitor* and *The Observatory of Economic Complexity* (*ibid*).
- **Competitive Company and Product/Services Information;** Besides looking at the various product/service options presently available for satisfying the market need (*ibid*).
- **Trade associations** are also a good source for industry data about a particular country, for example, Iran chamber of commerce industries and mines, Business-France, and Iran-France chamber of commerce (*ibid*).
- **Trade Publications** are numerous domestic and international publications specific to a particular industry that are also good sources of information (*ibid*).

2-1-2-Data collection strategies for opportunity recognition

Finally, as mentioned before, Barringer and Ireland (2016) have presented three approaches or ways for opportunity recognition into *observing trends*, *solving a problem* and *finding gaps in the marketplace*. On the other side, Mainela et al. (2014) have done a comprehensive literature review on two decades of researches on opportunity recognition in international entrepreneurship, while acknowledging the theoretical weakness in research, have proposed four strategies for future researches in this field;

1. **Creative cognitive;** this approach focus on cognition and cognitive process of entrepreneurs and how they perceive entrepreneurial opportunities. Due to complexity in the international business environment, there is no considerable place for *Rational Deduction*, so here, creative thinking has much application. This fact means a creative mind that looks for new solutions and synthesizes new elements from the bazaar and national contexts to each other. Such procedures and their how and why an entrepreneur's

mind is the subject of this approach. From among research tools in this field is *Schema theory*⁴⁴.

2. **Context embedded;** in this strategy, we suppose that opportunities mainly are constructed through social circumstances and arrangements and are affected by social arrangements. How social, economic and political conditions and related trends affect social, and business opportunities are among the main concerns through this approach. Based on Mainela et al. (2014) primary data collection method in this approach is *observation*.
3. **Interaction Focused;** the main question in this approach is how entrepreneurs interact among themselves and with other people to find business opportunities. Investigating networks and their effects are among the main research concerns in this approach that use an *in-depth narrative interview* as a popular research tool.
4. **Practice based;** based on this strategy, international entrepreneurs will confront some dilemmas and problems through their entrepreneurial initiatives, and when trying to solve these problems, they find new business opportunities.

The key point extracted from Lumpkin *et al.*(2004) and Barringer and Ireland(2008) is a systemic process for opportunity recognition that is restated by Mainela *et al.*(2014). International business opportunities are cross-sectional, that means a business opportunity is not extracted just from one or two approaches (Figure 21). On the other side, the insights extracted from one approach can be incubated through another approach and then results in an opportunity. For example, finding a professional union on agro-food business through interaction focused approach (3nd approach), can be used at 2nd approach to analyze economic and social trends.

In *context-embedded* approach, researchers analyze how social or economic context and immersion in the context can result in opportunities for international entrepreneurs. This fact means that embedding in the context and immersion in the business environment can be assumed as a source or case for international opportunities.

⁴⁴ As a theory of psychology, schema theory states that our knowledge of the world is organized and categorized, which can influence our cognition and behavior. A schema is a cluster of knowledge or memory that is stored in the mind. They're also called "cognitive frameworks" as they are a system for categorizing and organizing information and memory. Based on www.themantic-education.com.

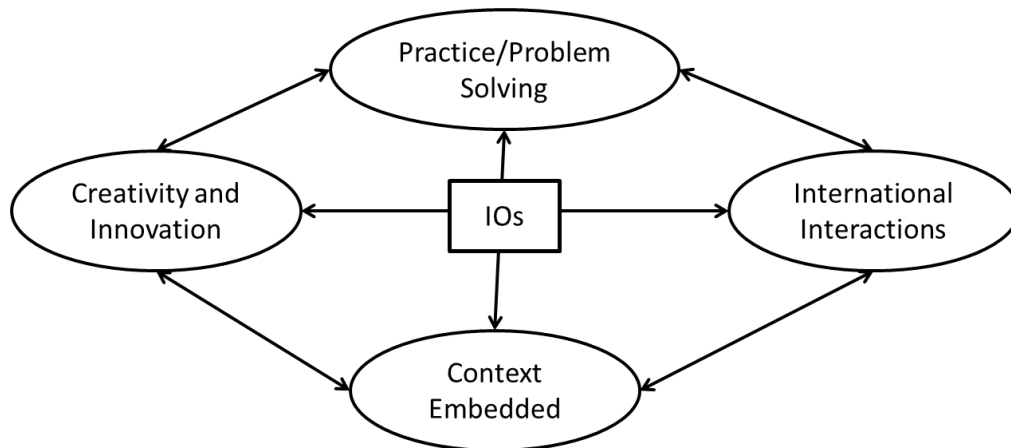


Figure 21-System connections and cross-relation between sources of opportunity recognition, based on Mainela et al. (2014).

At *interaction focused* approach, the subject is how international opportunities are shaped through interaction with statistics, information, news and events in the business environment. As a result, international opportunities also are shaped by a systematic (conscious or unconscious) interaction with news, statistics and international trends and events. Moreover, in *practice-based* approach, it has supposed the opportunities to be shaped through the problem-solving process of entrepreneur so is concentrated on how opportunities are shaped through daily problem solving and entrepreneurial action of entrepreneurs. So it is possible to say that recognizing and registering daily actions and problems of entrepreneurs can be a source for opportunity recognition. Final approach is *creative-cognitive* that believes cognition and personal creativity of entrepreneur as a source and approach in opportunity recognition. Thus, *interaction with statistics, news and international reports, immersion in the business environment, registering daily initiatives and problems of entrepreneurs in their business environment, and personal creativity of entrepreneur and researcher* can be considered as sources for international opportunity recognition. Mainela *et al.*(2014) have insisted that narrative-in-depth interviews, observation and document analysis are common ways to collect related data for international opportunity recognition between the two countries.

Thus for our case between two countries, in-depth interviews with trade professionals of both countries, observing news and events related to trade between both countries, and analyzing documents, statistics and reports relating to both countries deals can be considered as sources for data collection and opportunity recognition.

By regard to the interactive nature of these four approaches, it is expected to find an opportunity to be extracted and induced from more than one approaches. For example, we may find an opportunity to be the result of both interacting with trade statistics and interview with international business practitioners.

Note#6; Immersion in the business environment through observation, interaction with trade statistics and commercial trends between two countries, investigating and recording speeches, words, actions and daily problems/needs expressed by entrepreneurs working between countries all can be used as sources for opportunity recognition. Moreover, through the process, it is probable to shape ideas and innovations in the researcher or participant's mind that should be registered and incubated. All of the abovementioned sources reinforce each other.

2-2-Research Method

This section is aimed to review main research approaches, data analysis strategies and methods available and select a right set of them for this research regarding research questions and aims.

Selection of the right approach for research is among the most critical decisions to be made for research. The variety of book published in research methodology reveals this importance. Creswell(2014) believes that a (Framework for) Research is the interconnection of approaches, worldviews, design, and research methods(Figure 22). *“The broad research approach is the plan or proposal to conduct research, involves the intersection of philosophy, research designs, and specific methods”* (Creswell, 2014, p.5).

1. **Research approaches** *“are plans and the procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis. It involves the intersection of philosophical assumptions, designs, and specific methods”*(*ibid*, p.247). Three main research approaches are quantitative, qualitative and mixed.
2. **Research designs** are *“types of inquiry within qualitative, quantitative, and mixed methods approaches that provide specific direction for procedures in a research study”*(*ibid*, p.12). Five main qualitative research designs are the case study, grounded theory, narratives, comparative analysis, ethnography, and phenomenology.

3. **Research methods** involve “*the forms of data collection, analysis, and interpretation that researchers propose for their studies*”(ibid, p.247). Statistical analysis is among quantitative methods, and themes and patterns interpretation are among qualitative methods.

Creswell (2014) has chosen to use the term **worldview** as meaning “*a basic set of beliefs that guide action*”(ibid, p.6). Others have called them paradigms, epistemologies and ontologies, or broadly (operationally) conceived research methodologies (Neuman, 2013).

As mentioned by Creswell (2014, p.3) “*The overall decision involves which approach should be used to study a topic*”. Thus the starting point in this model is the choice of a research approach (qualitative, quantitative or mixed). However, from Figure 22 and the word “interconnection” it can be understood that the selection of abovementioned elements is pretty simultaneous. It means that all three elements should conform to each other. By the way, in this research, the first choice of research approach is discussed. Accordingly, based on the selected approach, rules and reasoning of data analysis are reviewed, and most appropriate research methods and designs are selected and explained. This part finally completes the triangle complex, depicted in Figure 22.

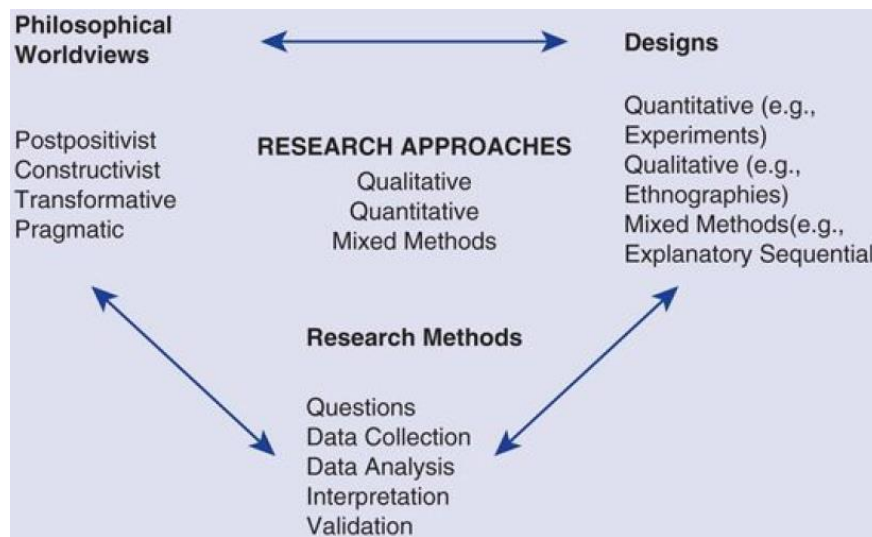


Figure 22-A Framework for Research; Source; Creswell (2014).

2-2-1--Choice of a Research Approach

Research approach generally determines the way of collecting, analyzing and interpreting data through research. Determining most appropriate research method depends upon different aspects, such as research questions, objectives, and topics under study. *“The selection of a research approach is also based on the nature of the research problem or issue being addressed, the researchers’ personal experiences, and the audiences for the study”*(*ibid*, p.3).

In this section, first, three main research approaches are reviewed, and then the most appropriate one for the present research is selected.

2-2-1-1-A Review on three main research approaches (Quantitative, Qualitative and Mixed)

As mentioned by Creswell (2014) and many other scholars⁴⁵, three main research approaches include quantitative, qualitative and mixed-method; *“Research approaches are plans and the procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation”* (*ibid*, p.3). Table 12 shows a comparison between quantitative, qualitative and mixed-method designs.

Quantitative research involves studies that make use of statistical analyses to obtain their findings. Key features include formal and systematic measurement and the use of statistics. Main quantitative designs include experimental designs and non-experimental designs, such as surveys (Creswell, 2014).

Qualitative and quantitative approaches are not rigid, distinct categories, polar opposites, or dichotomies (*ibid*). Instead, they represent different ends on a continuum. A study tends to be more qualitative than quantitative or vice versa. In the middle of this continuum, mixed methods research is located while it has acquired characters and elements of both qualitative and quantitative approaches (*ibid*). *Qualitative research* is especially useful when the researcher does not know the necessary variables to examine. This type of approach may be needed because the topic is new, the subject has never been addressed with a specific sample or group of people, and existing theories do not apply with the particular sample or group under study (Morse, 1991 as mentioned by Creswell, 2014).

⁴⁵ Like Schutt(2015) and Buchman and Schutt(2015)

Qualitative research involves studies that do not attempt to quantify their results through statistical summary or analysis. Qualitative studies typically involve interviews and observations without a formal measurement (Marczyk et al., 2005). A *case study*, which is an in-depth examination of one case, is a form of qualitative research (*ibid*) although it can be used through mixed approaches too. Qualitative research is often used as a source of hypotheses for later testing in quantitative research (*ibid*).

The third research approach is the mixed method. Mixed method research, however, has emerged under pragmatism research philosophy and find a middle-range stance between qualitative and quantitative designs; “*The researcher bases the inquiry on the assumption that collecting diverse types of data best provides a more complete understanding of a research problem than either quantitative or qualitative data alone*” (*ibid*, p.19). Alternative research designs for mixed-method include convergent, explanatory sequential, exploratory sequential and some other⁴⁶ advanced mixed methods;

- **Convergent parallel mixed methods**; “researcher converges or merges quantitative and qualitative data in order to provide a comprehensive analysis of the research problem. Contradictions or incongruent findings are explained or further probed in this design”.
- **Explanatory sequential mixed methods**; the researcher first conducts quantitative research, analyzes the results and then builds on the results to explain them in more detail with qualitative research.
- **Exploratory sequential mixed methods**; is the reverse sequence from the explanatory sequential design. In the exploratory sequential approach, the researcher first begins with a qualitative research phase and explores the views of participants.

The comparison made through Table 12 shows that each design has its own pros and cons. Quantitative designs are suitable for deduction and testing hypotheses to research a type generalization. On the other side, qualitative designs are less generalizable but help the researcher to explore and gain a more in-depth understanding of the phenomenon under study. Respectively, qualitative data usually include verbal responses, observations and other unstructured data, while quantitative data is represented by numbers and statistics. Finally, mixed methods try to solve a problem for a specific case and also provide a so-called middle range

⁴⁶ transformative, embedded, or multiphase

theory with limited generalization. This design is developed to use all types of data under a pragmatic research view.

Table 12- Comparison between qualitative and quantitative designs. Source; Creswell (2014) and Chrysochou (2017) based on Malhotra et al., (2012) and Johnson and Christensen (2012).

	Qualitative designs	Quantitative designs	Mixed method
Purpose	To explore and gain a deep understanding of phenomena	To test hypotheses, make a prediction and generalize results to the population of interest	To explore and find some generalizations under pragmatic philosophy
sample	A small number, usually non-representative cases	A large number, usually representative cases	small samples for exploration and large for explanation
Data	Qualitative (i.e. verbal responses, text, pictures), unstructured	Quantitative (i.e. numbers), structured	Both quantitative and qualitative data to be used parallel or sequential
Analysis	Non-statistical, aim to identify patterns, feature, themes	Statistical, aim to identify statistical relationships	Both quantitative and qualitative data analysis approaches
Generalizability	Findings are less generalizable	The aim is to produce generalizable results	Generalize finding to a population whilst (?)
Examples	In-depth interview, focus groups, observations	Surveys, experiments	Both open-ended and close-ended interviews

2-2-1-2-choice of research approach for the present research

For the selection of the suitable research approach in this research, it is appropriate to refer back to Creswell (2014, p.19); *“Given the possibility of qualitative, quantitative, or mixed methods approaches, what factors affect a choice of one approach over another for the design of a proposal? Added to worldview, design, and methods would be the **research problem**, the **personal experiences of the researcher**, and the **audience(s)** for whom the report will be written”*.

Now, based on the above discussion, let us come back to the present study and its research questions. That research needs in-depth understanding of the international business environment between two countries or business blocs. Based on the case under study in research audiences, it is not going to find broad generalizations, provide a theory necessarily or induce an existing theory. Instead has been shaped around an economic-political problem.

Data collection here also will be relied on a limited number of interviewees and observations. Some trade analytics and opportunity assessment surveys will be used as a complementary data. Finally, the researcher has previous experience in qualitative researches. Thus the main approach of this research seems to be qualitative. However, this research may recruit quantitative trade analytics or surveys (that have been done during interviews) for opportunity assessment. In other words, as mentioned in section1-2, there are some other sorts of data usable for opportunity recognition but basically quantitative. These data should be considered too.

Although present research should analyze trade statistics and quantitative appraisals on opportunities, it does not make use of statistical analyses to obtain its main findings. Thus it can also be considered as a convergent parallel mixed method with a focus on qualitative data and qualitative data analysis. In fact, in a parallel mixed method approach researcher collects both quantitative and qualitative data, analyzes them separately, and then compares the results to see if the findings confirm or disconfirm each other. However, the primary data source of this research as an exploratory case study is qualitative, and core issue here is qualitative data analysis. The convergent parallel mixed method in this research is a type of ***qualitatively driven mixed methods***. *“An important dimension of any qualitatively driven mixed methods project is a commitment to privileging a qualitative approach over a quantitative approach in that the quantitative component (quan) takes a secondary role by prioritizing qualitatively driven*

epistemology and methodology as the core of the overall mixed methods research project” (Hesse-Biber, 2018, p.249). Thus a *qualitatively driven mixed method* is considered as the dominant approach of the present research. As a result, qualitative data and qualitative data analysis will find a central role in the methodology design of present research.

According to Creswell (2014, p.20), “*A mixed methods design is useful when the quantitative or qualitative approach, each by itself, is inadequate to best understand a research problem and the strengths of both quantitative and qualitative research (and its data) can provide the best understanding*”.

As mentioned by Flick (2014), data analysis is the central step in qualitative research. However, data collection seems to be at least equally important. Anyone interested in the current state and development of qualitative data analysis will find a field which is continually growing and becoming less structured (*ibid*). In the next section, qualitative data analysis, its concepts, approaches and methods will be explained to be provided for the presentation of the research method.

2-2-2-A review on Qualitative Data Analysis

Reference to the discussion done in the previous section, a qualitative approach(in the form of a qualitatively driven mixed method) was determined for the present study in general. Now it is worthy of having a review on the theory of qualitative data analysis(QDA).

Qualitative research and analysis entails thinking outside the box and generates and requires creativity in questioning, research processes, and solutions (Suter, 2012). Present research as an exploratory initiative focuses on and presumes qualitative analysis and qualitative sources of data.

The word “analysis” has broad implications. It derives from the prefix “ana” meaning “above” and the Greek root “lysis” meaning ”to break up or dissolve” (Bohm, 1983 cited by Dey, 1993). At each step of the research process, data is the raw material that should be analyzed. How this data should be analyzed and associated rules and forms will be presented in the next section.

2-2-2-1-Rules and forms of qualitative data analysis

The approach of the present research was discussed in the preceding section (section 2-2-1-2), and *qualitatively driven mixed method* was selected. As a result, qualitative data and qualitative data analysis will find a central role in the methodology design of present research.

Theory of qualitative data analysis' can be interpreted and explained in several ways. Maxwell and Chmiel (2014) in "*The SAGE handbook of qualitative data analysis*" have tried to present a theory for discussing some prominent approaches to qualitative data analysis. The key component of their theory is the distinction between two types of relationships: those based on *similarity*, and those based on *contiguity*. They believe that two major types of strategies for analysis, which they call *categorizing* and *connecting strategies*, are respectively based on the identification of similarity relations and contiguity relations.

"Similarity-based relations involve resemblances or common features; their identification is based on the comparison, which can be independent of time and place. In qualitative data analysis, similarities and differences are generally used to define categories and to group and compare data by category... Coding is a typical categorizing strategy in qualitative research" (*ibid*, p.22). The categories generated through coding are typically linked into larger patterns. As a research method, the thematic analysis also can be considered a categorizing strategy.

"Contiguity-based relations, in contrast, involve juxtaposition in time and space, the influence of one thing on another, or relations among parts of a text; their identification involves seeing actual connections between things, rather than similarities and differences. In qualitative data analysis, contiguity relationships are identified among data in an actual context (such as an interview transcript or observational field notes). Contiguity relationships may also be identified among abstract concepts and categories, as a subsequent step to a categorizing analysis of the data" (*ibid*, p.22). Maxwell and Chmiel (2014) referred to strategies that focus on relationships of contiguity as **connecting** strategies. Some narrative approaches to interview analysis primarily involve connecting strategies, as make micro-ethnographic approaches to observational data because they usually try to have a more holistic, interpretive, and 'in process approach (*ibid*).

It is worthy to note that connecting includes some degree of segmentation and clustering however here clustering and categorization is a mean, not an end. *"Segmenting the data is obviously involved in categorizing analyses, but it is an implicit (and sometimes explicit) process*

in most narrative and other connecting approaches” (*ibid*, p.24). Thus, instead of segmenting data and events and then categorizing these segments to create a structure of similarities and differences across situations or individuals, this approach segments the data and then connects these segments into a relational order within an actual context (*ibid*).

2-2-2-2-Displays and visualizations as a tool for categorizing and connecting

Displays of all type are an integral part of categorizing and connecting strategies. Miles et al., (1994; 2014 as mentioned by Roulston, 2014) see analysis as three concurrent flows of activity: (1) data reduction or condensation, (2) data display, and (3) conclusion drawing/verification through which they have emphasized the importance of using visual displays to interpret and represent data (e.g., matrices, charts, graphs, networks etc.).

Above steps have been represented in a famous model of qualitative data analysis, entitled *four-components interactive model of qualitative data analysis* has been presented by Miles & Huberman (1994) and Miles et al. (2014). This model (Figure 23) has a particular focus on the application of matrixes (frameworks) and networks for data display and data preparation toward a qualitative data analysis(QDA).

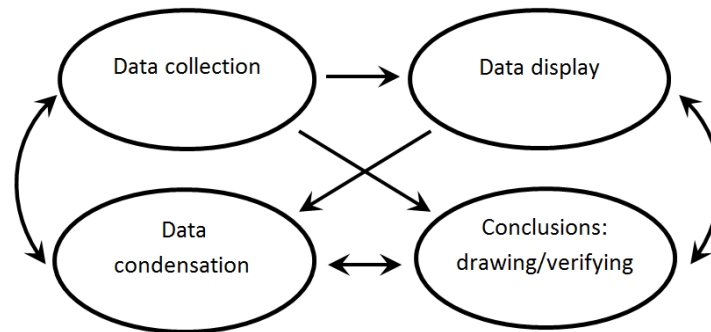


Figure 23-Four-components interactive model of qualitative data analysis, based on Miles and Huberman (1994)

In this model, *Data collection* refers to different sources (interview, observation and document analysis) and tactics for collecting required qualitative data for research.

Data condensation refers to the process of selecting, focusing, simplifying, abstracting and/or transforming data that appear in the full corpus of written up fields notes, interview transcripts, documents and other empirical materials.

“Data condensation refers to the process of selecting, focusing, simplifying, abstracting, and/or transforming the data that appear in the full corpus (body) of written-up field notes, interview transcripts, documents, and other empirical materials. By condensing, we’re making data stronger”(Milles et al., 2014, p.12).

Data display is an organized, compressed assembly of information that allows drawing conclusion and action. Two analytic display methods are matrices and networks.

*“The second major flow of analysis activity is **data display**. Generically, a display is an organized, compressed assembly of information that allows conclusion drawing and action. In daily life, displays vary from gasoline gauges to newspapers to Facebook status updates. Looking at displays helps us understand what is happening and to do something—either analyze further or take action—based on that understanding”*(*ibid*, p.12).

The Last stream of analysis activity is **conclusion drawing and verification**. *“From the start of data collection, the qualitative analyst interprets what things mean by noting patterns, explanations, causal flows, and propositions”*(Milles et al., 2014, p.13).

However, the focus of this section is on the importance of data displays in qualitative data analysis. Mainly presented by Miles and Huberman (1994), displays as techniques for data analysis, can also be divided into *similarity-based* and *contiguity based* forms. *“Miles and Huberman described a wide variety of displays, but most of these fall into two basic types: matrices (tables) and networks (figures) referred to the latter as ‘maps,’ and provided additional examples of both types”* (Maxwell and Chmiel, 2014, p.28).

Matrices and networks respectively have their application in similarity-based and contiguity-based displays; *“Matrices are a logical extension of coding; they are created by constructing lists of mutually exclusive categories and then crossing these to create cells. Such displays may then be used to make connections across items in a row or column, but these connections are based on, and limited by, the original categorization that was used to create the matrix”* (Maxwell and Chmiel, 2014, p.29). An example of a pattern analysis using matrices based on manual data entry, drawn from Matthew Miles’ work by introducing a change process in schools (Bazeley, 2013) is reflected in Table 13.

Table 13- Variable-by-variable matrix: coping strategies and problems, by case source; Source: Miles and Huberman(1994: 221), as mentioned by Bazeley(2013, 299)

S TYLE	Coping Strategies	Program process	Program content	Target pop.	Skill lacks	Attitudes	Crises	Competing demands
-	Can't determine	B	A2					
DO NOTHING	None	C2			C1	C2		
TEMPORIZE	Delaying/avoiding					C2		
DO IT THE USUAL WAY	Short-run coping	C1 C2	C1					
	Using existing meetings/ roles	A2 B	C2					
	Action-taking	C1 C2						
	People-shuffling	C1						
EASE OFF	Program modification		C1?			A1	C1 C2	B
DO IT HARDER	Symbolic support		B	A1 B C1	B?	B		
	Rewards/incentives					A1 C1 C2		A1
	Negotiating					A1 A2 B C2		
	Pressuring/requiring							
BUILD PERSONAL CAPACITY	Person-changing	A2		A1 A2 B?	A1			
BUILD SYSTEM CAPACITY	New orchestration structure	A2 C1	C1		A2			
	New interaction areas			B		A1 A2 B		
	Vision building/sharing		A1					
	Monitoring		C1					
ADD NEW PEOPLE	Rolling planning					A2		
	Ongoing assistance		A1					
	Re-staffing					A2 B		A1
	Increasing control							
REDESIGN THE SYSTEM	Empowering	A1 A2 B?				A1 A2		
	Role redesign							
	Organization redesign							
Legend:	A1 Agassi							
	A2 Alameda							
	B Burroughs							
	C1 Caruso							
	C2 Chester							
	? items with less researcher certainty							

Networks, on the other hand, are a logical extension of narrative or causal analysis, organizing events or concepts by time and by spatial or causal connection; they capture the contiguity-based relationships that are lost in creating matrices.” (Maxwell and Chmiel, 2014, p.29). As an example, networks and flowcharts are popular and useful methods to show the complexity and casual relationships in community settings (Bazeley, 2013).

“With limited technology available at the time, Miles and Huberman built much of their analysis strategy around the use of visual displays and hand-drawn, matrix-based comparative pattern analyses” (Bazeley, 2013, p.xx).

Milles and Huberman (1994) and Milles et al. (2014)⁴⁷, have proposed and exemplified many forms and their applications as methods of exploring, describing, ordering, explaining and predicting through the process of qualitative data analysis.

In general, “Looking at a chart, table, network diagram helps you to summarize and begin to see themes, patterns, and clusters. You write analytic text that clarifies and formalizes these first findings, helps make sense of the display, and may suggest additional comparisons to be made via the display. Those new comparisons, in turn, help you discover new relationships and propose explanations. The resulting analytic text then may suggest ways of elaborating the display, integrating or rearranging it to permit what amounts to a reanalysis. The reanalysis helps deepen the initial explanations” (Figure 24) (Bazeley, 2013, p.224).

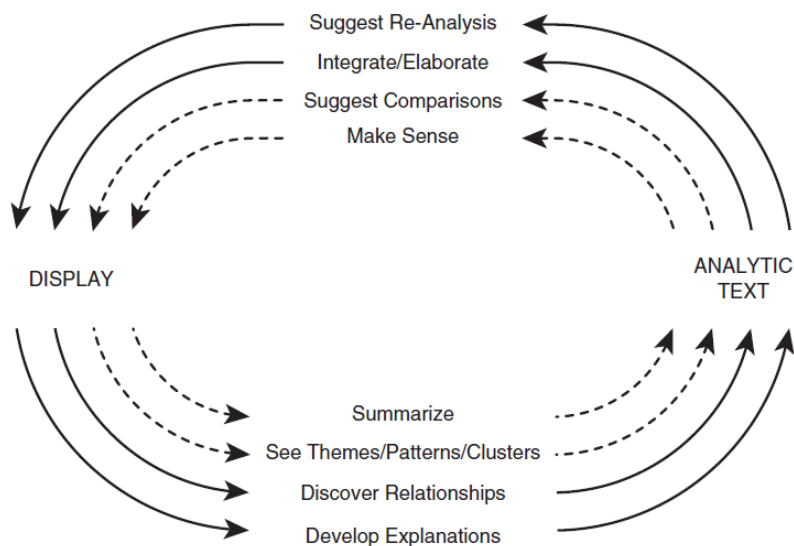


Figure 24-Interaction between display and analytic text; Source: Miles and Huberman, 1994:101, as mentioned by Bazeley (2013)

Note#7; Displays in all type play an important role in categorizing and connecting strategies. In this way, matrices and table are mainly applicable for categorization and networks for making the connection into the data.

⁴⁷ Qualitative Data Analysis; A Methods Sourcebook

What we call connecting strategies for analysis is designed not just to retain, but to analyze connections among segments of data within a specific context. This task is generally done by identifying key relationships that tie the data together into a narrative or sequence.

Maxwell and Chmiel (2014) do not see ‘categorizing’ and ‘connecting’ strategies as mutually exclusive, but suggests that they may be used sequentially, with the ordering depending, to a large extent, on the particular tradition or discipline within which the researcher is working.

Categorizing and connecting complement each other through some well-known qualitative designs like grounded theory; “*categorizing and connecting approaches as inherently complementary strategies for data analysis. While the separate use of the two approaches is legitimate and often productive, there are other possibilities as well. The most common is the sequential use of the two types of strategies, beginning with one and then moving to the other. For example, most qualitative researchers who employ coding strategies eventually develop a model of the causal connections or relational patterns among the categories, as discussed above*” (ibid, p.29).

In practice, qualitative analysis includes *coding* and *categorizing* (clustering and classification schemes), *conceptualization* (attaching concepts to categories), *linking* and *combining* (integrating) *abstract concepts*, *creating theory from emerging themes*, and *writing an understanding* (Suter, 2012; Schutt, 2015).

Note#7+1: QDA includes *coding, categorizing, grouping, clustering, conceptualization, linking, integrating, and theory building*.

In the above introduction, the distinction between two types of relationships: based on similarity, and based on contiguity was introduced as the key component of a theory on qualitative data analysis. These relations, respectively, are relied on categorization and connecting strategies. Next paragraph aims at providing a better understanding of the mechanism of these strategies and theory of QDA using qualitative metaphors.

2-2-3-Qualitative Metaphors; assimilations to understand qualitative data analysis

Abovementioned process of qualitative analysis can be well-interpreted using *qualitative metaphors*. “Metaphors are useful as interpretive tools in this process, serving a heuristic

(guiding) role or explaining the elements of a theory” (*ibid*). A metaphor is a comparison between two indirectly-related things using their similarities and ignoring their differences. As defined by Cambridge dictionary an expression, often found in literature, that describes a person or object by referring to something that is considered to have similar characteristics to that person or object: "*The mind is an ocean*" and "*the city is a jungle*" are both metaphors. In research methodology metaphors serve as a template for organization and analysis of qualitative research data (Dye et al., 2000).

The bases of this discourse goes back to George Lakoff and Mark Johnson’s theory of metaphor (1980); Lakoff and Johnson (1980) “referred to the complex metaphorical nature of the human conceptual system, asserting that metaphors structure human thought and understanding of experiences. In fact, metaphors are so embedded in the language that humans are often unaware of their influence. Lakoff and Johnson demonstrated how conceptual metaphors are reflected in common, everyday expressions that often go unnoticed. Expressions such as “I can’t swallow that claim,” “Now there is a theory you can really sink your teeth into,” and “that is food for thought” reflect the broad conceptual metaphor, “ideas are food” (Carpenter, 2008). Metaphors in this theory work beside simile and analogies as methods of human cognition. Lakoff and Johnson propose a comprehensive concept of metaphor, which enables the reconstruction of cognitive strategies of action (Schmitt, 2005). Inspired by their efforts and also Patton (1990) current use of metaphors in social-scientific research and, more precisely, in qualitative research have been theorized by many researchers more important among them is *metaphors to describe the qualitative research process* (Schmitt, 2005).

Suter (2012) has presented three useful metaphors that can be used to describe the qualitative research process; *kaleidoscope*, *jigsaw puzzle*, and *symphony*.

2-2-3-1-The kaleidoscope metaphor; the art of categorization

A kaleidoscope, as defined by Merriam-Webster's Dictionary, is "an instrument containing loose bits of coloured material (such as glass or plastic) between two flat plates and two plane mirrors so placed that changes of position of the bits of material are reflected in an endless variety of patterns". The kaleidoscope metaphor refers to grouping similar data bits together, then comparing bits within a pile (Figure 25). Differentiation between data bits creates sub-piles,

which eventually become connected by the pattern they share. This metaphor explains categorization strategy for making similarities between data as mentioned above.

According to LeCompte (1981, as mentioned by Dye et al., 2000), this method of thinking combines *inductive* category coding with a simultaneous comparison of all social incidents observed. Incidents here mean any social phenomena that are recorded and classified and then are also compared across categories. This process requires continual back and forth refinement until a grand concept emerges (Suter, 2012). Figure 25 demonstrates a process of categorization and refinement between raw data bits to take category arrays. Dye et al. (2000) stated that this metaphor represents a *constant comparison method* that comprises the following stages (Guba and Lincoln, 1994, cited by Dye et al., 2000):

1. Comparing incidents applicable to each category; *“The analyst starts by coding each incident in his data into as many categories of analysis as possible, as categories emerge or as data emerge that fit an existing category”*. (Glaser and Strauss, 1967, 2009, p.105). This method is the core of Grounded Theory(GT). In brief, *“Classical GT highlighted three types of constant comparison: incident to incident, concepts emerging from further incidents in new data, and concept to concept”*⁴⁸(Glaser & Strauss, 1967 as mentioned by Fram, 2013, p.3).
2. Integrating categories and their properties; *“This process starts out in a small way; memos and possible conferences are short. But as the coding continues, the constant comparative units change from comparison of incident with incident to comparison of incident with properties of the category that resulted from initial comparisons of incidents”*(Glaser and Strauss, 1967, 2009, p.108). *Integrating properties mean concluding a set of properties that will be assigned to a category.*
3. Delimiting the theory; *“Delimiting occurs at two levels: the theory and the categories. First, the theory solidifies, in the sense that major modifications become fewer and fewer as the analyst compares the next incidents of a category to its properties. Later*

⁴⁸ *Constant comparison takes place on three levels; the level of data(incident to incident), the intermediate level between data and concepts(concepts emerging), and finally on the level of concepts and categories(concept to concept). First, incidents of data are compared to other incidents of data. From these comparisons codes emerge that indicate various conceptual patterns in the data. Next, on intermediate level, new incidents are compared to these emerging codes to discover properties of conceptual pattern. Finally various patterns(concepts) are compared to each other in order to find relationships between the concepts and categories”(Pleizier, 2010).*

modifications are mainly on the order of clarifying the logic, taking out non relevant properties, integrating elaborating details of properties into the major outline of interrelated categories and –most important reduction.”(Glaser and Strauss, 1967, 2009, p.109).

4. Writing the theory; *”At this stage in the process of qualitative analysis, the analyst possesses coded data, a series of memos, and a theory. The discussions in his memos provide the content behind the categories, which become the major themes of the theory later presented in papers or books.” (Glaser and Strauss, 1967, 2009, p.113).*

One of the most well-known manifests of the kaleidoscope metaphor at QDA is used in *grounded theory methodology* that benefits constant comparison method as mentioned above. Naturally, Constant Comparative Approach (CCA), as a technique or method, appears to be considered as closely related with GT and there is a steady growth over the last several decades in the use of CCA within GT methodology (Fram, 2013).

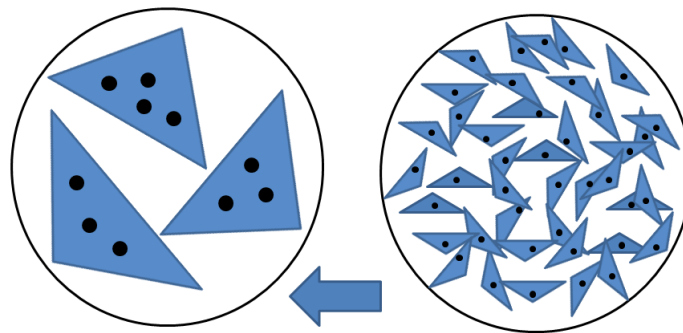


Figure 25-Kaleidoscope metaphor redrawn by the author based on Dye et al. (2000)

2-2-3-2-The jigsaw puzzle metaphor; the art of connection

The second qualitative metaphor entitles *jigsaw puzzle metaphor* (Suter, 2012, 348). The jigsaw puzzle is a picture cut up into fragments. One strategy to solving a jigsaw puzzle is to group all pieces that look alike and place them in their expected locations (Figure 26, right). To explain the jigsaw puzzle metaphor, LeCompte (2000) gave the example of *Crows Over a Wheatfield*, an 1890 painting by *Vincent van Gogh*. This tableau depicts a yellow wheat-field at the bottom and a dramatic, cloudy blue sky at the top that ranges from light blue to dark blue.

Many stylized crows fly through this darkening sky. To complete a jigsaw puzzle based on this tableau, the puzzle solver usually groups the blue pieces and places them near the top, arranging

and rearranging them to find a *coherent pattern* of a sky. Other objects that appear to be wheat are grouped together by similar characteristics (e.g., hachure, colour) with properties making conceptual sense (LeCompte, 2000). Above explanation shows that this metaphor is a good explanation of what happens in *connecting strategies* for identification contiguity relations among data.

QDA using the jigsaw puzzle metaphor eventually leads to a structure that is the model or theory that explains the phenomenon of interest. For example, consider a qualitative researcher studying socio-economic development in a region (e.g., southeastern Iran). The desired structure for he/she is an explanation for underdevelopment, causes, solutions, and practical implications for the region. This structure will gradually form a shape from the puzzle-shaped pieces of data, including the problems, ideas, and other insights related to the region and gathered from different data collection sources. These sources include conversations, observations, documents, records, and journals. A high-quality QDA using the jigsaw puzzle metaphor will generate a detailed and accurate description of underdevelopment as experienced, declared, and theorized by locals, experts, and the elite. LeCompe (2000) has articulated this natural process (QDA using the jigsaw puzzle) in 5 stages:

- Stage 1: Tidying up available information by organizing it in the form of notes, memos, creating files of interviews, labelling, coding and indexing information, and reviewing questions if applicable.
- Stage 2: Finding items (puzzle pieces), which are things that must be coded, counted, and assembled.
- Stage 3: Creating stable sets of items.
- Stage 4: Creating patterns.
- Stage 5: Assembling the structure (puzzle), theory, or final explanation (pattern) about the phenomena.

As mentioned in the introduction of this section (2-2-2-2), display methods like matrices and especially networks are useful techniques for making the connection and so-called assembling the structure (Puzzle). As mentioned by Maxwell and Chmiel (2014, p.29), “*We see matrices and networks as, respectively, similarity-based and contiguity-based displays*”...”*Matrices are a logical extension of coding; they are created by constructing lists of mutually exclusive*

categories and then crossing these to create cells. Such displays may then be used to make connections across items in a row or column, but these connections are based on and limited by, the original categorization that was used to create the matrix. Networks, on the other hand, are a logical extension of narrative or causal analysis, organizing events or concepts by time and by spatial or causal connection; they capture the contiguity-based relationships that are lost in creating matrices”.

Assembling the data into an explanation is akin to reassembling puzzle pieces (LeCompte, 2000). This job includes rearranging the puzzle multiple times before it emerges into a coherent pattern (explanation).

According to Barbour (2014, p.503), “*underpinned by a constructivist approach, ‘connecting’ strategies allow for identification of the narrative functions of parts of respondents’ stories, or framing of accounts, while acknowledging their ‘situated relativity’*”. Thus inspired by an interpretative (not positivistic) paradigm, a degree of relativism exists in the picture, pattern or narrative that is depicted, and there is not a best picture. However, there are some ways to control validity and the generalizability of findings (internal/external validity).

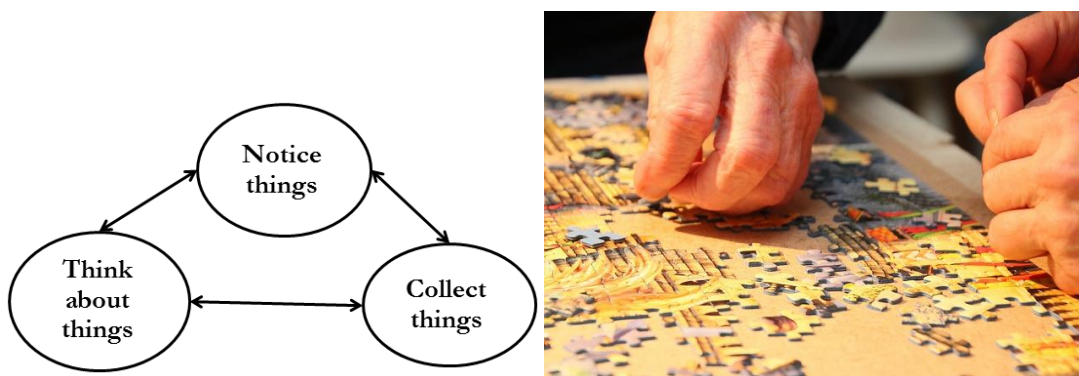


Figure 26-Symphony metaphor redrawn by the author based on Seidel (1998) (left); jigsaw puzzle (copyright-free image extracted from <https://pixabay.com> (right).

2-2-3-3-The symphony metaphor

A third metaphor has been presented by Seidel (Suter, 2012; Seidel, 1998), who claimed that QDA is a *symphony* based on three notes: *noticing things, collecting them, and thinking about interesting things* (Figure 26-left). In Figure 26-left interrelations between the three above parts have been depicted. These parts are interlinked and cyclical. For example, while thinking about things, researcher notices further things and collect them. Seidel's process has been described as

iterative (a repeating cycle), recursive (returning to a previous point), and “holographic” (each “note” containing a whole) with “swirls and eddies” (Suter, 2012, p.348).

“When one notices, one records information and codes it using an organizing framework. When one collects, one shifts and sorts information. When one thinks, one finds patterns, makes sense of them, and makes discoveries (including “wholes” and “holes”). Seidel also explains these three notes using a threaded DNA⁴⁹ analogy as well as a topographic map and landscaping analogy (including using your right brain for off-road investigation). As you might expect, this process is made far easier by software developed by John Seidel and others (Ethnograph) that manages your “notes” as you collect data, code data, write memos about your thinking, and complete your analysis and writing”(Suter, 2012, p.482).

Note#9: The kaleidoscope metaphor for QDA includes coding, labelling, grouping and clustering data bits around piles and themes of broad scope. It well represents the categorization strategies of QDA. The jigsaw puzzle metaphor for QDA includes arranging and rearranging of data pieces in a reciprocal way toward achieving a sensible pattern (theory, hypothesis). It well represents connecting strategies of QDA. The symphony metaphor for QDA includes noticing, collecting, and thinking in a continuous and interrelated and holographic way by different actors as can be considered in a DNA threading.

Qualitative metaphors provide a good understanding of QDA; however, they cannot be considered as methods or frameworks for QDA. Thus the question for research method selection still remains. To be able to find and develop the right method and design of research, it is also useful to explain what are three forms of reasoning for data analysis?

2-2-4-Three forms of reasoning in data analysis; Induction, deduction and Abduction

2-2-4-1-Induction, deduction and Abduction

As mentioned above generally, qualitative data analysts face the task of recording data via a variety of methods (interviews, observation, field notes, etc.) and then finding similarities by coding and categorizing (using a variety of clustering and classification schemes), or finding contiguity by attaching concepts to the categories, linking and combining (integrating) abstract

⁴⁹ Molecular threading is technique for depiction and analysis of DNAs

concepts, creating theory from emerging themes, and writing an understanding (Suter, 2012). Now it is essential to know what the logic is behind this process?

The application of categorization and connection strategies should be imagined through a system of logic and reasoning. *Induction, deduction and abduction* are three forms of logical reasoning that are used in every type of research (qualitative and quantitative alike) and create the basis of all researches (Reichertz, 2014). “*These forms of thinking are not concepts, nor are they methods or tools of data analysis, but means of connecting and generating ideas*” (Reichertz, 2014, p.123). In fact, *categorization* and *connection* strategies will be recruited through the logic that is applied by induction, deduction or abduction. Kennedy and Thornberg (2018) introduce them as three ways to relate data collection to analysis and relate the theory and data in the research process.

According to Thorne (2015, p.68) “*inductive reasoning uses the data to generate ideas (hypothesis-generating), whereas deductive reasoning begins with the idea and uses the data to confirm or negate the idea (hypothesis testing)*”. Finally Inspired by Pierce’s (1960), abduction “*could be explained as selecting or inventing a provisional hypothesis to explain a particular empirical case or data set better than any other candidate hypotheses, and pursuing this hypothesis through further investigation*” (Kennedy and Thornberg, 2018).

In induction, researchers use a series of empirical cases to identify a pattern from which to make a general statement. Inductive logic consists of inferring categories or conclusions based upon data (Thornberg and Charmaz, 2014 based on Kennedy and Thornberg, 2018). In qualitative research, induction means that patterns, concepts and theories emerge from data through the researchers’ interactions with the data without pre-supposing such outcomes a priori. Philosophers of science have also criticized the assumptions that support ‘pure’ induction, namely, those researchers can collect and analyze theory-free data without any prior theoretical knowledge (*ibid*).

Qualitative data analysis is mainly relied on or recognized by *induction* or *inductive reasoning*. Many scholars like Suter (2012) and Schutt (2015, p.322) comment that qualitative analysis relies mainly on *analytical induction* or *inductive reasoning*. Thorne (2015, p.68) states that “*what makes a study qualitative is that it usually relies on inductive reasoning processes to*

interpret and structure the meanings that can be derived from data". However, deduction and abduction have their own place and importance in qualitative data analysis.

"In qualitative research, deduction often means that data are analyzed according to an existing theoretical framework or empirical data. The aim is usually not to 'test' the theory but to adopt the theory as an analytical tool or lens when collecting and analyzing data" (Kennedy and Thornberg, 2018, p.50). In other words, deduction in qualitative data analysis begins with a specific theory or rule and examines how the raw data support the rule. Thus the theoretical framework provides a set of priority issues or arguments or lens for collecting and analyzing the data. *"Thus, the risk with deduction is that researchers become less sensitive to participants, the field under study, and the collected data, since the main concern simply is to 'prove' or 'demonstrate' the theory and assert their a priori arguments"* (Kennedy and Thornberg, 2018, p.51).

Last reasoning rule that will be presented here is abduction. However, in reality, it may be the first analogy that helps a qualitative researcher to discover new ideas. Due to formulations to that effect from early grounded theory circles, for many year induction was the fundamental logical operation for finding new theories, however, since the 1990s hopes have been pinned on abduction alone. *"In abduction, qualitative researchers use a selective and creative process to examine how the data support existing theories or hypotheses as well as how the data may call for modifications in existing understandings"* (Thornberg, 2012 as mentioned by Kennedy and Thornberg, 2018, p.52).

According to some scholars, abduction is the only one that can promise the discovery of truly new knowledge and theories. *Abduction is about discovering new concepts, ideas and explanations by finding surprising phenomena, data, or events that cannot be explained by pre-existing knowledge"* (Kennedy and Thornberg, 2018, p.52). Addictively derived hypotheses then could be tested by deduction or provide a basement for induction. However, which stubbornly continues to stand the test are much more valid – not because they are 'more true', but because they have proven useful in more situations (Reichertz, 2014).

"Like the fictional detective Sherlock Holmes, a researcher who uses adductive reasoning constantly moves back and forth between data and pre-existing as well as developing knowledge or theories, and makes comparisons and interpretations in the search for patterns and the best

possible explanations” (Thornberg, 2012 as mentioned by Thornberg and Charmaz, 2014, p.162).

Although abduction presented in last of three reasoning but many believe that it is a precedent for induction and deduction; to “*Proponents of virtually all qualitative methods are unusually unanimous in claiming abduction as the fundamental operation of their own research programs. According to them, only abduction can promise the discovery of truly new knowledge and theories*” (Reichertz, 2014, p.125). Reichertz (2014, p.125) believes “*that for proponents of qualitative social research, the logic of social research is made up of three stages: abduction, deduction and induction*”.

2-2-4-2-Validity and generalizability of qualitative data analysis

In the context of research quality, generalizability or external validity, an important question to ask is when to stop collecting and analyzing data. “*The answer is when the study has reached theoretical saturation, meaning that gathering fresh data no longer sparks new theoretical insights, nor reveals new properties of the generated Grounded theory(GT) and its categories or concepts. Questions to ask in order to evaluate theoretical saturation might for example be: Are there any gaps in the GT or in its categories? Are there any vague or underdeveloped definitions? Are we missing some data? Are the findings coherent*”? (Thornberg and Charmaz, 2014, p.167).

Moreover, internal generalization or validity is a key issue for qualitative data analysis. It mainly concerned with the representativeness of the data and conclusions for the case, settings, or individuals studied; “*Qualitative researchers have many ways of assessing and improving internal generalizability, including systematic sampling or selection decisions – for example, asking participants themselves about the typicality of their views or of the situations you observed*” (Maxwell and Chmiel, 2014, p.545). It depends significantly on sampling/selection issues because small or unrepresentative selection can lead to flawed inferences about the case, setting or individuals studied (*ibid*). External generalization, on the other side, means how much finding could be extended to other similar cases, setting or individuals. Such generalization, however, is the main characteristic of quantitative researches but here may be an issue. “*Many of the analysis strategies described for internal generalization are also relevant for external generalization through theory development, including narrative and connecting approaches to*

analysis and the deliberate testing of theory by searching for discrepant data” (Maxwell and Chmiel, 2014, p.549).

In general, generalization for qualitative researches “*cannot be guaranteed by mechanically applying a particular strategy as an algorithm or procedure. The effectiveness of any strategy depends on the specific theory and context involved, and, for external generalization, the particular cases or populations that are the targets of transfer or theoretical generalization”* (Maxwell and Chmiel, 2014, p.549).

Note#8: Induction, deduction and abduction are three forms of logical reasoning that are used in every type of research (qualitative and quantitative alike) and create the basis of all researches. Induction includes extending or generalizing, into an order or rule the combinations of features (patterns, themes, connections etc.) that are found in the data material or pieces of data. Deduction on the other side is relied on a theory or rule and trying to find the general context of the theory in new incoming cases, extend the rule and theory to those individual cases and obtain knowledge about them. In qualitative data analysis deduction mainly is useful to provide a set of priority arguments or lens for collecting and analyzing the data. Finally, abduction in qualitative researches could open up doors for discovering new ideas or explanations that have proven useful in more situations than existing ones.

Although deduction and abduction have their own applications in qualitative research, the main reasoning behind QDA can be introduced as *induction*, a “*bottom-up approach to knowing, in which the researcher uses observations to build an abstraction or to describe a picture of the phenomenon that is being studied*”(Lodico et al., 2010, p.10).

Next paragraphs describe second and third parts of Creswell(2014)’s framework, choice of research design(strategy) and choice of research method(for data collection and analysis).

2-2-5- Choice of research strategy (Case Study)

Second part of Creswell(2014) is research design or strategy. Scholars such as Creswell (2014), Schutt (2015) and Thorne (2015) believe that five main qualitative research designs are the *case study, grounded theory, narratives, comparative analysis, ethnography, and phenomenology*. Creswell (2014) explains each design as bellow;

“**Narrative research** is a design of inquiry from the humanities in which the researcher studies the lives of individuals and asks one or more individuals to provide stories about their lives. This information is then often retold or restored by the researcher into a narrative chronology. Often, in the end, the narrative combines views from the participant’s life with those of the researcher’s life in a collaborative narrative”.

“**Phenomenological research** is a design of inquiry coming from philosophy and psychology in which the researcher describes the lived experiences of individuals about a phenomenon as described by participants. This description culminates in the essence of the experiences for several individuals who have all experienced the phenomenon. This design has strong philosophical underpinnings and typically involves conducting interviews.”

“**Grounded theory** is a design of inquiry from sociology in which the researcher derives a general, abstract theory of a process, action, or interaction grounded in the views of participants. This process involves using multiple stages of data collection and the refinement and interrelationship of categories of information.” Grounded theory benefits from its own process of qualitative data analysis, thus it can be incorporated among other designs as a method of data collection and analysis. Thus, for example, someone may use narrative research as a research design but simultaneously benefit from the grounded theory process of data collection, refinement and interrelationship.

“**Ethnography** is a design of inquiry coming from anthropology and sociology in which the researcher studies the shared patterns of behaviours, language, and actions of an entire cultural group in a natural setting over a prolonged period. Data collection often involves observations and interviews.”

“**Case studies** are a design of inquiry found in many fields, especially evaluation, in which the researcher develops an in-depth analysis of a case, often a program, event, activity, process, of one or more individuals. Cases are bounded by time and activity, and researchers collect detailed information using a variety of data collection procedures over a sustained period of time.”

In general, many scholars have introduced the case study as a research design; Saunders(2009) in his famous model of research onion have introduced grounded theory beside case study as one research strategy. Creswell(2014) considers the case study beside Narrative research,

Phenomenology, Grounded theory and Ethnographies as alternative research designs. Terms like “strategy” and “design” are common to be used for above-mentioned research arrangements.

However, it seems that the case study can be considered from another point of view different from other above designs. Neuman(2013), in his reference book, introduces the case study in a different and broader viewpoint as a type of dealing with cases and time issue through research(Figure 27). Researches can be organized in several ways: one of them is *case study versus cross-case research*. Most of the case-study researches are qualitative, but almost all cross-case (or noncase research) are quantitative(*ibid*).

Based on Figure 27, in terms of time considerations, research may be *cross-sectional*, *longitudinal* research or *case study*. *Cross-sectional research* gathers data at a one-time point and creates a kind of “snapshot” of social life(*ibid*). **Longitudinal research** gathers data at multiple time points and provides more of a “moving picture” of events, people, or social relations across time(*ibid*). finally, the case study may recruit multiple time point or a slice depending on the phenomenon under study.

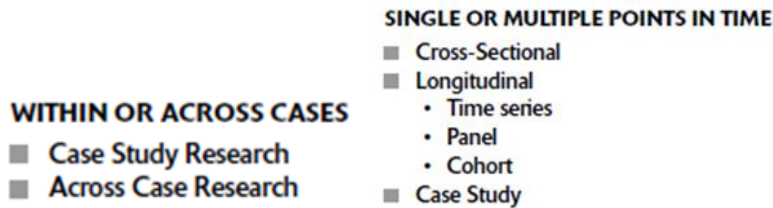


Figure 27-Some dimensions of social research based on Neuman(2013)

Among these five approaches, as mentioned by Creswell (2013), in narrative research, phenomenology and ethnography unit of analysis usually is one or several individuals that have a shared experience. These research approaches usually suit anthropological or psychological studies. On the other side, in grounded theory and case study units of analysis is a process, action, program or interaction involving many individuals. Moreover, these designs draw from political science and sociology that is more relevant to the subject of the present research. Thus among the designs mentioned above, case study and grounded theory seems to be useful for the present research.

As mentioned by Blaikie (2010) with regard to "How," questions using a *pragmatic* research philosophy could be advised for this research. Swanson & Holton (2009) have explained three

conditions that legitimate using case study as design for research. First is the existence of *How*, *what* and *why* questions. Second and third conditions refer to limited control and manipulation on the phenomenon under study and less focus on present events (Swanson & Holton, 2009). Thus with regard to research questions, limited control on present trade streams between two countries and the focus on present time and necessity of investigating a specified phenomenon, the researcher was justified to use the case study as the research design.

Three types of case studies can be undertaken: explanatory case studies, exploratory case studies, and descriptive case studies (Yin, 2003, as mentioned by Swanson & Holton, 2009). Present research is about recognition and exploration; thus, as an exploratory case study, based on Swanson & Holton (2009) qualitatively driven mixed method was selected for that exploration.

Thus in line with what is determined in chapter-*introduction* and represented above, the main method of present research, as discussed in the *introduction* is case-study. The essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a decision or set of decisions; why they were taken; how they were implemented; and with what results (Schramm, 1971 as cited in Yin 1989:22–23).

As discussed above, with regard to research questions, the main design for present research should be a *case study* between two countries. Consequently, in the next part, the first case study as a research design is thoroughly presented.

2-2-5-1-Case-study and detective method;

Case study is a common research design in social science, from sociology and political science to psychology, business, and economics. Suter (2012, p.503) defines it as “*an approach to qualitative research that focuses on the study of a single person or entity using an extensive variety of data.*” Robert Yin (2003) theorized that the mental framework of case study research is the *detective method*. Mills, Durepos, & Wiene (2010, p.551) described the detective method as “*a good analogy for case study research. When solving a crime, a detective's investigation occurs at two levels: the first involves collecting evidence (i.e., carrying out data collection) and the second involves simultaneously entertaining hypotheses about how and why the crime occurred. The detective's hunches (i.e., hypotheses) and theories about the crime, tentative at first and later becoming firmer as more evidence is collected, may be considered the detective's mental framework. A case study investigator's mental framework exists and evolves in the*

investigator's mind and private notes. The investigator does not openly expose this framework when interacting with others.” The methodology for case-study research and its detective method is as follows:

- It is based on evidence collection and conclusion about evidence toward a hypothesis and theories about *how, what and why* is reality.
- It is formed gradually and evolves step by step.
- Private notes play a critical role in the detective method.

According to Maxwell and Chmiel (2014, p.26) case study is among the most context-oriented research methods in qualitative research; “*One of the problems in front of qualitative researcher is danger of decontextualization in using categorizing techniques. Perhaps the most common strategy for retaining contextual information in qualitative research is the ‘case study.’ In this approach, the data are interpreted within the unique context of each case in order to provide an account of a particular instance, setting, person, or event. However, case studies often employ primarily categorizing analysis strategies, and their main advantage is that the categorizing (coding, thematic analysis, etc.) occurs within a particular case rather than across cases, so that the contextual relationships are harder to lose sight of’.*”

Note#11; case study design uses the detective method to make hypotheses. The detective method is described as an evidence board of pasted pictures and collected pieces of evidence. This process resembles the connecting strategy and can be modelled through the jigsaw puzzle metaphor. However, detective method can also use a kaleidoscope metaphor, notably at the beginning of his investigation

It is worthy of reviewing ***Police detectives'*** initiatives in this regard too. In movies and actual detective work, you may have watched *evidence boards*. Through the process of evidence collection and scrutiny, detectives paste pictures of evidence on board and rearrange the elements mentally to try to develop and depict a relation between them. These evidence boards are used as a graphical technique to solve a multi-aspect problem. Detectives may set up this board in their minds and not reveal it to others until arriving at a final hypothesis or theories. "*As the good detective may not reveal her or his crime-solving hypotheses until much evidence has been collected, the case study investigator also keeps the mental framework to himself*" (Mills et al., 2010, p.551).

Military intelligence, on the other side, is a military discipline that exploits many information collection and analysis approaches to provide guidance and direction to commanders in support of their decisions (IBP USA, 2011). This analysis consists of an assessment of an adversary's capabilities and vulnerabilities (IBP USA, 2011). Military intelligence operations are developed gradually using cumulative collected data from the field (IBP USA, 2011). Hassan Bagheri, an Iranian military commander and top war strategist during the Iran-Iraq war, was known for collecting information from different sources and integrating these insights into maps of battlefields. Here researcher provides an idea or knowledge that could explain the case better than other or past ideas or theories. Also, the main finding is a portrait of the battlefield. Here a type of abduction using connection strategies seems to take place in the form of a case study. The starting point for any abduction is empirical data. Abduction begins when the human actor is taken by surprise or anxiety, and it ends when the surprise is replaced by understanding and the ability to make predictions (Reichertz, 2014). Abduction “*could be explained as selecting or inventing a provisional hypothesis to explain a particular empirical case or data set better than any other candidate hypotheses, and pursuing this hypothesis through further investigation*” (Kennedy and Thornberg, 2018, p.52). Here again, military observer tries to select or invent a provisional hypothesis to explain the battlefield or set of incoming data better than any other candidate hypotheses.

Note#12; display methods of various ways, the detective method and military intelligence operations use connection strategies to identify contiguity relations in line with jigsaw puzzle metaphor. This process makes evolve a graphical or mental map of the battlefield or problem based on data gathered from all possible and reliable sources.

2-2-6-Choice of a research method;

Last element of Creswell (2014)'s framework was the choice of *research method* through which questions and data collection procedures and protocols for data analysis, interpretation and validation should be determined. Here there is a qualitative research; thus, qualitative data analysis was presented in previous sections. According to Flick (2014, p.5), “*qualitative data analysis is the classification and interpretation of linguistic (or visual) material to make statements about implicit and explicit dimensions and structures of meaning-making in the material and what is represented in it*”. As mentioned above, two main tasks in this analysis are

categorization and connecting reflected in constant comparative approach and a famous research design entitled Grounded theory. As mentioned before, grounded theory as a research design(strategy) can also work for data collection and analysis through another design.

To find the right research method for this research, in the next section first grounded theory are presented and then an alternative method entitled *framework analysis approach* is introduced

2-2-6-1- Toward the choice of research method

Although grounded theory is a research strategy, it can play the role of a research method too. Thus before the choice of research method, it is useful to have a review on it.

Grounded theory (GT), a popular research design, was developed by Barney Glaser and Anselm Strauss (Birks and Mills, 2011). Glaser's definition of grounded theory is "*a general methodology of analysis linked with data collection that uses a systematically applied set of methods to generate an inductive theory about a substantive area*" (Glaser, 1992, p.16). This fact means a "*systematic theory developed inductively, based on observations that are summarized into conceptual categories, reevaluated in the research setting, and gradually refined, linked to other conceptual categories*" (Schutt, 2015) and shaped empirical generalizations. GT is the main manifest of kaleidoscope metaphor using the *constant comparative method* as stated by Dye et al. (2000). GT is the most widely-used research method in a wide range of disciplines, including the social sciences, nursing and healthcare, medical sociology, information systems, psychology, and anthropology (Bryant and Charmaz, 2007).

GT is most often derived from qualitative (interpretive) data sources. Theoretical *memoing* is the core stage of the GT methodology (Glaser, 1998). "*Memos are the theorizing write-ups of ideas about substantive codes and their theoretically-coded relationships as they emerge during coding, collecting, and analyzing data, and during memoing*" (Glaser, 1998, p.177).

Each memo comprises ideas shaped by coding about relationships between concepts. Codes of similar content are grouped into concepts. Broad groups of concepts shape categories and a collection of categories become a grounded theory. Writing memos, sorting, and integrating them is the heart of theory-building in GT. From a memo to theory, unity in plurality is established systematically among notes and insights. Figure 28 shows how memos work in the

real world. Writing memos and synthesizing them is critical. Our mind-ware was subjected to this collage mechanism (pasting data to a board).

Note#13; in line with the kaleidoscope metaphor, grounded theory is based on memoing and systematic private note writing. This memos or little notes finally shape the final theory, structure or explanations.



Figure 28-Memos on a pinboard. Free copyright image extracted from <https://pixabay.com>.

Methodologically, grounded theory and a recently developed framework entitled *Framework Analysis Approach* are so much important that scholars like Crinson and Leontowitsch (2006), Lacey and Luff (2009) and Gale *et al.*(2013) have introduced them as main approaches for qualitative data analysis. In the next section, one of the most contemporary methods of qualitative research, *framework analysis approach* is explained.

2-2-6-2- Framework analysis Approach

Analytical induction has long been represented by Grounded Theory(GT) as the prominent method for qualitative analysis. In this style of QDA, data management and interpretation are concurrent (NatCen, 2015). Developed by Jane Ritchie and Liz Spencer (1994) primarily for

health research at the National Centre for Social Research (NatCen), framework analysis (FA) is *a thematic framework* used to classify and organize incoming data according to key themes, concepts, and emergent categories (Onlineqda, 2015).

Developers of this framework analysis (like Gale et al. (2013)) introduce it as a research design (strategy) competitive to other designs mainly grounded theory. However, reference to the adolescence of this method it can be considered at least as a method of data collection and analysis. In this research, the researcher has recruited FA as a research method, not a research design.

Despite Grounded Theory (GT) that is oriented to theory building, "*Framework Analysis (FA) was explicitly developed in the context of applied policy research*" (Lacey and Luff, 2009, p.13) and "*provides an excellent tool to assess policies and procedures from the very people that they affect*" (Srivastava and Thomson, 2009, p.78).

Presented by Ritchie & Spencer (1994) Framework Analysis involves a five-step process:

1. Familiarization;
2. Identifying a thematic framework;
3. Indexing;
4. Charting; and
5. Mapping and interpretation.

These can be undertaken linearly, and therefore all data can be collected before analysis begins, although framework analysis can equally be used when data collection and analysis occur concurrently.

1-Familiarization: Familiarization refers to the process during which the researcher becomes familiarized with the transcripts of the data collected (i.e. interview or focus group transcripts, observation or field notes) and gains an overview of the collected data (Ritchie & Spencer, 1994 as mentioned by Srivastava, A. & Thomson, 2009). In this step the researcher becomes immersed in the data by listening to audiotapes, studying the field or reading the transcripts and become aware of key ideas and recurrent themes and make a brief note of them (*ibid*).

2-Identifying a thematic framework: provided by familiarization step, in this step researcher recognizes emerging themes or issues in the data set. These themes may have originated from a

priori issues and/or from emerging issues from the familiarization stage. The brief notes provided in familiarization step can be helpful in this step. “*The key issues, concepts and themes that have been expressed by the participants now form the basis of a thematic framework that can be used to filter and classify the data*” (Ritchie & Spencer, 1994 as mentioned by Srivastava, A. & Thomson, 2009, p.76). “*Although the researcher may have a set of a priori issues, it is important to maintain an open mind and not force the data to fit the a priori issues. However, since the research was designed around a priori issues it is most likely that these issues will guide the thematic framework. Ritchie and Spencer stress that the thematic framework is only tentative and there are further chances of refining it at subsequent stages of analysis*” (ibid).

“*The development of themes is a common feature of qualitative data analysis, involving the systematic search for patterns to generate full descriptions capable of shedding light on the phenomenon under investigation*” (Gale et al., 2013, p.x).

“*Devising and refining a thematic framework is not an automatic or mechanical process, but involves both logical and intuitive thinking. It involves making judgments about meaning, about the relevance and importance of issues, and about implicit connections between ideas. In applied social policy research, it also involves making sure that the original research questions are being fully addressed*” (Ritchie & Spencer, 1994, as mentioned by Srivastava & Thomson, 2009, p.76).

For each research study, “*the framework identifies a series of exclusive main themes subdivided by a succession of related subthemes or topics. These themes and categories evolve and are refined as an iterative process through the researcher's familiarization with the raw data and the subsequent cross-sectional labelling data (emerging issues)*” (Onlineqda, 2015, p.x) or come directly from a set of *a priori* issues. This thematic framework should be developed and refined during subsequent stages (Lacey and Luff, 2009).

3-Indexing: indexing is the process of applying the thematic framework to the data or identifying a section of the data that correspond to a particular theme. As recommended by Ritchie and Spencer(1994), for the sake of convenience, this process takes place using numerical or textual codes to identify specific pieces of data which correspond to differing themes (Lacey and Luff, 2009). In other words, the process of applying the thematic framework to the data employs numerical or textual codes to identify specific pieces of data that correspond to the

different themes (Lacey and Luff, 2009). The coding here is like coding in other qualitative analysis approaches.

4-Charting: Once researchers judge that they have reached a comprehensive list of main themes and subthemes or saturation, they can construct or chart their matrix or chart the data (Figure 29) (Onlineqda, 2015). Using headings from the thematic framework to create charts of the data so that the researcher can easily read across the whole dataset. Charts can be either thematic for each theme across all respondents (cases) or by the case for each respondent across all themes (Lacey and Luff, 2009).

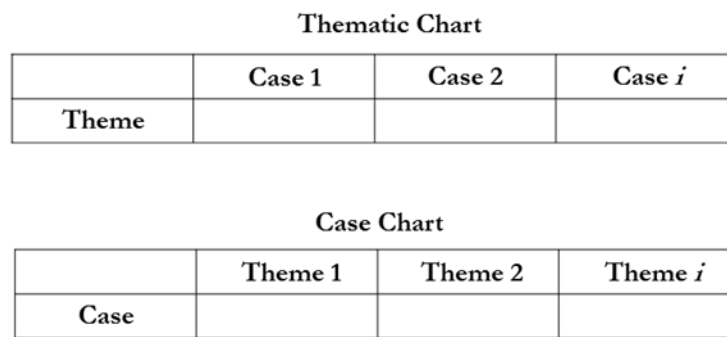


Figure 29-Thematic chart (up); Case chart (down) based on NatCen (2012)

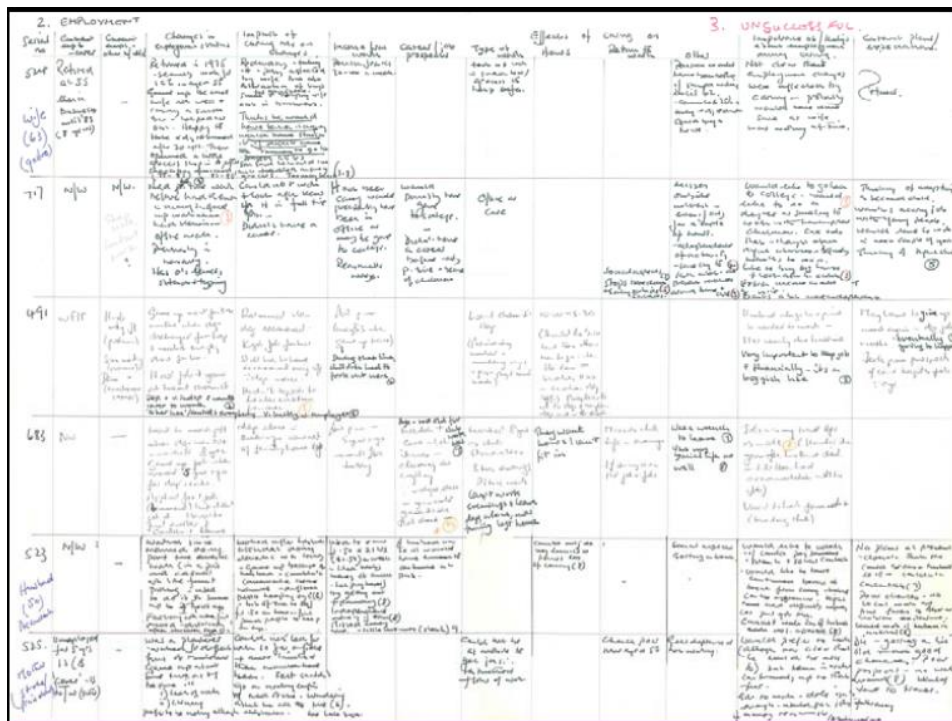


CHART 4 - SEXUALITY					
Order	Typologies	Serial No., Gender, Age, Ethnicity etc.	4.1 Emergence and own response (before & after coming out)	4.2 Sexual behaviour over time	4.3 Own feelings about and attitude to sexuality (over time and at present)
3		No 20, Male, gay, 18yrs, London	EMERGENCE: Haven't always known was gay, but have always known was different and was attracted to men more than women. Realised these things when about 8/9 (5) RESPONSE/FEELINGS: When realised, didn't hate thought of being attracted to men, being a child feelings towards men weren't as strong as now so didn't bother him as much. Was normal to him, just didn't tell anyone about it (6)	Hasn't really had a boyfriend, although been with a few guys. When living with first carers in [London Borough], met German guy in [London Street] but he was only here a few days (12). Longest relationship was 4 dates, which he wouldn't really call a boyfriend (12)	UK ACCEPTANCE: - In UK being gay more acceptable and he was more comfortable with people here accepted homosexuals, and don't say nasty things. Gay p and there are gay bars etc which you don't have in [East African Cour - Feelings grew stronger as then thought of it as normal. As more acc accepting it more himself (9). MORE CONFIDENCE/COMFORTABLE: - People around him have made him more confident/happy. As when he JOSH) went out more often/out to gay scene. Living with gay people m alone/more comfortable with them. Can talk to them as they've been thr (30) - When home over summer mum calling him filthy etc, SEE 4.5, wasn't a was more confident in self, didn't listen to her and ignored her (37) - Like now if he phoned someone and told them he was gay it would be think twice and wouldn't care what response was (39) - Is very easy to live as a gay man. Feel good/happy. (33)
4		No 18, M, 22, White UK, gay London	Others decided about his sexuality first. Quite camp as a kid, didn't like fighting. Cried easily (because of mum SEE 2.9) If people wanted to get at him would call him gay. 'I began to wonder to myself...perhaps I am' (5) Sexuality was unformed when abused by Grandfather, then began to get hassled at school 'I think everyone sort of decided before I did, really that I was not'	Had kissed girls when very young. But hadn't had 'sexual feelings' (6) Dan = first boyfriend. Destructive Relationship. Felt this experience was part of pattern (beginning with grandfather) where just been doing what others wanted, having sex with people to make them happy	Initial reaction- Feels like didn't get a chance to discover it for himse really bitter. Very hard, difficult where was living because everyone feel fitted in on gay scene up until recently. Felt didn't fit in because of e happened to him. really bitter, felt 'had been robbed of the chance of a what I really wanted' (6). He felt he had just been doing what others w with people to make them happy (6) Now- Ok with sexuality now. (over last few years). Happy with life n

Figure 30-Some real depictions of framework analysis approach-Up by Hand, Down using Excel software; Source; NatCen (2019).

Figure 30 exemplifies some real depictions of framework analysis approach. Headings from the thematic framework can be used to create charts of data so that it is possible to read across the whole dataset easily. Charts can be either specific to a theme across all respondents (cases) or by the case for each respondent across all themes (Figure 29) (Lacey and Luff, 2009). Any response or incoming piece that are coded in 3rd step then is allocated to a row with each column representing a separate subtopic (Crinson and Leontowitsch, 2006). Charting “means that the data is lifted from its original textual context and placed in charts that consist of the headings and subheadings that were drawn during the thematic framework, or from a priori research inquiries or in the manner that is perceived to be the best way to report the research” (Ritchie & Spencer, 1994 as mentioned by Srivastava & Thomson, 2009, p.76). The important point to remember here is that although the pieces of data are lifted from their context, the data is still clearly identified as to what case it came from. For clarity, cases should always be kept in the same order in each chart (*ibid*).

5-Mapping and Interpretation: The final stage involves interpretation, synthesizing and analysis of the key characteristics as laid out in the charts. This stage includes searching for

patterns, associations, concepts, interpretation and explanations in the data aided by schematic diagrams, visual displays and plots (Lacey and Luff, 2009) (Srivastava & Thomson, 2009). Aim of qualitative data analysis is “*defining concepts, mapping range and nature of phenomena, creating typologies, finding associations, providing explanations, and developing strategies*” (Ritchie and Spencer, 1994, p.186). Thus both categorization and connections strategies of QDA are pursued simultaneously here.

Ritchie and Spencer(1994) emphasis that which of these areas the analyst chooses to focus on will depend both on the themes that have emerged from the data and the original research question. In terms of mapping and interpretation, they acknowledge that “*this part of the analytical process is the most difficult to describe*”(Ritchie and Spencer, 1994, p.186). “*They offer several examples from their own research, including diagrams they have used to visually present their ideas, to try and demonstrate this process. Miles and Huberman (1994) also offer a wide range of display ideas, which may be useful for exploring your data in the context of Framework Analysis. The central aim of these techniques is to enable you to visually display ideas from the data as an aid in developing and testing interpretations*” (Lacey and Luff, 2009, p.15).

As qualitative research here, there is a form of constructivism and relativism in findings; “*Once again these concepts, technologies, and associations are reflective of the participant. Therefore, any strategy or recommendations made by the researcher echoes the true attitudes, beliefs, and values of the participants*” (Srivastava & Thomson, 2009, p.76).

Unlike GT, the framework method is not necessarily concerned with generating a social theory, but can greatly focus on social *problem-solving* and facilitates pattern recognition and *constant comparative techniques* by reviewing the data across the matrix (Gale et al., 2013, 2015) where data management and interpretation are sequential (Not concurrent) (NatCen, 2015). “*In particular, many qualitative approaches use the ‘constant comparative method’, developed as part of Grounded Theory, which involves making systematic comparisons across cases to refine each theme. Unlike Grounded Theory, the Framework Method is not necessarily concerned with generating social theory, but can greatly facilitate constant comparative techniques through the review of data across the matrix*” (Gale et al., 2013, p.x).

NatCen (2015) states that framework analysis is a **case- and theme-based approach** using a matrix display to reduce data through summarization and synthesis. The matrix retains links to original data and output allows comprehensive and transparent data analysis. Problem-solving orientation in framework analysis leads to a matrix framework and method. Among the main notes that have been found in our review was a good match between a matrix-based model as presented and applied independently by Soltanifar and Ghaderi (2011) for regional planning and framework analysis.

Beside its developments from the 1990s, framework analysis still has limitations that should be considered by the time of application. Like all qualitative analysis methods, it is time- and labour-intensive with no guarantee of an outcome (Gale et al., 2013). It is in danger of becoming process- rather than outcome-focused. Moreover, finally, it needs to be reflexive and critical and not forcing square pegs into a round hole (NatCen, 2015). On the other hand, the researcher should be watchful to prevent inserting a code of data in an improper place or thematic column.

Note#14: Framework analysis is a case and theme-based research method. In line with the Jigsaw puzzle metaphor, this research design relies on finding key themes among data originated from a set of cases or sources.

As a reminder, initiators of framework analysis approach introduce it as a research design comparable to grounded theory. Gale et al.(2013, p.x) provide a useful differentiation between grounded theory and other qualitative methods from one side and framework analysis from the other; *“There are a number of approaches to qualitative data analysis, including those that pay close attention to language and how it is being used in social interaction such as discourse analysis and ethnomethodology ; those that are concerned with experience, meaning and language such as phenomenology and narrative methods; and those that seek to develop theory derived from data through a set of procedures and interconnected stages such as Grounded Theory. Many of these approaches are associated with specific disciplines and are underpinned by philosophical ideas which shape the process of analysis. The Framework Method, however, is not aligned with a particular epistemological, philosophical, or theoretical approach. Rather it is a flexible tool that can be adapted for use with many qualitative approaches that aim to generate themes”*.

Despite the above comparison here FA has been recruited in this research not as design or strategy but as a method for data collection and analysis. Justifications and reasons for this choice are presented in the next section.

2-2-7-Choice of research method; framework analysis approach

Now, after a review on approaches designs and methods of qualitative data analysis, it is the time to select a research method for the present research. As mentioned by Creswell (2014), last element of Creswell (2014)'s framework was research method through which questions and data collection procedures and protocols for data analysis, interpretation and validation should be determined.

As mentioned above, two main arrangements for qualitative data analysis and analytical induction are grounded theory and Framework analysis. Some authors, such as Creswell (2014) treat case studies and grounded theory as two separate methods, but many scholars like Saunders et al. (2009) think of case studies as a way to frame research questions and implement the research (research design) and grounded theory as a general strategy for conducting qualitative research (refer to Figure 22 & Figure 31).

This second elaboration seems to be more realistic. Thus, if the case study is considered as research design, there need to find a method for qualitative data analysis between grounded theory and framework analysis. It should be noted that four other methods of qualitative analysis (narratives, comparative analysis, ethnography, and phenomenology) have been eliminated through a discussion in section 2-2-5.

Now the question is to choose between grounded theory and framework analysis best method for qualitative approach through the case study.

Type of problem or aim of research determines which method to be used by research. Then researchers' own personal training and experience also influence their choice of approach. Finally, researchers write for audiences that will accept their research (Creswell, 2014).

Now a method should be selected in line with determined research design, aim, questions and paradigm. Aims of research were *framework construction for opportunity recognition between two countries* in a pragmatic way.

- After grounded theory, Framework analysis is a recently developed method for *analytical induction*.
- The Framework Method is appropriate for thematic analysis of textual data, particularly interview transcripts, where it is important to be able to compare and contrast data by themes across many cases, while also situating each perspective in context by retaining the connection to other aspects of each individual's account (Gale et al., 2013).
- Framework analysis approach, as reflected in its name, is *developed to construct frameworks* for data analysis. On the other side, one aim of this research is to develop a framework for opportunity recognition (answer "How" question).
- Despite grounded theory, framework analysis is not aimed to produce a social theory; it *has an emphasis on solving social problems*. For attaining to such aim, framework analysis recruits constant comparative technique (as used in GT) through rows and columns of matrixes (Gale et al., 2013). Concerning problem-solving orientation at the present research, using framework analysis in this research has a priority rather than grounded theory.
- As mentioned by Baron (2004, 2006) and Baron & Ensley (2006), *recognizing international opportunities is like finding patterns among seemingly unrelated behaviours* (Note#3). In another side, *comparison and pattern recognition are facilitated in framework analysis using rows and columns of matrixes*. This process has been followed by memoing and synthesizing data gathered from themes and cases (Ritchie and Lewis, 2003) and making connections between the concepts using different maps and graphs (Lacey and Luff, 2009). Thus, framework analysis has more priority than grounded theory in this case.
- In the framework analysis approach, data gathering and data analysis are simultaneous (NatCen, 2015) that, in comparison with the grounded theory for large scale researches, has more agility, dynamism and speed.
- Final reason is related to the researcher himself and his *personal experiences* in using and developing display methods for qualitative analysis. As noted by Creswell (2014), *the personal experiences of the researcher* is the main determinant of research method.

Before present research, Soltanifar & Ghaderi (2011) and Soltanifar & Ansari (2016)⁵⁰ have provided considerable proficiency in working with qualitative methods based on matrixes and frameworks. This skill facilitates getting the result through working with a framework analysis approach in comparison with grounded theory.

Thus with regard to research aims and propositions, and reasons provided above, framework analysis finds more justification than grounded theory to be used as a research method for qualitative data analysis in this research.

2-2-8- Research epistemological positioning

Beside approach, design and method, Creswell (2014) talks about the importance of philosophical worldview in his research framework as a paradigm that generally lead the research. Five most research philosophies that are widely discussed in the literature are positivism, post-positivism, constructivism or interpretativism, transformative or critical theory, and pragmatism (Milman, 2010).

Positivism/Post-positivism; This worldview is sometimes called the scientific or empirical method and has “*represented the traditional form of research including surveys and experiments, and these assumptions hold true more for quantitative research than qualitative research*” (Creswell, 2014, p.7). The main aim of the researcher in this paradigm is explanation, prediction and control.

Constructivism; typically seen as a research philosophy to qualitative research. “*The goal of the research is to rely as much as possible on the participants’ views of the situation being studied and constructs help understanding of the world in which they live and work*” (Creswell, 2014, p.8). The main aim of the researcher here is to understand social constructions or "the world of human experience".

Readers who apply the positivist or post-positivist paradigm tends to predominantly use quantitative approaches (methods) to data collection and analysis, though not necessarily

⁵⁰ A more general type of this framework previously has been developed by researcher as a model of qualitative analysis in social systems and implemented for different field. This past initiative could support validity and reliability of the model for present research (refer to Soltanifar&Ansari, 2016 and Soltanifar and Ghaderi, 2011).

exclusively. In contrast, the interpretivist/constructivist paradigm generally operates using predominantly qualitative methods (Mackenzie and Knipe, 2006).

Transformative; This philosophical worldview “*focuses on the needs of groups and individuals in our society that may be marginalized or disenfranchised. Groups of researchers that are critical theorists; participatory action researchers; Marxists; feminists; racial and ethnic minorities; persons with disabilities; indigenous and postcolonial peoples; and sexual minorities and queer communities*” (Creswell, 2014, p.9). Researcher in this paradigm is going to critique the present situation, transform the societies and emancipate minorities.

Pragmatism; “*Instead of focusing on methods, researchers emphasize the research problem and use all approaches available to understand the problem (see Rossman & Wilson, 1985). As a philosophical underpinning for mixed methods studies, Morgan (2007), Patton (1990), and Tashakkori and Teddlie (2010) convey its importance for focusing attention on the research problem in social science research and then using pluralistic approaches to derive knowledge about the problem*” (Creswell, 2014, p.11).

Table 14 compares ontological, epistemological and methodological characters of each paradigm. Concerning the aims and scope of each research initiative, a right research paradigm shall be selected for that initiative.

- In both *positivism* and *post-positivism*, action is structured, linear and has a cause and effect manner (Eisner, 1991). However, post-positivism believes that the researcher can only imperfectly apprehend the objective reality (Ponterotto, 2005).
- Through *interpretativism* paradigm, the researcher assumes the action to be contained in lived experiences from the viewpoint of those who experience it.
- Critical theories believe that the status quo needs to be disrupted and changed, and researchers' tasks are to emancipate minorities (e.g. women) and transform reality (Ponterotto, 2005).
- *Pragmatism* is, to some extent, close to interpretivism, a goal-oriented research philosophy. As mentioned by Saunders et al. (2009, p.119), Guba and Lincoln (2005), and Hallebone and Priest (2009), here an external and multiple view is chosen to enable best answering the research question. “*Either or both observable phenomena and subjective meanings can provide acceptable knowledge dependent upon the research*”

question. Focus on practical applied research, integrating different perspectives to help interpret the data" (Saunders et al., 2009, p.119).

Table 14- A comparison between different research paradigms

Paradigm	Positivism	Post-Positivism	Critical Theory	Interpretivism Constructivism	Pragmatism
Synonym	Verify	Predict	Emancipate	Understand/ Interpret	Dialectic
Ontology What is Real?	Objectivist Findings=Truth	Modified Objectivist; findings probably true, transcendental realism	Historical/ Virtual Realism shaped by outside forces like social, political and gender values	Local, Relative, Co-constructed realities, subjective objectivity, realism	Constructed based on the world we live and explanations that produce the best-desired outcomes
Epistemology What is true?	The only knowledge is scientific	Findings approximately truth, reality is never fully apprehended	Findings are based on values, local examples of truth	Co-created multiple realities and truths	Objective and subjective points of view
Methodology How do I examine what is real?	Experiments and Surveys	Experiments, Surveys, Observation studies	Action Research	Phenomenology, Hermeneutics	Phenomenology , Case study , Ethnography, Grounded theory

Method	Measurements, Observation, Structured questionnaires and interviews	Measurements, Observation, Structured questionnaires and interviews	Interviews, Measurement, Focus group, Community Organization and action		Open-ended questions, Collection of Qualitative data, Recording of observations and impressions
Main research strategy	Deductive, statistical analysis	Deductive, statistical analysis	Deductive, Multiple data collection methods	Inductive, Multiple data collection methods	Inductive, Multiple data collection methods

Now for present research let us refer back to the introduction of present research with following research questions;

Primary question;

- How can we recognize international business development opportunities in emerging economies? (in cooperation with a foreign economic partner)

Secondary question;

- What are problems in front of trade promotion between an emerging economy and a foreign economic partner?
- What institutional and contextual conditions affect international opportunity exploration and exploitation environment between an emerging economy and a foreign economic partner?
- What are the opportunities for international business development in emerging economies?
- What policies can be proposed to exploit bilateral opportunities?

Primary question refers to exploratory research, and secondary questions reveal problem-solving orientation and above research. Thus a *pragmatic* world view seems to be suitable as philosophy dominating on this research. In this research, multiple sources of data collection from qualitative analysis of trade streams to qualitative observations and open-ended interviews are available. Under pragmatism, all of them are recruited concerning research questions to provide some valuable answers.

In introduction, case-study(between Iran and France) was selected as the field of study, and as stated in Table14 and mentioned by Robert K. Yin (2014), case-study is mostly represented by Pragmatist research paradigm. Present research is basically a pragmatic research because of research origins and research questions. As applied research, it is tried to solve trade inefficiencies and explore and exploit opportunities between Iran as an emerging developing country and as a European state. Thus pragmatic research philosophy may best fit this pragmatically defined thesis.

Primary qualitative metaphor for this research should be Kaleidoscope, but concerning pragmatism research philosophy, jigsaw puzzle metaphor could be recruited in parallel to answer some other questions. Each metaphor could be used or synthesized to help the researcher toward most sensible explanations or solution.

Opportunity recognition mainly in Schumpeterian approach between two countries is based on kaleidoscope metaphor and constructivism research paradigm, but economic analysis and Kirznerian opportunity recognition as a positivistic facts can be modelled by Jigsaw puzzle metaphor. In other words, in this research, some facts, mainly economic concepts, are pretty fixed. However, some other insights mainly in terms of opportunity recognition, maybe dependant to contexts and researcher's character. Thus jigsaw puzzle metaphor will be used to depict economic and trade structure between two business blocs and kaleidoscope metaphor could be the primary metaphor for opportunity recognition. In general, both metaphors can complement each other in a *pragmatic* research philosophy.

Concerning abovementioned discussions, elements of research methodology can be summarized by the *research onion model* of Saunders et al. (2009) as follows (Figure 31);

- **Research philosophy;** pragmatism
- **Research type;** applied-fundamental
- **Research approach;** analytical induction
- **Research strategy;** qualitatively driven mixed method
- **Research design;** case study
- **Time and place horizon;** cross-sectional including field and library
- **Research aim;** exploration
- **Data collection methods;** mixed using interview, observation and document analysis
- **Data analysis method;** Framework Analysis Approach

In line with qualitative research protocols, *Research reliability and Validity* in such researches are guaranteed by triangulation between interviews, observations and document analysis.

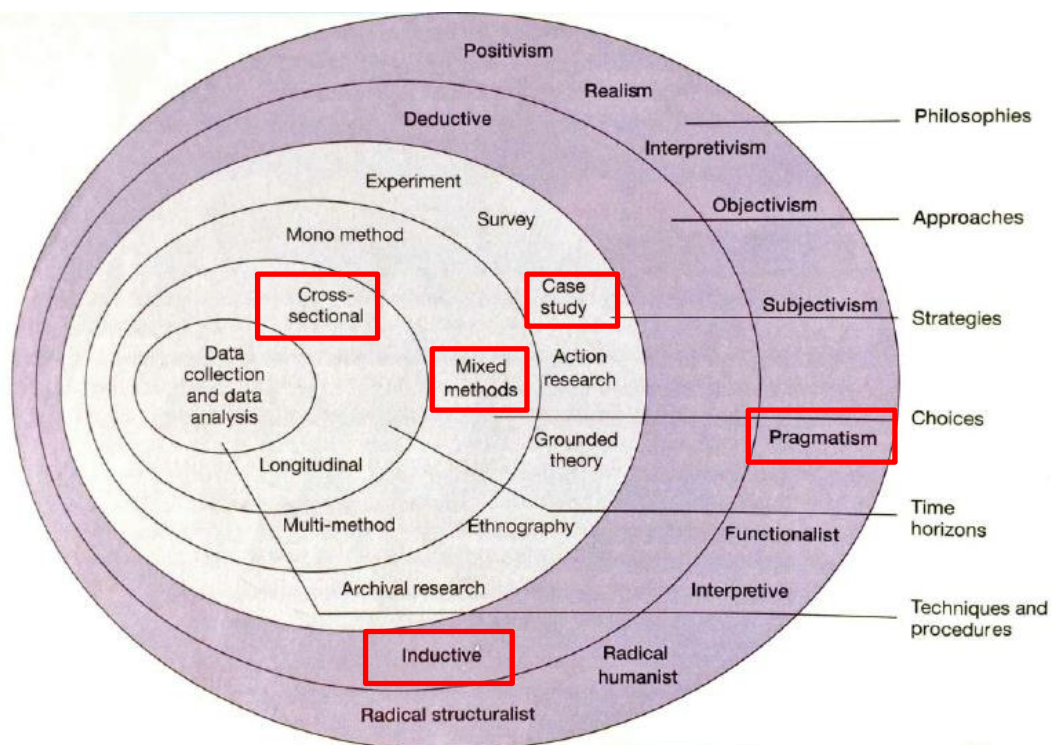


Figure 31-Research Onion of Present Research, based on Saunders et al. (2009).

In the next section, concerning the rules and procedure of framework analysis approach that were explained before and the literature reviewed in chapter1, a protocol for framework construction has been discussed and presented. Consequently, this framework works for qualitative data analysis and also opportunity recognition between business blocs.

2-3-Research Implementation

In this section, first, the real field under case study is represented, then data collection sources in relation to the selected field are explained. By the rest, the process of data analysis using the framework analysis approach is induced, and finally, all the above issues are concluded into elements of a case study.

As a reminder and based on section 2-1, the main objective of the research was to develop a method to;

- Explore and analyze business opportunities in emerging economies in cooperation with a foreign economic partner
- Finding problems in front business development between emerging economies and their foreign economics partners
- Finding affecting factors and policies that could be applied for business development between emerging economy and its foreign economic partner.

These exploration and exploitation will be considered through partnership and cooperation with a foreign partner.

In general, based on the discussions mentioned above, the main characteristics of methodology should be as below;

- Be able to find the right needs, inconveniencies, complains, pains or any disturbance that takes place in market or organization
- Consider extracted themes(problem, preparation, incubation, insight, elaboration, evaluation) to classify incoming data related to opportunity recognition in a systematic approach
- Should be more exploratory in comparison with explanatory or descriptive. This claim is because present research needs to explore opportunities rather than describing the existing trade regime.
- Should collect data from different sources(as mentioned in note#6) and analyze them
- Be able to synthesize data into problems and opportunities, policies and insights

Thus proposed method should be able to collect information from different sources and organize them into extracted themes of opportunity recognition process with a focus on disturbances in the market and finally synthesis them into problem, policies and insights.

2-3-1-Choice of Research field (why between Iran and France)

The main question of this research was How can we recognize international business development opportunities in emerging economies? (in cooperation with a foreign economic partner).

Now it is time to select a country pair as the field of case study. Reference to the discussion have done in the introduction of this thesis; this initiative is planned to implement between Iran and France.

Iran is a member of N11 group of countries; Presented by The Goldman Sachs⁵¹, “*N11 countries or the Next 11 countries refers to a group of eleven countries - specifically Bangladesh, Egypt, Indonesia, Iran, Mexico, Nigeria, Pakistan, the Philippines, Turkey, South Korea, and Vietnam - which have emerging markets that could potentially become some of the world’s largest economies*”(Energyeducation, 2019, p.x). These countries can be considered as next BRICS economies (*ibid*) although in less scales.

Thus, Iran represents a suitable case of an emerging economy; at the heart of western Asia, Iran benefits from a unique geo-economic position. Provided by large reservoirs of oil, gas and other raw materials, young educated workforce, an 80 million internal and 150 million neighbouring market, Iran usually is identified as an exciting market for many western and eastern companies. In this regard, European companies beside political authorities usually have shown particular interest to revitalize previous business connections, keep existing deals and connection or create new ones; “*We aim at a dialogue between the European Union and Iran that is comprehensive in scope, cooperative in the fields where we have mutual interest, and our citizens have mutual interest, a dialogue that can be critical and open in the areas where we know we disagree, looking for common ground, and overall constructive in tone and in practice. So you can call it a*

⁵¹ The Goldman Sachs Group, Inc. is an American multinational investment bank and financial services company headquartered in New York City.

“*dialogue of the 4 Cs*”: *comprehensive, cooperative, critical if needed, constructive always*”. Former EU High Representative and European Commission Vice-President Federica Mogherini during her visit to Iran in April 2016 commented.

However, through a decade of conflict, European companies had loosed a considerable part of their market over Turkish, Indian, South Korean, and mainly Chinese competitors. Moreover, at the time of finalizing this thesis and late 2019, existing ties between Iran and EU are gradually being eroded by the demise of the United States. Thus it is necessary to focus on exploring and exploiting business opportunities in Iran through cooperation with European countries not only because of its direct profits but also due to its effects on regional and global peace and security.

One the other side, one of the largest foreign investors in Iran after the Islamic revolution is France. French companies are still interested in keeping and developing their market share in Iran. As an example, in 2015, first and one of the largest European delegations into Iran, was from France who arrived in Tehran just a few days after signing JCPOA with 130 companies arranged by *Movement of the Enterprises of France* (MEDEF).

Traditionally as first political power and second economic power of the European Union(after Germany), France can be a suitable example of an advance economy interested in business development in Iran. At the time writing these sentences (late 2019) initiatives of French president Emmanuel Macron to keep the JCPOA (nuclear deal with Iran) alive can be considered as a proof of French interests to keep the deals with Iran.

However, researcher's observations and interviews with members of French delegations revealed lack of well-grounded plans and programs among Iranian officials, Iran-France joint chamber of commerce, Business France⁵², MEDEF or other related authorities to enable the opportunities and topics of mutual cooperation. As an example, during primary interviews of researcher with

⁵² **Business France** is a French Government agency created on 1 January 2015 through a merger between UBIFRANCE and the French Agency for International Investment (InvestInFrance). Business France work is divided into four main pillars: 1) promote French exports; 2) promote inward investments to France; 3) enable international internships in French companies abroad, also open to candidates from the European Economic Area. The international internship is called VIE, which stands for” Voluntaries International en Enterprises”); and 4) promote the image of France as business country.

members of incoming delegations, most of them complained about the lack of a specific plan by organizers for business development during the presence of the delegation in Iran.

In Face of such context and practical gaps, the research problem has primarily been defined as below; *how can one recognize international business development opportunities between Iran as an emerging economy and France as an advanced economy? Moreover, what are problems in front of trade promotion between Iran and France? What institutional and contextual conditions affect international opportunity exploration and exploitation environment between Iran and France? What are the opportunities for international business development between Iran and France? Furthermore, What policies can be proposed to exploit bilateral opportunities?*

2-3-1-1-Data collection in the field;

Under pragmatic philosophical worldview and qualitatively driven mixed method as a research approach, the researcher will be able to use multiple sources of data that can be useful to address the research problem.

Qualitative approach remains open to a range of data collection methods, such as field observations, informal conversations, qualitative interviews, focus groups, documents, questionnaires, observations and diaries(Thornberg and Charmaz, 2014).

As extracted through note#6 sources of data for opportunity recognition between Iran and France include *immersion in Iran-France business environment through observation, interaction with trade statistics and commercial trends about Iran-France trade, investigating and recording speeches, words, actions and daily problems or needs expressed by entrepreneurs working between Iran-France all can be used as sources for opportunity recognition. Moreover, through the process, it is probable to shape ideas and innovations in researcher or participant's mind that should be registered and incubated. All of the abovementioned sources reinforce each other.* Thus data collection choice of present research is both quantitative and qualitative with a focus on qualitative data or so-called **qualitatively driven mixed method**. In other words, for doing an exploratory case study, triangulation between interviews, observations and statistical analysis through a matrix system under framework analysis approach is selected.

Thus for environmental analysis and opportunity recognition between Iran and France observation of related incidents and events in trade environment between Iran and France,

analysis of trade statistics between Iran and France, and a satisfying number of interviews with experts and informants of business between Iran and France have been primarily as sources of data collection. Collected data through case study then should be analyzed by a method. As discussed above, the Framework analysis approach has been selected as the method of data collection, analysis, interpretation and report. This issue is explained more through the next section.

2-3-2-Data analysis; a discussion toward a framework for opportunity recognition between Iran and France

Based on the reviews done through chapter 1 on international business, international trade, international entrepreneurship through and insights gathered through above sections on research approach, research design, and research method 14 notes or propositions have been extracted to construct the framework that is needed for data collection and analysis in an exploratory case study. These notes have been provided and presented here to summarize and assemble all the tips we have got so far through the first and second chapters and make the reader able to follow the reasoning of the research in this position;

Note#1; there are two viewpoints toward opportunities; creation and exploration. Based on the last research results, these two approaches could complement each other through the opportunity recognition process.

Note#2; Opportunity recognition process can be modelled as the process of connecting the dots and finding patterns among seemingly unrelated notes or events. Creation, or making a diagnostic, can also be defined that way. This definition of OR is not specific and cannot be retained.

Note#3; Problems, needs, pains and dilemmas expressed by customers or practitioners working on business development in a market or any form of disturbance in the market can be an initiating point for opportunity recognition.

Note#4; concerning the thorough literature review done on opportunity recognition, five steps including preparation, incubation, insight, evaluation and elaboration have found as more replicated and only normative steps for an opportunity recognition process. Meanwhile in this process, problem in the form of market gap, unsatisfied needs, costumer's inconveniences for

preparation step and then creative problem solving for incubation, gaining insights and evaluating solutions play a key role to generate and form business opportunities. As mentioned by Shane (2003, 56); “establishing a new means-ends framework involves identifying, defining, and structuring novel solutions to open-ended problems”. A problem can be defined as a right need, inconveniencies, complains, pains or any disturbance that takes place in market or organization. If an entrepreneur can find a solution or insight for this problem (need) through abovementioned five steps, he/she has solved the puzzle and explored an opportunity.

Note#5; *a six steps model includes problem/needs/disturbance recognition, preparation, incubation, insight, evaluation and elaboration can be proposed as covering themes of data for international opportunity recognition process.*

Note#6; *Data collected through immersion in business environment, observation, interaction with trade statistics and commercial trends between two countries, investigating and recording speeches, words, actions and daily problems/needs expressed by entrepreneurs working between countries all can be used as sources of information for opportunity recognition. Moreover, through the process, it is probable to shape ideas and innovations in the researcher’s or participant’s mind that should be registered and incubated. All of the abovementioned sources reinforce each other.*

Note#7; *Displays of all type plays an important role as categorizing and connecting strategies. In this way, matrices and table are mainly applicable for categorization and networks for making the connection into the data.*

Note#8; *QDA includes coding, categorizing, grouping, clustering, conceptualization, linking, integrating, and theory building.*

Note#9; *Induction, deduction and abduction are three forms of logical reasoning that are used in every type of research (qualitative and quantitative alike) and create the basis of all researches. Induction includes extending, or generalizing, into an order or rule the combinations of features (patterns, themes, connections etc.) that are found in the data material or pieces of data. Deduction on the other side is relied on a theory or rule and trying to find the general context of the theory in new incoming cases, extend the rule and theory to those individual case and obtain knowledge about them. In qualitative data analysis deduction mainly is useful to provide a set of priority arguments or lens for collecting and analyzing the data. Finally,*

abduction in qualitative researches can open up doors for discovering new ideas or explanations that have proven useful in more situations than existing ones.

Note#10: *The kaleidoscope metaphor for QDA includes coding, labelling, grouping and clustering data bits around piles and themes of broad scope. It well represents the categorization strategies of QDA. The jigsaw puzzle metaphor for QDA includes arranging and rearranging of data pieces in a reciprocal way toward achieving a sensible pattern (theory, hypothesis). It well represents connecting strategies of QDA. The symphony metaphor for QDA includes noticing, collecting, and thinking in a continuous and interrelated way.*

Note#11; *case study design uses the detective method to make hypotheses. The detective method is described as an evidence board of pasted pictures and collected pieces of evidence. This process resembles the connecting strategy could be modelled through jigsaw puzzle metaphor.*

Note#12; *display methods of various ways, the detective method and military intelligence operations use connection strategies to identify contiguity relations in line with jigsaw puzzle metaphor. This process evolves a graphical or mental map of the battlefield or problem based on data gathered from all possible and reliable sources-*

Note#13; *in line with the kaleidoscope metaphor, grounded theory is based on memoing and systematic private note writing. This memos or little notes finally shape the final theory, structure or explanations.*

Note#14: *Framework analysis is a case and theme-based approach. In line with the Jigsaw puzzle metaphor, this research design relies on finding key themes among data originated from a set of cases or sources.*

As mentioned before, the present research is a case study in which there is a framework to elaborate questions, inquiries, and how to collect and organize data and synthesize them toward answers. After implementing this framework, its revised version will be reported as a framework for opportunity recognition and an answer to the *How* question.


This research is confronted with two main research questions; *How can we recognize and analyze business development opportunities in an emerging economy? What are the opportunities for business development between an emerging economy and another economy?*

In this chapter grounded theory (Note#13) and framework analysis approach (Note#14) have been presented as two main designs for qualitative data analysis (Crinson & Leontowitsch, 2006) (Lacey & Luff, 2009). After a discussion, framework analysis was selected as main method for data collection and analysis in this research. In line with the jigsaw puzzle metaphor, framework analysis approach is relied on finding some key themes among data originated from a set of cases or sources (Note#14). On the other side, through chapter1 research found six meta-covering themes (Note#5) and four main sources or cases of data (Note#6) for international opportunity recognition.

In chapter1, it was found out that opportunity recognition process is like connecting the dots and finding pattern among many seemingly unrelated events and trends (Note#3). This pattern recognition can be modelled by Kaleidoscope and Jigsaw puzzle metaphors. Thus pattern recognition includes *coding, labelling, grouping and clustering data bits* together, then *comparing bits within a pile* and *forming themes* with broader meanings (Note#9) and *rearranging* data pieces in a *reciprocal process* to reach a sensible pattern (Note#9). This is the central method used in a grounded theory approach. All of these jobs are through the process of *analytical induction*, the process of continually comparing a primary shaped structure against collected data and revising it until theoretical saturation (Note#8).

As mentioned before a manifest for Jigsaw puzzle metaphor *is the framework analysis approach* as theme-case based approach (Note#14) was selected by the researcher to construct research's framework. It was found out that this approach is relied on finding some *themes* among data gathered from different *sources*. The themes can be provided through immersion and familiarization with data or a set of a priori issue obtained from literature review. On the other side, based on the literature review, six main *themes* among data related to IOR were extracted (Note#4) (Note#5). Moreover, it was found out four primary *sources* or *cases* of data for international opportunity recognition (Note#6). Finally, the use of matrixes as a display method for qualitative data analysis, categorization and connecting is recommended by literature and is an inherent part of framework analysis (indexing step) (Note#7).

Thus, *it is possible to construct a matrix with 6 columns (based on Note#5) through which its rows are provided from 4 types of cases or sources of data for opportunity recognition (based on Note#6)*. This arrangement provides a matrix as is depicted in Figure 32. When a source or

case provides one or more pieces of data (represented by ) to be placed in each row of the matrix, a **problem-line** will be shaped. In other words, each incident from each source of data may fill one or more cells (until six cells) through each row of the framework. Anyway, if at least one cell is filled through a row of the framework, a problem line has been formed (Figure 32).

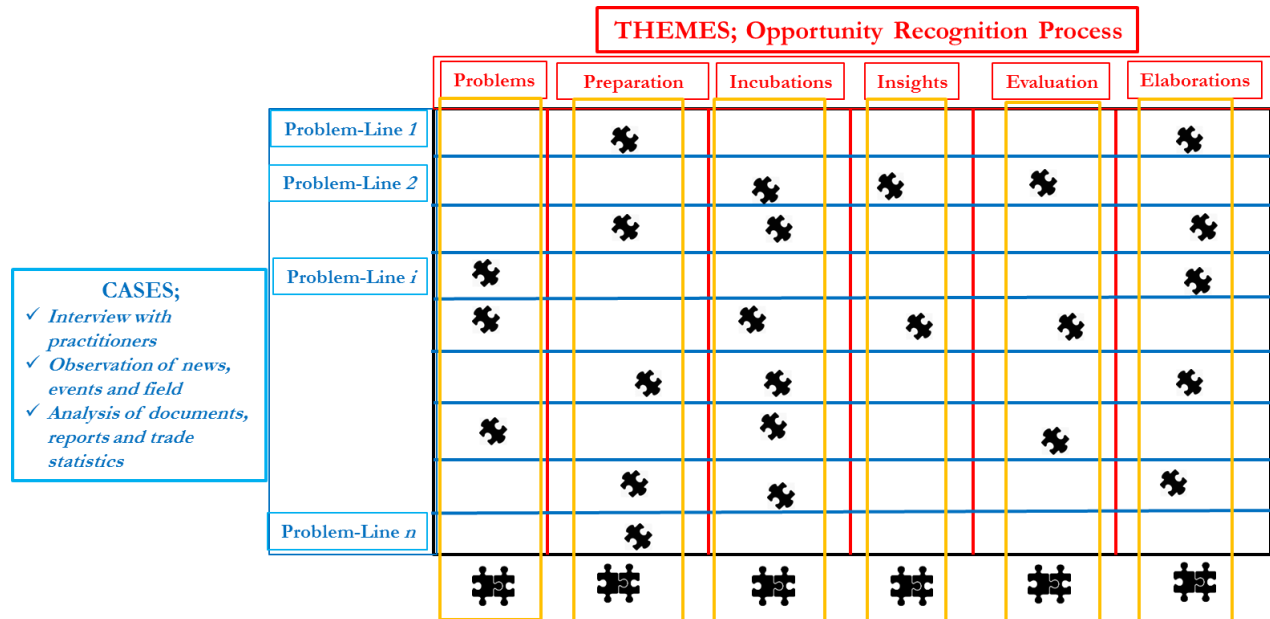


Figure 32-A n*6 matrix for analyzing and exploring business development opportunities between Iran and France

For example, through an interview with an expert on business between Iran and France, he may talk about a problem for trade promotion between two countries, give a general preparatory data about the field, give a reason or explanation about the problem, give an insight, present an opportunity or share an experience with interviewer. For this expert, a row of the matrix is considered, and his answers (if any) will be stored into appropriate cells from 1 to 6. Expressed problems in cell#1, preparatory data in cell#2, explanations and incubations in cell#3, insights in cell#4, expressed opportunities in cell#5 and experiences in cell#6.

Synthesis and conclusion on this matrix will be done by concluding each column and using a series of methods and tactics of qualitative data analysis. These techniques include coding, counting, constant comparison, categorizing, grouping, clustering, conceptualization, linking, pattern recognition, and integrating (Note#8) that will be explained later and how to use them for conclusion on each column.

Details of data collection, selection of cases and analysis in practice will be presented in chapter3 on research implementation.

Discovery				Formation	
Problems/needs	Preparation	Incubation	Insight	Evaluation	Elaboration

Figure 33-Formation of themes through matrix

As mentioned by Lumpkin et al. (2004), their proposed steps for opportunity recognition cover almost all of the incoming data related to opportunity recognition. These steps provide the required elements for modelling opportunity recognition process (Lumpkin & Lichtenstein, 2005). In other words, after a discussion on the role of problem in preparation step of Lumpkin et al. (2004)' model (Notes#3&4), this model was redefined from a descriptive model into a normative model. Now its step plays the role of *priori issues* to provide main *themes* in the framework analysis approach for the opportunity recognition process (Note#14).

In Figure32, based on Chandra et al. (2009), *incubation* means opportunity recognition. However, if the researcher can connect the dots and recognize a pattern as mentioned by Barun (2006) (Note#3), he/she can find opportunities from *evaluation* column. On the other side if the researcher takes into account opportunities from arbitrage between Iran and France, both Kirznerian and Schumpeterian opportunities can be captured using the framework (Note#1).

At the rest of this section, it will be described how to synthesize each column of the matrix.

2-3-3-How to analyze data through the framework

In framework analysis approach, the researcher organizes data into a set of themes and cases where each column or row can be used for the conclusion and providing some charts from data(exemplified in Figure 29) (Lacey and Luff, 2009). Charts can be either thematic for each theme across all respondents (cases) or by case for each respondent across all themes (*ibid*).

These charts provide a possibility for faster study and review of data in general (*ibid*). Finally summarizing and synthesizing data divided by themes (columns) or cases (problem lines or rows) will be done (Ritchie and Lewis, 2003). For doing so, a series of techniques including

pattern recognition, grouping and conceptualization and especially *constant comparison* will be used as mentioned by Lacey&Luff(2009) and Gale et al.(2013). Above process equals with the last step among five steps presented for framework analysis, *Mapping and Interpretation*; The final stage involves interpretation, synthesizing and analysis of the key characteristics as laid out in the charts. This stage includes searching for patterns, associations, concepts, interpretation and explanations in the data aided by schematic diagrams, visual displays and plots (Lacey and Luff, 2009, Srivastava & Thomson, 2009). Aim of qualitative data analysis is “defining concepts, mapping range and nature of phenomena, creating typologies, finding associations, providing explanations, and developing strategies” (Ritchie and Spencer, 1994:186). Thus both categorization and connections strategies of QDA are pursued simultaneously here”.

In confrontation with many problem lines, in this research it has tried to synthesize each column of the matrix using the following techniques;

1. **Labelling (open coding)** based on notes#7&9 (refer to section 3-3-1-1 in chapter3)
2. **Constant comparison, grouping, and conceptualization** based on note#8 & note#14 (refer to section 3-3-1-2 in chapter3)
3. **Counting** based on notes#9,10&13 (refer to section 3-3-1-3 in chapter3)
4. **Comparison, contrasting and noting patterns** (refer to section 3-3-1-4 in chapter3)

Labelling here means segmenting data into meaningful expressions and describing them in single words or short sequence of words and labelling them a code of identification. This step is close to open coding mentioned through grounded theory; “*The initial step in the analysis, which Strauss called ‘open coding,’ involves segmenting the data, attaching conceptual labels to these segments, and making comparisons among the segments*” (Maxwell & Chimel, 2014, p.30).

Constant comparison, grouping, and conceptualization; an integral part of the above process is the constant comparative approach which means “*we compare data with data, data with code, and code with code, to find similarities and differences (Glaser and Strauss, 1967). Initial coding and constant comparative practices lead to sorting and clustering of initial codes. In turn, sorting and clustering codes might result in revising codes as well as constructions of new, more elaborated codes by merging or combining identical or similar initial codes*” (Thornberg and Charmaz, 2014, p.158). Although the same approach exists in grounded theory, in framework analysis (FA), it can be used for *mapping and Interpreting* the data through each column of a

matrix. In the constant comparative method which is highly used in both GT & FA, sections of the data are continually compared with each other to allow categories to emerge and for relationships between these categories to become apparent (Palmberger & Gingrich, 2014)

Wellington(2015) has depicted his interpretation of this approach in Figure 34. Based on Figure34 “*as the categories emerge they can be applied in assimilating new data –or they can be adapted to accommodate other material. The next stage is to examine and refine the categories themselves. Researchers can look for similar categories which could then perhaps be merged to form one new one. Conversely, one category might be developing into a large, amorphous class encompassing far too much. It then becomes too big and too unwieldy*”(Wellington, 2015, p.262).

The category needs to be divided into two or even three smaller groups. This examination of the categories themselves is an activity of *continuous refinement*. Early categories are adapted, merged, subdivided or simply omitted: new categories are developed. New patterns and relationships are discovered (discussed in more detail in Maykut and Morehouse, 1994, pp. 134–36; and, more generally, in Goertz and LeCompte, 1981).

Although GT and FA have different aims, both recruit some form of the constant comparative method. However, there is no obligation to have conformity with steps presented by Glaser and Strauss (1967) when doing framework analysis.

Counting; counting the frequency of codes could be an index when it comes to prioritizing concepts and categories. Prioritizing the concepts becomes more important when it comes to policymaking. A strategy of addressing this issue is to count codes that form each sub-category and category through qualitative data analysis.

Comparison, contrasting, and noting patterns; as mentioned in Figure 34 looking for connection, contrasting and comparison between categories is the last step of constant comparative approach. In framework analysis, this comparison and contrasting is facilitated through the matrix, between rows and columns. Mapping and interpreting essentially are ways of representing pictorially or graphically all of the themes represented by a column and investigating how each of the themes (columns) relates to each other (NCBI, 2019).

Details of implementing the above steps have been presented in the next chapter. However, before that, a review and analysis of the field of study have been presented through the same chapter.

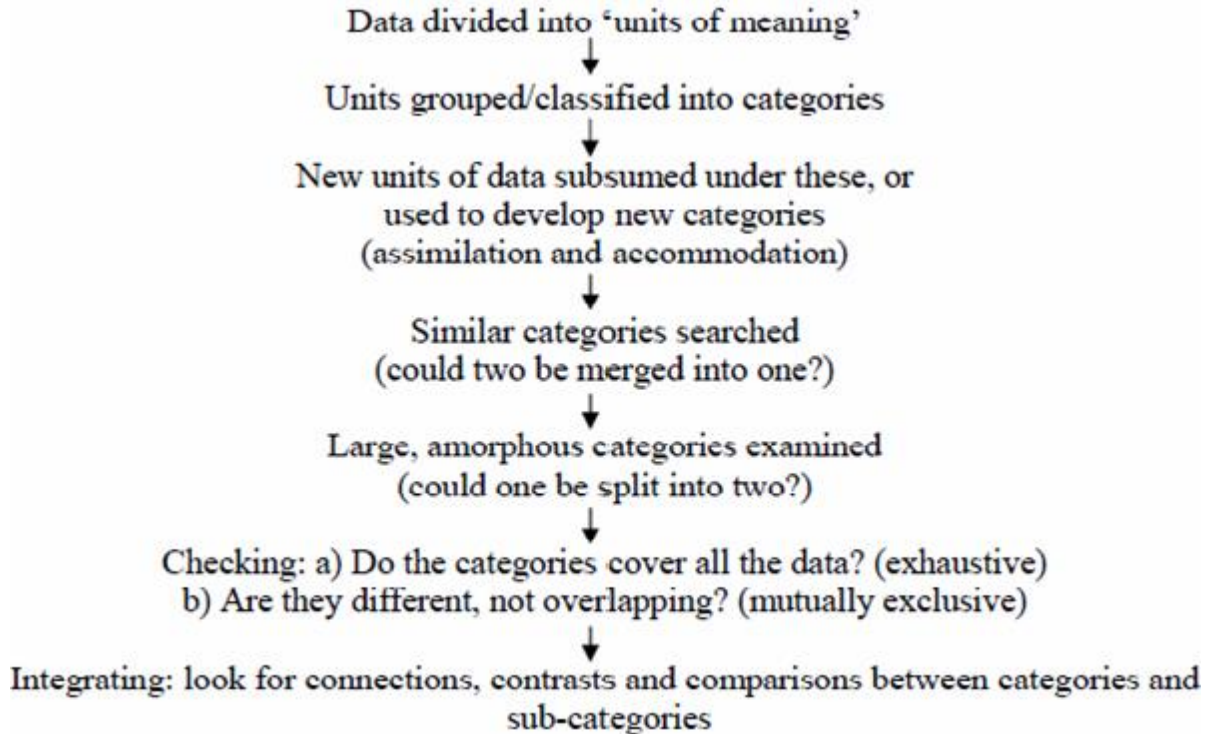


Figure 34-The Constant Comparative Method and ‘continuous refinement’ of categories. Source: Wellington (2015)’s interpretation, based on Guba and Lincoln (1994), Glaser and Strauss (1967), Goertz and LeCompte (1981). Source; Wellington(2015, p.263)

2-4-Validity and reliability of research findings

Quality of researches could be measured by two concepts; Reliability and validity. **Reliability** is about the consistency of a measure, and **validity** is about the accuracy of a measure. In qualitative research reliability and validity find their own contextualization; “*Qualitative validity means that the researcher checks for the accuracy of the findings by employing certain procedures, while qualitative reliability indicates that the researcher’s approach is consistent across different researchers and different projects*” (Creswell et al., 2014, p.201).

Some references have divided research quality into four criteria, as has been mentioned in table 46.5. These factors find different names through qualitative and quantitative researches but have

the same meaning, and they control the same specifications in the research. For qualitative researchers, those four criteria are conformability, dependability, credibility and transferability; Dependability “refers to the stability of data over time and under different conditions. Conformability refers to the objectivity, that is, the potential for congruence between two or more independent people about the data’s accuracy, relevance, or meaning. Transferability refers to the potential for extrapolation. It relies on the reasoning that findings can be generalized or transferred to other settings or groups”(Elo et al., 2014, p.2) and last criteria credibility is the how confident the qualitative researcher is in the truth of the research study's findings(*ibid*). As could be found from the table triangulation among different sources of data, *audit trail of the process* of data analysis and *providing thick descriptions* can be considered as strategies for keeping *conformability, dependability, credibility* and *transferability* in qualitative researches.

Table-46.5-Criteria for quality in qualitative & quantitative research. Source; (Guba and Lincoln, 1994; Lincoln and Guba, 1985; Erlandson, 1993; Nelson, 2008).

Quant. research; Criteria	Qual. research; Criteria	Strategies
Construct Validity, Objectivity or neutrality	Conformability	- Audit trail of the process of data analysis - Triangulation -Member Checking -Reflexive Research Journal
Internal Validity	Credibility/Truth Value	-Prolonged engagement -Persistent Observation -Referential adequacy materials -Peer debriefing/Member checking - Triangulation -Negative case analysis -Reflexive Research Journal
External Validity	Transferability/Applicability	- Thick description -Purposive sampling -Reflexive research journal
Reliability	Dependability (consistency, auditability, replicability)	-Audit trail of the process of data analysis - Triangulation -Reflexive Research Journal

Managing the validity or accuracy of finding for each research is highly essential. Researcher should consider arrangements on the procedures for validating the findings. There are many ways to consider validity and manage subjectivity of researches. As mentioned by Creswell et al.(2014) it is possible to identify and discuss one or more strategies available to check the accuracy of the findings. However, using more than one strategy is preferred. About eight validity strategies have been proposed by references like Creswell et al.(2014);

1. **Verify with more data sources or *Triangulation***; using different sources to build a coherent justification for themes is a strategy for validity. *“If themes are established based on converging several sources of data or perspectives from participants, then this process can be claimed as adding to the validity of the study”*(Creswell et al. 2014, p.201).

For the present research, a pool of data from different sources, including interviews, observations and documents has been provided and an effort made to create coherent justifications for themes.

2. **Use *member checking*** or have participants review the results; this means taking the final report, specific descriptions, finding, cultural descriptions or themes back to participants and determining whether these participants feel that they are accurate (*ibid*). *“This procedure can involve conducting a follow-up interview with participants in the study and providing an opportunity for them to comment on the findings”*(Creswell et al. .2014, p.204).

In the presented research, the researcher is planned to follow this strategy by *splitting* interviews into two phases where in the first section of chapter3, a theoretical framework and many propositions have been shaped. Then at the second section of the chapter3 mainly through interviews, after exploratory questions, explanatory and confirmatory questions asked to appraise past-shaped propositions. For example to check propositions about the role of joint-chambers in trade between Iran and France and the role of SMEs in bilateral trade regime it has been asked; *how can you explain less member in Iran-France chamber in comparison with Iran-Germany chamber OR do you have received enough services from Iran-France joint chamber of commerce? What? How?* It should be mentioned that here research method is not a *Delphi method*(that need three rounds of

interview). Research method is framework analysis that use qualitative methods of data analysis like the thematic analysis.

3. **Use a rich, thick description to convey the findings;** *“This description may transport readers to the setting and give the discussion an element of shared experiences. When qualitative researchers provide detailed descriptions of the setting, for example, or offer many perspectives about a theme, the results become more realistic and richer”*(*ibid*). In general, a *thick description* is the result of a scientific observation of any particular human behaviour that describes not just the behaviour. However, its context as well, so it provide a better understanding of the behaviour outsiders. A thick description typically adds a record of subjective explanations and meanings provided by the people engaged in the behaviours, making the collected data of greater value for studies by other social scientists(Reeves et al., 2013).

In this research, under strict standard of research supervisor, it has been tried to describe research’s setting, shaped themes and give many examples and manifests of propositions in the field between Iran and France to make finding more realistic.

4. **Clarify the biases that the researcher brings to the study;** *“Reflectivity has already been mentioned as a core characteristic of qualitative research”*(*ibid*). Self-reflection of researchers’ limitations and background (gender, culture, history, and socioeconomic origin) openly and honestly and will resonate well with readers. Standard qualitative research contains comments by the researchers about how their interpretation of the findings is shaped by their background and research limits.

Naturally, **in this research**, the researcher has worked in his own background and been faced with many limitations that have affected his finding. However, through the beginning of chapter3 and also by the rest of this chapter, the researcher has reported main limitations he had for conducting present research and also has explained about his research background in an honest way.

5. **Spend a prolonged time in the field.** Within the framework of this strategy, *“the researcher develops an in-depth understanding of the phenomenon under study and can convey detail about the site and the people that lends credibility to the narrative account. The more experience that a researcher has with participants in their settings, the more accurate or valid will be the findings”*.

For this research, the researcher dedicated about four years of presence in the field in the form of interviews and mainly documented and undocumented observations. In-depth understanding of trade relations between Iran and France obtained through this time could help to improve the credibility of findings and explanations.

6. **Checking for alternative explanations** or presenting negative or discrepant information that runs counter to the themes; *“Researchers can also present information that contradicts the general perspective of the theme. By presenting this contradictory evidence, the account becomes more realistic and more valid”(ibid).*

Such an approach could not be followed entirely for **this research** because of the lack of alternative explanation for international opportunity recognition between two countries as a phenomenon under study.

7. **Review findings with peers** or using peer debriefing to enhance the accuracy of the account is another advisable strategy. This process and validating research involves locating a person(a peer debriefer) who reviews and asks questions about the qualitative study so that the findings will resonate with people other than the researcher.

Apparently, **in this research**, this initiative needs to recruit another expert people to help the researcher. Such initiative was not possible for the researcher while the researcher had no fund or support for doing this research

8. Final Strategy is the **use of an external auditor** to review and recode the entire project. This strategy also requires a significant budget to recruit another expert coder and like previous was not possible for the researcher to afford.

From triangulation mentioned above, we mean **data triangulation** among observations, document analysis and interviews. However using another coder or member checking can be considered as an another type of triangulation, entitled investigator triangulation.

*“Triangulation is the research strategy that uses a combination of multiple data sets, multiple investigators, multiple applied research theories, and multiple methodologies to answer research questions”(Salkind, 2010, p.36). Norman Denzin(as mentioned by Salkind, 2010) “identified four types of triangulation. First, **data triangulation** involves using multiple sources of data in an investigation”....”Second, **investigator triangulation** involves employing several evaluators to engage in observations or analyze participant responded. Using multiple investigators allows*

*for the auditing of data consistency and reduces the potential bias inherent in employing only one investigator or analyst ”...“Third, in **theory triangulation**, multiple theoretical perspectives are considered either in conducting the research or in interpreting the data. Employing a multidisciplinary team is one approach that brings different theoretical perspectives to bear on the research question. Last, **methodological triangulation**, which is the most commonly used form of triangulation, engages multiple methods to study a single problem. Typically employed to compare data collected through qualitative methods with quantitative data, methodological triangulation can establish the degree of compatibility between information obtained through different strategies”(Salkind, 2010, p.1537). This research has mainly used data triangulation. Triangulation of data collection has been thoroughly attended to increase external validity and generalizability of researches(Salkind, 2010).*

As mentioned above from above tactics, 1st, 2nd, 3rd, 4th and 5th strategies has been recruited for managing the validity of the research. However, other strategies were not applied in this research mainly due to limitations of the researcher in terms of time, fund and other resources. As mentioned by Creswell et al.(2014), the application of some methods, as mentioned above, could assure validity through research.

Another issue related to research quality is reliability. *“How do qualitative researchers check to determine if their approaches are reliable (i.e., consistent or stable)? Yin (2009)suggested that qualitative researchers need to document the procedures of their case studies and to document as many of the steps of the procedures as possible. He also recommended setting up a detailed case study protocol and database, so that others can follow the procedures”(ibid).*

For present research here, protocol of case study has been designed and presented. Moreover, so far, the process of data collection and analysis using the framework analysis approach for case study entirely has explained that can be replicated by other interested researchers. Finally, the process of clustering the codes and their conceptualization are presented in the next chapter in detail. All of these explanations and documentation could provide a guide for other researchers to replicate similar initiatives on international opportunity recognition and business analysis for the same cases.

2-5-Elaborating final framework based on case study elements

When a case study design is selected, type of case study, unit of analysis, unit of observation and other characters of the case between Iran and France should be determined.

Yin(2014) has been introduced four types of case study design; single case(holistic) design, single case(embedded) design, multiple case(holistic) design and multiple case (embedded) design. The present case study is a single case(holistic) design because it considered when case-study is going to reveal aspects of the phenomenon in a critical, unusual and common way and time-frame is longitudinal; *“The single-case study is an appropriate design under several circumstances, and five single-case rationales—that is, having a critical, unusual, common, revelatory, or longitudinal case—are given below. Recall that a single-case study is analogous to a single experiment, and many of the same conditions that justify a single experiment also can justify a single-case study”*(Yin, 2009, p.47).

Based on Yin(2014), the present case study is *holistic* with a *single unit of analysis*. *Unit of analysis* is trade between Iran and France. *Unit of observation/interview/doc analysis* on the other side is *trade and deals between Iran and France* that will be investigated from different sides and viewpoints.

Robert Yin (2014) in his reference book; *Case Study Research, Design and Methods* has explained five steps for doing a case study research; 1-*Planning*, 2-*designing*, 3-*Preparing*, 4-*Collecting*, 5-*Analyzing*, and 6-*Sharing* (Figure 35). As mentioned before, case-study has been selected as a research design to implement a framework for opportunity recognition. The selected case is trade between Iran and France.

Now the framework of data collection and analysis is induced, and it is suitable to refer back to the concept of the case study and elaborate the framework based on case study's element as mentioned by Yin (2014). Then it is the time for implementation.

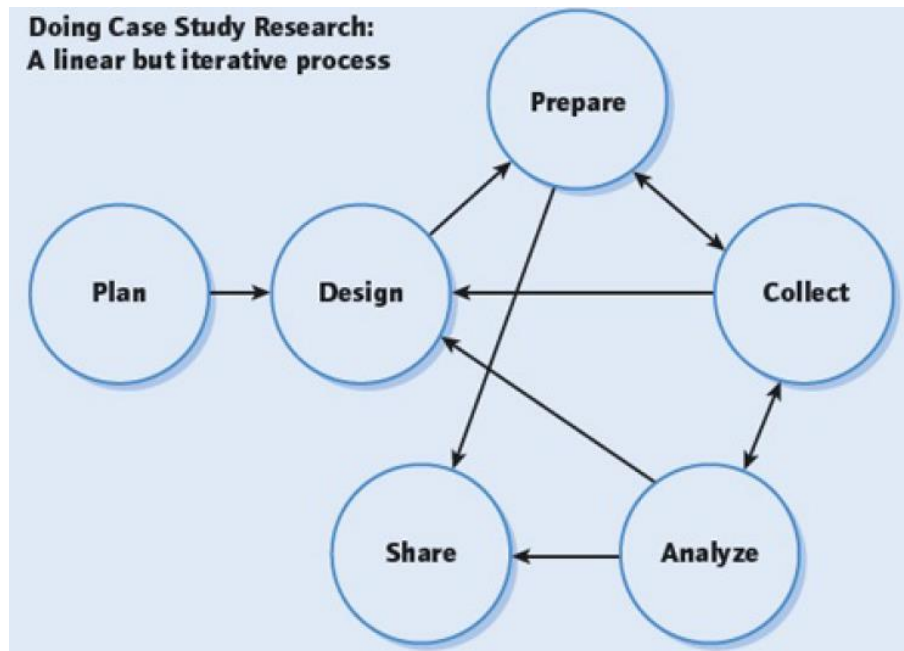


Figure 35-A proposed model for doing case study research; a linear but iterative process depicted based on Yin (2014).

2-4-1-Plan

This step especially considers the justification of doing a case study. For Yin (2014, 27) if the researcher wants to know how and why the extent of control over behavioural events is low and degree of focus on contemporary as opposed to entirely historical events is high, case study can be advised as a research design. Based on explanation provided in introduction researcher are examining a contemporary set of events (in which he has limited control over them) to answer *why*, *what* and *how* questions, so it can be justified to use the case study as the research design.

2-4-2-Design

The design is a logical sequence that connects the empirical data to a study's initial research questions and, ultimately, to its conclusions (Yin, 2014). In this section, the theories, propositions and initial construct of research will be shaped. At the present research, this primary construct is formed at section 3-1(*About the Case; Trade between Iran and France*), when the trade between Iran and France as the case under study is reviewed. The review has led to the necessity of investment in economic cooperation and small and medium enterprises rather than direct import and export and focusing on large companies in trade between Iran and France.

Based on that discussion concerning less trade complementarity between Iran and France for providing a sustainable trade stream between there should have a focus on mutual investments and economic cooperation as has been shaped in the past three decades between Iran and France. On the other side, concerning experiences of German and Italian companies in Iran, there should be an emphasis on small and medium enterprises (SMEs) to be activated in between. Consequently, mutual trade promotion agencies and chambers could and shall be activated more than before.

Abovementioned logical sequence connects the empirical data to research questions and, ultimately, to its conclusions as will be mentioned later.

2-4-3-Prepare

This section especially includes the development of a case study protocol to guide the actual data collection (Yin, 2014). The protocol is especially critical if the case study uses a multiple-case design or involves multiple researchers, or both (*ibid*). In this section, process, protocol and sources of data collection should be determined in detail.

In this research, the mission is to analyze the opportunity environment between Iran and France. Primary propositions and theoretical structure is provided based on the chapter-introduction and discussion that is made in section 3-1(*About the Case; Trade between Iran and France*) that shapes interview and observations' questions. Data collection procedures are based on the principles of qualitative data collection and analysis, as mentioned in chapters2 & 3 under the framework analysis approach and will be explained later. In this regard based on Mainela et al. (2014) and Note#6, four sources for opportunity recognition; *interview* with Iran-France business practitioners and registering their expressed problems, *analyzing trade statistics* between Iran and France, *field observation* and *registering the ideas* emerged through the research process have been used. Accordingly, before attaining to theoretical saturation, the researcher has followed three main routes as mentioned below;

1. 26 interviews (with members of incoming French delegations, members of Iran-France chamber of commerce and Iran-France business practitioners). Details will be explained in the next chapter.

2. Analyzing 54 documents, report and trade statistics. Details will be explained in the next chapter.
3. 10 observations implemented by the researcher. Details will be explained in the next chapter. Details will be explained in the next chapter.

These sources led to 90 problem lines and 351 pieces of data to fill cells of the matrix. Details of this process are presented in chapter 3.

2-4-4-collect

Case study pieces of evidence may be obtained from six sources: documents, archival records, interviews, direct observation, participant-observation, and physical artefacts (Yin, 2014). Using these six sources calls for mastering different data collection procedures (*ibid*). Required data for this research collected from three routes and four sources (as advised by Mainela et al. (2014)). Details are explained at rest. Based on the models that have been discussed in chapter 2, a series of operational questions and inquiries were provided to be asked through interview, observation and document analysis;

- **Problems:** What problems, needs, disturbances or obstacles could we find to be in front of trade development between Iran and France?
- **Preparation:** What knowledge or experiences about Iran-France trade ecosystem could be gathered from informants, observation or document analyses that lead to IOR?
- **Incubation:** What idea, explanations or analogies have contemplated for specific problems (stated in 1st step) or regarding Iran-France trade in general?
- **Insight:** What theories or insights or solutions have been shaped during interviews, incubation process, literature review or a Eureka moment?
- **Evaluation:** How could evaluate or rank the proposed business opportunities?
- **Elaboration:** How can implement the extracted solutions and what can learn from the past implemented trade promotion initiatives?

These questions, however, could be transformed to some extend depending to each research field and should be customized for each informant or field-based its, his or her expertise. A sample list of customized questions for an interview is presented in the Appendix.

Concerning primary propositions and theoretical construct (extracted as section 3-1) these questions were asked into two phases; “exploratory” and “confirmatory” phases. In this way, the researcher first explores and incubates his primary explanation about the case and then confirms and amends it through the rest of the interviews.

2-4-5-analyze

Data analysis consists of examining, categorizing, tabulating, testing, or otherwise recombining evidence, to produce empirically based findings (Yin, 2014). In other words, in this section, we analyze and elaborate gathered data and pieces of evidence. As mentioned by Robert Yin (2014), analyzing case study evidence is especially difficult because the techniques still have not been well defined (*ibid*). Yin (2014) believes that qualitative analysis in general includes *grouping* (using matrixes), *tabulating* and *data presentation* and *recombination of evidences* to find empirical findings. He has presented five main techniques for qualitative data analysis for case studies; *pattern matching*, *explanation building*, *time-series analysis*, *logic models*, and *cross-case synthesis* (*ibid*).

Thus in this research and based on the past discussions and presentation and selection of framework analysis approach, a set of techniques through a process have been induced to conclude on the columns of the framework presented in sections 2-3-2 and 2-3-3. This process will be explained more and then executed in chapter3. However, its steps are a follows;

- *Labelling* based on notes#7&9 as will be explained in section 3-3-1-1
- *Constant comparative approach*, grouping, and conceptualization based on notes#8&14 as will be explained in section 3-3-1-2
- *Counting* based on notes#9,10&13 as will be explained in section 3-3-1-3
- *Comparison, contrasting and noting patterns* based on notes#3,9,10, 11, 14 as will be mentioned in section 3-3-1-4

2-4-6-share

The last step in the case study is sharing the conclusions, whether in writing or oral presentation, means bringing its results and findings to closure (Yin, 2014). This step through the fourth and fifth section of the present has been followed thesis simultaneously. Accordingly, in the fourth

section, the results of the analysis will be reported divided by each column of the matrix and followed by some discussions. Fifth section also includes conclusion on results and discussions.

Robert Yin (2014, 146) introduces providing *a chain of evidence* as one of the methods for increasing reliability of the information in a case study, is to maintain a chain of evidence. Such a principle is based on a notion similar to what is used in forensic investigations. In this regard, the researcher has depicted some chains of evidence in the fourth section to explain findings and policy proposals.

In other words, as mentioned by Miles et al. (2014) on display methods, to complete the finding from QDA, a comprehensive understanding in the form a logical chain of evidence could be or should be depicted or provided. This initiative increases the conceptual/theoretical coherence through the research. Thus extracted explanations about Iran-France trade ecosystem (2nd column) and insight and solutions provided form 3rd and 4th column have been represented through some logical chain of evidence as is depicted in Figures 44, 45 and 46.

Conclusion on chapter 2

At the beginning of this chapter Creswell (2014)'s framework of research was presented, including research approach, design and method. First, concerning research questions, a pragmatic world view was justified to be a suitable philosophy dominating on this research. Then after presenting and comparing research approaches and designs, a qualitative approach was presented the main design; however, this research may benefit a so-called *qualitatively driven mixed method*. Thus the main approach of this research was selected to be qualitative. However, this research will recruit quantitative trade analytics, and surveys have done on interviewees for opportunity assessment.

Final part of Creswell (2014)'s Framework for Research, was the choice of research method in which data collection, analysis and interpretation is determined in detail and practical way. In the context of qualitative research methods, six main designs were introduced, including case study, grounded theory, narratives, comparative analysis, ethnography, and phenomenology. Among them, ethnography, phenomenology, comparative analysis and narratives were removed after a discussion on the type of form of present research

By the rest, main aspects of QDA theory (two types of relationships based on similarity and based on contiguity), and its associate strategies (categorization and connection) and three main reasoning ways (induction, deduction and abduction) had been introduced, and three qualitative metaphors were presented to explain main qualitative strategies better. The use of metaphors is a popular way to make sense and build a theory in qualitative analysis (Aubusson, 2002).

Now, provided with above insights, in the first case study selected as a strategy and then framework analysis as the method for data collection and analysis. Then the field of case study between Iran and France was selected, data collection and analysis, in this case, explained and dimensions of the case study was described based recruited method and selected field.

Chapter3-Research Implementation

Introduction

At the end of the previous chapter, the choice of Iran-France as the field of the case study was discussed. In this chapter, steps, procedures and outcomes of implementing the framework that had been developed in the past chapter, is reported. This chapter is organized into two parts;

At the first part, the field between Iran and France is introduced and analyzed using trade statistics and observations. This analysis is led to an initial theoretical framework, including trade structure, some propositions and associated problems.

At the second part, the case has been incorporated into the framework to conclude on problems, insights, opportunities and policy proposals. In this regard, the main body of research has been implemented and reported around the framework analysis approach. Then data collection sources are presented. In line with a qualitatively driven mixed method, primary sources of data in this research are 1-interviews with business practitioners and consultants, 2-observation of the field, and 3-analyzing related documents, statistics and reports (and assessment of 49 business topics by interviewees). Interviews also are split to confirm and/or amend propositions shaped through the preceding section into conclusions.

Next section of second part presents how the incoming data have been arranged throughout the six themes framework presented in chapter 2, i.e. *problems and needs, preparation, incubation, insights, evaluation of opportunities* and *elaboration*. Especially, evaluated opportunities through 5th column of the framework have been argued and presented into four groups; *export to Iran, export to France, investment in Iran* and *investment in France*. Generally, the constructed framework has been analyzed using four main techniques, respectively, 1-labelling, 2-constant comparison and grouping, 3-counting and 4-comparison and contrasting. Finally, some discussions on exploration, typography and exploration of opportunities and policy-making for trade promotion between Iran and France are presented in the concluding part of this chapter.

3-1-About the Case; Trade between Iran and France

As mentioned in the introduction of the present thesis, the phenomenon under study in this research was opportunity recognition between a developed economy and a developing one. In chapter1 related literature was reviewed. In chapter2 on research methodology, details of the method are presented. Moreover, at the end of that chapter, Iran and France has been discussed and chosen as emerging and developed economies of study for the business environment and opportunities in between.

Therefore, the research field can be considered as the business environment between Iran and France. As explained in the introduction, due to the dual “How-What” question, the actuality of the phenomena and the lack of control over it, *the case study* can be adopted as research design(strategy) and *framework analysis approach* as the research method(of data collection and analysis).

Accordingly, before starting the main body of chapter3, it is necessary to identify the selected field for the case study; business environment between Iran and France, especially for the period between 2004-2017, while the thesis initiated between 2015-2017.

3-1-1-Trade relations between Iran and the European Union

After the Islamic revolution of 1979 in Iran and the war imposed on Iran by Iraq by 1980, relations between Iran and Europe deteriorated because Iranian authorities condemned European states to support Saddam-Hussein of Iraq logistically. However, after the adoption of resolution 598 by the Security Council and ceasefire between conflicting states, a good chance for revitalization of business opportunities between Iran and EU was provided. Tension reduction policy was initiated at Hashemi Rafsanjani's first presidency period led to so-called “*critical dialogue*” by 1995 (USIP, 2017). This policy was followed by Seyyed Mohammad Khatami from 1997 when he launched a new “*comprehensive dialogue*”. Within this format, EU and Iranian officials were meeting twice a year at the level of under-secretary of state. The range of issues was enhanced; economic cooperation was a topic while human rights and non-proliferation issues were put higher on the agenda (*ibid*).

From December 1998 until 2001, European commission and Iran could agree to form joint-commissions to develop cooperation on different issues including economics, energy, environmental protection, transportation, agriculture, drug control, refugees and finally human rights issues. However, there was little progress in commissions with the exception of energy, trade and investment commissions. This issue was announced through a declaration by 7 February 2001 referring to grounds for developing cooperation between Iran and EU. It was proposed to reinforce and upgrade bilateral relations by forming a *TCA (trade and cooperation agreement)* and starting the required negotiations very soon. After approval of declaration by the European Council in May 2001, the path was paved to achieve TCA. Negotiations started subsequently from December 2002 that was covering a wide range of topics from trade and business topics to security and human right issues. Regardless of challenges that implementing such agreement could impose on Iranian political system, it could pave the path to attain to a *preferential trade agreement* between Iran and EU, elimination of tariff and non-tariff barriers in between and benefiting Iranian and European companies from a *most favored nation clause*⁵³. Anyway, by initiating and intensifying the tension between Iran and western countries over *Iranian nuclear program* from 2005, these negotiations came to a halt (European Commission, 2014)(EEAS, 2014).

By 2006-2007 and intensifying nuclear dispute between Iran and western countries was the initiation of a process of gradual decline in trade between Iran and the EU and their substitution by Chinese competitors (Makinsky, 2009). This market loss beside many security concerns about a new war in the Middle East motivates European states to work with US, Russia and China and reach a Joint Comprehensive Plan of Action (JCPOA) with Iran.

When Iran and P5+1 reached to an agreement entitled *JCPOA* on 14 July 2015, a new chapter was opened in relations between Iran and EU. Again EU and Iranian officials started to meet each other every six months at Tehran and Brussels and restart *comprehensive dialogues* on political and economic issues to bring positions closer. By November 2018, three rounds of these dialogues have been held between Helga Schmit, EU Deputy Secretary-General for the external

⁵³ The term means the country which is the recipient of this treatment must nominally receive equal trade advantages as the "most favored nation" by the country granting such treatment (from Wikipedia.org).

action service and Majid Takht-e-Ravanchi, Iran's deputy foreign minister for European and American Affairs.

Although many Iranian authorities had consents about excessive expectations of Europeans on political and human right issues, as they are so sensitive about opening EU office in Tehran, it was hoped by Hassan Rouhani's government that these dialogues accelerate JCPOA to breed its economic outcomes for Iran. However, U.S policies toward JCPOA mainly after Obama's administration was constricting these dialogues day by day especially on May 8, when President Donald Trump framed the withdrawal from the Joint Comprehensive Plan of Action (JCPOA). Hereafter new rounds of dialogues between Iran and European states were initiated in a more pragmatic way to offset U.S withdrawal and keep JCPOA alive. In this post JCPOA era, the role of EU3 (UK, Germany and France) have become more critical than before to attain to a sustaining economic regime with Iran and convince this country to remain uranium enrichment still limited. Again trade, business and economic interests play key roles for more integration and sustaining the regional peace in the Middle East region.

3-1-2-Application of trade indexes between Iran and EU

Before a more in-depth analysis of Iran-France trade streams, it is necessary to take a look at related researches. A review on Iranian and international databases for related papers shows that most prominent studies on international trade relations between Iran and member states of European Union (including France) are due to Hosseini et al. (2007)⁵⁴, Rasekhi (2007)⁵⁵ and Hosseini & Permeah (2009)⁵⁶. These researches have mostly assessed the capacity and trade potential in products between Iran and European Union member countries using four indices of Drysdale, Cosines, simple assessment method and Revealed Comparative Advantage (RCA). These indices are applied on trade statistics based on HS codes of commodities for the period between 1999-2003 (about these indices refer to chapter1). All studies are supported by the *Institute for Trade Studies and Research (ITSR)*⁵⁷. These studies have assessed the trade

⁵⁴ Trade Development Between Iran and European Union with emphasis on Trade and Cooperation Agreement(TCA)

⁵⁵ Intra-Industry trade between Iran and European Union

⁵⁶ Evaluating of Bilateral Trade Potential Between Iran and EU countries. Knowledge and Development

⁵⁷ <http://itsr.ir/en>

potential between Iran and EU with the assumption that trade barriers in between are removed (from present tariff level to under 10%) under a *preferential trade agreement* entitled *trade and cooperation agreement* (TCA).

Hosseini *et al.* (2007) have appraised the trade complementarity between Iran and each member of the EU and extracted prioritized commodities to be traded between Iran and each EU member state. They have recruited *Regionalism and the Multilateral Trading System* as a theoretical framework of research and trade promotion policymaking. In general, they have appraised that formation of a TCA between Iran and the EU could be profitable for both sides. However, joining this agreement has less profit for Iran in comparison with the EU because the focus of this agreement is more on importing and exporting the commodities rather than cooperation and mutual investments (*ibid*). Thus Hosseini *et al.* (2007) have proposed to empower economic cooperation and mutual investments through this agreement more than focus on the trade of commodities (*ibid*, 410). This advice means that for future researches, specific emphasis should be on exploring priorities for mutual investments and economic cooperation development instead of direct export and import of commodities. On the other side, data used for this research refer back to 1991-2003 when is deeply outdated and needs to be renewed.

In general economic approach to multilateral and bilateral trade development is relied on *regionalism theories*, especially *Jacob Viner's theory of customs union* proposed in 1950 (Hosseini *et al.*, 2007). This theory investigates and compares *Trade Creation vs Trade Deviation* under formation of a customs union in which countries eliminate trade barriers. In this regard, many quantitative tools have been developed (e.g. Cosine index or RCA) to assess potentials for new trade creation under a customs union. Among the Farsi papers, 22 pieces of research have used the same set of techniques to assess the trade potential between Iran and other foreign countries under a supposed customs union. As mentioned before the most considerable research was Hosseini *et al.* (2007)'s initiative on HS codes of import and export between Iran and EU members between 1991-2003.

3-1-3-Relation between international trade and investment

Another related context is about the relation between international trade and investment. At this context beside international investment theories like *dunning eclectic* and *institutional theory*, a

majority of researches were found to be about Foreign Direct Investment (FDI) and its affecters, FDI effects on employment and economic growth at home and host countries and determinants of FDI (Ramasamy and Yeung, 2010). Based on the discussion mentioned above, two main topics in this field are 1-*customs unions* and *economic integration* among countries and 2-trade potential estimation using different tools and techniques.

Janicki & Wanaka (2004) and Roberts et al. (2008) are examples of studies that have investigated affecting factors of FDI. In general, the descriptive approach dominates normative approaches in this field. In other words, international trade usually describes and/or explains trends and phenomena rather than making policies or advice for trade and business promotion. Most of policy makings in this field are provided by *The United Nations Conference on Trade and Development* (UNCTAD) among them are UNCTAD (2000), UNCTAD (2001) and UNCTAD (2012). All of these reports are government-oriented and have provided to help developing countries to attract more investment and reach to a more sustainable trade regime. Qualitative researches in this field are limited among them is research by Sarisoy-Guerin (2007) entitled *Qualitative Analysis of a Potential Free Trade Agreement between the European Union and South Korea*.

As mentioned before, Hosseini *et al.* (2007) and Hosseini & Permeleh (2009) concluded that formation of a free trade union between Iran and EU (trade and cooperation agreement-TCA) is toward both sides' supreme interest. However, they found out that this agreement at the present status of Iran and EU will be much more beneficial for the EU rather than Iran. That is because TCA relies on trades of commodities so after eliminating trade barriers, imports of Iran will be twelve times much more than the import of EU from Iran (*ibid*) thus this trade regime could not be sustainable. Thus, scholars finally have proposed the agreement to be revised, and new topics regarding **economic cooperation, mutual investment and technology** transfer will be included.

Rasekhi (2007) has put the same emphasis on economic cooperation rather direct export through his research on intra-industry trade between Iran and the EU. However, international trade and international economics basically are descriptive fields. So only limited researches in this field have proposed policies for economic cooperation development or explored topics and

opportunities for cooperation. Those limited researches (e.g. Rahmani et al.,2013) are also based on past-oriented statistics and quantitative non-dynamic tools.

In general, as mentioned by Hosseini et al. (2007) and Rasekhi (2007) to reach a win-win trade regime between Iran and EU, both sides should focus on mutual investment and economic cooperation rather than direct import and export though still there have not been developed researches in these issues between Iran and EU. This cooperation could be reinforced by the political interest of Iran and the EU to cooperate while the development of economic cooperation and mutual investments could reinforce political ties per se. If Iran and the EU become dependent on each other, these provide economic integration, and they may have less interest in political challenges in future.

Above mentioned techniques basically use statistics of trade between countries based on codes of commodity (HS codes) as an input. Although these analytics provide useful insights, they are past-oriented and have not enough comprehensiveness or dynamism for opportunity recognition abroad as needed for the present research. For this reason, the above techniques and statistics should be accompanied by qualitative explanations and descriptions.

3-1-4-Other related researches and conclusion on trade between Iran and EU/France

Searching for English papers through scientific databases using keywords Iran+France/European Union+Trade/Business almost reached to papers on international relation and effect of sanctions on depreciating trade between Iran and foreign countries which are not directly related and useful for the present research.

Farsi papers investigating the effect of imposing tariffs on trade between Iran and other countries (10 papers), Ranking export markets (3 papers), strategies and policies for export development, importance of membership at trade and customs unions, export marketing and economic diplomacy (rest of the papers about 20papers). These titles again show the dominance of the economic approach mainly to analyze trade barriers' effects on business literature between Iran and foreign countries instead of entrepreneurial orientation.

Specifically, in the case of Iran and France, only one paper entitled *French Trade and Sanctions Against Iran from*⁵⁸, by Michel Makinsky (2009) and published in an Israeli journal was found. He has mentioned that EU export to Iran has been decreased considerably by 2006-2007 under US sanctions; “*France seems to have lost its market share there, as Germany-despite its stated firmness on sanctions-maintained a high level of trade with Iran*” (*ibid*). This research will be referred more in the next section where it is going to find a primary proposition about trade between Iran and France.

3-1-5-A qualitative-quantitative analysis on Trade relations between Iran and France

French republic and the Islamic Republic of Iran were selected in this research as the country pairs of developing and emerging economy to explore business opportunities in between. With regard to its unique economic position in Europe and membership at Security Council, France can be considered as one of the leading powers and suitable representatives of the EU to examine bilateral trade opportunities with Iran. With about 63 million populations, 2.465 trillion USD in 2016, France could be introduced as sixth world economy based nominal GDP and 19th based on GDP by PPP⁵⁹. Inflation rate of France for 2015-2016 has been about 0.7% and unemployment, 9.9%. Traditional sphere of influence for France is west, north-west and central Africa where is known as *French Africa* includes 24 countries with about 392 million population inspired by French culture, economy and politics form the 19th century.

Based on The Observatory of Economic Complexity⁶⁰ top exports of France in 2016 have been Planes, Helicopters, and/or Spacecraft (\$51B), Packaged Medicaments (\$24.3B), Cars (\$21.2B), Vehicle Parts (\$17.8B) and Gas Turbines (\$12.6B). Its top imports are Cars (\$29.6B), Crude Petroleum (\$19.9B), Petroleum Gas (\$18.6B), Refined Petroleum (\$17.4B) and Aircraft Parts (\$14.8B). However, the French economy relies on the service and tourism sector as 79.8% of national GDP is provided by the service sector, 18.3% by industry and 1.9% by agriculture for

⁵⁸ Makinsky, Michel,(2009). French Trade and Sanctions Against Iran. *Middle East Review of International Affairs*, Vol. 13, No. 1 (March 2009). Pp107-122

⁵⁹ Purchasing Power Parity

⁶⁰ <http://atlas.media.mit.edu>

2016⁶¹. So a considerable part of the French economy could not be reflected in statistics of trades of commodities.

Main importing and exporting sources and destinations of France are presented at Tables 15 and 16. Based on Tables 15 & 16, Iran ranks as 68th exporting destination and 105th importing source of France. U.A.E on the other side ranks 20 & 48 respectively and Turkey 14 in both import and export. These differences in import and export volume of Iran in comparison with countries like U.A.E and K.S.A could justify why France, in many cases, is affected by Arab states of Persian Gulf to impose pressures on Iran. As mentioned by Makinsky (2009) business with Iran is not a considerable part of France international export; *“Officials underline, on the one hand, their limited presence--only about 15 companies--in Iran and, on the other hand, the small share of Iran’s market in the French business portfolio”*(ibid).

Table 15- Main exporting destinations for France in 2014, from comtrade.un.org as cited by www.globaledge.msu.edu/countries/france/tradestats

Rank	1	2	3	4	5	6	14	20	28	68
Country	Germany	Belgium	Italy	Spain	U.K	U.S.A	Turkey	U.A.E	K.S.A	I.R.Iran
Percent(%)	16.7	7.3	7.3	7.2	7.2	6.5	1.4	1	0.7	0.1

Table 16- Main importing sources for France in 2014, from comtrade.un.org as cited by www.globaledge.msu.edu/countries/france/tradestats

Rank	1	2	3	4	5	6	13	14	48	105
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⁶¹ nominal gdp estimates by International monetary fund for 2017

Country	Germany	China	Belgium	Italy	U.S.A	Spain	K.S.A	Turkey	U.A.E	I.R.Iran
Percent(%)	16.7	7.3	7.3	7.2	7.2	6.5	1.5	1.3	0.22	0.01

Table 17- Main exporting destination for Germany in 2014, from comtrade.un.org as cited by www.globaleledge.msu.edu/countries/france/tradestats

Rank	1	2	3	4	5	16	20	25	48
Country	France	U.S.A	U.K	China	Netherland	Turkey	U.A.E	K.S.A	I.R.Iran
Percent(%)	9	8.6	7	6.7	6.5	1.73	1.03	0.8	0.22

Table 18- Main importing sources for Germany in 2014, from comtrade.un.org as cited by www.globaleledge.msu.edu/countries/france/tradestats

Rank	1	2	3	4	5	18	60	65	79
Country	Netherland	China	France	U.S.A	Italy	Turkey	K.S.A	U.A.E	I.R.Iran
Percent(%)	9.7	8.9	7.3	5.5	5.3	1.48	0.12	0.09	0.03

Rankings of Iran among international trade destinations of Germany are reflected at Tables 17 & 18 for 2014. France can be seen as the first commercial partner of Germany and vice versa that show organic commercial relations and interdependencies between France and Germany. This relation could be in line with *country similarity theory* of international trade presented by Stephan Linder (1961), a Swedish economist. Based on this fact and the importance of

comparative researches on IE and comparison and contrasting between countries to do analogies as expressed in introduction based on Kiss *et al.* (2012) and Tarjesen *et al.* (2013), the present research has put a particular focus to compare trade promotion initiatives of France and Germany in Iran as an emerging economy to be able to induce insights and explanations.

Table 19-the volume of international trade of Iran and France for 2011, 2014 and 2015. Source; www.trademap.org note; selection of these years has been based on available data

Trade volume	2011	2014	2015
Iran imports from the world	68	54	44
Iran exports to the world	131	74	38
France imports from the world	720	677	573
France exports to the world	598	581	506

Table 20-A comparison on GDPs of Iran and France (Nominal and Based on Purchase power parity). Source; "World Economic Outlook Database, April 2019". IMF.org. International Monetary Fund. 10 April 2019. Retrieved 3 September 2019

GDP	Nominal-In billion Dollars	By PPP-In billion Dollars
GDP Iran (World Rank)	0.484 (25 th)	1.858 (18 th)
GDP France (World Rank)	2,761 (7 th)	3,085 (10 th)

GDP France/ GDP Iran	5.7	1.66
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The volumes of trade between Iran and France are reflected in Table 19 for 2011, 2014 and 2015 in billions of dollars. Based on Table 19, it seems that the French economy is on average about six times more than Iran. The same ratio there is between the nominal GDP of France and Iran. However, the comparison between the export of commodities or nominal GDPs is not a reliable index alone, but purchase powers of the nations should be included too. In 2019, GDP of France in purchase power parity (PPP) had been 3,085 Billion dollars (10th in the world) while for Iran it has been 1,858 (18th in the world) that shows based on purchasing powers of nations, the French economy is just about 70% larger than Iran (Table-20). This happening is because 1 dollar has much more purchasing power in Iran in comparison with France. On the other side, internal consumption and production in Iran is much more than what can be understood from nominal GDP or import/exports.

Table 21- import volume of Iran from selected countries between 2005-2015. Source; Iranian customs www.irica.gov.ir

Year	France	Germany	Italy	China	S.Korea	Turkey
2005	2676	5162	2360	2160	2118	867
2006	2191	5074	1716	2617	1941	886
2007	1893	5327	1902	4247	2453	1246
2008	1796	3435	1686	7436	4749	3079
2009	929	2832	1081	8154	4811	3770

2013	570	2454	1093	12718	4416	3873
2015	734	1803	906	10449	3682	2994

Table 21 shows import volumes of Iran from selected countries (France, Italy, Germany, China, S.Korea and Turkey) and Figure 36 shows a graph drawn based on Table 21. As reflected in Figure 36, since 2007-2008 the trade volume between Iran and three EU states (France, Italy and Germany) has decreased while at the same time trade between Iran and Asians states including china and S.Korea and Turkey has been increased.

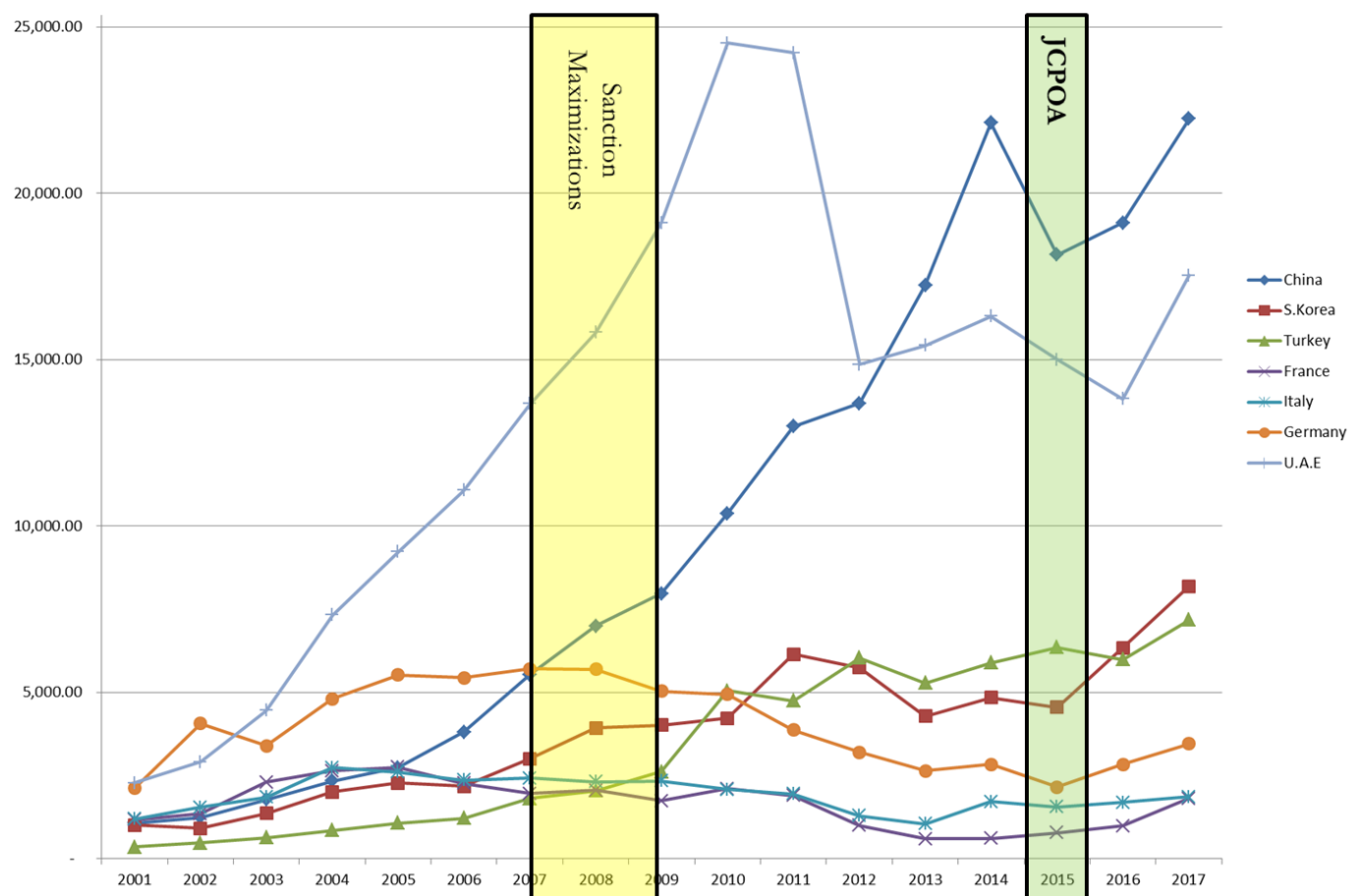


Figure 36-A a comparison between imports of Iran from European states with imports from China, S.Korea and Turkey from 2001 until 2017, Source; Iranian customs www.irica.gov.ir.

A comparison between reduction in imports of Iran from European countries (Germany, France and Italy) and increased imports of Iran from China, S.Korea and Turkey as depicted in Figure 36 shows that through a decade, European companies have lost their market in Iran against Asian and Turkish competitors. This process mainly is started from 2007-2008 by the intensification of the nuclear conflict between Iran and world powers by 2008 and imposing sanctions on Iran

As certified by Makinsky(2009, p.109); “*The EU share is declining, with 37 percent in 2006-2007. Germany has maintained the same position, with 12.1 percent. France has fallen from the third to fifth place, with 5.4 percent, whereas China is gaining additional shares every year, ranking third in 2006-2007 at 7.1 percent. South Korea is the sixth-largest [trade] partner at 4.7 percent, ahead of Italy (4.1 percent), the United Kingdom (3.4 percent), and the Netherlands (2.3 percent)*”.

Figures 37 and 38 show how France trade in goods with Iran has been collapsed by 2007 and export of china to Iran has been accelerated from around the same period. In fact, by increasing political tensions between Iran and West, European market share has been lost gradually to Asian competitors, mainly china.

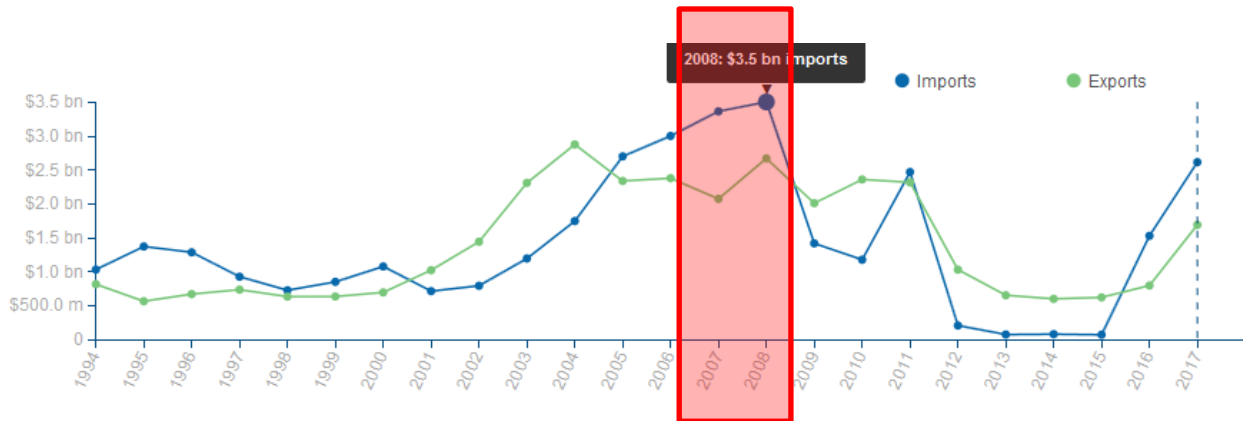


Figure 37-France trade in goods with Iran since 1994-Source; Trendeconomy.com

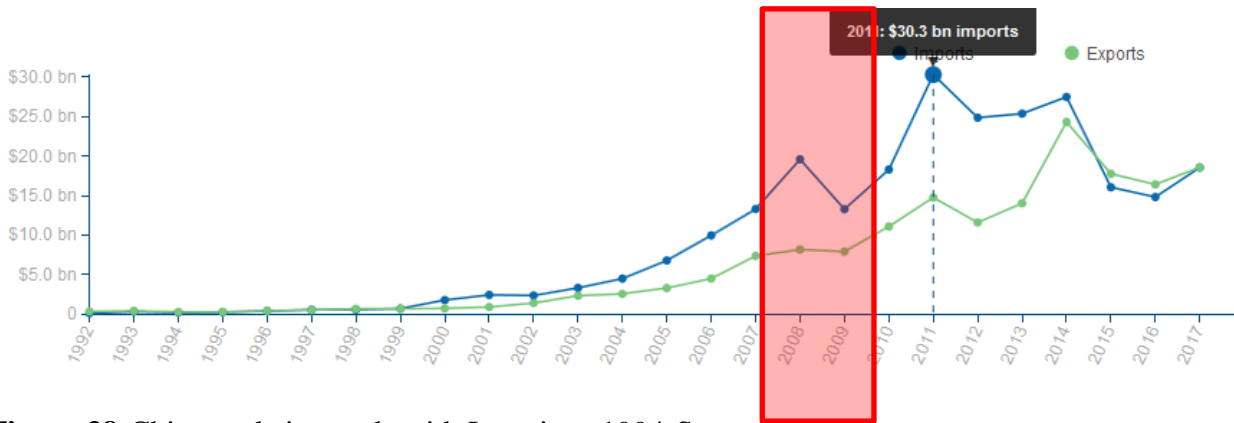


Figure 38-China trade in goods with Iran since 1994-Source; Trendeconomy.com

In the case of France, the export to Iran has decreased from 2 billion dollars in 2005 to 570 million dollars in 2014. In 2015 more than a third of imports of Iran from France, near 260 million dollars have been automotive parts and the rest (two thirds) mainly have been pharmaceutical and cosmetics. Before JCPOA in 2014, about a quarter of imports near 122 million dollars was automotive parts. Although in 2014 and 2015 France ranked 10th and 13th among Iran's importing sources of Iran, its ranks had been 3rd and 5th in 2005 and 2006. Interestingly, in 2005 and 2006, about half of these imports have been automotive parts.

Makinsky (2009) exemplified market lost in the automotive industry as “*Taking advantage of the uncertainties hanging over French carmakers, the Chinese automotive group Chery established a foothold in Iran with a \$370 million co-manufacturing project intended to produce 200,000 vehicles per year when the plant will be completed. This shows the capture of the Iranian market by China as Europeans give up their business*”(Makinsky, 2009, p.116).

Moreover, based on Figure 36, France has lost its exporting market shares to Asians much more in comparison to its other European counterparts(Germany and Italy). Makinsky (2009, p.110) quantifies this loses in 2007 as below; “*With an 11 percent Iranian market share by November 2007 Germany was exporting 14 percent less goods than it had the previous year. With \$3.243 billion of exports, Germany is considered Iran’s third-largest supplier. France’s position, on the other hand, has continued to decline much more about 21 percent decrease, dropping to sixth place,(\$1.513 billion), a 20.32 percent decrease. Simultaneously in 2007, Italy’s share form export to Iran has increased by about 6 percent. As for Germany, its status of first-place European exporter to Iran is unchallenged; Italy reaches half the German export level while*

keeping a big share in imports from Iran, probably hydrocarbons. France ranks as seventh direct exporter (re-exports excluded) with a deteriorated status”(ibid, p.111). ...“French government support for the United States placed French firms under extreme financial pressure.... France seems to have lost its market share there, as Germany--despite its stated firmness on sanctions--maintained a high level of trade with Iran”(ibid, p.107).

On the other side, Iran non-oil exports to France is very negligible and is limited to some agro-foods and handicrafts. Iran export to France for 2014 and 2015 has been 31 and 18 million dollars, and this country ranked 50th and 55th among importing sources of France.

All of these records reveal a fragile and single-product (non-diverse) trade structure in terms of import and export between Iran and France. This trade regime is one-way in favour of France; thus, it cannot be hoped to be sustainable. However, the main part of bilateral trade between Iran and France do not rely on direct import and export of commodities. Instead, bilateral trade is relied on foreign direct investments, licensing, franchising and joint ventures of French companies like Renault, Peugeot, Total, Bel Group, Danone and Carrefour in Iran whose records usually does not stated officially by themselves or the Iranian government.

The volume of foreign direct investment of French companies in Iran is not transparent and visible, and both Iranian and French parties are so cautious about publishing its records. In other words, the conservatism of both Iranians and French has caused limited information to be revealed. However, with regard to Table 22, until 2007, before the nuclear dispute begins between Iran and West, France has been the largest foreign investor in Iran. Nevertheless, after the 2007-2008, investments of French companies dropped considerably, and this country has been replaced by China. However, the trade regime between Iran and France is still relied on direct investment of French companies in Iran, not on direct export and import. This situation is in contrast with the German approach in Iran that will be discussed later.

Table 22- Foreign direct investment in Iran until 2014, based on www.unctad.org

Reporting economy	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Belgium	-	-1	-	..	-2	-	-	-	3	4	1	8
China	-	-	8	18	12	66	11	-35	125	511	616	702
Croatia	-	-	-	-	-	-	-	-	-	-	1	1
Cyprus	-	-	-	-	1	-	1	..	-	-	-	-
Czech Republic	-	-	-	-2	-	-	-	-	-	-	-	-
Denmark	-	-	-	-	57	1	1	27	-	-	-	-
France	-	-82	-302	-233	-216	-77	465	-166	-90	-20	-175	84
Germany	47	-10	236	154	216	297	-11	-108	13	-123	-275	193
Italy	-	6	-	1	2	4	7	289	235	443	678	547
Japan	-1	1	-	-	-	-	-	-	-	-	-	-
Korea, Republic of	-	-	-	1	-3	-	-	10	7	1	-	-
Luxembourg	-	1	-1	-	16	-15	1	3	-	-8	-1	-1 556
Poland	-	-	-	-	-	-	-	-	-	39	4	1
Slovenia	-1	-	2	2	4	-	-	-	-	-	-	-
Sweden	-	-7	-8	-5	-32	..	..	-4	-12	-2	-24	..
Turkey	5	3	3	4	3	-	-	128	3	13	4	2
United States	1	1	1	..	..	..	..	-1	-1	-	-	-

In general, political fluctuation between Iran and EU harmed France more than other counterparts not only in terms of export but also on the benefits of foreign investment. Makinsky (2009, p.117) believes that “A preliminary assessment of this trend leads one to assume that Europe, while advocating additional sanctions, has discreetly managed to boost its trade with Iran. Yet France appears to have less of an advantage over its competitors (namely Germany) due to French government restraints. It remains to be seen whether France will remain in its position as the “main loser” due to sanctions against Iran”.

By the rest, it is tried to find some explanations on trade between Iran and France in comparison with other European counterparts.

Trade between Iran and France and other European states can be analyzed through the concept of *trade complementarity*. Trade complementarity is developed as a concept to assess the extent of similarity or alignment between import vector of country A and export vector of country B. Many indexes have been developed to assess trade complementarity between countries or business blocs. Whatever trade complementarity between two countries (import of A and export of B) is more; it means that country B exports products that country A needs to import. The reverse case could be defined between the export of country A and import of B.

One of the most important indexes to assess trade complementarity is *Cosine Index*. This index has been presented in chapter1. Cosine index between the import of country A and export of

country B measures the angle between the import vector of country A and export vector of country B based on HS codes of commodity. Thus whatever two vectors align each other, or there are fewer angles between them, the cosine of the angle will be more. This means more complementarity between export of country A and import of Country B. Consequently, the cosine of the angle for maximum complementarity limits to 1. In other words, cosine (0) =1 means maximum complementarity and cosine (90) = 0 means minimum complementarity. Below formula has shown the formula for calculating complementarity between export of country j and import of country i where X_{ik} means export of country i to the world from commodity k and M_{jk} means import of country j for each code of commodity from the world. Cos_{ij} here means the cosine of the angle between export of country i and import of country j .

$$Cos_{ij} = \frac{\sum X_{ik} \cdot M_{jk}}{\sqrt{\sum X_{ik}^2 \cdot \sum M_{jk}^2}}$$

Figure 39 presents a comparison among cosine indexes between the *import of Iran and export of France* (red line), *import of Iran and export of Italy* (blue line) and *import of Iran and export of Germany* (green line) between 2003 and 2013, based on data provided by an interactive portal for international business entitled www.knoema.com. Basic required data for this analysis have provided from UNCTAD⁶². Unfortunately, more timelines were not available to extend analogies.

As reflected in Figure39 trade complementarity between the import of Iran and export of France is less in comparison with exports of Germany and Italy because for almost all of the period the graph for France (red line) is located under other two other graphs. This fact means that in comparison with Germany and Italy, France produces fewer commodities to be needed directly by Iran. Note that this induction is for direct import and export and do not extend to mutual investments and economic cooperation.

⁶² United Nations Conference on Trade and Development

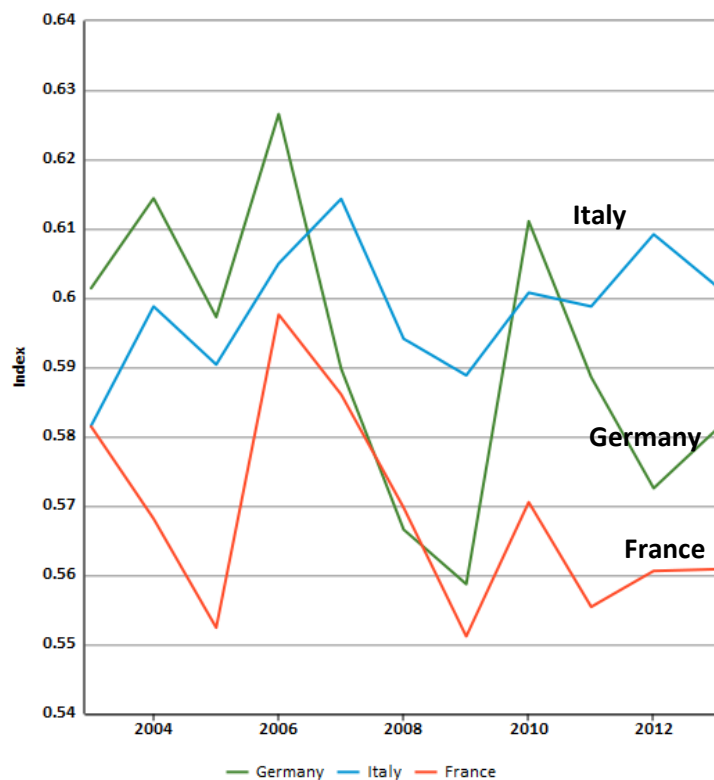


Figure 39-Comparison between trade complementarities of export of three European countries to Iran, source; www.knoema.com based on UNCTAD data series

On the other side, Figure 40 illustrates the fact that trade complementarity between Import of France and export of Iran is less than complementarity between the import of Germany and export of Iran and especially than the import of Italy and export of Iran. This comparison also means that in comparison with Germany and Italy, France has had less need for imports from Iran directly.

In other words, Iran and France relatively (without consideration of sizes of their economies) produce similar groups of products and have the competency to export the same products. For example, both countries have global or regional competency at automotive, agro-food, pharmaceutical, FMCG, oil and gas industries and even tourism and commercial services. As mentioned and discussed later, it seems that both countries have relied on large companies to feed their international trade engine, and small and medium enterprises play a peripheral role in this route.

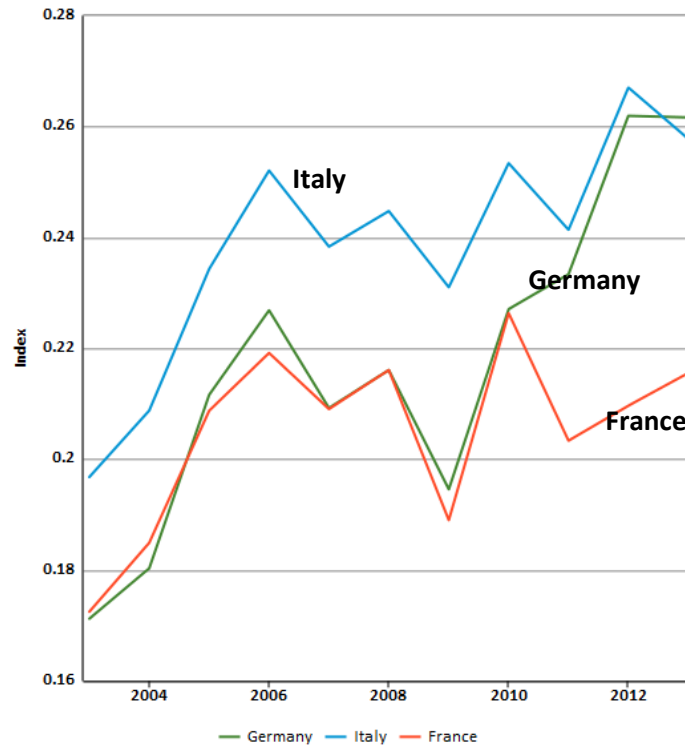


Figure 40-Comparison between trade complementarities of import of three European countries to Iran, source; www.knoema.com

Moreover based on Figure 40, trade complementarity between export of Iran and import of 3 European states has been increased. In contrast, trade complementarity between the import of Iran and export of 3 Europeans has remained fixed. This fact means that through a decade, economic and industrial structure of Iran (and probably 3 European states) have been transformed in a way that justified import from Iran more than before. However, export from Iran to France has still less justification than export to Germany and Italy because the growth rate for France is less than Germany and Italy and has experienced more fluctuations.

Abovementioned discussion validates the past proposition about the reliance of Iran-France trade on *direct investment (In Iran)* rather than *direct import and export*. Iranian initiatives to invest directly in France (e.g. buying refinery⁶³ or Slaughterhouse) have not been successful as yet for political reason and are not considerable (IRNA, 2015). Analyzing typology of mutual investments of Iranian and French companies in Iran reveals that this cooperation has initiated

⁶³ Petite-Couronne refinery

usually by large companies like *Renault*, *Peugeot*, *Total*, *Alstom* and recently *Accor* and *Europcar* that all of them have entered into Iran and are among the leader of the market. However, international trade structure of Italy and Germany in Iran is more plural and based on small and medium enterprises (SMEs), where these companies have had many interrelations with Iranian small and medium enterprises in terms of supplying machinery and spare part for them.

Comparing *Iran-France joint chamber of commerce* and *Iran-Germany joint chamber of commerce*, their number of members and their extent of activity in Iran, provide supporting proofs for the abovementioned proposition. Joint chambers of commerce as a Business Membership Organization (BMO) principally mediates and represents relations between SMEs of each business community (Sequa, 2016). While the members of Iran-France chamber of commerce at the time of research has not been more than 375 legal and personal members, members of Iran-Germany chamber of commerce has been more than 2000 members, and this complex presents a wide range of services including business matchmaking, event management, training and promotions to Iranian and German businessmen (Soltanifar et al., 2017).

Activities of Iran-France chamber of commerce on the other side were limited to visa services and arrangements for periodical incoming French delegations to Iran! As mentioned by French members of the joint chamber, this limited extend of activity refers back to the reliance of trade between Iran and France on MNEs (not SMEs) thus these companies sense no need to use a joint chamber for their communications with Iranian government and companies. French MNEs working in Iran handle all of their jobs in Iran through their direct connections and own departments without a need to leverage a joint chamber. Large French companies like Total, Renault and Carrefour have entered directly into negotiations with Iranian government bodies like National Iranian Oil Company, Industrial Development and Renovation Organization (IDRO) and Tehran Municipality. Germans on the other side with regard to investment on their SMEs (called *Mittelstands*⁶⁴) needs to construct a comprehensive network of joint chambers of commerce around the world.

By the way, as depicted in Figure 36, all three European states have lost their market share between 55-75 per cent through the past decade (2005-2015). The main reason for this downturn

⁶⁴ Refer to chapter1 for more information about them

is the nuclear dispute between Iran and West that frustrated trade streams and mutual investment gradually; first of all investment of French companies stopped on 2008 and gradually French companies like Peugeot found it problematic to stay in the market. Large French companies, in general, have considerable deals and connections with the U.S monetary system and operations in North America. Thus large French companies have been more fragile and sensitive in comparison with German and Italian SMEs in front of U.S pressures. As a fact, in 2011, BNP Paribas, the largest bank in France and 8th in the world⁶⁵, sentenced in \$8.9 billion fine by the U.S over sanctions violations on Iran and Cuba. On the other side, these banks had significant connections with the U.S monetary system so accepted this accord and have forgotten later deals with Iran.

Table 23- France's place among importing and exporting partners of Iran. Source; Tehran Chamber of Commerce Industries Mines and Agriculture, www.tccim.ir

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Import	3	5	8	7	9	7	7	11	11	13	10
Export	31	35	33	40	40	44	43	50	48	50	55

China, S.Korea and Turkey on the other side could increase their export to Iran about 80 until 480 percent! From about 2007-2008. Consequently as is reflected in Table 23 between 2005 and 2015 France's rank as an exporter to Iran dropped from 3 to 10 and Iran has attained no more than 50th place among importing sources of France through 2013-2015.

3-1-6-Primary theoretical framework of the research

Qualitative researches start with research questions, not propositions. However, almost all of the researchers start their researches with an initial *theoretical framework* including some initial solutions in their mind to connect concepts and by the rest of the research, they modify this

⁶⁵Report entitled; The world's 100 largest banks". by Standard & Poor. Released in April 6, 2018.

Framework against incoming data. For present research on trade ecosystem between Iran and France, an initial theoretical framework could be presented as a conclusion on abovementioned discussion;

There is less trade complementarity between Iran and France in comparison with Iran-Germany and Iran-Italy. As a result, French deals with Iran have shaped more around investment rather than direct export to this market. Moreover, trade promotion initiatives of France in Iran have generally formed by large and multinational companies. This issue by itself has increased fragility of their trade initiatives in Iran.

To provide a sustainable trade stream between Iran and France, concerning existing trade complementarity both sides should continue and sustain economic cooperation more than direct import and export with a focus indirect investments in Iran. For making these investments more agile, cooperation between small and medium enterprises in Iran and France should be incubated mainly. Accordingly, joint-chambers of commerce between Iran and France and other business membership organizations shall play a unique role.

At the rest of this chapter, provided by above discussion and theoretical framework and to explore opportunities and business environment between Iran and France, a set of interviews, observations and document analysis from different sources have been conducted and analyzed using framework analysis approach.

3-2-Implementing the research

In this second part, detail of implementing body of research is presented.

3-2-1-Data collection sources

Reference to past chapter, a qualitatively driven mixed method was considered as the approach of the present research. In such a research approach, both qualitative and quantitative sources of data will be used simultaneously.

On the other side, to cover all four primary sources of data related to international opportunity recognition (Note#6), it has been tried to gather information using interviews, observation and

document and statistics analysis. Details of this data collection are presented in Table 24 and Table 25 and are summarized as below;

- **26 interviews**
- **54 document analysis**
- **10 observations**

3-2-1-1-Interviews:

Interviews have been done with professionals, practitioners and informants of Iran-France trade issue including 15 Franco-Iranians, 8 French citizens, 2 Iranians and a German expert as reflected in Table 24. These interviews have been conducted from July until December 2016 each one takes about 30 to 40 minutes. All of them have been recorded and transcript wholly or briefly. Interviewees mostly were found via contacts with members of Iran-France joint chamber of commerce OR connecting with related practitioners through the professional platform: www.Linkedin.com⁶⁶ and asking them to participate in this research. Interviewees had at least one of these qualifications; *membership at Iran-France joint chamber of commerce, membership in one of the incoming French delegations into Iran, Iranian entrepreneur in France, an Iranian national with working experience in French companies, French national working in Iran or doing research about Iran-France trade relations*. A sample invitation letter has been presented in the Appendix. These people represent a variety of 14 Small and medium enterprises including constants and consultancy firm, seven large companies and five university professors. Companies represented different fields including FMCG, energy, telecommunication, machinery, engineering and construction, environmental services and consultancy services.

Opportunity recognition and business analysis have a multidimensional nature; thus, each interviewee from different points of view could provide useful notes and finally complement each other. For example, university professors in macro-level and socio-political issues, each

⁶⁶ LinkedIn is an American business and employment-oriented service. Founded on December 28, 2002 and launched on May 5, 2003, it is mainly used for professional networking, including employers posting jobs and job seekers posting their CVs. As of 2015, most of the company's revenue came from selling access to information about its members to recruiters and sales professionals. Since December 2016 it has been a wholly owned subsidiary of Microsoft. As of June 2019, LinkedIn had 630 million registered members in 200 countries.

company on its own business issues and consultants on general business issues and concerns were hoped to provide data.

The interviews were conducted face-to-face or by telephone. Although face-to-face interview provides more proximity and better visual communication, it is expensive and more time consuming to recruit and conduct. To manage the differences between these channels, the researcher tried to get more time through telephone interviews and provide interviewees with more preparation about the research and balance the intimacy. However, research questions in both channels of interviews were the same.

For managing the subjectivity of research, interviews were split into two rounds; first round with about five interviews recruited beside trade analysis and observations to form the theoretical framework of research, mentioned in the preceding section. These interviews had more exploratory inherent. At the second round of interviews, a set of proposition mainly extracted from the past section were presented additionally to interviewees to be confirmed, modified or explained. Sample questions divided by each phase has been presented in the Appendix.

As an example, in section 3-1 propositions had been shaped to explain relative inactivation of Iran-France chamber of commerce and lack of business promotion services for French SMEs in Iran. Thus to investigate that proposition, at the confirmatory phase of interviews it was asked “how can you explain less member in Iran-France chamber in comparison with Iran-Germany chamber” and “do you have received enough services from Iran-France joint chamber of commerce? What? How?”

Issue of validity and objectivity for this research will be discussed further in the next chapter.

3-2-1-2-Document collection and analysis;

These documents include trade or business reports, trade statistics for 2011, 2014 and 2015 extracted from trademap.org⁶⁷, composition of incoming French delegations to Iran in 2014, 2015 and 2016, related reports and news, and a set of surveys to appraise selected opportunity fields by interviewees in 2016 as reflected in Table 25.

⁶⁷ “Affiliated to International Trade Center, Trade Map provides - in the form of tables, graphs and maps - indicators on export performance, international demand, alternative markets and competitive markets, as well as a directory of importing and exporting companies. Trade Map covers 220 countries and territories and 5300 products of the Harmonized System. The monthly, quarterly and yearly trade flows are available from the most aggregated level to the tariff line level.”(Based on trademap.org)

A part of document analysis was dedicated to an assessment of opportunities by interviewees. As mentioned at the beginning of chapter 2, opportunity recognition could be modelled by comparison, and contrasting and pattern recognition among seemingly unrelated trends and incidents. In order to provide primary anchors for opportunity evaluation, the researcher asked interviewed people to evaluate a set of opportunities to export from Iran to France, export from France to Iran, investment in Iran or investment in France. Thomson Reuters Business Classification (TRBC) has been used as a primary working nomenclature for business opportunities. TRBC provide 49 classes of business opportunities that mainly used in 5th column of the framework to provide a base for opportunity evaluation.

3-2-1-3-Observations;

Observations on the fields and other related events, as reflected in Table 25, are the last section of data collection sources. Through a two years period from July 2016 until July 2018, main incidents and news related to business development between Iran and France were considered and then monitored and stored as reflected in Table 25. For each observation, a note was provided by the researcher in which date and titles of observation were mentioned and a report of 2-3 paragraph was written to reflect what has been understood and observed by the researcher. Main criteria for observation of an event were its relevance to business promotion between two selected countries. Consequently, through 2 years under study, these events mainly formed around JCPOA and its effect on business promotion between Iran and France and then the role of the USA In the meantime on the relation between Iran and France.

In general integration of primary and secondary data has been possible through the matrix-collage. Although it is hard to combine primary and secondary data, in special circumstances where researcher identify a gap that primary and secondary data can complement each other such combination may take place. Matrix-collage provide such possibility and control the validity by triangulation among different sources of data.

3-2-2-Completion of the framework

In the following, data gathered from abovementioned sources should be systematically located in the framework for analysis and synthesis. In line with what was presented about the framework analysis approach and provided with abovementioned sources of data and six

themes⁶⁸ of OR, a *framework* or *matrix* of 6 columns were formed. Last column entitled elaboration was eliminated to be filled due to lack of experiences in the implementation of the framework in before. Thus a framework of 5 columns was considered.

The number of rows, in this case, increased to 90 cases. In other words, at the result of three data collection procedures mentioned above, 90 cases or problem lines were formed until getting theoretical saturation. Each row (named a *problem line*) includes at least one and at most 6 pieces of data. Questions mentioned below determine where each piece of data should be stored through the framework. In other words, at each row, one until six cells could be filled by a piece of data. Potentially $90 \times 5 = 450$ cells of the matrix could be filled by data, but in practice, 350 pieces of data were found to fill 350 cells of the matrix. That is because a case may not provide answers for all of 5 inquiries of the interviewer. He/She/it may just tell about problems and/or insights and/or opportunities or etc.

This set of data finally was formed to a so-called *matrix-collage* of opportunity recognition between Iran and France. Details of these 90 problem lines are presented at the appendix of this dissertation. A part of this matrix is exemplified through Figure 41.

When filling the framework, data pieces from each case (interview, observation, document) should be placed into appropriate column reference to its associated theme while each theme related to a specific question. For example, interviewees' answer to a question about their problems for business development should be classified into the first column of the framework that is dedicated themes on *problems* and *needs*.

In other words, to put each piece at the right place, the researcher considered six general questions that should be customized and asked during interviews, observation and document analyses. With regard to the discussion presented in chapter1 (section 1-4-1), main questions divided by each column of the framework are explained below. Below-mentioned questions were asked during observations, document analysis and interviews and extracted answer was stored in the associated column.

⁶⁸ Six themes; problem/needs, preparation, incubation, insight, evaluation and elaboration

Case	Problems; Problems perceived in front of trade development between Iran and France	Preparation; knowledge or experiences precede IOR gathered from informants, observation or Doc analysis	Incubation; contemplation an idea or a specific problem through interview, observation or Doc analysis	Insights; Theories or insights shaped through incubation process, literature review or an Eureka moment!	Evaluation; Evaluation of proposed alternative or result of their implementation!	Elaboration; How to Implement and what's happened through Implementation
I-10 IR	1-French are so cautious about their initiatives at Iran, 2-French is at high level bureaucracy like Iran, they have inertia and are not agile	1-we have not benefitted form services of Iran-France chamber, moreover as a French big company we don't think that we need to their services! 4-after decision of French companies to exit Iran, Iranian's perceive French companies as disloyal and unreliable partners at least in terms of aftersales services.	1-one of the reasons that made French companies to be so bureaucratic is that most of them are BIG companies in comparison with German counterparts	1-big companies don't think they need CFICI services. SMEs need to comprehensive services of CFICI but don't receive enough services form CFICI! So CFICI remained pretty useless! 2-through a comparison with AHK we may deduce that this rooted to some extend at France international trade structure!?	1-handicrafts and oil products(base oil, waxes, bitumen, finished oil products) from Iran and oil and gas industry equipment have good potential to be exported.	1-a prestigious French company have transferred its share to its Iranian partner seemingly to be able to US sanctions. 2-this company could constructs a good organizational culture and OCB 3-should consider a plan to reconstruct missed mutual trust!
I-19 IR FR	1-banking issues will be resolved finally. Main problem for us is to reconstruct the harmed trust between Iran and west. Our job is to convince and provide European companies about Iran.	1-we are a French company and present corporate services, talent management and business intelligence services to European companies at Iran. 2-France may be our last client! We present out services to German, Austrian, Belgian and Italians 3-investment of Iranians for manufacturing in France is not advised.	1-main reason for less presence of companies and members of CFICI than AHK is that France international trade relied in big companies that don't need to CFICI.	1-CFICI has less members than AHK because France relied on Big companies to promote the trade!	1-Investment of Iranians at manufacturing sector of France is not advised.	1-we have confronted with no serious problem. At any case we used right facilitators at Iran
d-37	Challenges of Labour costs and high quality educated craftsmen in German Mittelstands	German economy's solid performance is attributable in part to the exporting prowess of so-called mittelstand, which are the backbone of Germany's manufacturing sector. A typical Mittelstand firm is a small to medium, family owned enterprise, often located in a small town or city.	German labour costs are high, but the labour force is well educated and quality oriented. The Mittelstand account for about 60% of Germany's private sector workforce and 38 per cent of corporate sales.	The Mittelstand do face many challenges, of course. Labour costs in Germany are much higher than china or brazil so they must continually innovate and improve their product lines and for this they rely on skilled craftspeople produced by Germany's educational system. But Germany confront demographical challenges for doing so..		Germany have tried to confront this challenge by developing immigration law, vocational trainings abroad and attracting foreigner skilled forces
o-62		1-Iran-Germany Chamber of Commerce(AHK) have more than 2000 members. 2-This organization is located in three storey building. 3-have training, publication, market research, Visa, membership, exhibition, hosting and sending delegations, and many other value adding services focused on German and Iranian SMEs.				
o-80	1-arrangement between IR-FR SMEs, 2-Business France and CFICI are(still) Big oriented! 3-French have communication problems, 4-FR brand reputation is harmed,	1-IR-FR trade complementarity is less and IR-GE, 2-GE have more SMEs than Fr. 3-GE have better networking with Iranian SMEs, 4-French are more Cautious 5-there has not been implemented advertising campaigns for advertise Iranian companies capabilities, 6-many French consider Iran as an Saudi Arabia with 80 million population,	1-GE have work in its SMEs in Iran while FR with MNEs 2-IR & FR both have competencies in Their big companies. 3-so they have invested on big companies to promote their trade rather than SMEs. 4-this plus French banks reluctance, have their trade more political and more Cautious ...	direct import and export basically have less priority between Iran and France rather than between Iran and Germany and Iran and Italy, both countries have competencies in the same field so they should work on mutual investments. In this regard they have focused on bog companies and forgot MNEs, there are obstacles like Bureaucracy and weakness of middle size enterprises, banking issues and lack of specialized coordinating agencies.		

Figure 41-A part of the framework (matrix)

Problems: What problems, needs or obstacles could be found in front of trade development between Iran and France?

Preparation: What knowledge or experiences about Iran-France trade ecosystem could be gathered from informants, observation or document analyses that potentially lead to opportunity recognition? In other words, any type of complementary knowledge that “could prepare the researcher with a more in-depth understanding of abovementioned problems” could be gathered here.

Incubation: What idea, explanations or analogies have contemplated for specific problems/needs (stated in step 1) or regarding Iran-France trade in general?

Insight: What theories or insights or solutions have been shaped during interviews, incubation process, literature review or a Eureka moment? Based on what has been mentioned by Lumpkin *et al.*(2004) an insight is something new or surprising that may leverage the problem-solving process.

Evaluation: How the proposed business opportunities could be formed, evaluated or ranked? Based on the literature, this step refers to the evaluation of opportunities based on criteria like

profitability, workability and viability. Thus here is dedicated to any form of ranked opportunities, understanding of interviewees from profitability, workability and viability of opportunities or other topics useful for ranking opportunities.

Elaboration: How the extracted solutions can be implemented, and what can be learned from the past implemented trade promotion initiatives?

In fact below, questions were asked during observations, document analysis and interviews and extracted answer was stored in the associated column. As mentioned above, these questions are bases on columns of the matrix-collage and have been developed based on Lumpkin et al. (2004), Lumpkin and Lichtenstein (2005) and other associated models of opportunity recognition. As mentioned by Wengraf (2001), these questions are *Research Question* thus should be transformed into *interview questions* or procedures of observation and document analysis. Wengraf (2001) call this customization as *operationalizing* the research questions. In the appendix, a set of interview questions are exemplified and operationalized.

At this rest of this section interviews, observations and document analyses that have been done to attain to the point of theoretical saturation are explained. Table 24 lists interviewed people, their company, position, nationality, industry, their code (label) in the framework and determined whether they have filled an opportunity appraisal form (49 business opportunities based on TRBC) beside their interview process or not.

Table 24- List of interviewed people

No	Name	Company	Position	Nationality	sex	Industry	Interviewed (I)	Have Completed opportunity appraisal forms?	Matrix-Collage Code
1	Abolfazl B.	University of Lille	Professor of International Relations & Energy Econ	Franco-Iranian	M	Education	YES i-1	YES s-1	i-1 s-1
2	Morteza K.	DANONE waters-Iran	Former Marketing staff	Iranian	M	Food	YES	YES	i-2 s-2
3	Adrien R.	INFOMINEO.com	Country Manager-Iran	French	M	Consultancy	YES	YES	i-3 s-3
4	Thomas W.	AVERDA.com	Business Development Manager,	French	M	Waste Management	YES	YES	i-4 s-4
5	Majid S. L.	Foodbiotics.com	CEO-member of CFICI.org	Franco-Iranian	M	Food	YES	YES	i-5

									s-5
6	Stéphane D.	CEO, DEREMAUX.com	CEO	French	M	Industrial Parts	YES	YES	i-6 s-6
7	Xavier C.	www.lanormandise.fr	Intl. Biz Development Manager,	French	M	Pet Food	YES	YES	i-7 s-7
8	Rambod D.	NOKIA Paris(former Alcatel-Lucent)	Business Unit Leader	Franco-Iranian	M	Telecom	Yes	YES	i-8 s-8
9	Nader B.	BC Strategic Consulting, HEC Paris, BCG group, UNIDO, Booz-Allen & Hamilton	Managing Director	Franco-Iranian	M	Consultancy	No	YES s-9	s-9
10	Abbas K.	Beh-Total(Total-IRAN)	Marketing Manager	Iranian	M	Oil and Petrochemical	YES i-10	YES s-10	i-10 s-10
11	Zahra G.	Cosmopolistan-agency.com	Founding Partner	Franco-Iranian	F	Consultancy	YES i-11	YES s-11	i-11

12	Béatrice A.	http://www.beapartners.com/Fr/default.aspx	Founding Partner, member of CFICI.org	Franco-Iranian	F	Consultancy	YES i-12	YES s-12	i-12
13	Djamchid A.	Burgundy School of Business	Professor of Marketing	Franco-Iranian	M	Education	Yes	YES s-13	s-13
14	Pascale E.	PERSIS Group	Managing Director	Franco-Iranian	F	Consultancy	No	YES s-14	s-14
15	Robert F.	S.I.P.I. (Société Industrielle de Protection Incendie)	CEO	Franco-Iranian	M	Safety	No	YES s-15	s-15
16	Julien P.	http://www.agapb.com	Coordinator	French	M	Consultancy	YES i-16	No	i-16
17	Mahsa D.	http://www.finergreen.fr/	Country Manager-Iran	Franco-Iranian	F	Renewable Energy	YES i-17	No	i-17
18	François A.	Avicenne Gerontologic	CEO, member of CFICI.org	French	M	Medical Services	YES	No	i-18

							i-18		
19	Shayan S.	Iranianoffice.com	Co-Founder	Franco-Iranian		Consultancy	YES i-19	No	i-19
20	Christophe L-A	Iranianoffice.com	Co-Founder	French	M	Consultancy	YES i-20	No	i-20
21	Hamid M.	ESC Rennes School of Business	Faculty Member	Franco-Iranian	M	Research	YES i-21	No	i-21
22	Hamzeh A.	Paris School of Economics	PhD candidate	Franco-Iranian	M	Research	YES i-22	Yes!	i-22
23	Ladan P.	Césys consulting Firm; http://www.cesys.fr/	Iran country manager, member of CFICI.org	Franco-Iranian	F	Consultancy	YES i-23	No	i-23
24	Daniel T.	SEQUA gGmbH; Partner of German Business	Head of Program Management.	German	M	Trade Services	YES i-24	No	i-24

25	Theirry C.	Institut de Relations Internationales et Stratégiques (French research Centre for international and strategic studies)	Research fellow on Iranian studies and Professor of economy	French	M	Research	YES i-25	No	i-25
26	David M.	Deomenos	M&A Analyst chez Deomenos	Franco-Iranian	M	Consultancy	YES i-89	No	i-89

Table 25- list of interviews, observations and analyzed documents

No.	Name	Description	Type of Source	Martix-Collage Code
1	Potentials for Export from Iran to France-2011	Analyses done based statistics from www.trademap.org	Document Analysis	d-26
2	Potentials for Export from Iran to France-2014	Analyses done based statistics from www.trademap.org	Document Analysis	d-27

3	Potentials for Export from France to France-2011	Analyses done based statistics from www.trademap.org	Document Analysis	d-28
4	Potentials for Export from France to Iran-2014	Analyses done based statistics from www.trademap.org	Document Analysis	d-29
5	Export of France at 2015	Analyses done based statistics from www.trademap.org	Document Analysis	d-30
6	Potentials for Export from France to Iran-2016 a conclusion on opinions	Interviewees opinions on 49 business topics to be trade to Iran or France	Document Analysis	d-31
7	Potentials for Export from Iran to France-2016 a conclusion on opinions	Interviewees opinions on 49 business topics to be trade to Iran or France	Document Analysis	d-32
8	Analyzing Composition of incoming French Delegation to Iran at February 2014 by Section based on TRBC	French Business Delegation Led by MEDEF (Mouvement des entreprises de France)	Document Analysis	d-33
9	Analyzing Composition of incoming French Delegation to Iran at September 2015 by Section based on TRBC	French Business Delegation Led by MEDEF (Mouvement des entreprises de France)	Document Analysis	d-34

10	Analyzing Composition of incoming French Delegation to Iran at May 27 - June 2nd 2016 by Section based on TRBC	French Business Delegation Led by CCI(ILE-DE-FRANCE)	Document Analysis	d-35
11	Trade complementarity between Iran and France-Cosine Index	Result of Analyzing trade complementarity between Import of Iran and Exports of France, Italy and Germany extracted from knoema.com	Document Analysis	d-36
12	SMEs in France in Comparison with Germany	Griffin & Pustay(2013)	Document Analysis	d-37
13	Report entitled; To the opening of trade with Iran / <i>Vers l'ouverture des échanges commerciaux avec l'Iran</i>	provided by French Senate at 23 May 2014 / <i>Groupe interparlementaire d'amitié-Sénat France-Iran. retrieved from http://www.senat.fr/ga/ga120/ga120.html</i>	Document Analysis	d-38
14	A Lecture entitled <i>OUVERTURE DES TRAVAUX</i> By; Aymeri de MONTESQUIOU, President of the parliamentary group of friendship France-Iran	Provided by French Senate at 23 May 2014 / <i>Groupe interparlementaire d'amitié-Sénat France-Iran. retrieved from http://www.senat.fr/ga/ga120/ga120.html</i>	Document Analysis	3-39
15	A Lecture entitled <i>Comment appréhender le secteur automobile en 2014 ?</i> By; Georges MALBRUNOT-French Journalist	provided by French Senate at 23 May 2014 / <i>Groupe interparlementaire d'amitié-Sénat France-Iran. retrieved from</i>	Document Analysis	d-40

		http://www.senat.fr/ga/ga120/ga120.html		
16	A Lecture entitled; <i>New President Rohani: what impact on the Iranian economy?</i> ; By Thierry COVILLE, professeur à Novancia, chercheur à l'IRIS	Provided by French Senate at 23 May 2014 / <i>Groupe interparlementaire d'amitié-Sénat France-Iran.</i> retrieved from http://www.senat.fr/ga/ga120/ga120.html	Document Analysis	d-41
17	A lecture entitled; legal and regulatory framework for foreign investment in Iran and prospects By; Michel MAKINSKY, chercheur associé à l'IPSE, directeur général d'Ageromys International	Provided by French Senate at 23 May 2014 / <i>Groupe interparlementaire d'amitié-Sénat France-Iran.</i> retrieved from http://www.senat.fr/ga/ga120/ga120.html	Document Analysis	d-42
18	A lecture entitled; legal and regulatory framework for foreign investment in Iran and prospects By; Pierre OLINGER, délégué Pays du Moyen-Orient, Exploration et Production, Total	Provided by French Senate at 23 May 2014 / <i>Groupe interparlementaire d'amitié-Sénat France-Iran.</i> retrieved from http://www.senat.fr/ga/ga120/ga120.html	Document Analysis	d-43
19	A lecture entitled; How to understand from automotive sector in 2014 By; Patrick BLAIN, président du Comité des	Provided by French Senate at 23 May 2014 / <i>Groupe interparlementaire d'amitié-Sénat France-Iran.</i> retrieved from	Document Analysis	d-44

	constructeurs français d'automobiles (CCFA)	http://www.senat.fr/ga/ga120/ga120.html		
20	A lecture entitled; The attractiveness of the food industry; Florian de SAINT VINCENT, Association pour le développement des échanges internationaux de produits et techniques agroalimentaires (ADEPTA)	Provided by French Senate at 23 May 2014 / <i>Groupe interparlementaire d'amitié-Sénat France-Iran. retrieved from http://www.senat.fr/ga/ga120/ga120.html</i>	Document Analysis	d-45
21	A lecture entitled; Challenges and opportunities for an SMEs; Jérôme DUPREZ, PDG de Moret Industries	Provided by French Senate at 23 May 2014 / <i>Groupe interparlementaire d'amitié-Sénat France-Iran. retrieved from http://www.senat.fr/ga/ga120/ga120.html</i>		d-46
22	Report entitled; on behalf of the Finance Committee (1) on the trip made by a Committee delegation to Iran from 22 to 29 April 2014, / <i>au nom de la commission des finances (1) sur le déplacement effectué par une délégation de la commission en Iran du 22 au 29 avril 2014,</i>	provided by French Senate April 2014 / <i>Groupe interparlementaire d'amitié France-Iran</i>	Document Analysis	d-47

23	France trade information & Iran-France bilateral trade statistics; 2008-2015	Booklet provided by www.tpo.ir and	Document Analysis	d-48
24	Iran-France bilateral trade agreement and plans	provided by www.tpo.ir	Document Analysis	d-49
25	Economy of France	www.wikipedia.com	Document Analysis	d-50
26	Doing business in France and Iran	Doing business report, 2013 from www.doingbusiness.org	Document Analysis	d-51
27	A booklet on managing Business Management organizations(BMO).	By SEQUA gGmbH www.sequa.de	Document Analysis	d-52
28	A report entitled; Les PME tentées par les affaires avec l'Iran malgré les questions financières	From www.lesechos.fr	Document Analysis	d-53
29	A report entitled; Quatre PME tournées vers l'Iran témoignent	From www.lesechos.fr	Document Analysis	d-54
30	<i>Tejarat</i> Magazine, special issue on Iran-France trade promotion after JCPA	from http://tejarat.donya-e-egtesad.com No. 76. 2 nd February 2014	Document Analysis	d-55

31	<i>Tejarat</i> Magazine, special issue on Iran-France trade promotion, Interview with Patrick BLAIN, Chairman of the Comité des Constructeurs Français d'Automobiles	from http://tejarat.donya-e-eqtesad.com No. 76. 2 nd February 2014	Document Analysis	d-56
32	<i>Tejarat</i> Magazine, special issue on Iran-France trade promotion interview with Mehdi MIREMADI, President, Iran-France chamber of commerce.	from http://tejarat.donya-e-eqtesad.com No. 76. 2 nd February 2014	Document Analysis	d-57
33	<i>Tejarat</i> Magazine, special issue on Iran-France trade promotion interview with Hans David ROUX, General Manager Business Development Majid Al Futtaim-Carrefour	from http://tejarat.donya-e-eqtesad.com No. 76. 2 nd February 2014	Document Analysis	d-58
34	<i>Tejarat</i> Magazine, special issue on Iran-France trade promotion interview with GholamHossein SHAFEI, Former President of Iran Chamber of Commerce	from http://tejarat.donya-e-eqtesad.com No. 76. 2 nd February 2014	Document Analysis	d-59
35	<i>Tejarat</i> Magazine, special issue on Iran-France trade promotion interview with Pierre Ellinger, Total Middle East	from http://tejarat.donya-e-eqtesad.com No. 76. 2 nd February 2014	Document Analysis	d-60
36	What to Know About Doing Business in Iran	A report at Harvard Business Review	Document Analysis	d-61

1	Information on Iran-Germany chamber of commerce	http://iran.ahk.de/ir/home/	Document Analysis	d-62
2	Article entitled; Pourquoi les banques françaises fuient l'Iran	http://www.challenges.fr ⁶⁹ , 20-5-2016	Document Analysis	d-63
3	France is ready to lift money and banking obstacles!	From www.yjc.ir at 4/27/2014	Document Analysis	d-64
4	France is going to open trade promotion office at Tehran	From www.eghtesadnews.com at 9/20/2015	Document Analysis	d-65
5	12 questions on Saipa-Citroen agreement on June2016	From www.alef.ir at 6/13/2016	Document Analysis	d-66
6	Brokers' footprint in the attraction of foreign investment to Iran after JCPA	From www.alef.ir at 6/27/2016	Document Analysis	d-67
7	An interview with Thierry Coville at www.leparisien.fr	From www.irna.ir at 2/5/2014	Document Analysis	d-68
8	A survey on attitudes of Iranian to Foreign cars	From http://www.asriran.com at 8/3/2015	Document Analysis	d-69

⁶⁹ <http://www.challenges.fr/finance-et-marche/banques/20160520.CHA9450/pourquoi-les-banques-francaises-fuient-l-iran-des-mollahs.html>

9	France fishery industries valued about 1 billion dollars at 2015	From http://iraneconomist.com at 8/3/2015	Document Analysis	d-70
10	IKAP established as a joint venture between Saipa and Citroen	From www.irinn.ir at 6/21/2016	Document Analysis	d-71
11	Iran-France cooperation at Agrofood	From http://www.iana.ir at 4/26/2016	Document Analysis	o-72
12	A decade of failure at Iran-Fran trade relations	From http://www.eghtesadonline.com at 1/28/2016	Document Analysis	d-73
13	Why French automakers don't reveal their agreements in detail	Form www.tabnak.ir at 16/14/2016	Document Analysis	d-74
14	Iran-France import and exports in April and May 2016	From http://rooykard.ir/ at 6/25/2016	Document Analysis	d-75
15	A review on Iran-France relations	From http://www.fardanews.com at 6/21/2016	Document Analysis	d-76
16	Iran-France deals is hoped to raise to 5 billion dollars	From www.donya-e-eqtasad.com at 2/5/2014	Document Analysis	d-77
17	Oil companies don't arrive Iran until 2017 elections	From www.tabnak.ir at 8/2/2017	Document Analysis	d-78

18	France to open a trade office in Tehran	From www.iccim.ir At 5/20/2015	Document Analysis	d-79
19	Observation report 1-by researcher On comparison between French and German SMEs in Iran	Written Between May-September 2016 based on observation of main French companies who have the presence in Iran in comparison with the main body of German presence	Observation report	o-80
20	Observation report 2- by researcher on risk-taking of French companies in Iran	Written Between May-September 2016	Observation report	o-81
21	Observation report 3-by researcher on cultural interest of French in Iran	Written Between May-September 2016	Observation report	o-82
22	Observation report 4-by researcher on the effect of Politics on French trade regime in Iran	Written Between May-September 2016	Observation report	o-83
23	Observation report 5-by researcher on lobbying in the French trade system	Written Between May-September 2016- based on observing some lobbying companies working on trade between Iran and France	Observation report	o-84
24	Observation report 6-by researcher on a number of signed contract that has been stagnated	Written in January 2017	Observation report	o-85

25	Observation report 7-by researcher on the number of French delegations incoming to Iran from 2014-2017	Written in January 2017-based on observation of French delegations	Observation report	o-86
26	Observation report 8-by researcher on cooperation between Germany and Iranian SMEs	Written in February 2017-based an agreement between German authority and Iranian authority for SMEs	Observation report	o-88
27	Observation report 9-by researcher on the stagnation of Financial system	Written in February 2017-based on the news about inactivation of European financial system mainly in front of JCPOA	Observation report	o-89
28	Observation report 10-by researcher on US withdrawal from JCPOA	Written on July 2018-two months after US withdrawal-based on observing international news	Observation report	o-90

3-3-Framework implementation, Data analysis and Findings' presentation

At this section, the argued framework is implemented to explore and analyze business opportunities between Iran and France. Until the point of theoretical saturation, 26 interviews have been conducted, 54 documents analyzed and ten observations made on the field and news. A balanced and harmonized portfolio of IOR sources is considered, and the inquiries continued until attaining *theoretical saturation*. At this point, in category development, no new properties, dimensions, or relationships emerge during analysis” (Strauss & Corbin, 1998: 143). Totally (26+54+10) 90 problem lines shaped our matrix-collage shaped for IOR between Iran and France

At the next section, it will be described how each column of the matrix in detail have been analyzed and what findings have been achieved.

3-3-1-Data synthesis and analysis through the matrix

Reference to section 2-2-6-2 in chapter 2 and rules of framework analysis approach, each column of the framework (the matrix-collage presented in the *Appendix*) is synthesized using four main tactics as explained below:

- *Labelling*
- *Constant comparative approach, grouping, and conceptualization*
- *Counting*
- *Comparison, contrasting and noting patterns*

In other words, most frequently used tactics for concluding are noting patterns, finding themes, making contrasts, comparisons, clustering, and counting. A set of these tactics were used for generating meanings, insights, and conclusions on columns of the present framework (matrix).

3-3-1-1. Labelling

Each row of the matrix is labelled by a code like *d-40* or *i-9* where the first letter refers to the type of data source (*d* for documents, *i* for interviews, and *o* for observations) and the second to a number that specifies the ordering of associated case (source of data) at the matrix (Last Column,

in Tables 24 & 25). Each row of the matrix includes many incidents divided by six columns. This labelling or coding provides the possibility for categorization, counting, and noting patterns at the next steps. Provided by these labels(or codes), it can be possible to compare incidents through each column, form concepts and report existing codes behind each of them, forming categories, counting the repetitions of codes through each category and being able to understand general meaning through each category and compare categories to each other. It is worthy to remind that, allocation of data incidents into each cell of a row is based on six questions that have been presented in section 3-2-2(completion of the framework).

For example, code i-4 refer to fourth interviews have done through this research. This interview includes many incidents divided by each column (based on what mentioned in section 3-2-2) has been summarized in Table 26. This code is a part of the overall matrix presented in the appendix. *Much politics (bureaucracy) in Iran* have been stored as an incident among problems of trade promotion between Iran and France in the first column. For this code, 5th column entitled evaluation remains vacant because the abovementioned interview has not perceived to include something related to the *evaluation of opportunities*.

Table 26- Code i-4 of research framework (matrix)

	Problems;	Preparation;	Incubation;	Insights;	Evaluation	Elaboration
i-4	1-much politics(bur eaucracy) in Iran, 2-high perceived risk specially for long term projects 3-high inflation	1-Main attractions of Iran to French merchants; market size, high incomes form oil and gas. 2-working with Iranian organizations needs politics and this increase the risk of working here. 3-France trade relied on big companies and medium dont expect and receive assistances from	1-construction and engineering in France is very powerful but their investment scope is 5-10 years so they cannot take the risk of working in Iran 2-transportation, water treatment,	1-there is a <u>need</u> for a public or private professional agencies to linking up between interested foreign investors and		1-with regard to high risk and complication of starting their business this French company has decided to work on small towns

	and currency devaluation	government. but Germany ...4-embassy do systematic lobbying for big companies to develop their business internationally.	construction and waste management are French fields of competency	target public or private Iranian organizations.		of Iran in future
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3-3-1-2. Constant comparative approach, grouping, and conceptualization

As mentioned in chapter2, there are a set of techniques, applicable for analyzing the data in the framework analysis approach among. These techniques mainly are *Constant comparative approach, categorization and conceptualization* and will be resulted in formations of incidents, then concepts and finally categories. In line with thematic analysis, these tactics are used for synthesizing and forming the concepts at 1st, 2nd, 3rd, and 4th columns of the matrix. For doing a *constant comparison and grouping* on concepts, the following steps were carried out:

- Codes(and incidents through them) were reviewed across each column of the matrix.
- Through each column, the first independent code that research encountered was defined as the 1st group.
- Then the researcher moved to the second code and the rest of the data. If the next code was understood in meaning like 1st group (past group (s)), it was grouped as the 1st group (past group (s)),
- Otherwise, a new group, e.g. 2nd, was defined and the different code was placed in that group(e.g. 2nd group),
- The same process carried out for other emerging codes through each column.
- This process was carried on until when all codes were grouped.

The *groups* here means a concept. Richards & Morse (2007 as mentioned by Saldana, 2016, p.157) clarify that “*categorizing is how we get ‘up’ from the diversity of data to the shapes of the data, the sorts of things represented. Concepts are how we get up to more general, higher-level, and more abstract constructs*”. Thus, as a result of aimed categorizations of codes, their incidents, many concepts and categories have been shaped as meaningful understandings and constructions about the phenomenon under study.

For example, for the first column of the framework (entitled problems/need), a concept shaped as below; *non-transparency and difficulties to access the information about Iran business environment*. This concept is formed up by conclusion on many codes labelled as i-3, i-16, i-25 and d-49. By the rest, this concept and some other related concepts formed a groups of concepts as *problems for doing business in Iran*(refer to section 3-3-2-1-2).

When conceptual groups were shaped, each group provided bases for the conceptualization of concepts within columns and finally attaining a *partial conclusion* for each column (represented by  icon at the next sections; 3-3-2-1-5, 3-3-2-2-8, 3-3-2-3-8, 3-3-2-4-11 and 3-3-3).

For example, a **partial Conclusion on First Column of the matrix(entitled Problems)** reveals **that** in addition to **credit** and **financial problems**, **weak communication mechanisms**, the **bureaucracy** of French and Iranian companies, **caution** among Iranian and French companies, **non-agility** of French companies in comparison with Germans at Iran markets, some **resistances and sabotages** in Iran and France, **confusion of Iranian trust** in French companies, the **negligible role of unions** and bilateral associations and finally **shadow effect of U.S sanctions** are the main problems that have impeded Iran-France trade promotion.

3-3-1-3. Counting

Third technique is counting abundance and repetition of the emergence of a code through a code of a matrix. This technique may help to prioritize concepts in a column. Counting is a discussing topic in qualitative analysis. While in methods like *content analysis*, the method basically is relied on counting, some other scholars do not validate it. In this research, the researcher did not use it for conceptualization but benefited the counting to find an order for reporting the concepts through each group of the concepts;

Through each group of concepts, observation of codes like (i-3) and (d-36) shows the abundance and emergence of the concept at the group. This abundance could be a sign but not a final determinant to help the researcher to find the importance of each concept through each group of columns. In other words, a concept with more abundance attained to more attention from interviewees thus could potentially find more importance.

Frequency counts and counting abundance of concepts can complement and enhance narratives, improve transparency and support findings. (Black, 1994). This method itself has been best manifested in content analysis. Researchers should consider the overall purpose of their study and based on that, decide to use counting or note (Hannah & Lautsch, 2011).

Counting abundances of codes, the concepts were grouped and then prioritized through each group. For 1st, 2nd, 3rd and 4th columns based on the abundance of each concept they have been prioritized and listed. After prioritization, now researcher should conclude on each column. He concluded on groups of the concepts at each column through a *partial conclusion* (✚). In other words, the researcher concluded on each column by synthesizing cells of the column and grouping the concepts of each cell into clusters of meaning provided by citations to codes (e.g. i-3, d-49, o-83). Partial conclusions on the 1st to 4th columns (problems, preparation, incubation, and insight) are presented in sections 3-3-2-1-5, 3-3-2-2-8, 3-3-2-3-8, and 3-3-2-4-11.

Results of constant comparison and grouping implemented for the 1st to 5th columns are reflected in sections 3-3-2-1, 3-3-2-2, 3-3-2-3, 3-3-2-4 and 3-3-3;

- As reflected in section 3-3-2-1, groups of concepts shaped after synthesizing the concepts for the **1st column** of the framework include *1-financial, 2-doing business in Iran, 3-doing business in France, and 4-bilateral trade problems* as main groups of problems in front.
- For the **2nd column** of the framework, knowledge, observation, and experiences from Iranian and French trade ecosystem were classified into seven groups of concepts: *1-General Issues, 2-Financial Issues, 3-Doing Business in Iran, 4-Doing Business in France, 5-Economic and Industrial Issues, 6-Cross-Cultural Issues, and 7-Political Issues* (see section 3-3-2-2). These categories of concepts emerged through the coding process and were used to attain a conclusion on the 2nd column of matrix-collage.
- For the **3rd column**, the same groups were attained (see section 3-3-2-3).
- Finally, as presented in section 3-3-2-4, for the **4th column**, 10 groups of these concepts were shaped including; *1-Necessity of cooperation between both sides SMEs, 2-Collaborations rather than direct import and export, 3-Both Iranian and French have Cautionary, 4-Lack of internationalization among Iranian and French companies, 5-Lack*

of active bilateral agencies, 6-agility of German companies rather than French competitors, 7-reliance of French foreign trade on large companies, 8-Iran-France-Joint SMEs have advantages over German Mittelstands, 9-Iran-France born SMEs could resist against sabotages, 10-companies should be found that have fewer deals with U.S(see section 4-2-4).

- **5th column** was devoted to evaluate and rank the opportunities. Thus it was synthesized using comparison and contrasting, as explained in section 3-3-3 and 3-3-3-5.
- **6th column** is eliminated from the current research's report because the model has not been implemented before to collect and store enough experiences in their associated column.

In general, conceptualization and grouping on the columns of the matrix have provided a possibility for synthesizing the concepts related to Iran-France bilateral business opportunities and for the conclusion. Moreover, to complete QDA for columns of the matrix, as presented by Miles et al. (2014), a coherent understanding on generated insights was systematically assembled by building *a logical chain of evidence* and making *conceptual/theoretical coherence*. Thus, concepts related to Iran-France business ecosystem(2nd column), Incoming insights and extracted solutions(3rd and 4th columns) were represented into two *logical chains of evidence* as reflected by Figures 45 and 46 in section 3-4-3-1.

3-3-1-4. Comparison, contrasting and noting patterns

To attain the main policy proposal of the research (at 4th column) and also rank the opportunities (for 5th column), *the patterns* were noted by making *comparison* and *contrasting* between lists of opportunities and concepts provided into the columns. On the other side, to achieve a policy proposal, German and French's trade initiatives (including their networking and their use of joint chambers of commerce in Iran) were mainly compared (see sections 3-3-2-3-8 and 3-4-3-1). Initiatives of countries like China, Italy and South Korea In Iran have been previously noticed in section3-1, however, due to limited time and resources of the researcher, finally, Germany was selected to be compared with France in Iran. Selection of Germany is justified as it is in a relatively similar position to France, the largest trade partner of France and its largest European competitor in Iran market. Based on the discussion presented in section 3-1, this competitor has

had a pretty better performance in Iran in comparison to France. Thus consideration of this country could provide a benchmark for comparison and policy analysis.

Primary data for pattern recognition and prioritizing opportunities were obtained from 10 problem lines among past mentioned 90 problem lines. These problem lines were especially talked about and included prioritized business opportunities between Iran and France and consequently were stored through 5th column. Composition of these problem-lines is as below;

- Evaluation of opportunities for export to Iran and France based on simple assessment method explained in chapter1 have formed four problem lines of the matrix(d-26, 27, 28, 29, 30)
- Viewpoints of interviewees on the popularity of 49 different business opportunities (based on TRBC standard) for investment in Iran and France were exploited. They formed two problem lines(d-31 & d-32) for investment in Iran and investment in France.
- Composition trade delegation incoming to Iran were analyzed(based on TRBC standard) for three years and form three sources to show typologies of companies who are interested in business and investment in Iran(d-33, 34 & 35).

Anyway, these ten pivotal problem lines have listed through Table 27. Besides the above sources, some other problem lines provided useful insights in this regard occasionally.

In section 3-3-3 abovementioned problem lines are compared and the results reported into four tables divided by four groups of opportunities; 1-Table 43, opportunities for export from Iran to France (section 3-3-3-5-1), 2-Table 44, opportunities for mutual investments in France(section 3-3-3-5-2), 3-Table 45, opportunities for export from France to Iran(section 3-3-3-5-3) and 4-Table 46, opportunities for mutual investment in Iran(section 3-3-3-5-4). In fact, in that sections opportunities gathered from abovementioned sources are classified into four groups, and then through each group, lists of opportunities have been compared and concluded based on perceived patterns.

For example, as reflected in Table 43 in section 3-3-3-5-1, for export from Iran to France, mineral fuels, distillation products, organic and inorganic product and petrochemical products through all of the lists have been replicated as pretty first priority thus could be concluded as priorities for direct export from Iran to France.

Table 27- problem lines used for opportunity recognition and evaluation

Problem line (Code)	description	source	Method of analysis
d-26	Potentials for Export from Iran to France-2011	The analysis was done based on statistics from www.trademap.org	Simple Estimation method
d-27	Potentials for Export from Iran to France-2014	The analysis was done based on statistics from www.trademap.org	Simple Estimation method
d-28	Potentials for Export from France to France-2011	The analysis was done based on statistics from www.trademap.org	simple Estimation method
d-29	Potentials for Export from France to Iran-2014	The analysis was done based on statistics from www.trademap.org	simple Estimation method
d-30	Export of France at 2015	The analysis was done based on statistics from www.trademap.org	simple Estimation method
d-31	Potentials for Export from Iran to France-2016 a conclusion on opinions	Interviewees opinions on 49 business topics to be trade to Iran or France	Comparison and theme analysis
d-32	Potentials for Export from Iran to France-2016 a conclusion on opinions	Interviewees opinions on 49 business topics to be trade to Iran or France	Comparison and theme analysis
d-33	Analyzing Composition of incoming French Delegation to Iran at February 2014 by	French Business Delegation Led by MEDEF (Mouvement des entreprises de	Counting and contrasting

	Section based on TRBC	France)	
d-34	Analyzing Composition of incoming French Delegation to Iran at September 2015 by Section based on TRBC	French Business Delegation Led by MEDEF (Mouvement des entreprises de France)	Counting and contrasting
d-35	Analyzing Composition of incoming French Delegation to Iran at May 27 - June 2nd 2016 by Section based on TRBC	French Business Delegation Led by CCI (ILE-DE-FRANCE)	Counting and contrasting

In general, for synthesizing the 1st, 2nd, 3rd, and 4th columns, *constant comparative approach* and *grouping* were mainly used to shape categories and concepts, and then abundances of codes were *counted* to determine priorities of concepts through each group. Moreover, by comparing concepts, the researcher could conclude in each column. For synthesizing the 5th column including opportunity evaluations, more complicated forms of counting, contrasting, composition analysis, and comparison between columns of tables were used to find patterns, connecting the dots, and finally attaining lists of opportunities (refer to last columns in Tables 43, 44,45 & 46 at sections 3-3-3-5-1, 3-3-5-2, 3-3-5-3 and 3-3-5-4). Connecting the dots here means finding similarities among different lists of opportunities as has been done in section 3-3-3-2.

Anyway, the techniques used for analyzing and synthesizing concepts at columns of the matrix are presented based on the concept of opportunity recognition(Note#3), the theory of qualitative data analysis(Note#7 and Note#8), qualitative metaphors(conceptualization, labelling and grouping)(Note#9), detective method(Note#11 and Note#12), and principles of framework analysis approach mainly constant comparison method(Note#14).

3-3-2-Analyzing business development opportunities between Iran and France

At this section, the results of partial conclusions for each column of the matrix are presented in five sections including *problems* of trade promotion between Iran and France, *preparation* and explaining business environment in-between, *incubation* of ideas, *insights*, and *evaluation* of

opportunities proposed for exploitation between Iran and France. At the end, proposed policies and solutions are presented.

3-3-2-1-Problems;

Problems perceived in front of trade development between Iran and France are presented below;

3-3-2-1-1-Financial Problem(s)

- Reluctance and inaction of French banks and international insurances to work with Iran and lack of financial channels (i-3)(i-6)(i-13)(i-16)(i-89)
- Mainly expensive banking and finances for SMEs (i-18)(i-21)(i-23)
- Remaining finance inertia (i-25)(d-44)(d-45)(d-63)
- Business practitioners are threatened by bankers of closing their accounts conditioned to working with Iran/closure of Iranian accounts abroad (i-5)(d-42)(d-53)(i-89)

3-3-2-1-2-Doing Business in Iran or With Iranian Companies

- Non-transparency and difficulties to access the information about the Iran business environment (i-3)(i-13)(i-16)(i-25)(d-49)
- Bureaucracy and complication of administrative and legal procedures (i-3)(i-4)(d-41)(d-42) and to know-how for them (i-12)(i-25)
- Tax system, labour legislations, high rate of interest, and legal restrictions for investment (d-42)(d-53)(d-45)
- Corruption at companies and organizations in Iran (i-3)(i-16)(d-41)(d-61)
- Finding the right people, partner or agent in Iran is problematic (i-6)(i-24)(d-80)
- Iranian side initially express their interest however finally show not enough seriousness (i-11)(d-54)
- Perceived risk of investment in Iran still is remained (i-4)(i-16) mainly caused by U.S indirect pressures (i-25)(d-42)(d-63)
- High inflation and currency devaluation (i-4)
- Fragmented market in Iran (i-4)
- Lack of international corporate governance at Iranian companies (i-8)(i-23)
- Lack of internationalization, professionalism and preparation in Iranian companies (i-21)

- Obtaining long term visa for Iran is sometimes problematic (i-18)

3-3-2-1-3-Doing business in France or with French companies

- High tax and wages in France (i-5)(i-12)
- Bureaucracy at France (i-10)(i-12)(i-17)
- Inertia of French companies (i-10) (d-59) in comparison with German counterparts
- Negative trade balance of France (i-3)(i-16) and lack of capital! (i-18)
- French conservatism and caution toward Iran market (i-3)(i-4)(i-5)(i-9)(i-10)/
- trade restrictions and regulations of the French government for Trading with Iran (d-46)

3-3-2-1-4-Bilateral trade promotion Problems

- French Brand Reputation in Iran is harmed in terms of independence and trustiness (i-1)(i-10)(i-17)(d-80)(i-89)
- Not enough activity at CFICI and Business-France (for SMEs) (i-12)(i-18) lack specialized agency mainly for SMEs (d-49)(d-80)
- Negotiations are tedious and time-consuming (i-3)(i-4)
- Oral Communication between Iranian and French companies is problematic (i-3)(i-4)(i-8)(d-80)
- French side sometimes has a colonial attitude toward Trading with Iran (i-1)(o-81)
- Existence of trade mafias (i-1), political interferences (i-16), politicians (d-59) and media in Iran and France (d-66) against bilateral trade promotion
- Some case of miss-management of Frenchs in terms of HRM & Control in Iran (i-2)
- No customization on Product in Iran (i-2)
- Cultural differences (i-12)
- Inefficient professional brokers (i-17)(d-49)
- Lack of trust between both sides (i-20)

3-3-2-1-5--Partial Conclusion on First Column; Problems

By constant comparison, grouping, and conceptualization it could be concluded about problems in front of trade promotion between Iran and France that, in addition to **credit** and **financial**

problems, weak communication mechanisms, the bureaucracy of French and Iranian companies, **caution** among Iranian and French companies, **non-agility** of French companies in comparison with Germans at Iran markets, some **resistances and sabotages** in Iran and France, **confusion of Iranian trust** in French companies, the **negligible role of unions** and bilateral associations and finally **shadow effect of U.S sanctions** are the main problems that have impeded Iran-France trade promotion.

3-3-2-2-Preparation; business ecosystem between Iran and France

At this section knowledge, observation and even experiences from Iranian and French trade ecosystem are classified into seven subsections; *General Issues, Financial Issues, Doing business in Iran, Doing business in France, Economic and Industrial Issues, Cross-Cultural Issues and Political Issues*. These categories of concepts emerged through the coding process and are helpful to attain a conclusion on the 2nd column of the framework(matrix-collage).

3-3-2-2-1-General Issues

- 1-main importing sources of France are Germany, Belgium, Italy, Spain, U.K., U.S.A, Netherland. 2-main exporting destinations of France are Germany, China, Belgium, Italy, U.K., Spain, Netherland, 3-main imports of France are machinery, automotive parts crude oil aeroplane, Pharmaceutical, plastics, 4-main exports of France are machinery, transportation equipment, aeroplane, plastics, pharmaceutical, steel and Iran and Beverages, 5-International trade volume of France decreased from 2.1 Billion\$ in 2008 to 0.6 Billion\$ in 2013 (d-48).
- Last preferential trade agreement signed between IR-FR goes back to 2003-2004 (d-49)
- Iran-France trade value has been decreased from 2 billion to 0.5 through a decade from 2005-2015 (d-73).
- France does not want to be left behind Germany and China in Iran Market (d-39)(d-44)(d-54)(d-69).
- French delegation members in late 2015, were prevented by authorities (e.g. French ministry of foreign affairs) to interview with press and they do not want to broadcast their meeting; instead, they prefer to keep confidentiality (d-44)(d-53). Aim of French delegations in Iran was to monitor the situation in Iran not to sign contracts (i-11)(d-59),

despite Germans and Italians (i-3)(d-42), French are cautious and waiting to see what is happening(d-59)(d-60)(d-80)(d-81) about U.S elections, settlement of the financial issue or EU guardianships (d-59)(d-60)(d-78).

- An incredible optimism just after JCPOA's implementation (January 2016) shaped and one of its results was sending a delegation from MEDEF to Iran as first incoming foreign delegation and one of the largest after JCPOA with 130 members. Members told to be confidential! (d-55) However, this momentum gradually vanished (d-86). By US withdrawal in 2018, this momentum has downsized to a minimum level (o-90).

3-3-2-2-2-Financial Issues

- German banking system is different from French banks. Germany has many regional banks that have no interest or subsidiary in the US, which makes them able to have transactions in Iran because they are not exposed to risks of US retaliation (d-42).
- French banks have strong ties with the U.S, they work with the dollar and are large, so their manoeuvrability is limited (i-18)(i-19)(i-20) and this factor prohibits them from working with Iran.
- Trade with Iran will not develop if US bank and OFAC continue their pressure on EU banks (d-42).
- French companies like *Carrefour* who have not assets in the U.S. have remained in Iran market (d-53)(d-58)

3-3-2-2-3-Doing business in Iran

Main attractions of Iran for French companies include;

- a large market with about 80 million customer (i-3)(i-4)(i-7)(d-44)(d-53)(d-61),
- Strong middle class (i-3)(i-7), educated people (i-3)(d-61)
- A rich country with huge oil and gas reservoirs (i-4), 2nd in Gas and 4th in Oil reservoirs (d-43)
- Iran seemed to be near a turning point after JCPOA (i-3)(i-20)(i-7) but momentum has been decreased to a minimum after US withdrawal (o-90)
- French's interest in Iranian culture could be considered as one of their main motivations to start a business in Iran (i-3) (i-6)(i-18)(i-20)(d-82)

- Iran also could be a hub to manufacturing and distribution of French-originated products to neighbouring countries like Iraq, Afghanistan and CIS countries (i-7)(d-44)
- Expected growth rate for Iran after JCPOA was near 6% per year for the next five years (i-3)
- Chinese, Koreans, Germans and Italians have an interest in Iranian market too. French think that people of Iran are thirsty to trade (d-53). However, Iranian companies at the time in many cases have not enough capital and could not finalize their last decision (i-11)(d-54).
- Many French who have visited Iran express that low-cost Iranian workforce, energy and other resources make this country suitable for production (i-18) and country have interesting technological skills (d-45)(d-46).
- Interviewees have used their own contacts (i-4) or Iranian distribution companies (i-7) or ICCIM⁷⁰ to gather the information they need before they start their market research trip (i-7).
- A significant advantage of doing business on countries like U.A.E rather than Iran is more transparency through government procedures, bids and tenders and less bureaucracy (i-3)(i-4)(d-42) in them.
- In 2016, many of senior Iranians who work in France prefer to come back to Iran because they think working condition in Iran may be more receptive for them (i-11)(i-12), moreover some French people have the same sense about the Iranian work environment (i-18).
- Many French consider Iran as a Saudi Arabia with 80 million population (d-80)
- Most of Iranian companies, mainly SMEs are not familiar with international partnership protocols and circumstances (i-21).
- Iranians could work better in the fields of science which have depth rather than breadth (i-21)

⁷⁰ Iran Chamber of Commerce

3-3-2-2-4-Doing business in France

- The real exchange rate is high in France, and this country has a considerable negative balance of payment (i-22). The country has no suitable economic situation (i-18)(i-22)(d-57) so welcomes new proposals for partnership. French companies can impose forces on their government to show more flexibility in front of Iran to improve employment and economy of France. Although the U.S regularly expresses its opposition (d-57)(d-80).
- Due to high tax and income level, manufacturing in France could not be very competitive (i-5)(i-18)(i-19)
- However, France has the highest quality skill workers with high productivity (i-5)(d-50)
- There are many public relation agencies and people that could be recruited to develop the market for Iranian companies in France (i-11)
- Administrative procedures in France are bureaucratic like Iran (i-10)(i-12).

3-3-2-2-5-Economic and Industrial Issues

In this section, the researcher has highlighted comparison and contrasting (between German and French approach in Iran) as tactics for drawing more in-depth analysis.

- In terms of economy, Iran is perceived as an oil and gas-rich country in France (i-4)(i-7)(i-8), something like Saudi Arabia but with much more population.
- On the other side, Iran has good competencies in agro-food (i-7), knowledge-based industries like IT, pharmaceutical (i-8) and technical fields (d-46)
- There is a large amount of unused capacities at Iranian companies (i-2)
- French international trade development strategy relies on large companies like TOTAL, Airbus, Renault, Peugeot, Averda etc. (i-4)
- In comparison with countries like Germany and Italy, the main international trade structure of France relies on large companies (i-17)(i-22)(i-23)(i-24). In other words, large French companies enter the market primarily and then pave the route for French SMEs (i-16). German companies, on the other side, are more pragmatist and less sensitive to consider political in their trade initiatives(i-16). German economy's solid performance is attributable in part to the exporting prowess of so-called Mittelstand,

which are the backbone of Germany's manufacturing sector. A typical Mittelstand firm is a small to medium, family-owned enterprise, often located in a small town or city (i-37).

- In comparison with France, Germany have found better networking with Iranian SMEs (i-3)(i-21)(d-80),
- Comparatively, French SMEs are regional while German SMEs are internationalized (i-17).
- In comparison, Germany has implemented a more effective trade promotion strategy through its joint chamber of commerce in Iran (i-25)(d-62).
- Germans historically has been the first trade partner of Iran and benefit a self-enforcing mechanism (i-21)(i-25). German joint chambers of commerce located around the world and could be introduced as one of the most decisive actors in German foreign trade promotion policy (i-25).
- Iran-Germany Joint Chamber of Commerce (AHK) has more than 2000 members; This organization is located in a three-floor building, have training centre and services on publication, market research, Visa, membership, exhibition, hosting and sending delegations, and many other value-adding services focused on German and Iranian SMEs (d-62)
- A study about *trade complementarity* between the import of Iran and export of Germany import of Iran and export of Italy and import of Iran export of France is done based on information of www.knoema.com. Graphs presented in section 3-1-5 are yearly cosine (Cos) of an angle between vector of import of Iran and vector of export of France, Germany or Italy (Cosine Index at International Trade) (i-36). Reference to these graphs, IR-FR trade complementarity, is less than IR-GE (d-80).
- Main trade stream between IR-FR is through cooperation rather than import-export. Both Iran and France have focused on larges companies in these years (d-80)
- There has not been implemented advertising campaigns to advertise Iranian companies capabilities (d-80)

3-3-2-2-6-Cross-Cultural issues

- French want to be more flexible and want to adapt themselves with the culture of the host country (i-4)(i-6), e.g. they are willing to learn the language, understand Iranian culture, religion, politics and...
- French are more cautious to Iran than Germans. Germans are more courageous and initiative in business.(i-3)(i-8)(i-17)
- These traits of Germans roots on German entrepreneurial culture and their better networking in Iran (i-3)

3-3-2-2-7-Political Issues

- Bilateral agreement is questioned by some groups in Iran indeed (d-66) e.g.TOTAL-IPC and Citroen-IKAP.
- There has been a political view to trade cooperation with Iran in France (i-16)(d-39).
- From 2008 France has loosed its market share in favour of Chinese and Korean automotive manufacturers (d-39)(d-44).
- Many politicians and companies ask France to emancipate itself from American influence at the issue of trade with Iran (d-39)(d-44)
- Trade development in France is political and political dominated like Iran (i-16)(d-83).
- In some cases, there is a mafia on trade contracts between Iran and France (i-12)
- Small and medium enterprises usually do not get direct support or lobbying services from Business-France. They get support from Regional chambers of Commerce (i-4)
- Lobbying and Networking in France are handled by people (No agencies) who have good familial ties or links with key politicians and managers of companies. A majority of these networkers are lawyers (i-8)(i-11)(d-84). Politics and lobbying is rooted in French culture (i-17).
- Large French companies do not need to services of CFICI and consider it useless for their proposals (i-10) because they contact directly to government authorities. On the other side services of CFICI is not acceptable for French SMEs (i-12)
- French political class is under the influence or pressure of groups themselves under the influence of foreign countries and manifest a strong resistance on trade with Iran (d-

59)(d-40)(d-42)(d-44). Economic ties between France and Saudi, U.A.E and Israel make them able to impose pressure against trade promotion with Iran (d-40)(d-42)(d-44)

- French automotive companies have made Iranian industry-dependent to themselves but left Iran at hard days (i-1). Now after leaving Iran by French companies although Iranian appreciate French quality, Iranians have loosed their trust on French companies and their loyalty to Iranian costumers (i-10)(i-17)(i-20)(d-39). A survey on attitudes of Iranian to Foreign cars in 2016 shows that 64% prefer German, 17% prefer Japanese, 7% prefer French, and 6% prefer Korean and Chinese Brands (d-69).
- In Comparison with the German Chamber of Commerce, MEDEF of France is political and is not agile (i-11)(i-12)(i-25)
- Iran is a regional superpower, has a considerable influence on the Middle East and can be a partner to stabilize the region (i-18)(d-40).

3-3-2-2-8--Partial conclusion on the 2nd column; preparation

By constant comparison, grouping, and conceptualization on 2nd column, a pool of explanations was prepared on Iran-France trade promotion, the summary of them is presented as follows;

- Iran and France have lower trade complementarity in comparison with Iran and Germany or Iran and Italy.
- France is more cautious at the Iranian market in comparison with Germans and Italians.
- France has a negative balance of payment due to high wages and taxes. However, French skill workers have high productivity and quality.
- French SMEs are regional and weak in comparison with German or Italian SMEs who are more internationalized. Main drivers of France's international trade strategy are large companies.
- High real exchange rates at France has decreased the export competitiveness of French companies and forced middle-sized companies to be relatively weak and regional in comparison with Germans counterparts.
- France international trade strategy is politicalized and relies on larger companies.
- Germany has focused on unions, associations, and communicating with private sectors at target countries to develop its market.

- Despite German chambers of commerce, bilateral trade promotion agencies of France are less effective and focused on large companies.
- Some internal and external groups impose negative force against trade promotion between Iran and France
- Apparently, as mentioned in chapter2 on research method, the above conclusions are middle-range theories deduced just based on the field between Iran and France. Thus their generalization is limited and probable contradiction with facts and figures of other field's may be expected that should be analyzed. This issue is discussed at the end of the present chapter.

3-3-2-3-Incubation;

At this section research have classified analogies made by interviewees or through documents into 7 subsections; *General Issues, Financial Issues, Doing business in Iran, Doing business in France, Economic and Industrial Issues, Cross-Cultural Issues and Political Issues.*

3-3-2-3-1-General Issues

- Reasons to promote trade with France; 1-France is a permanent member of the security council, 2-Iran has had collaborations with France in terms of oil, gas and petrochemical, energy, automotive, electrical equipment, glass and cement, Telecom and aviation that have provided a self-enforcing mechanism (d-49).
- Through their trips to Tehran, Frenches perceived that it is very necessary to restore the trust! (d-47) they are going to regain their market share before the Iranian market become open completely (d-44)
- (In this regard), delegations proposed building trust making relationship, cultural affairs and partnerships to achieve sincere and sustainable economic cooperation between France and Iran (d-47).
- (By the way) The return of French companies to Iran is not compromised if abovementioned initiatives are done quickly (d-46).

- Entrance of French companies to the fields like pharmaceutical, health and FMCG will be faster than the automotive and oil industry. Although companies like PSA, Renault and Citroen are going to come back in the near future (d-56).
- PSA and group Renaults again have decreased or seized extend of their activity after US withdrawal (o-90).
- At the time, in general, French companies follow "*wait and see*" strategy toward Iran (i-3) they travel to Iran mainly for market research not for signing contracts (i-6)
- Potentials of Iranians in Europe could be recruited for trade promotion between Iran and Europe. However, at the time, there is no intention or agency to use this potential in Iran (i-8)(i-11)(i-12).

3-3-2-3-2-Financial Issues

- French banks are very large and work with the U.S so they cannot be agile to work with Iran like Italian or German medium-sized banks (i-23)
- Regarding the blockage in banking initiatives, interviewees propose to design viable routes, like the development of new financial channels or using a present banking (Financial) channel that is not exposed to the US and is not likely to be retaliated against, e.g. Postal bank of France (d-47)
- If nothing changes in the banking system, most of the contracts signed have not been implemented, 2-French banks are reluctant to Iranian projects. At the time, just three small French banks work with Iran. The case of BNP sanctions with the U.S. was a trauma for bankers and have frightened French Banks of dealing with Iran. 4-OFAC and U.S. had a two-side position during the presence of the U.S in JCPOA; they told there is no problem, and later they added *but be Cautious!* Despite a group of state-owned German Banks (entitled *Landesbanken*) that are not exposed to the dollar, most major French banks have subsidiaries in U.S. Italian, German and Belgian banks in comparison to French are more proactive and have issued credit insurance coverage. Indian, Chinese and Turkish banks have the same pragmatic approach (d-63)

3-3-2-3-3-Doing business in Iran

- Non-transparency, Bureaucracy and time-consuming procedures harm Iranian business atmosphere (i-1)
- Iran is recognized as an oil and gas benefited economy like Saudi Arabia but with 80 million population! (i-4)(i-7) so it is essential to represent Iranian competencies to potential European partners through the development of bilateral trips, attending expos, publish news, reportages etc. (i-8)(d-45). Moreover, it is necessary to invite international practitioners to be a member of Iranian boards of directors (i-8). This invitation accelerates the internationalization of companies.
- Iran considered by professional French entrepreneurs as a significant market itself and as a hub for exporting to middle eastern countries (i-18)(i-25)(d-44).

4-2-3-4-Doing Business in France

- Concerning high income and tax in France, production by Iranians there has no justification with the exception of technological, innovative and knowledgebase products and initiatives (i-5)(i-12)(i-18)(i-19)(i-21)(i-22)
- With regard to the large number of skilled workers in both countries and both countries' access to neighbouring markets, initiatives of Iranian and French governments to support startups (e.g. through www.stationf.co⁷¹), could facilitate knowledge-based cooperations between Iran and France (i-5)(i-17)(d-44)(i-89).
- Classic production and manufacturing may have more justification in Spain or Germany rather than France (i-5)

3-3-2-3-5-Economic and Industrial Issues

- Less members of CFICI than AHK in Iran come back to less presence of SMEs at France international trade regime in comparison with Germany (1-19)(i-20)(d-37)
- There is less trade complementarity between Iran and France than between Iran-Italy and Iran-Germany (they have relatively same import and export) (i-36)

⁷¹ Station F is a business incubator for startups, located in 13th arrondissement of Paris. Noted as the world's largest startup facility.

- (This is not all) On the other side, France has made previous investments at Automotive industry of Iran that increase the competitive advantage of this country at the economy class of automotive in Market of Iran and Middle East (i-22)(i-22)(i-24). So, trade complementarity should be considered with this issue (i-22). (In general) France has had primary investments in some fields that provide some type of competitiveness for this country in Iran (i-22) this fact may change trade complementarity regime in future..
- Although Iran has less trade complementarity with France in comparison with Germany and Italy (i-36), there is a degree of overlap between their vectors of export and import that means they buy and sell comparatively same products thus could cooperate in third markets. Both side initiatives and investments could change the ratio of complementarity. This index is not fixed. Moreover, France has a competitive advantage to provide the capital products that Iran needs for its industrialization (i-22).
- French licensors can cooperate with Iranian food manufacturers on a contract or licensing bases (i-1)
- SMEs in France are regional (not international) and weak in comparison with Germany (i-17)
- If we consider less level of trade in complementarity between Iran and France (rather than Germany), there are still some reasons for cooperation; France has technology, capital and political power, Iran, on the other hand, has a big internal market and could be a gateway for Neighboring markets (i-16)
- France used to promote very large companies such as Airbus, Alstom, Renault first and then open the doors for the entrance of the Small and Medium-sized suppliers or peripheral companies (i-8)(i-16)
- Bilateral trade promotion agencies like CFICI are less important in trade promotion of Iran with France in comparison with Germany with Iran (i-7).
- French companies usually rely on their personal visits and participation in exhibitions for opportunity recognition (i-7)
- After many years of restriction, French SMEs are so interested in working with Iran (i-7)(i-15).
- One of the reasons that made French companies to be so bureaucratic is that most of them are large companies in comparison with German counterparts working in Iran (i-10)

- Main reason for less presence of companies and members of CFICI than AHK is that France's foreign trade like Iran has relied on large companies that do not need to CFICI (i-19)(d-80). German economy's solid performance is attributable in part to the exporting prowess of so-called Mittelstand, which are the backbone of Germany's manufacturing sector (i-20)(d-37). Moreover, Germany has had better planning for their trade promotion (i-19)(i-20).
- Moreover, one of the main reason why AHK has more members is that Germany (in comparison with France) have had more years of business relationship with Iran. They have attained more experiences and knowledge about the Iranian market. So they are confronting less uncertainty and have less conservatism (a self-enforcing mechanism). German companies use spill-over of their presence as a significant supplier of technical facilities for Iranian industries (i-21).
- French companies who have not assets in the U.S. remained in Iran (d-53)(d-58) so it could be an alternative to support companies who have had less business ties with U.S or establish such startups. There is no doubt that such businesses could be explored among SMEs more than large companies.
- French reliance on large companies to contribute in foreign trade has forced this country to resort to political power (veto) and lobbying with host governments (other than the private sector) for developing its business (d-84).
- Transportation, water treatment, construction and waste management are among French fields of competency (i-4)

3-3-2-3-6-Cross-Cultural issues

- The French basically has an interest in Iranian culture and community (i-3). Particular interest of French into Iranian culture and even marriage with Iranians could be managed for trade promotion in between (i-18)(d-82).

3-3-2-3-7-Political Issues

- International trade strategy of France is dominated by government politics (i-16)(i-23)(d-83)
- CFICI is not active enough, Business-France is focused on large companies (i-12)(i-16)

- Although powerful groups (Saudi Arabia, U.A.E, Israel, some French politicians and some Iranian conservatives) opposed trade promotion between Iran and France(d-40)(d-42)(d-44)(d-59), dealing with interested French companies can leverage benefited companies as power against oppositions (d-57)(d-44). On the other hand, French companies can impose forces on their government to show more flexibility against Iran to improve the situation of employment and national economy of France(d-57).
- One result of cooperation between Iran and France is employment in both France and Iran and the development of world's peace (d-44). Extend of precautionary vs. audacity of French entrepreneurs depends on banking and political issues (d-44).
- Many French politicians and companies looking for ways to emancipate themselves from American influence and develop business with Iran (i-39)(d-44)(d-47)(d-64)

3-3-2-3-8--Partial conclusion on 3rd column; incubation

After constant comparison, grouping, and conceptualization on 3rd column, the problem was incubated as follows:

Due to relying France's international trade on large companies, this country has used politics more than Germany to penetrate in the Iranian market. On the one hand, they have entered into the negotiations with the governments of Iran instead of Iranian private sector to gain contracts. However, they left the Iranian market due to the pressures imposed by US-Arab-Israeli triangle. Consequently, the trust of Iranians costumers to French companies is harmed. Iranians believe that the French are not loyal. French authorities have perceived this unsuitable situation. Despite Germans, they have not still activated bilateral trade associations (e.g. MEDEF⁷², Business France, and CFICI⁷³) to work on SMEs for the period after JCPOA. Fewer members of CFICI, in comparison with AHK⁷⁴, in Iran are rooted to fewer roles of SMEs in France's international trade regime than Germany. Moreover, companies involved in Iran-France trading regime are often large; as a result, they do not need to work and interact with associations like CFICI.

⁷² Movement of the Enterprises of France, an umbrella union of French industries involved at each trade initiative

⁷³ Iran-France Chamber of Commerce

⁷⁴ Iran-Germany Chamber of Commerce

Less trade complementarity between Iran and France in comparison with Germany or Italy (Figure 39) means that both sides should work on cooperation and mutual investments rather than direct import and export. Past initiatives between Iran and France verify this analogy because most of the trade between Iran and France is relied on cooperation between companies such as Group PSA (Peugeot-Citroën) and Iran-Khodro or between NIOC and TOTAL (d-80). However, these collaborations have mainly relied on large companies and are politicalized, so they have become very fragile and sensitive regarding US-Saudi-Israeli forces.

Many French companies follow a "*wait and see*" strategy. Their lack of agility to some extent goes back to the reluctance of French banks, election of (Donald Trump) at U.S elections, and inherent inertia of French companies, most of which are large and bureaucratic. French banks are also reluctant to deal with Iran because they are large and have big deals in dollar with the U.S. On the other hand, German, Italian, and Belgian banks are mainly medium-sized, and many of them do not work with the U.S., so they have a pretty more manoeuvrability to work with Iran. However, Iran has advantages for many pragmatist French entrepreneurs that convince them to make the investment in this country and taking the risk; they consider Iran as an 80-millions market and a suitable hub for co-manufacturing and exporting to neighbouring countries (400 million market of middle east and 100 million market of CIS countries). Iran is an oil and gas-rich country with low-cost labour and energy where is suitable for co-manufacturing in comparison with many other West Asian countries. However, bureaucracy, complicated business procedures and corruption have made doing business in this country difficult.

Apparently, as mentioned in chapter2 on research method, the above conclusions are middle-range theories deduced just based on the field between Iran and France. Thus their generalization is limited and probable contradiction with facts and figures of other field's may be expected that should be analyzed. this issue is discussed at the end of the present chapter.

3-3-2-4-Insights;

By using the constant comparative approach, this section concludes on 4th column of the matrix toward shaping theories and proposed policies for Iran-France trade promotion.

3-3-2-4-1-French foreign trade relies on large companies

- French foreign trade relies on large companies, so they use political lobbying with governments and leverage their political power to develop their market inevitably (i-16).
- In comparison with Italy and Germany, middle-sized companies are limited at International trade promotion strategy of France at least at the case of Iran (i-16)

3-3-2-4-2-Both Iranian and French have Cautionary

- For French businessmen, it is too important to have direct contacts with their target market and know their culture (i-6)(i-8)
- One of the main reasons that have made French businessmen more cautious than Germans in international business is that French want or think they should match with the host environment. At the same time, Iran is not perceived as an easy to adapt context for them (i-4).
- Germans, on the other side, have their own style of *we work as we are manner!* (i-4)

3-3-2-4-3-Lack of active bilateral agencies, working on SMEs is serious, present agencies are inefficient! French agencies should change their attitude from *first-Large-then-small* to *both Large and Small!*

- There is a need for public or private professional agencies to linking up between interested foreign investors and target public or private Iranian organizations (i-4).
- French embassy usually has lobbying services for large companies like Peugeot or Total. SMEs usually get some services to form regional chambers of commerce (i-7).
- Large companies do not feel the need for services of CFICI. Although SMEs need to comprehensive services of CFICI, they do not receive enough attention and services form CFICI! So CFICI remained pretty useless! (i-10)
- MEDEF of France is so inefficient in comparison with SEQUA⁷⁵ of Germany (i-11)

⁷⁵ Sequa gGmbH is a globally operating non-profit development organization. Since 1991 Sequa has carried out programs and projects of international cooperation in close collaboration with the German private sector. Sequa offers know-how and long-term experience in capacity development for business memberships organizations (BMOs), vocational education and training, private sector development and trade. The organization is based in Bonn, Germany. Sequa employs more than 90 persons (2019) and reported a turnover of 39 million EUR in 2018.

- CFICI has less members than AHK because France relied on large companies to promote international trade! (i-19)(i-20)
- Effectiveness of CFICI has been questioned by one of the audiences of the French senate conference (i-38).
- The companies who are needy to services of bilateral associations are SMEs, but Business France and CFICI seems to have concentration and attention to large companies (d-65).
- Business France in Iran works like AHK⁷⁶ but is small and affiliated to Government, CFICI is not recruited as much as it should be! (d-72)

3-3-2-4-4-In comparison with French Companies, German SMEs are agile, pragmatist and professional in communication with Iranian SMEs and/or private sector!

- Germans have less political power and do not have the veto right in the Security Council! So their business has focused on quality, pragmatism and efficient communication with the private sector in developing countries including Iran (i-16)
- Germany has a very systematic program to communicate with the private sector and SMEs at countries like Iran (i-24).
- Germany via companies like SEQUA have very well-grounded programs to communicate with SMEs and associations in target markets (d-52).

3-3-2-4-5-Collaborations rather than direct import and export should be pursued at the SME level; there are many fields of complementarity;

- Direct import and export have less priority between Iran and France rather than between Iran and Germany and Iran and Italy. On the other hand, both countries have competencies in the same field; thus, they should work on mutual investments. In this regard, they have focused on large companies and have neglected SMEs. Moreover, there are obstacles like both side bureaucracy and weakness of middle-sized enterprises, banking issues and lack of specialized coordinating agencies (d-80).
- Iran and France are interested in developing their SMEs (i-23) in the fields like joint production at Iran (under French license or contracting) to export to MENA⁷⁷ region (i-2)

⁷⁶ Iran-Germany Joint Chamber of Commerce

collaboration between Iranian and French R&Ds at food industry (i-2). There is a good potential for collaboration between Iranian and French knowledge-based companies to develop innovative products and services at Iran and France (e.g. Grenoble) for the middle east and Europe (i-5)(i-8).

- Partnership with European companies will facilitate penetration at European markets, but products shall be innovative (i-5).
- In terms of the workforce's cost, there is a complementarity between Iran and France (i-5). In other words, low-cost labour and energy from Iran and technology and finance from France could complement each other. However, this should turn from south-north dialogue to more equal modes of partnership.
- There is an interest among French companies to do partnerships with Iran (i-8)
- Interests of French men to communicate (marriage!) with Iranian or to discover Iranian culture or even to become a Shia-Muslim could be a driver of bilateral trade (i-18). These cultural fans could be a good mediator for Iran trade promotion if they get support (i-18)
- There is a considerable amount of Iranians at Europe who are willing to become active for Iran-Europe business promotion (i-11)
- There are cultural interests or ties that trigger French arrival in Iran (i-18)(i-20)
- France is an expert in system technologies (e.g. aerospace engineering). Iran, on the other hand, in the past decade, has found considerable competencies in technologies which have depth rather than breadth (e.g. Pharmaceutical) (i-21) thus there are topics for scientific complementarities or cooperations between Iran and France.
- Trade promotion could change trade complementarily through changing internal competencies (e.g. empowerment of internal SMEs), external demand, politics and government policies. Real Exchange Rate is high in France; this fact frustrates the competitiveness of France more than most of the European states in Production. French economic structure has made companies to be too large or too small. This enterprise polarization and economic similarity between two countries justifies economic partnerships rather than direct export from France to Iran. The main factor that has decreased competitiveness of the French market is the Labor market so that Iran could present low-cost labour to outgoing French investors (i-22).

- Iran could also attract foreign investment in the high-tech industry. Iran, to some extent, could even do what India has done in developing business connected to outsourcing (western companies locating their research, programming or information departments in India). However, this would imply further reforms (economic liberalization and more stability) in Iran to get the trust of foreign investors. There are opportunities for French companies to invest and produce in Iran because it may be the best strategy to have access to the Iranian market (car, textiles, pharmaceuticals, hotels, etc.). There may also be possibilities to invest in Iran and re-export to neighbouring countries (car, textiles, etc.).(i-25)

3-3-2-4-6-Iranian companies and French SMEs are not internationalized, but they can cooperate to cope with their internationalization' problem

- Board of directors at Iranian companies should become internationalized, and board members should be selected from among proactive practitioners who have evolved at the international context (i-8)
- Transparency, defining an international vision, collaboration with French technological companies, placement at a global business centre like Paris could help Iranian start-ups to leverage their internationalization (i-17)(i-89)
- Using a right French developer who has had many years of experience in each sector could be used for trade development in that sector (i-18).

3-3-2-4-7-German Mittelstands (SMEs) have some shortcomings that could be resolved at Iranian-French-Born SMEs; Low-cost labour and energy through Iran-France cooperation could provide an advantage over Mittelstands!

- Mittelstands do face many challenges, of course. Labour costs in Germany are much higher than in China or Brazil so they must continually innovate and update their product lines. For this reason, they rely on skilled craftspeople produced by Germany's educational system. However, Germany confronts demographical challenges for doing so. In general, France has not succeeded to internationalize its SMEs like Germany but is so interested in doing so. Iranian partners by providing a unique internal and regional market and a large volume of potential high-quality workers can cooperate French SMEs to become internationalized (i-37).

3-3-2-4-8-Some countries and Groups sabotaging but they could be suppressed by Iran-France born SMEs

- Countries like U.S., Saudi Arabia, U.A.E and Israel from one side and some Iranian and French politicians and elites on the other side sabotaging against trade promotion between Iran and France (d-40)(d-42)(d-44)(d-66).
- In comparison to the U.S and Arab states, the volume of trade between Iran and France is negligible so they could impose pressure on France or entice it not to develop trade with Iran (d-50).
- At the time (2017), business activities do not go beyond meetings! Practitioners are still waiting (d-59) to see what will happen between Iran and the U.S (o-90).

3-3-2-4-9-To leveraging the cooperation, Iranian companies should look for French potential partners that have fewer deals with the U.S. Such French companies could be found most likely among French SMEs.

- Updating global compliance policies, overcoming a lack of market data, finding the right local partners, reclaiming brand equity and accessing foreign exchange are among necessities of planning for doing business in Iran (d-61).
- French companies who have big deals in the world or have a big deal with the U.S. fearing from doing business with Iran! However, companies who have no or small deals with the U.S have high motivation to work. Probably Iranian companies should look for the first group! To get rid of this dead-end, working on SMEs who have not to fear on the U.S or can offset this by benefits from Iran market, is recommended (d-63). Companies/businesses that work mainly in Europe, Asia and Africa and/or do not have major trades with the U.S could be good candidates for trade promotion with Iran (d-58)
- The French who basically have signed large contracts and confronted with critics on their politics at Iranian and French extremist, inevitably have become cautious (d-74).
- Reliance on big deals has made French trade, lazy, politicalized and fragile in relation with Iran. A solution is the activation of SMEs (d-85).
- Bartering expo between parties could be an idea for bilateral business promotion (o-90)!

3-3-2-4-10-Cooperation between SMEs is in line with Resistance Economy

- The paradigm of *Resistance economy* as expressed by Iranian supreme leader (Ayatollah Seyyed Ali Khamenei) should be manifested in this case! (i-2). Working on development of cooperation between both sides SMEs could be considered in this regard.

3-3-2-4-11--Partial conclusion on 4rd column; insights

At this section, the fourth column of the matrix was concluded towards shaping theories, policies and insights regarding Iran-France trade promotion. By constant comparison, grouping, and conceptualization, many insights were collected regarding Iran-France trade issues.

Both Iran and France are cautious for cooperation. There is a serious lack of active bilateral agencies, working on SMEs. In other words, the present bilateral agencies are inefficient. French agencies should change their attitude from *first-large-then-small* to *both large and small* in their international business development policy. French reliance on large companies (at least in relation to Iran) has made their international trade regime in Iran slower and less dynamic in comparison with Germany and Italy.

French foreign trade relies on larger companies (At least in relation to Iran). In comparison with French companies, German SMEs are agile, pragmatist, and professional to communicate with Iranian SMEs and/or the private sector in a sustainable manner. However, German Mittelstands have some problems and challenges (e.g. need for young, talented, low-cost labour) that could be resolved at Iran-France newborn SMEs. Low-cost labour and energy, an 80 million internal and 500 million neighbouring market and other low-cost overheads available for Iran-France cooperatives may create an advantage for newly-Iranian-French-born SMEs over Mittelstands at the international context and leverage their internationalization.

Cooperation between Iranian and French SMEs is in line with *Resistance Economy* (a policy advised by Iranian supreme leader, Ayatollah Seyyed-Ali Khamenei already said). In general, collaborations rather than direct import and export should be followed at the SMEs level between Iran and France. Iranian companies are not internationalized, but they can cooperate with French companies to offset mutual deficiencies.

Some countries and groups subvert Iran-France deals, but they could be suppressed by Iran-France born SMEs. Employment and opportunities provided after the cooperation between Iranian and French SMEs at selected topics could force Iranian and French governments to defend Iran-France economic relations, and this suppresses oppositions. This cooperation could be justified geo-strategically. Regarding veto right of France at the Security Council, this cooperation could motivate France to prevent adopting new resolutions against Iran because these resolutions may further harm employments created in French SMEs and markets provided for them at Iran and MENA region.

To leverage cooperation, Iranians should look for French companies that have fewer deals with the U.S. There are many SMEs in France who have less deals with the U.S in comparison with large enterprises thus, more potential partners with fewer deals with the U.S. could be found among French SMEs.

Apparently, as mentioned in chapter 2 on the research method, the above conclusions are middle-range theories deduced just based on the field between Iran and France. Thus their generalization is limited and probable contradiction with facts and figures of other fields may be expected that should be analyzed. This issue is discussed at the end of the present chapter.

3-3-3-~~4~~-Conclusion on 5th column! Evaluation using comparison, contrasting and noting patterns

6th column of the matrix is mainly devoted to post-implementation experiences. It has not leading importance in the current research, so due to the study limitations, description of this column is omitted. Thus, analyzing 5th column is the last analytical step through present research. As previously mentioned, counting, comparison, and contrasting were used for pattern recognition in this column of the framework(matrix-collage).

As mentioned before in section 3-3-1, to analyze 5th column, counting, comparison, contrasting and pattern recognition are used. Moreover, in section 1-4-2-3 it was mentioned from Barun (2004, 2006) and Barun&Ansley (2006) as saying that opportunity recognition could be modelled as connecting the dots and noting patterns among seemingly unrelated events and

trends. Current study is set out to connect the dots, recognize some patterns and provide the list of opportunities between Iran and France. For doing so, four tables were used to make *comparisons, contrasting, and grouping* between 10 different lists of opportunities (and also 10 rows of framework) extracted by different sources (Table 27). Table 27 shows the main sources of data used in addition to individual interviews to find some analogies for evaluation and sorting of opportunities between two countries. In other words, 5th column has been filled especially with 10 problem lines (as reflected in Figure 42). Surprisingly, comparison between different lists of prioritized opportunities (e.g. for export from Iran to France) resulted in patterns and common streams between the lists. These streams were explored and reported through the last columns of Tables 43, 44, 45 & 46 at the appendix.

For example, as reflected in Table 43, for export from Iran to France, mineral fuels, distillation products, organic and inorganic product and petrochemical products through all of the lists have been replicated as pretty first priority thus could be concluded among first priorities for direct export from Iran to France.

Based on Miles *et al.* (2014), specifically for conducting a systematic opportunity recognition and evaluation, interviews, observation, and document analysis, were used to collect data. Then, four tables were used to display data and make the researcher to compare them. They are entitled to *export from Iran to France* (Table 43), *mutual investment opportunities at France* (Table 44), *export from France to Iran* (Table 45), and *mutual investment at Iran* (Table 46). Through above tables, the results of evaluating the opportunities were briefly classified into four groups in below: *export from Iran to France, export from France to Iran, mutual investment at Iran, and mutual investment at France.*

Case	Problems; Problems perceived in front of trade development between Iran and France	Preparation; knowledge or experiences precede IOR gathered from informants, observation or Doc analysis	Incubation; contemplation an idea or a specific problem through interview, observation or Doc analysis	Insights; Theories or insights shaped through incubation process, literature review or an Eureka moment	Evaluation; Evaluation of proposed alternative or result of their implementation	Elaboration; How to implement and what happened
d-26	Potentials for Export from Iran to France-2011		top concluded priorities from comparison between statistics for Iran export and France import at 2011 and 2014 1-Mineral fuels, oils, distillation products, 2-organic chemicals, 3-plastic articles, 4-edible fruits and nuts	Mineral fuels, oils, distillation products, organic and inorganic chemicals and food products are top priorities for export form Iran to France	Top ten opportunities for export from Iran to France: 1-mineral fuels, oils, distillation products, 2-organic chemicals, 3-plastic articles, 4-edible fruits and nuts, 5-Fertilizers, 6-salt and sulphur and...7-cooper and articles, 8-Iran and steel, 9-inorganic chemicals, 10-machineries	
d-27	Potentials for Export from Iran to France-2014				Top opportunities for export from Iran to France: 1-mineral fuels, oils, distillation products, 2-plastic articles, 3-organic chemicals, 4-edible fruits and nuts, 5-Iron and steel, 6-Ores, slag and ash, 7-salt, sulphur and... 8-Articles of iron and steel, 9-edible vegetables and certain roots, 10-dairy products, 11-fertilizers	
d-28	Potentials for Export from France to France-2011		1-a comparison between statistics on export of France and import of Iran 2011 and 2014 shows that 1-machineries, boilers and reactors, 2-electrical and electronics equipment, 3-cereals, 4-vehicles other than railway, 5-pharmaceutical products, 6-organic chemicals, 7-optical, medical and technical devices, 8-miscellaneous chemical products, 9-miscellaneous edible preparations, 10-plastics and articles, 11-aircraft and spacecraft and parts, 12-steel and iron articles	mainly machineries, electrical and electronic equipment, vehicle pharmaceuticals, chemicals, food and related commodities have priority to be export form France to Iran	top opportunities for export from France to Iran: 1-machinery, reactors and boilers, 2-cereals, 3-electrical and electronic equipment, 4-vehicle other than railway, 5-iron and steel, 6-plastics and articles, 7-pharmaceuticals, 8-animal vegetable fats and oils, 9-organic chemicals, 10-paper and pulps, 11-optical, medical, and technical products, main export of France at 2015 includes 1-pharmaceuticals, 2-machineries, 3-medical and technical devices, 4-perfumes and cosmetics, 5-vehicles, 6-electrical and electronic devices, 7-Aircrafts	
d-29	Potentials for Export from France to Iran-2014		2-some field are common at lists of priorities for export to Iran and France, among them is chemicals and foods. it seems that both countries have competency in them so these fields could be ideal for partnership in production for sale at regional markets.		top opportunities for export from France to Iran: 1-machinery, reactors and boilers, 2-cereals, 3-electrical and electronic equipment, 4-vehicle other than railway, 5-iron and steel, 6-plastics and articles, 7-pharmaceuticals, 8-animal vegetable fats and oils, 9-organic chemicals, 10-paper and pulps, 11-optical, medical, and technical products, main export of France at 2015 includes 1-pharmaceuticals, 2-machineries, 3-medical and technical devices, 4-perfumes and cosmetics, 5-vehicles, 6-electrical and electronic devices, 7-Aircrafts	
d-30	Export of France at 2015			9-Aerospace and Defence, 17-Automobile & Auto parts, 49-Water Utilities, 11-Construction and Engineering, 22-Tourism, Hotels and Entertainment Services, 39-Pharmaceuticals, Biotechnology & Medical research, 32-Banking Services, 16-Transport infrastructure		
d-31	Potentials for Export from Iran to France-2016 a conclusion on opinions			1-Oil & Gas, 18-Textile and Apparel, 5-Metals and Mining, 28-Fruit, Vegetables and Farming and Tobacco, 19-Home building and construction supplies, 4-Chemicals, 39-Pharmaceuticals, Biotechnology & Medical research, 45-Software and IT		
d-32	Potentials for Export from Iran to France-2016 a conclusion on opinions			A conclusion on the composition of 3 delegation: 13-Professional and Commercial Services, 11-Construction and Engineering, 10-Machinery, Equipment & Components, 28-Fruit, Vegetables and Farming and Tobacco, 2-Oil & Gas Related Equipment and Services, 14-Freight and Logistics Services, 16-Transport infrastructure, 4-Chemicals, 9-Aerospace and Defence, 33-Investment Banking and Services, 45-Software and IT Services, 17-Automobile & Auto parts, 41-Communication and Networking, 47-Electrical Utilities & IPPs, 49-Water Utilities, 5-Metals and Mining, 6-Construction Materials, 27-Food, 39-Pharmaceuticals, Biotechnology & Medical research, 32-Banking Services,	13-Professional and Commercial Services, 2-Oil & Gas Related Equipment and Services, 11-Construction and Engineering, 10-Machinery, Equipment & Components, 17-Automobile & Auto parts, 33-Investment Banking and Services, 45-Software and IT Services, 6-Construction Materials, 14-Freight and Logistics Services, 2-Banking Services, 41-Communication and Networking, 49-Water Utilities, 4-Chemicals, 9-Aerospace and Defence, 16-Transport infrastructure, and... Vegetables and Farming and Tobacco, 11-Construction and Engineering, 16-Transport infrastructure, 5-Metals and Mining, 9-Aerospace and Defence, 14-Freight and Logistics Services, 47-Electrical Utilities & IPPs, 2-Oil & Gas Related Equipment and Services, 49-Water Utilities, and...	
d-33	Analysing Composition of incoming French Delegation to Iran at February 2014 by Section: based on Thompson Reuters Business Classification					
d-34	Analysing Composition of incoming French Delegation to Iran at September 2015 by Section based on TRBC					
d-35	Analysing Composition of incoming French Delegation to Iran at May 27 - June 2nd 2016 by Section based on TRBC					

Figure 42-A general depiction from a part of 5th column of matrix-collage that has been used especially for opportunity evaluation. For more information, refer to complete matrix-collage.

3-3-3-1-A comparison on opportunities based trade statistics

Analyses of this section mainly relied on the extraction of opportunities based on trade statistics and them comparing results of different years to each other. At the rest of this section, every 10 rows of the framework (d26-d36) are described. Then after comparison and contrasting between them (plus some other minor problem lines) they are analyzed, and opportunities are extracted.

As mentioned by Baron et al.(2003), opportunity recognition is like connecting the dots and finding pattern among seemingly unrelated behaviours. Above comparisons provide basic keys

for opportunity recognition and will be compared by other sources and lists of opportunity at rest.

1-d26, potentials for export from Iran to France for 2011; this row involves estimation of export potentials from Iran to France based on two digits HS codes of commodities by *simple estimation method* for 2011. This estimation, in detail, is reflected in Table 28. The simple estimation method has been explained in chapter1(section 1-2-2). Required data has been obtained from www.Trademap.org⁷⁸ affiliated to International Trade Center for 2011. Based on Table 28 for 2011 for each HS code of commodity (*i*) minimum of 1-*export from Iran to world* and 2-*import of France from the world* is selected and stored in a column entitled *Min of Past 2 Columns*. Then the table has been sorted based on the values in the column *Min of Past 2 Columns* from maximum to minimum values. This sorting is reflected on the right side of Table 28. Based on this table, priorities for export from Iran to France on the HS codes of commodity are code 27 (mineral fuels, oils, distillation products), code 29 (organic chemicals), code 39 (Plastics), code 8 (edible fruits), andFertilizers, Ores, Iron, steel and non-organic chemicals.

⁷⁸ Affiliated to International Trade Center, *TRADEMAP* provides (in the form of tables, graphs and maps) indicators on export performance, international demand, alternative markets and competitive markets, as well as a directory of importing and exporting companies. Trade Map covers 220 countries and territories and 5300 products of the Harmonized System. The monthly, quarterly and yearly trade flows are available from the most aggregated level to the tariff line level.

Table 28- A sample of simple estimation method for export From Iran to France for 2011; d-26

					Sorted codes of commodities based on Minimum of ItW & FfW from more to less values		
		Iran export to world(ItW)	France import from the world (FfW)	Minimum of ItW & FfW			
Product label	CODE	Exported value in 2011	Imported value in 2011		Product label	Code	
All products	TOTAL	130544000	720457190	1.31E+08	All products	TOTAL	130544000
Live animals	'01	39814	336291	39814	Mineral fuels, oils, distillation products, etc	'27	106714007
Meat and edible meat offal	'02	30861	5963197	30861	Organic chemicals	'29	3556087
Fish, crustaceans, molluscs, aquatic invertebrates nes	'03	168352	5294143	168352	Plastics and articles thereof	'39	3186263
Dairy products, eggs, honey, edible animal product nes	'04	377837	4202287	377837	Edible fruit, nuts, peel of citrus fruit, melons	'08	2008590

Products of animal origin, nes	'05	76673	483804	76673		Ores, slag and ash	'26	1021700
Live trees, plants, bulbs, roots, cut flowers etc	'06	36701	1571272	36701		Fertilizers	'31	1000763
Edible vegetables and certain roots and tubers	'07	581827	3245506	581827		Salt, sulphur, earth, stone, plaster, lime and cement	'25	852072
Edible fruit, nuts, peel of citrus fruit, melons	'08	2008590	4628654	2008590		Copper and articles thereof	'74	851221
Coffee, tea, mate and spices	'09	346934	2762140	346934		Iron and steel	'72	843926
Cereals	'10	12664	1102052	12664		Inorganic chemicals, precious metal compound, isotopes	'28	786839

Table 29- A sample of simple estimation method for export Iran to France for 2014; d-27

		Iran export to world(ItW)	France import from the world	Minimum of ItW & FfW	Sorted codes of commodities based on Minimum of ItW & FfW from more to less values

			(FfW)				
Product label	CODE	Exported value in 2014	Imported value in 2014		Product label	Code	
All products	TOTAL	73874216	676940135	73874216	All products	TOTAL	73874216
Live animals	'01	100066	347560	100066	Mineral fuels, oils, distillation products, etc	'27	46054982
Meat and edible meat offal	'02	96950	6101358	96950	Plastics and articles thereof	'39	4851073
Fish, crustaceans, molluscs, aquatic invertebrates nes	'03	209063	5183607	209063	Organic chemicals	'29	3944958
Dairy products, eggs, honey, edible animal product nes	'04	682430	4730406	682430	Edible fruit, nuts, peel of citrus fruit, melons	'08	2629647
Products of animal origin, nes	'05	119515	543348	119515	Iron and steel	'72	1868569
Live trees, plants, bulbs, roots, cut flowers etc	'06	38417	1448147	38417	Ores, slag and ash	'26	1587885

Edible vegetables and certain roots and tubers	'07	696539	3470464	696539		Salt, sulphur, earth, stone, plaster, lime and cement	'25	1148976
Edible fruit, nuts, peel of citrus fruit, melons	'08	2629647	5315446	2629647		Articles of iron or steel	'73	752386
Coffee, tea, mate and spices	'09	300909	3115476	300909		Edible vegetables and certain roots and tubers	'07	696539
Cereals	'10	2185	1174897	2185		Dairy products, eggs, honey, edible animal product nes	'04	682430

Table 30- A sample of simple estimation method for export from France to Iran for 2011; d-28

		France export to world (FtW)	Iran import from the world (IfW)	Minimum of FtW & IfW	Sorted codes of commodities based on Minimum of FtW & IfW from more to less values		
Product label	CODE	Exported value in 2011	Imported value in 2011		Product label	Code	
All products	TOTAL	596825675	68319000	68319000	All products	TOTAL	68319000

Live animals	'01	2704180	43444	43444	Machinery, nuclear reactors, boilers, etc	'84	11643874
Meat and edible meat offal	'02	4962382	988193	988193	Mineral fuels, oils, distillation products, etc	'27	10998630
Fish, crustaceans, molluscs, aquatic invertebrates nes	'03	1507563	75847	75847	Iron and steel	'72	8119538
Dairy products, eggs, honey, edible animal product nes	'04	8280193	410669	410669	Electrical, electronic equipment	'85	3820036
Products of animal origin, nes	'05	296465	13106	13106	Vehicles other than railway, tramway	'87	2892942
Live trees, plants, bulbs, roots, cut flowers etc	'06	210463	5498	5498	Commodities not elsewhere specified	'99	2748435
Edible vegetables and certain roots and tubers	'07	2711303	125809	125809	Plastics and articles thereof	'39	2688780
Edible fruit, nuts, peel of citrus fruit, melons	'08	2139870	624804	624804	Cereals	'10	2547661
Coffee, tea, mate and spices	'09	579179	235019	235019	Animal,vegetable fats and oils, cleavage products, etc	'15	1716849

Cereals	'10	10887712	2547661	2547661		Pharmaceutical products	'30	1496810
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Table 31- A sample of simple estimation method for export France to Iran in 2014; d-29

					Sorted codes of commodities based on Minimum of FtW & IfW from more to less values		
		France export to world (FtW)	Iran import from world (IfW)	Minimum of FtW & IfW			
Product label	CODE	Exported value in 2014	Imported value in 2014		Product label	Code	
All products	TOTAL	580758163	53649618	53649618	Machinery, nuclear reactors, boilers, etc	'84	9766071
Live animals	'01	2457311	46108	46108	Cereals	'10	6376579
Meat and edible meat offal	'02	4232899	533521	533521	Electrical, electronic equipment	'85	4627908
Fish, crustaceans, molluscs, aquatic invertebrates nes	'03	1464834	158156	158156	Vehicles other than railway, tramway	'87	3760257
Dairy products, eggs, honey, edible animal product nes	'04	8888462	294745	294745	Iron and steel	'72	3214837

Products of animal origin, nes	'05	324345	10694	10694		Plastics and articles thereof	'39	1956764
Live trees, plants, bulbs, roots, cut flowers etc	'06	197091	5698	5698		Pharmaceutical products	'30	1780024
Edible vegetables and certain roots and tubers	'07	2454846	124271	124271		Residues, wastes of food industry, animal fodder	'23	1669981
Edible fruit, nuts, peel of citrus fruit, melons	'08	2241276	448010	448010		Animal,vegetable fats and oils, cleavage products, etc	'15	1551252
Coffee, tea, mate and spices	'09	1031989	313887	313887		Organic chemicals	'29	1390292
Cereals	'10	9019667	6376579	6376579		Machinery, nuclear reactors, boilers, etc	'84	9766071

2-d27, potentials for export from Iran to France for 2014; includes estimation of export potentials form Iran to France based on 2-digits HS codes of commodities by simple estimation method for 2014. This estimation in detail has been reflected in Table 29. Required data have been obtained from www.Trademap.org affiliated to International Trade Center for 2014. Based on table 29 and simple estimation method, priorities for export from Iran to France on the HS codes of commodity are code 27 (mineral fuels, oils, distillation products), code 39 (Plastics), code 29 (organic chemicals), and edible fruits, Iron, steel, minerals, ores and slag, salt and sulfur,... and Fertilizers.

By comparison between d-26 and d-27 it could be found out that code 27 (distillation products), code 39 (plastics) and code 29 (organic chemicals) through both tables have attained high priorities to be exported from Iran to France. Thus, these similarities can be considered as *an initial pattern* that the researcher was looking for and primarily could consider these codes as a business opportunity for export from Iran to France.

3-d28, potentials for export from France to Iran for 2011; this row involves estimation of export potentials form France to Iran based on 2-digits HS codes of commodities by simple estimation method for 2011. A part of this estimation is presented in Table 30. Required data has been obtained from www.Trademap.org affiliated to International Trade Center for 2011. Based on Table 30 and simple estimation method, priorities for export from France to Iran on the HS codes of commodity are code 84 (Machinery, nuclear reactors, boilers etc.), code 27 (mineral fuels, oils, distillation products etc.), code 72 (Iron and steel), code 85 (electrical and electric equipment), code 87 (vehicle other than railway, tramway etc.), and plastics, cereals, pharmaceutical products, pulp and paper, medical devices, animal and vegetable oils and organic products.

4-d29, potentials for export from France to Iran for 2014; includes estimation of export potentials form France to Iran based on two digits HS codes of commodities by simple estimation method for 2014. This estimation in detail has been reflected through table 31. Required data has been obtained from www.Trademap.org affiliated to International Trade Center for 2014. Based on Table 31 and simple estimation method, priorities for export from France to Iran on the HS codes of commodity are code 84 (Machinery, nuclear reactors, boilers

etc.), code 10 (cereals), code 85 (Electrical and electronic equipment), code 87 (vehicle other than railway and tramway), code 72 (Iron and steel), code 39 (plastics, and...plastics, animal and vegetable oils, organic chemicals, pulp and paper, medical devices etc.

A comparison between and review on 28th and 29th problem line shows that code 84 (Machinery, nuclear reactors, boilers etc.), Code 85 (Electrical and electronic equipment), and code 87 (vehicle other than railway and tramway) for the period under study almost have been among 5 priorities for export from France to Iran. Thus, *a pattern* could be understood through which export of electrical equipment, machinery and other technologies from France to Iran has justification and priority.

5-d-30; export of France to the world for 2015. Besides abovementioned 4 group of statistics, statistics for *export from France to the world in 2015* were extracted from www.Trademap.org. These statistics are reflected in Table 32 to be compared with 28th and 29th problem-line. It should be noted that statistics for export of Iran to the world in 2015 was not available at the time writing this first draft of this report in 2017 to be compared with 26th and 27th problem lines.

Anyway, by comparison, and contrasting between Table 30, Table 31 and Table 32, as reflected in Table 33, priorities for export from France to Iran could be extracted. In Table 33, the ranking of each code of commodity has been considered through each table and codes that have attained to higher ranks through all three tables have been selected. Commodities like steel and Iron (code72) have been excluded as their transportation from France to Iran is costly and pretty unjustifiable. In general, concerning Table 33, most considerable extracted codes are Code 84 (Machinery, nuclear reactors, boilers), Code 85 (Electrical, electronic equipment), Code 87 (Vehicles other than railway, tramway), Code 30 (Pharmaceutical products), and Code 39 (Plastics and articles thereof).

For code 84 it could be seen that is has been appeared in pretty all ranking as first or second thus could be considered as first ranking for export from France to Iran based on HS codes. Then code 85 has appeared with best overall ranks. Best overall rank here means the least sum of the ranking value for each code. Field observations could certify these analogies while typology of members of the joint chamber of commerce reveals a majority of companies exporting

machinery (Like Alstom), engineering services(Like Renault), electrical equipment(Like Schneider electric), Vehicles(Like Renault) and Pharmaceutical and Cosmetics(Like L'Oreal).

Table 32- Exports of France to the world in 2015, Value are in thousands of dollars

Rank	Product label	Product code	Values	Rank	Product label	Product code	Values
	All products	TOTAL	624274	9	Plastics and articles thereof	'39	10861
1	Pharmaceutical products	'30	188050	10	Oil seed, oleagic fruits, grain, seed, fruit, etc, nes	'12	10474
2	Machinery, nuclear reactors, boilers, etc	'84	83393	11	Aircraft, spacecraft, and parts thereof	'88	7431
3	Optical, photo, technical, medical, etc apparatus	'90	67709	12	Rubber and articles thereof	'40	6745
4	Organic chemicals	'29	44048	13	Albuminoids, modified starches, glues, enzymes	'35	6130
5	Essential oils, perfumes, cosmetics, toiletries	'33	43947	14	Residues, wastes of food industry, animal fodder	'23	5734
6	Miscellaneous chemical products	'38	32937	15	Miscellaneous edible preparations	'21	4939
7	Vehicles other than railway,	'87	31221	16	Articles of iron	'73	4807

	tramway				or steel		
8	Electrical, electronic equipment	'85	31139				

However above analogies are not absolute and could be seen beside other lists and rankings, as a case although Code 88 (Aircraft, spacecraft, and parts thereof) have attained the least priority based on Table 33. This issue is because of trade bans imposed by the U.S. on Iran for buying aeroplanes and vehicles from the west, while this code has much potential to be traded from France to Iran. As a fact, one of the first contracts signed between Iranian and French presidents after JCPOA came back to purchase of 100 AirBus planes from France.

Table 33- selected topics for export from France to Iran, based on a comparison and contrasting between d-28, d-29 and d-30 problem lines.

Code(Name)	Rank based on d-28	Rank based on d-29	Rank based on d-30	Sum of 3 past columns	Final ranking
Code 84 (Machinery, nuclear reactors, boilers, etc),	1	1	2	4	1
Code 85 (Electrical, electronic equipment),	4	2	8	14	2
Code 87 (Vehicles other than railway, tramway)	4	4	7	15	3
Code 30 (Pharmaceutical products),	10	6	1	17	4
Code 72 (Iron and Steel)	Not justified because of long distance				

Code 39 (Plastics and articles thereof),	7	6	8	21	5
Code 33 (Essential oils, perfumes, cosmetics, toiletries).	33	33	5	71	No Pattern recognized
Code 88 (Aircraft, spacecraft, and parts thereof),	90	90	11	191	?

It could be understood by comparing 26th, 27th and 28th rows (problem lines) of the framework that commodities like fuels and petrochemical products (code27) are among export priorities for both Iran and France. Thus both countries have competency in producing these products (in term of raw material and/or required capital and/or required technology), on the other side, both countries have a considerable need to these products on a way that has forced them to import a considerable amount of these products. In other words, based on the concept of trade complementarity when two countries have exporting competencies in same code of commodity they can share their resources(raw material, technology) to complement each other and conquer markets over other competitors. Thus, both countries could consider these topics as fields for mutual investment and economic cooperation in France or Iran. In practice, it could be seen that same investments have been operationalized; one of the most considerable joint investments between Iran and France are joint-ventures between National Iranian Oil Company (NIOC) and TOTAL of France.

Moreover, code72 (Iron and Steel) through years of study (2011 and 2014) has been calculated among export priorities from France to Iran. However, because of long-distance and high costs of delivery on Iron and steel from France to Iran, it could not be rational to be a topic for direct import and export but could be considered as a field for mutual investment of Iran and France in Iran.

Regarding code 84 (Machinery), it is 1st on the list of export priorities from France to Iran. On the other side, this code is 10th in the list of export priorities from Iran to France that is considerable priority for export from Iran to France and reveals a “relative” potential for export

of industrial products from Iran to France. This finding means that although Iran's competency is less than France, both countries have an advantage in the production of such products comparatively and have a need to such product simultaneously thus could cooperate on the manufacturing of these products. There could be the same analogies about fertilizers. Finally, as described before about framework analysis approach and qualitative researches, one of the main techniques of qualitative analysis are clustering and conceptualization. Thus after a comparison between statistics and potentials of export from France to Iran researcher observed many clusters of opportunities as follows;

- Industrial products and machineries (codes 84, 85, and 87)
- Pharmaceuticals and medical devices (Codes 30 and 33)
- Automotive, aeroplanes and transportation technologies (Codes 87 and 88)

In fact, based on pattern recognition between lists of export priorities for three years, 3 clusters were discussed and found. Application of more lists for more years may lead to more clusters and more incubated results while these analogies have been proposed for the first time. Undoubtedly, using more researcher, software-based algorithms will result in more developed outcomes. Anyway depended to the number of lists that are comparing to each other pattern recognition has a limit. After a threshold, it will not be possible to find a pattern and clusters of opportunities among lists.

In general, after passing abovementioned processes of contrasting, comparison and pattern recognition in this section, the researcher has extracted a set of rules for opportunity recognition based on HS codes of commodities that has explained them in next subsection.

3-3-3-2-Conclusions on pattern recognition based on HS codes

In this section, it will be explained some useful notes which have been extracted during analyzing trade statistics for 2011 and 2014 on HS codes between Iran and France as yet. Reference to their originality, these rules could be developed through future researches and initiatives;

- If a code of commodity is among export priorities at most of the lists, it could be considered as a business opportunity. For example, mechanical and electrical equipment

and machinery (code84&code85) for export from Iran to France that have attained high ranks among all tables.

- If a code of commodity (e.g. code 27, Petrochemical and distillation products) has been replicated in both lists of export from A to B and export from B to A, this means both countries need to this commodity, and both have the competency or a comparative advantage in producing it. Thus, that commodity could be a subject for economic cooperation and business partnership in country A or B.
- Regardless of each commodity's rankings through the tables, as much as the variance between rankings will be less, this means a pattern of opportunity. On the other words more proximity between the ranking of an HS code in different lists, increase its chance to be recognized as a pattern (e.g. for code 84 and code85)
- Lower ranks in all tables necessarily do not mean not to have a priority. For example, because the export of the code88 (aeroplanes and aircraft) to Iran have been restricted through these years (near zero!), based on simple estimation method it has been located at the bottom of priorities for export to Iran. (However, it is clear that Iran is very needy to such facilities and as a matter of fact, after JCOPA and Hassan Rouhani's trip to Paris, one of the first signed agreements was about exporting 100 Airbus planes to Iran that was valued about 27 billion dollars). Thus when comes to analyze trade statistics; the researcher should not rely roughly on the outcome of simple estimation method; instead, he/she should reexamine extracted priorities and reconsider exclusions among them, e.g. sanctions' effect, trade bans, political restrictions, and other trade barriers that may have blocked the trade on specified commodities although they may still have trade potential for future.
- As much as the researcher moves down through the tables, finding a pattern becomes more problematic because statistics become more scattered and fluctuations among rankings of HS codes in different lists increased. As reflected in Table 33 from up to down variance among rankings of HS codes in different list increases. This variance, however, may be compromised if could apply more lists and use a soft-ware based algorithm on a pool of data.
- Similarities between opportunities can form some clusters of opportunities as they formed for export from France to Iran, and some of them were introduced before.

Industrial products and machineries, Pharmaceuticals and medical devices, and Automotive, airplanes and transportation technologies were three clusters that were recognized, exemplified and presented above.


- On the other side, two digits codes are concentrated on commodities and do not cover the service sector. They are past-oriented and do not have the required flexibility to reflect all opportunities. Accordingly, the researcher initiated a new prioritized list of opportunities and compared them through the framework (matrix-collage) to go beyond commodities, finding new patterns and induce with more flexibility.
- Abovementioned analogies were made manually based on statistics on three years; 2011, 2014 and 2015. Codes were analyzed on 2-digits level, not more! However, future researches may develop abovementioned comparisons, contrasting and analogies to more than three years, more than two-digits of commodities using numerical methods. Analogies that were presented before could be used to build software-based algorithms of opportunity recognition using HS codes. This initiative will automate the opportunity recognition process based on trade statistics in a more comprehensive way. In this way, a form of bridging takes place between international economics/trade and international marketing research (We may transfer this part to conclusion recommendations for future researches or restate them again).
- In general, to find export priorities through tables, codes either at the top of the table or codes which could be justified as exclusion (e.g. aircrafts) were considered.
- If a code of commodity earn pretty similar ranking in different lists, it could find a rank near the average of rankings. For example, consider that pharmaceutical in different years have found as 4th or 5th export priority for export to Iran. Thus its priority, in general, could be considered something between 4-5. A threshold for fluctuations (variance) of rankings of an HS code in different lists is possible to be defined. For example, fluctuations more than 4-5 may not be discovered as a pattern. For example in Table 33 for Code 33(Essential oils, perfumes, cosmetics, toiletries) ranks for three years are 33, 33 and 5 and variance between years 2011 and 2014 with 2015 are so much that means no pattern could be recognized as the present.

- Thus if the priority of an HS code in different list goes more than 4-5 it may not be considered as an opportunity from this method. Such thresholds work as propositions and shall be modified through other research initiatives using panel data.

That is worthy to note that in this stage researcher looks for trends, replication and patterns so in table 18 he should compare column2 with column3 and the result with column4 and could continue for other tables of prioritized opportunities if any. For example, in Table 34, that is part of table 18 researcher for Code 84 (Machinery, nuclear reactors, boilers, etc.) first compared the year 2014 and year 2015. When this code ranks 1 and 2 respectively could be proposed that this code ranks at the top of the table and when this proposition is compared with rank1 in 2011 for the same code, it could be consolidated and reported. As mentioned before this process could be considered as a type of constant comparison and could be automated for more columns and tables and for future initiatives of opportunity recognition. Abovementioned rules and their subsequent rules are related to a cross-section of time where data have been gathered. It is evident that applying these rules on data gathered from another time frame will provide different results and opportunities.

Table 34- A reasoning between 3 columns of a table to find the final rank of an HS code

Code(Name)	2015	2014	Conclusion on 2015 and 2014	2011	conclusion
Code 84 (Machinery, nuclear reactors, boilers, etc.)	2	1	1~2	“1”	1



3-3-3-3-Using interviewee's viewpoints on business opportunities as a new source of opportunity recognition

Despite abovementioned rules, it should be noted that problem lines d-26 until d-30 have relied on analysis of two digits trade statistics. Thus the results of their comparison are in general past-oriented, with a focus on commodities and with limited flexibility so could not reflect all existing business opportunities. Thus in a mixed-method approach, the researcher looked for other sources of prioritizing opportunities, as mentioned by Mainela et al. (2014). Moreover, he found out that IE literature lacks a practical and comprehensive classification of business opportunities, including both product and services. These classifications are essential to be applied and provide a comparison base for this research and similar initiatives.

After investigations, the most relevant classification found was Thomson Reuters Business Classification (TRBC) that was selected as a primary working *nomenclature* for business opportunities (Figure 43). “*The Thomson Reuters Business Classification (TRBC) is an industry classification of global companies; it is owned and operated by Thomson Reuters and is also the basis for Thomson Reuters Indices*”(Wikipedia, 2019). This classification system has the following advantages:

- Considering the service sector
- Suitable compatibility with 2-digits HS codes (used by problem lines 26-30) and the possibility for equalizing between these two standards
- Definition of five layers of analysis (Economic sector with 10 groups, business sector with 25 groups, industry groups with 52 groups, sub-industries with 124 industries, and activity sector with 837 activities) in this standard that each level could be selected depending on our available resources and our obligation to be detailed

ECONOMIC SECTOR: 51 BASIC MATERIALS

BUSINESS SECTOR	INDUSTRY GROUP	INDUSTRY
5110 Chemicals	511010 Chemicals	51101010 Commodity Chemicals
		51101020 Agricultural Chemicals
		51101030 Specialty Chemicals
		51101090 Diversified Chemicals
5120 Mineral Resources	512010 Metals & Mining	51201010 Precious Metals & Minerals
		51201060 Gold
		51201070 Mining Support Services & Equipment
		51201080 Integrated Mining
		51201020 Steel
		51201030 Aluminum
		51201050 Specialty Mining & Metals
		512020 Construction Materials
		51202010 Construction Materials
		5130 Applied Resources
51301020 Paper Products		
513020 Containers & Packaging	51302010 Non-Paper Containers & Packaging	
		51302020 Paper Packaging

Figure 43-A part of TRBC

In present research concerning resources and possibilities of researcher, industry group including 52 sub-groups (industries) were chosen. After the elimination of three unviable industries⁷⁹ (nuclear industries, military industries and Holdings and conglomerates) finally, 49 industries were selected as our opportunity portfolio.

Now provided by TRBC, interviewees’ views on popularity of business opportunities and also classification of incoming French delegations to Iran were analyzed through 5 rows of the framework; d-31, d-32, d-33, d-34 and d-35.

6-d31-a survey on the popularity of 49 investment topics to be presented from France to Iran; to fill this row of the framework, interviewees were asked to appraise 49 business topics based on TRBC to be incubated in Iran by French companies. On the other side, French and Iranian contributors were asked to evaluate the worthiness of 49 topics to be incubated by Frenchs in Iran using a score between 1 till 10. Score 10 for maximum perceived worthiness and 1 for minimum worthiness. 13 interviewees participated in this survey. The average on incoming scores is calculated through Table 35, and the final sorted results are reported in Table 36.

Table 35-A a survey on the popularity of 49 investment topics to be presented from France to Iran.

Business Field	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	Total Score

⁷⁹ Coelomates could not be defined as business opportunity but are forms of business organization. On the other side cooperation between Iran and France in terms of nuclear and military business is not viable in near future.

1-Oil & Gas	7	10	9	8	9	5	1	0	0	0	8	1	8	66
2-Oil & Gas Related Equipment and Services	7	10	9	7	10	8	1	9	8	7	8	3	8	95
3-Renewable Energy	5	10	10	5	8	8	5	9	8	5	6	3	5	87
4-Chemicals	5	2	7	3	8	3	4	8	8	5	8	5	5	71
5-Metals and Mining	1	10	6	6	6	4	3	2	2	1	6	1	3	51
6-Construction Materials	2	1	9	1	7	3	3	5	2	1	7	3	6	50
7-Paper and Forest Products	6	1	10	3	8	6	5	5	2	3	7	3	4	63
8-Contianer and Packaging	5	1	10	3	6	6	4	3	2	2	6	3	4	55
9-Aerospace and Defense	10	10	10	8	9	10	6	10	8	9	8	5	8	111
10-Machinery, Equipment & Components	7	10	7	6	7	7	7	8	8	4	7	4	8	90
11-Construction and Engineering	10	8	8	7	9	10	6	9	8	7	8	6	8	104
12-Diversified Trading & Distribution	10	6	7	5	10	5	6	6	4	7	6	4	6	82
13-Professional and Commercial Services	9	10	10	9	9	2	6	4	4	7	6	1	5	82
14- Freight and Logistics Services	7	10	9	6	10	5	8	6	8	5	8	3	6	91
15- Passenger Transportation Services	7	1	10	6	10	5	8	7	7	6	7	3	7	84
16-Transport infrastructure	8	10	10	5	10	9	7	7	8	8	7	3	7	99
17-Automoblie & Auto parts	9	10	10	9	10	8	7	8	8	10	9	4	9	111
18-Textile and Apparel	8	1	6	4	6	10	8	4	6	6	5	1	6	71
19-Homebuilding and construction supplies	8	1	8	3	7	10	6	5	6	6	7	3	5	75
20-Household Goods	8	3	8	3	8	6	6	5	7	7	7	1	5	74
21-Leisure Products	8	1	7	3	8	6	7	5	7	6	5	1	4	68
22-Tourism, Hotels and Entertainment	8	9	10	7	9	8	7	8	8	8	8	4	9	103

Services														
23-Media and Publishing	8	1	10	2	8	10	7	6	8	7	6	3	6	82
24-Retailing	10	1	10	6	10	9	7	7	8	8	6	2	9	93
25-Othe Specialty Retailers	10	7	8	4	10	8	7	8	7	7	7	2	8	93
26-Beverages	8	1	10	3	9	10	7	7	4	5	5	4	5	78
27-Food	10	6	10	3	10	5	8	9	7	5	9	3	6	91
28-Fruit, Vegetables and Farming and Tobacco	10	1	10	1	8	5	6	5	4	3	8	3	4	68
29-Personal & Household Products and Services	8	1	7	6	6	6	6	5	7	6	7	4	7	76
30-Personal Services	6	1	9	5	6	5	6	3	6	6	6	3	5	67
31-Othe Specialty Retailers	5	10	10	5	9	8	7	3	6	7	8	5	6	89
32-Banking Services	7	9	10	7	9	10	7	9	8	4	9	4	8	101
33-Investment Banking and Services	7	9	9	7	9	10	7	8	7	4	8	3	7	95
34-Insurance	7	9	10	6	9	7	7	7	8	6	8	4	6	94
35-Real Estate Operations and REITs	5	1	9	3	9	10	7	6	4	3	6	3	6	72
36-Collective Investments	5	9	10	5	5	10	7	5	6	4	5	3	7	81
37-Healthcare Equipment & Supplies	8	10	7	5	6	10	7	6	8	7	7	2	7	90
38-Healthcare Providers and Services	8	10	10	3	9	9	7	2	8	8	7	4	8	93
39-Pharmaceuticals, Biotechnology & Medical research	8	10	8	6	9	10	7	8	8	8	8	4	9	103
40-Semiconductors & Equipment	6	1	6	7	10	5	7	7	8	6	7	1	3	74
41-Communication and Networking	7	1	9	6	5	5	7	9	8	8	7	5	5	82
42-Office Equipment	5	2	8	5	9	4	7	5	8	2	7	2	6	70
43-Electronic Equipment and Parts	7	1	8	5	7	3	7	6	8	7	7	2	7	75

44- Computers, phones and household electronics	3	1	5	5	5	3	7	4	8	4	5	2	3	55
45-Software and IT Services	7	1	5	5	7	8	7	4	7	7	5	2	7	72
46- Telecommunication Services	7	1	7	6	9	10	7	6	8	7	7	4	7	86
47-Electrical Utilities & IPPs	7	10	8	7	6	10	7	6	8	8	6	4	9	96
48-Natural Gas Utilities	6	10	8	6	9	10	7	6	8	7	8	4	6	95
49-Water Utilities	10	10	10	8	10	10	7	5	8	9	7	5	9	108

Based on Table 36 main priorities for investment by French bodies are 9-Aerospace and defence, 17-automobile and auto parts, 49-water utilities, 11-construction engineering, 22-tourism, hotels and entertainment, 39-pharmaceuticals, biotechnology and medical services and devices, 32-Banking services, and 16-Transportation and construction services. Numbers in fronts of each topic refers back to its place at TRBC.

Table 36- sorted popularity of 49 investment topics to be presented from France to Iran

Rank	Business Field based on TRBC	Total Score	Rank	Business Field based on TRBC	Total Score
1	9-Aerospace and Defense	111	25	13-Professional and Commercial Services	82
2	17-Automobile & Auto parts	111	27	23-Media and Publishing	82
3	49-Water Utilities	108	28	41-Communication and Networking	82
4	11-Construction and Engineering	104	29	36-Collective Investments	81
5	22-Tourism, Hotels and Entertainment Services	103	30	26-Beverages	78
6	39-Pharmaceuticals, Biotechnology & Medical research	103	31	29-Personal & Household Products and Services	76
7	32-Banking Services	101	32	19-Homebuilding and construction supplies	75
8	16-Transport infrastructure	99	33	43-Electronic Equipment and Parts	75
9	47-Electrical Utilities & IPPs	96	34	20-Household Goods	74
10	2-Oil & Gas Related Equipment and	95	35	40-Semiconductors &	74

	Services			Equipment	
11	33-Investment Banking and Services	95	36	35-Real Estate Operations and REITs[1]	72
12	48-Natural Gas Utilities	95	37	45-Software and IT Services	72
13	34-Insurance	94	38	4-Chemicals	71
14	24-Retailing	93	39	18-Textile and Apparel	71
15	25-Othe Specialty Retailers	93	40	42-Office Equipment	70
16	38-Healthcare Providers and Services	93	41	21-Leisure Products	68
17	14- Freight and Logistics Services	91	42	28-Fruit, Vegetables and Farming and Tobacco	68
18	27-Food	91	43	30-Personal Services	67
19	10-Machinery, Equipment & Components	90	44	1-Oil & Gas	66
20	37-Healthcare Equipment & Supplies	90	45	7-Paper and Forest Products	63
21	31-Othe Specialty Retailers	89	46	8-Container and Packaging	55
22	3-Renewable Energy	87	47	44- Computers, phones and household electronics	55
23	46-Telecommunication Services	86	48	5-Metals and Mining	51
24	15- Passenger Transportation Services	84	49	6-Construction Materials	50
25	12-Diversified Trading & Distribution	82			

7-d32-a survey on the popularity of 49 investment topics to be presented form Iran to France; to fill this row of the framework, interviewees were asked to appraise 49 business topics based on TRBC to be incubated in France by Iranian companies. On the other side, French and Iranian contributors were asked to evaluate the worthiness of 49 topics to be incubated in France using a score between 1 till 10. Score 10 for most worthiness and 1 for least worthiness. 13 interviewees participated in this survey. The average is calculated on incoming scores through table 37 and reported final sorted results in table 38.

Based on Table 38 main priorities for investment by French bodies are 1-oil and gas, 18-textile and apparel, 5-metal and mining, 28-Fruit vegetables and farming, 19-home building and construction, 4-chemicals, 39-pharmaceuticals, biotechnology, medical devices and services, and 45-software and IT services. Numbers in fronts of each topic refers back to its place at TRBC.

Based on this analysis it could be understood that interviewees still perceive Iran as an oil-rich country which has competency in providing raw materials, or agricultural product or low-cost labour to be used by industries like textile and apparel. However, some industries in Iran like

chemical, pharmaceutical, and software and IT services have succeeded to take the attention of interviewees for export from Iran to France.

Table 37-a survey on the popularity of 49 investment topics to be presented from Iran to France

Business Field	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	I13	Total Score
1-Oil & Gas	9	10	10	9	10	10	8	10	8	9	8	7	8	116
2-Oil & Gas Related Equipment and Services	1	1	5	3	2	1	8	2	2	1	5	4	2	37
3-Renewable Energy	1	1	1	3	1	2	6	1	2	1	5	5	2	31
4-Chemicals	5	1	1	7	8	3	6	4	2	4	8	5	3	57
5-Metals and Mining	5	8	3	6	9	1	7	4	8	9	8	3	3	74
6-Construction Materials	3	1	2	4	7	3	7	2	8	4	5	1	3	50
7-Paper and Forest Products	2	1	2	5	1	2	7	2	2	2	5	1	3	35
8-Container and Packaging	4	1	5	5	1	1	7	2	8	2	5	1	3	45
9-Aerospace and Defense	1	1	1	2	1	1	4	1	2	1	5	1	1	22
10-Machinery, Equipment & Components	1	1	1	5	1	3	4	1	2	3	6	2	2	32
11-Construction and Engineering	1	1	1	3	1	2	3	1	2	1	6	1	2	25
12-Diversified Trading & Distribution	10	1	1	5	9	3	3	1	2	2	7	4	4	52
13-Professional and Commercial Services	1	1	1	2	1	5	3	2	2	1	6	4	2	31
14- Freight and Logistics Services	3	1	1	5	5	3	3	6	5	1	6	4	5	48
15- Passenger Transportation Services	2	1	1	3	5	4	3	6	2	2	6	4	4	43
16-Transport infrastructure	1	1	1	3	1	5	3	1	2	2	5	4	3	32
17-Automobile & Auto parts	7	1	3	7	1	10	3	2	2	4	7	5	3	55

18-Textile and Apparel	6	7	5	7	6	10	7	1	5	2	9	6	6	77
19-Homebuilding and construction supplies	5	1	2	4	7	10	7	1	7	2	6	3	4	59
20-Household Goods	1	1	1	5	1	6	3	1	1	1	5	2	4	32
21-Leisure Products	1	1	1	2	4	6	3	1	1	1	6	2	3	32
22-Tourism, Hotels and Entertainment Services	1	9	1	2	1	1	3	7	1	1	8	7	5	47
23-Media and Publishing	1	1	1	2	1	2	3	2	1	1	6	3	2	26
24-Retailing	1	1	1	3	1	2	3	1	1	2	5	2	3	26
25-Othe Specialty Retailers	1	1	1	3	1	3	4	1	1	1	6	3	3	29
26-Beverages	1	1	1	6	6	3	4	3	1	5	7	2	3	43
27-Food	1	1	1	5	6	2	5	2	1	3	8	2	3	40
28-Fruit, Vegetables and Farming and Tobacco	5	1	5	7	7	2	6	3	3	7	8	4	3	61
29-Personal & Household Products and Services	1	1	1	3	3	2	4	1	1	3	5	4	3	32
30-Personal Services	1	1	3	3	1	4	3	3	1	1	5	4	6	36
31-Othe Specialty Retailers	2	1	1	5	1	4	3	2	1	1	5	2	3	31
32-Banking Services	1	1	1	2	1	3	7	10	1	1	5	3	1	37
33-Investment Banking and Services	1	1	1	2	7	5	7	8	1	1	5	2	1	42
34-Insurance	1	1	1	2	4	3	3	2	1	1	5	2	1	27
35-Real Estate Operations and REITs	1	1	1	5	2	3	6	2	1	2	5	2	2	33
36-Collective Investments	2	1	1	4	9	6	7	1	4	1	5	2	2	45
37-Healthcare Equipment & Supplies	2	1	1	3	1	3	3	1	1	3	8	4	2	33
38-Healthcare Providers and Services	2	1	3	4	1	1	3	2	1	6	8	4	5	41
39-Pharmaceuticals, Biotechnology &	5	1	3	5	4	10	3	4	2	4	8	4	4	57

Medical research														
40-Semiconductors & Equipment	3	1	5	5	1	10	3	1	1	3	6	2	2	43
41-Communication and Networking	1	1	3	3	1	4	3	2	1	3	6	2	2	32
42-Office Equipment	1	1	2	5	1	4	3	1	2	2	5	2	2	31
43-Electronic Equipment and Parts	1	1	3	9	1	10	3	1	1	2	7	2	2	43
44- Computers, phones and household electronics	1	1	1	3	1	10	3	1	1	2	6	2	2	34
45-Software and IT Services	6	1	6	3	2	10	3	3	2	4	6	5	5	56
46- Telecommunication Services	1	1	4	3	1	5	2	4	1	1	7	5	2	37
47-Electrical Utilities & IPPs	1	1	1	3	1	2	2	1	4	3	9	2	2	32
48-Natural Gas Utilities	3	1	1	3	9	1	7	8	2	6	9	3	3	56
49-Water Utilities	1	1	1	3	1	1	2	1	1	1	6	2	2	23

Table 38-Ranking investment topics from Iran to France based on a survey on interviewees

Rank	Business Field based on TRBC	Total Score	Rank	Business Field based on TRBC	Total Score
1	1-Oil & Gas	116	25	46-Telecommunication Services	37
2	18-Textile and Apparel	77	27	30-Personal Services	36
3	5-Metals and Mining	74	28	7-Paper and Forest Products	35
4	28-Fruit, Vegetables and Farming and Tobacco	61	29	44- Computers, phones and household electronics	34
5	19-Homebuilding and construction supplies	59	30	35-Real Estate Operations and REITs[1]	33
6	4-Chemicals	57	31	37-Healthcare Equipment & Supplies	33
7	39-Pharmaceuticals, Biotechnology & Medical research	57	32	10-Machinery, Equipment & Components	32
8	45-Software and IT Services	56	33	16-Transport infrastructure	32
9	48-Natural Gas Utilities	56	34	20-Household Goods	32

10	17-Automobile & Auto parts	55		35	21-Leisure Products	32
11	12-Diversified Trading & Distribution	52		36	29-Personal & Household Products and Services	32
12	6-Construction Materials	50		37	41-Communication and Networking	32
13	14- Freight and Logistics Services	48		38	47-Electrical Utilities & IPPs	32
14	22-Tourism, Hotels and Entertainment Services	47		39	3-Renewable Energy	31
15	8-Container and Packaging	45		40	13-Professional and Commercial Services	31
16	36-Collective Investments	45		41	31-Other Specialty Retailers	31
17	15- Passenger Transportation Services	43		42	42-Office Equipment	31
18	26-Beverages	43		43	25-Other Specialty Retailers	29
19	40-Semiconductors & Equipment	43		44	34-Insurance	27
20	43-Electronic Equipment and Parts	43		45	23-Media and Publishing	26
21	33-Investment Banking and Services	42		46	24-Retailing	26
22	38-Healthcare Providers and Services	41		47	11-Construction and Engineering	25
23	27-Food	40		48	49-Water Utilities	23
24	2-Oil & Gas Related Equipment and Services	37		49	9-Aerospace and Defense	22
37	32-Banking Services	37				

3-3-3-4-Typography of members of incoming French delegations

Inspired by JCPOA, between 2014 and 2016, three large trade delegations have come to Iran from France. These delegations usually include many small and medium enterprises who have shown their interest in Iran by travel to the country. As mentioned by Baron (2006) and Baron & Ensley (2006) opportunity recognition is like connecting the dots and detection of meaningful pattern among seemingly unrelated events or trends; “*a cognitive process through which people try to find meaningful patterns among seemingly unrelated events or trends.* Neck et al. (2018) explain this issue; “*Another key factor in building and recognizing opportunities is pattern recognition: the process of identifying links or connections between apparently unrelated things or events. Pattern recognition takes place when people “connect the dots” in order to identify and then build on opportunities*”. Thus analyzing the composition of delegations mentioned above could provide ideas about typographies of French SMEs who have an interest in investment or export to Iran.

It should be noted that large companies like total and Renault usually have not participation in such delegation because they carry out their negotiations directly with governmental authorities in Iran or some specific companies. Thus the composition of delegations from MEDEF or regional chambers of commerce shows a pretty uniform reflection of French SMEs who have found a charm in Iran. Such composition also shows industries who empirically have found by French entrepreneurs to have the potential to be worked in Iran.

8-d-33; analyzing the composition of 130-people delegation to Iran, February 2014

For finding competencies and interest of French companies in Iran, the composition of an incoming French delegation into Iran by February 2014 has been analyzed based on TRBC. This delegation initiated by MEDEF included 130 companies and real persons from France and has been the largest foreign delegation to Iran after JCPOA yet. As claimed by the French ministry of foreign affairs, “*this delegation reflects the general composition of French companies from all industries who are interested in working in Iran and with Iranian companies*”. Table 39 reflects the results based on the Thompson Reuters Business Classification (TRBC). In front of each of 49 entries, their abundance has been shown. Based on this classification, main interests of French industries in Iranian market includes; 13-Professional and Commercial Services, 2-Oil & Gas Related Equipment and Services, 11-Construction and Engineering, 10-Machinery, Equipment & Components, 17-Automobile & Auto parts, 33-Investment Banking and Services, 45-Software and IT Services, 6-Construction Materials, 14- Freight and Logistics Services, 32-Banking Services, 41-Communication and Networking, 49-Water Utilities, 4-Chemicals, 9-Aerospace and Defense, and 16-Transport infrastructure. The number in front of each topic refers to its number on TRBC's nomenclature.

9-d-34; analyzing the composition of the French delegation to Iran, September 2015

French delegation initiated by MEDEF travelled on September 2015 including about 90 companies. Table 40 reflects the results and an analysis of the composition of this delegation based on Thompson Reuters Business Classification (TRBC) as mentioned before. In front of each of 49 entries, their abundance has been shown. Based on this classification main interests of French industries in Iranian market includes; 13-Professional and Commercial Services, 28-Fruit, Vegetables and Farming and Tobacco, 11-Construction and Engineering, 16-Transport

infrastructure, 5-Metals and Mining, 9-Aerospace and Defense, 14- Freight and Logistics Services, 47-Electrical Utilities & IPPs, 2-Oil & Gas Related Equipment and Services, and 49-Water Utilities. The number in front of each topic refers to its number on TRBC's nomenclature.

10-d-35; analyzing the composition of the French delegation to Iran, May-Jun 2016

French delegation initiated by CCI Paris Ile-du-France travelled on May 2016 including about 50 companies. The results and analysis of the composition of this delegation have been reflected in Table 41 based on Thompson Reuters Business Classification (TRBC) as mentioned before. In front of each of 49 entries, their abundance has been shown. Based on this classification main interests of French industries in Iranian market includes; 10-Machinery, Equipment & Components, 4-Chemicals, 11-Construction and Engineering, 14- Freight and Logistics Services, 13-Professional and Commercial Services, 27-Food, 6-Construction Materials, 9-Aerospace and Defense, 17-Automobile & Auto parts, 18-Textile and Apparel, 23-Media and Publishing, and 28-Fruit, Vegetables and Farming and Tobacco. The number in front of each topic refers to its number on TRBC's nomenclature.

Conclusion of the composition of three French delegation into Iran

Results of conclusion of composition analysis based on TRBC of three delegations from France to Iran are presented in Table 42. According to this table main business areas of interest for French companies in Iran are; 13-Professional and Commercial Services, 11-Construction and Engineering, 10-Machinery, Equipment & Components, 28-Fruit, Vegetables and Farming and Tobacco, 2-Oil & Gas Related Equipment and Services, 14- Freight and Logistics Services, 16-Transport infrastructure, 4-Chemicals, 9-Aerospace and Defense, 33-Investment Banking and Services, 45-Software and IT Services, 17-Automobile & Auto parts, 41-Communication and Networking, 47-Electrical Utilities & IPPs, 49-Water Utilities, 5-Metals and Mining, 6-Construction Materials, 27-Food, 39-Pharmaceuticals, Biotechnology & Medical research, and 32-Banking Services.

Table 39- Composition analysis of the French delegation in February 2014 based on TRBC

MEDEF, February 2014-Sorted!	
12	13-Professional and Commercial
9	2-Oil & Gas Related Equipment a
9	11-Construction and Engineering
6	10-Machinery, Equipment & Com
5	17-Automobile & Auto parts
5	33-Investment Banking and Servi
5	45-Software and IT Services
4	6-Construction Materials
3	14- Freight and Logistics Service
3	32-Banking Services
3	41-Communication and Networkin
3	49-Water Utilities
2	4-Chemicals
2	9-Aerospace and Defense
2	16-Transport infrastructure
2	19-Homebuilding and construction
2	22-Tourism, Hotels and Entertain
2	27-Food
2	29-Personal & Household Produc
2	34-Insurance
1	3-Renewable Energy
1	18-Textile and Apparel
1	23-Media and Publishing
1	24-Retailing
1	28-Fruit, Vegetables and Farming
1	30-Personal Services
1	37-Healthcare Equipment & Supp
1	38-Healthcare Providers and Sen
1	39-Pharmaceuticals, Biotechnolo
1	46-Telecommunication Services
1	47-Electrical Utilities & IPPs
0	1-Oil & Gas
0	5-Metals and Mining
0	7-Paper and Forest Products
0	8-Container and Packaging
0	12-Diversified Trading & Distribut
0	15- Passenger Transportation Se
0	20-Household Goods
0	21-Leisure Products
0	25-Other Specialty Retailers
0	26-Beverages
0	31-Other Specialty Retailers
0	35-Real Estate Operations and R
0	36-Collective Investments
0	40-Semiconductors & Equipment
0	42-Office Equipment
0	43-Electronic Equipment and Par
0	44- Computers, phones and hous
0	48-Natural Gas Utilities

Table 40- Composition analysis of the French delegation in September 2015 based on TRBC

MEDEF, September 2015-Sorted!	
29	13-Professional and Commercial Services
14	28-Fruit, Vegetables and Farming and Tobac
12	11-Construction and Engineering
8	16-Transport infrastructure
6	5-Metals and Mining
5	9-Aerospace and Defense
5	14- Freight and Logistics Services
5	47-Electrical Utilities & IPPs
4	2-Oil & Gas Related Equipment and Service
4	49-Water Utilities
3	10-Machinery, Equipment & Components
3	33-Investment Banking and Services
3	39-Pharmaceuticals, Biotechnology & Medic
3	41-Communication and Networking
3	45-Software and IT Services
2	3-Renewable Energy
2	4-Chemicals
2	20-Household Goods
2	30-Personal Services
2	34-Insurance
2	37-Healthcare Equipment & Supplies
2	46-Telecommunication Services
1	15- Passenger Transportation Services
1	17-Automobile & Auto parts
1	19-Homebuilding and construction supplies
1	22-Tourism, Hotels and Entertainment Servic
1	32-Banking Services
1	38-Healthcare Providers and Services
0	1-Oil & Gas
0	6-Construction Materials
0	7-Paper and Forest Products
0	8-Container and Packaging
0	12-Diversified Trading & Distribution
0	18-Textile and Apparel
0	21-Leisure Products
0	23-Media and Publishing
0	24-Retailing
0	25-Other Specialty Retailers
0	26-Beverages
0	27-Food
0	29-Personal & Household Products and Ser
0	31-Other Specialty Retailers
0	35-Real Estate Operations and REITs[1]
0	36-Collective Investments
0	40-Semiconductors & Equipment
0	42-Office Equipment
0	43-Electronic Equipment and Parts
0	44- Computers, phones and household elec
0	48-Natural Gas Utilities

Table 41- Composition analysis of the French delegation between May-June 2016 based on TRBC

CCI Paris Ile-du-France, May-June 2016-SORTED!	
9	10-Machinery, Equipment & Components
5	4-Chemicals
4	11-Construction and Engineering
4	14- Freight and Logistics Services
3	13-Professional and Commercial Services
3	27-Food
2	6-Construction Materials
1	9-Aerospace and Defense
1	17-Automobile & Auto parts
1	18-Textile and Apparel
1	23-Media and Publishing
1	28-Fruit, Vegetables and Farming and Tobac
1	37-Healthcare Equipment & Supplies
1	39-Pharmaceuticals, Biotechnology & Medic
1	40-Semiconductors & Equipment
1	41-Communication and Networking
1	46-Telecommunication Services
1	47-Electrical Utilities & IPPs
0	1-Oil & Gas
0	2-Oil & Gas Related Equipment and Service
0	3-Renewable Energy
0	5-Metals and Mining
0	7-Paper and Forest Products
0	8-Container and Packaging
0	12-Diversified Trading & Distribution
0	15- Passenger Transportation Services
0	16-Transport infrastructure
0	19-Homebuilding and construction supplies
0	20-Household Goods
0	21-Leisure Products
0	22-Tourism, Hotels and Entertainment Servic
0	24-Retailing
0	25-Other Specialty Retailers
0	26-Beverages
0	29-Personal & Household Products and Ser
0	30-Personal Services
0	31-Other Specialty Retailers
0	32-Banking Services
0	33-Investment Banking and Services
0	34-Insurance
0	35-Real Estate Operations and REITs[1]
0	36-Collective Investments
0	38-Healthcare Providers and Services
0	42-Office Equipment
0	43-Electronic Equipment and Parts
0	44- Computers, phones and household elec
0	45-Software and IT Services
0	48-Natural Gas Utilities
0	49-Water Utilities

Table 42- Composition analysis of three French delegation between 2014-2016 based on TRBC

Average Composition-Sorted	
44	13-Professional and Commercial Services
25	11-Construction and Engineering
18	10-Machinery, Equipment & Components
16	28-Fruit, Vegetables and Farming and Tobacco
13	2-Oil & Gas Related Equipment and Services
12	14- Freight and Logistics Services
10	16-Transport infrastructure
9	4-Chemicals
8	9-Aerospace and Defense
8	33-Investment Banking and Services
8	45-Software and IT Services
7	17-Automobile & Auto parts
7	41-Communication and Networking
7	47-Electrical Utilities & IPPs
7	49-Water Utilities
6	5-Metals and Mining
6	6-Construction Materials
5	27-Food
5	39-Pharmaceuticals, Biotechnology & Medical research
4	32-Banking Services
4	34-Insurance
4	37-Healthcare Equipment & Supplies
4	46-Telecommunication Services
3	3-Renewable Energy
3	19-Homebuilding and construction supplies
3	22-Tourism, Hotels and Entertainment Services
3	30-Personal Services
2	18-Textile and Apparel
2	20-Household Goods
2	23-Media and Publishing
2	29-Personal & Household Products and Services
2	38-Healthcare Providers and Services
1	15- Passenger Transportation Services
1	24-Retailing
1	40-Semiconductors & Equipment
0	1-Oil & Gas
0	7-Paper and Forest Products
0	8-Container and Packaging
0	12-Diversified Trading & Distribution
0	21-Leisure Products
0	25-Other Specialty Retailers
0	26-Beverages
0	31-Other Specialty Retailers
0	35-Real Estate Operations and REITs[1]
0	36-Collective Investments
0	42-Office Equipment
0	43-Electronic Equipment and Parts
0	44- Computers, phones and household electronics
0	48-Natural Gas Utilities

3-3-3-5-Exploring business development opportunities between Iran and France

Heretofore in this section, ten problem lines (d26 until d35) were introduced and used for opportunity evaluation through the 5th column of the framework (matrix collage). These ten problem lines have been briefly described through tables or figures. Although these ten problem

lines directly include evaluated opportunities, there were other rows (problem lines) that include some notes about business opportunities between Iran and France.

At rest, through the 5th and last column of the framework (matrix-collage) the object was to make a *comparison and contrast* between different lists of opportunities and find *common streams and patterns* among them to be introduced as a business opportunity. In other words, the aim here is to *connect the dots and noting pattern* among different event and lists of opportunities as has been modelled by Barun (2004 & 2006) and Barun and Ansley (2006).

These comparisons and contrasting have been concluded and reported through 4 tables: opportunities for *export from Iran to France* (Table 43), opportunities for *Investment in France* (Table 44), opportunities for *export from France to Iran* (Table 45) and opportunities for *investment in Iran* (Table 46). Through the process of comparison and contrasting, common themes and patterns have been recognized through each table and stored in the last columns.

Regarding opportunities for export to France and export to Iran, it should be noted that these exports include not only goods but also services including licenses and franchises. Thus these opportunities include export-import and contractual agreements. For example, if export from France to Iran in the field of aerospace has been induced to have priority, it may be exploited through the export of aeroplanes from France or selling licenses or Franchises of assembling some sort of aeroplanes to Iranian companies. Considering these possibilities beside possibilities for co-investment in Iran and France could cover all three entry modes have been presented before. However, this research does not decide on entry mode choices for each topic of opportunity, and these decisions need to be worked through future researches.

3-3-3-5-1-Opportunities for export from Iran to France

Based on analogies through table 43 and comparison between 5 problem lines (i-7, i-10, d-26, d-27, d-31, o-70 and o-79) one can conclude that opportunities for **export from Iran to France** are **1-oil and gas (based on i-10, d-26, d-26, d-31), 2-distillation products including base oil, bitumen, organic and inorganic chemicals (based on i-10, d-26, d-27, d-31), and 3-Food and beverages (Based on i-7, d-26 and d-27)**. Other fields of priority for export from Iran to France are; 4-Fruits and Nuts, 5-Handicrafts, textile and Apparels, 6-Metals and mining, 7-

Homebuilding and construction supplies, 8-Pharmaceuticals, 9-Biotechnology & Medical research, 10-Software and IT Services.

Table 43- Comparison and contrasting for extracting opportunities for export from Iran to France

← Comparison →		← Comparison →		← Comparison →		→ Conclusion →	
i-7; interview with expert	i-10; interview with expert	d-26, d-27; potential for export at 2011 and 2014 based on trade analysis	d-31; Potentials for Export from Iran to France-2016, a conclusion on opinions of interviewees	Conclusion			
for export from Iran to France food and beverages and textile may be suitable	handicrafts and oil products(base oil, waxes, bitumen, finished oil products) from Iran	Mineral fuels, oils, distillation products, organic and inorganic chemicals and food products have priorities for export form Iran to France	1-Oil & Gas, 18-Textile and Apparel, 5-Metals and Mining, 28-Fruit, Vegetables and Farming and Tobacco, 19-Homebuilding and construction supplies, 4-Chemicals, 39-Pharmaceuticals, Biotechnology & Medical research, 45-Software and IT Services	1-Oil and Gas, 2-Distillation Products including base oil, bitumen and petrochemicals, Organic and Inorganic chemicals, 3-Food and Beverages, 4-Fruits and Nuts, 5-Handicrafts, textile and Apparels, 6-Metals and mining, 7-Homebuilding and construction supplies, 8-Pharmaceuticals, 9-Biotechnology & Medical research, 10-Software and IT Services			

3-3-3-5-2- Opportunities for joint investment in France

Based on analogies through table 44 and comparison between 9 problem lines (i-3, i-5, i-8, i-16, i-17, i-18, i-19, i-21 and i-22) regarding opportunities for **joint investment in France** one can conclude that **Investment of Iranian companies in France is not justifiable with the exception of the investment in the service sector and cooperation with French startups and knowledge-based companies**. Among abovementioned field are; 1-Knowledgebased products like pharmaceutical and biotechnological (i-5, i-8, i-16, i-17, i-18, i-21, i-22), 2-Professional and Commercial services (i-5, i-8, i-16, i-17, i-18, i-21 and i-22), 3-Logistics and Freights services (i-5, i-8, i-16, i-17, i-18, i-21 and i-22), 4-Pharmaceutical, bio-technological (i-5, i-8, i-16, i-17, i-18, i-21 and i-22), 5-IT, ICT and Telecom (i-5, i-8, i-16, i-17, i-18, i-21 and i-22), 6-Banking services (i-5, i-8, i-16, i-17, i-18, i-21 and i-22), and 7-Cultural and Art Business (i-3).

Table 44- Comparison and contrasting for extracting opportunities for joint-Investment in France

← Comparison →		← Comparison →		→ Conclusion →
i-3; an interview	i-5, i-8, i-16, i-17, I-18, i-19, i-21, i-22; interviews with exports	i-21; interview with expert	Conclusion	
Cinema, food, Art museums, literature and other types of business based on culture could be topics for cooperation	Knowledge- based companies, startups, service sector	France is very good in system technologies. Iran on the other hand has some competencies in technologies that have depth than breadth.	Investment of Iranian companies at France is not justifiable with the exception of investment at service sector and cooperating with French startups and knowledge based companies; 1-Knowledgebased products like pharmaceutical and biotechnological 2-Professional and Commercial services 3-Logistics and Freights services 4-Pharmaceutical, bio-technological 5-IT, ICT and Telecom 6-Banking services 7-Cultural and Art Business	

3-3-3-5-3-Opportunities for export from France to Iran

Based on analogies through Table 45 and comparison between 11 problem lines (i-7, i-10, d-28, d-29, d-30, d-31 and d-32) one can conclude that opportunities for **export from France to Iran** are 1-Machineries and components, 2-Oil and gas equipment, 3-Aircrafts, 4-Automobile and auto parts and 5-Electrical and electronic equipment. Other fields of priority for export from France to Iran are; 6-Transportation infrastructures, 6-Water and Electrical utilities, 7- Construction and engineering, 8-Tourism, Hotels and Entertainment services, 9-Pharmaceuticals, chemicals, medical and biotechnological products, 10-Food & Agriculture and FMCG, 10-Banking services! 11-Professional and Commercial services! 12-Freight and logistics services! 13-IT, ICT and Telecom and 14-Food and Beverages.

Table 45- Comparison and contrasting for extracting opportunities for export from France to Iran

← Comparison		← Comparison		← Comparison		← Comparison		← Comparison		→ Conclusion	
i-7; interview with expert	i-10; interview with expert	d-28, d-29, d-30, d-31, d-32-2011/4/6; opportunities introduced through a series of Docs	d-32; Potentials for Export from Iran to France-2016 a conclusion on opinions, d-32	d-33, d-34, d-35; A conclusion on the composition of 3 delegations	d-45; interview with expert	Conclusion					
electricity, transportation, infrastructures, automotive, metro and industrial equipment are suitable to be exported, moreover winter sports and their equipment could be considered	Oil and gas industry equipment have good potential to be exported from France.	Mainly industrial machineries, electrical and electronic equipment, vehicles, pharmaceuticals, chemicals, foods, and related commodities have priority to be export form France to Iran.	9-Aerospace and Defense, 17-Automobile & Auto parts, 49-Water Utilities, 11-Construction and Engineering, 22-Tourism, Hotels and Entertainment Services, 39-Pharmaceuticals, Biotechnology & Medical research, 32-Banking Services, 16-Transport infrastructure	13-Professional and Commercial Services, 11-Construction and Engineering, 10-Machinery, Equipment & Components, 28-Fruit, Vegetables and Farming and Tobacco, 2-Oil & Gas Related Equipment and Services, 14-Freight and Logistics Services, 16-Transport infrastructure, 4-Chemicals, 9-Aerospace and Defense, 33-Investment Banking and Services, 45-Software and IT Services, 17-Automobile & Auto parts, 41-Communication and Networking, 47-Electrical Utilities & IPPs, 49-Water Utilities, 5-Metals and Mining, 6-Construction Materials, 27-Food, 39-Pharmaceuticals, Biotechnology & Medical research, 32-Banking Services,	France has a proven expertise in farming, genetics and industrialization of food products. Also in bakery and cereals, those are important in Iran also in vegetables and Fruits and Wines!	1-Machineries and components 2-oil and gas equipment 3-Aircrafts 4-Automobile and auto parts 5-Electrical and electronic equipment 6-transportation infrastructures 6-Water and Electrical utilities 7-Construction and engineering 8-Tourism, Hotels and Entertainment services 9-Pharmaceuticals, chemicals, medical and biotechnological products 10-Banking services? 11-Professional and Commercial services? 12-Freight and logistics services? 13-IT, ICT and Telecom 14-Food and Beverages					

3-3-3-5-4-Opportunities for joint investment in Iran

Concerning received data and number of shaped problem lines in Table 46, it appears that *joint investment in Iran* is the most prioritized field for business development between Iran and France. A review on past business initiatives between Iran and France as mentioned in section 3-1 (analyzing trade between Iran and France) approves this proposition. As a considerable volume of trade regime between Iran and France has relied on joint investment of both countries in Iran, for example, joint-ventures between Iran-Khodro and Peugeot, or between Renault and Siapa, or between NIOC and TOTAL. Thus according to comparisons between 14 problem lines (i-3, i-5, i-7, i-12, i-21, i-25, d-32, d-33, d-34, d-35, d-38, d-42, o-70 and o-79) it could be said that most interesting topics for joint investment in Iran are; 1-FMCG, 2-Agrofood, and 3-Autoparts& Automotive that have been insisted through pretty all problem lines. Other fields of priority have been; 4-Cultural business, 5-Pharmaceutical and cosmetics, 6-Construction and engineering, 7-Oil and gas, 8-Commercial services, 9-Hotels and entertainment, 10-Machineries, 11-Electrical and electronic equipment and 12-Transportation.

Table 46- Comparison and contrasting for extracting opportunities for joint investment in Iran

Compr		Compr		Compr		Compr		Compr		Compr		Compr		Compr		Conclusion	
i-3; an interview	i-5; an interview	i-7; an interview	i-12; an interview	i-21; an interview	i-25; an interview	d-32; opinions,	d-33, d-34, d-35; delegations	d-38; a Document	d-42; a Document	o-70; observing news	o-79; observing news	Conclusion					
Cinema, food, Art museums, literature and other types of business based on culture could be topics for cooperation	food, pharmaceutical and cosmetics could be proposed as business opportunities	FMCG companies are always interested to work in or with Iran!	electronic, computer and telecom, winter sports like skiing, Tourism and hoteling, cosmetics, restaurant, leisure products, luxury products and banking are fields of priority between Iran and France	utilities, agriculture and food, dairy products, environmental technologies, Nano-technology, bio-technology are France's fields of competency	In the agrobusiness, textile, automotive industry, telecom, pharmaceuticals, high tech, there are huge possibilities of partnership between Iran and French companies to reexport in the middle east and central Asia. I think the main markets for Iran are in the region.	9-Aerospace and Defense, 17- Automobile & Auto parts, 49-Water Utilities, 11-Construction and Engineering, 22-Tourism, Hotels and Entertainment Services, 39-Pharmaceuticals, Biotechnology & Medical research, 32-Banking Services, 16-Transport infrastructure	13- Professional and Commercial Services, 11-Construction and Engineering, 10- Machinery, Equipment & Components, 28- Fruit, Vegetables and Farming and Tobacco, 2-Oil & Gas Related Equipment and Services, 14- Freight and Logistics Services, 16-Transport infrastructure, 4-Chemicals, 9-Aerospace and Defense, 33-Investment Banking and Services, 45-Software and IT Services, 17- Automobile & Auto parts, 41-Communication and Networking, 47-Electrical Utilities & IPPs, 49-Water Utilities, 5-Metals and Mining, 6-Construction Materials, 27-Food, 39-Pharmaceuticals, Biotechnology & Medical research, 32-Banking Services,	Oil and Gas, Automotive, Food and agribusiness and machineries are three priorities of French authorities in Iran.	there are potentials for work in oil and gas, automotive and SMEs	there is potentials to cooperate in fishing and fisheries industries and management and sustainable use of resources	Agriculture and food, industrial equipment, water utilities and treatment, aircraft, Hi-tech and knowledge base companies and Tourism have priority to cooperate	1-FMCG 2-Agrofood 3-Autoparts & Automotive 4-Cultural business 5-Pharmaceutical and cosmetics 6-construction and engineering 7-Oil and gas 8-Commercial services 9-Hotels and entertainment 10-machineries 11-Electrical and electronic equipment 12-transportation					

3-4-Discussion of opportunity recognition

3-4-1-Analyzing typologies of business opportunities between Iran and France

In the preceding section, business development opportunities between Iran and France have been presented into four groups; *export to Iran*, *export to France*, *co-investment in Iran* and *co-investment in France*. A review on these opportunities shows that they have been still defined

and shaped around a so-called *North-South* stereotype. This means that interviewees mostly believe that Iran as south country shall be the importer of industrial products, machinery, production lines, automotive and luxury products and exporter of raw material, crude oil or upstream petrochemicals, agricultural products, or labour-intensive products like textile and apparels.

Interestingly besides survey on opinions of interviewees, doing a simple estimation method on past trade statistics between Iran and France confirm this proportion too. In other words, the north-south stereotype is manifested in past trade streams between Iran and France. A part of this phenomenon goes back to the basic competencies of Iranian and French economy. However, there are other reasons including ignorance of Iran's capabilities by French companies and the existence of some up-down attitudes among French companies and even researchers in doing business with countries like Iran. It is worthy of referring back to Hosseini et al. (2007)'s investigation on trade between Iran and Europe. That research certifies the existence of same north-south situation between Iran and Italy and Iran and Germany through which in general Iran export raw material (mainly crude oil) to them and import machinery and production line from them.

However, the importance of France in trade with Iran is not for their import and export but is related to their intention and practice indirect investment in Iran and making economic cooperation with Iranian companies. As reflected in Table 22, until 2008 and the beginning of the nuclear dispute between Iran and western states, France has been the first foreign direct investor in Iran after the Islamic revolution. A majority of these investments goes back to three fields; oil and gas, automotive, retailing and food and beverages.

By the way, after 2008, when nuclear challenges increased between Iran and West, French investment not only stagnated but also downsized while by 2012 many companies like Peugeot left the market. In return, some companies from Turkey and mainly from China have filled the gap and grasped French market share in Iran mainly at the automotive industry. Thus in term of attracting foreign direct investment, France always has been an opportunity for Iran, although French investment has been pretty unreliable, swinging, very politicalized and sensitive to indoor and international political pressures. A reason for this fact shall be industrial structures of Iran and France that both constructed upon large companies with the same competencies, so both

sides' large companies have found good complementarity in terms of cooperation and partnership. However, with regard to large deals between large French companies and banks with U.S companies and U.S banking system, these companies and organization have become sensitive to U.S pressures or probable sanctions.

Thus, small and medium enterprise between Iran and France should be incubated and invested. Contrary to Italians and Germans who have worked very well and much more sustainable in Iran through their SMEs, French SMEs have not still entered into Iranian market seriously and have not received enough support for such entrance. Due to the interests of Iranian and French governments to develop mutual business, they could open a new account for small and new enterprises. For doing so, extracted opportunities mainly through Table 46 (investment in Iran) could be considered and developed more. Working on SMEs in between however needs to develop bilateral trade promotion organizations and empowering organization, especially Iran-France chamber of commerce which at the time is pretty inefficient and ineffective.

3-4-2-A discussion on the formation of opportunity recognition framework

As reported above, by comparison between different problem lines (including different lists of opportunities) through 5th column of the matrix it became possible to evaluate opportunities between Iran and France divided into four groups; *export to Iran*, *export in France*, *investment in France* and *investment in Iran*. Before this evaluation, constant comparison through past columns had led to 4 groups of *problems* (in 1st problem), *seven main groups of environmental preparation* (in 2nd column), *seven axes of theories and concepts for incubation* (in 3rd column) and *ten insights about the case* (in 4th column).

Nevertheless, similarities between shaped conceptual groups through 2nd and 3rd columns led us to conclude that these two columns are pretty same and could be merged to each other for future applications of the present framework (the matrix-collage). In other words, although the primary model of Lumpkin et al. (2004) has been operationalized into six steps, after operationalization, implementation and considering shaped conceptual groups through each column, the researcher found out that 2nd (Preparation) and 3rd (Incubation) steps at least in practice are not easy to be distinguished and they are similar to each other. Thus for future applications of present

framework, the following steps can be proposed as covering themes and columns for later constructed framework; *1-Problems, 2-Preparation and Incubation, 3-Insights, 4-Assessment and Evaluation and 5-Elaboration.*

3-4-3-A discussion on business development opportunities between Iran and France

In this section, a conclusion on the present situation of trade between Iran and France plus some proposals for better exploring and exploiting business opportunities will be presented. Potential audiences here are not only government authorities as macro level but also companies who are interested in business development between Iran and France and want to know doing-business environment in between. Concepts and notes have been mostly acquired through conclusion on 3rd and 4th columns of the framework (matrix collage).

In line with what has been mentioned about graphical methods (e.g. from Miles et al. (2014)) in chapter2, to complete QDA, three chains of evidence are depicted. First is Dutch disease in Iranian and French economy (Figure 44), second is the situation of trade between Iran and France including problems and affecter (Figure 45) and the third is a proposed policy agenda to develop business between Iran and France (Figure 46). In Figures 45 and 46, a coherent understanding of generated insights is systematically assembled by building a logical chain of evidence and making conceptual/theoretical coherence.

3-4-3-1-Small and agile vs. large and fragile

A description of Iran-France trade relations is depicted through Figure45 based on discussions based on 4th column of the framework (matrix-collage). In this regard, the researcher has divided the recognized affecters into four environments; *socioeconomic, international trade of France, international trade of France in Iran, and trade between Iran and France.* In general, the present situation of France's international trade regarding Iran in comparison with the Italians and Germans could be explained as *large and fragile vs. small and agile:*

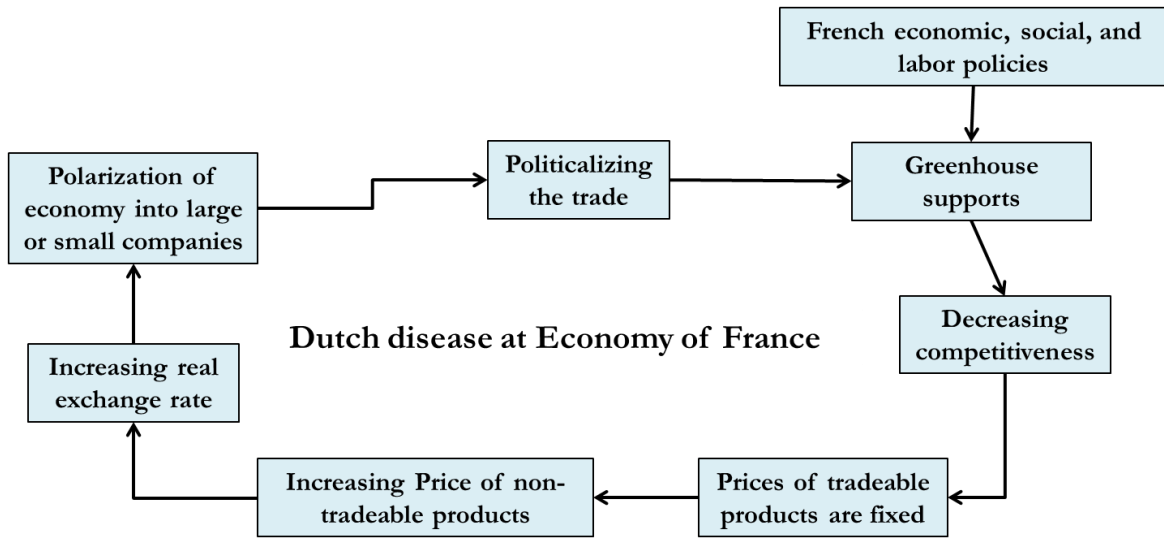


Figure 44-Dutch disease at economy of France;

This cycle starts with the political, economic, social dimensions of labour policies of this country. Iran suffers from pretty same problem although in much more extends. However, Dutch disease for Iran has initiated by oil incomes.

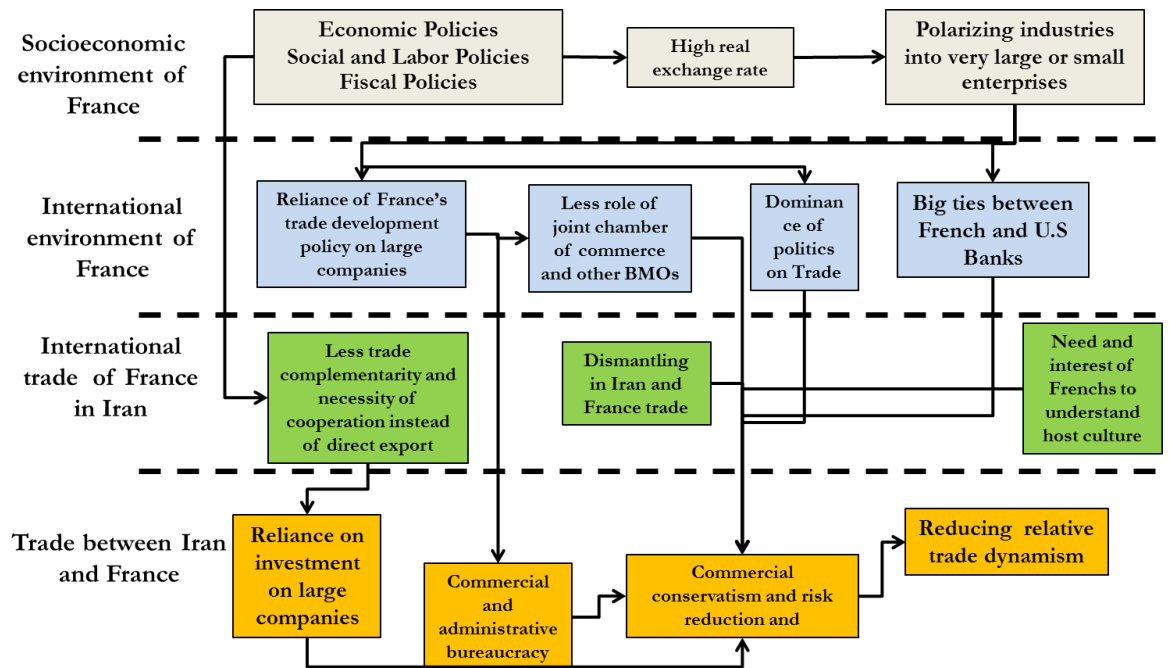


Figure 45-Recombining evidence or a logical chain of evidence depicted to explain trade between Iran and France

Investigations of this section is mainly appreciated from five interviews with Iranian and French scholars which reveals the existence of a Dutch disease in both French and Iranian economy as depicted in Figure 44. This dilemma is initiated by excessive supportive social and labour policies in the French economy. Dutch disease for Iranian economy on the other side is originated from oil incomes; however, the extent of this disease is much more for Iran in comparison with France. In France, social and labour policy is manifested through high levels of salary, empowerment of unions and excessive supports to unions and workers.

Economically, while the price of tradable products are pretty fixed in free markets, losing competitiveness will lead to the price of non-tradable products like the house to be increased. Consequently, real exchange rates increases and so-called Dutch disease will occur. Using a sole currency (like Euro) increases the risks of a financial crisis because if a country had its own currency (like when France used Frank as its currency), effects of changes in reals exchange rates could be offset by changes in nominal exchange rates. By doing a series of economic and labour reforms by 2000, including reducing wages, Germany could overcome this problem, increase the competitiveness of industries with a focus on SMEs and gradually reach to sustainable positive trade balance. In 2017, during the political campaign and internal competition to select final nominee of republicans in France among Fillon, Juppé and Sarkozy, François Fillon had a focus on reduction of government costs, increasing working hours and improvement of labour effectiveness to improve the competitiveness of French economy.

These conditions have affected the competitiveness of the French economy and the productivity of industries in many cases. In this case, only very large or very small companies can survive. At least in relation to volatile countries like Iran, most French international trade has relied on large companies like Total, Airbus and Renault, and there is no share for middle-sized companies.

In section 1-3-5-2 through the literature review, the *symbiotic business networks* concept has been addressed. On the other side, small and medium enterprises of France usually have limited international activities in comparison to their Italian and German counterparts (at least in Iran market). They usually enter international markets under the shadow of large companies and after them. French SMEs, in many cases, play the role as a part of supply chains of large French companies to become partially international. Thus, networking between French SMEs and large

companies could be considered as a manifest for symbiotic business networks. As mentioned by Etemad et al. (2001) symbiotic arrangement is shaped when small and medium enterprises have problems in terms of size and their internationalization so to overcome these shortcomings and increase their competitiveness, they enter into cooperation with larger internationalized companies.

Anyway, social, economic, and labour policy of France has led to higher real exchange rates and conditions in which companies have little export competitiveness. Very large or very small (peripheral) companies could only tolerate this condition. In other words, a type of polarization has occurred for French companies. In such a polarized economic condition, medium-sized enterprises (SMEs) are fewer in France in comparison to countries such as Germany or Italy. In other words, international trade promotion policy of the French government relies on larger companies to enter the target markets at first and then provide the market for other dependent small and medium enterprises. Accordingly, trade promotion policy of France has been constructed upon larger companies. Reliance on larger companies has led the foreign trade regime of France to be bureaucratic and cautious. They are not agile, and regarding Iran (where is more risky and volatile market), they are forced to be more cautious (than Germans).

Since French companies and banks are mostly large and have big deals with the U.S., Arab states of the Persian Gulf, and Israel, they become fragile and risk-averse. Reluctance of French bank to do business with Iran is caused by their large size and deals with U.S banking and monetary system. Although two banks among three large banks of Europe are French (Bank BNP Paribas and Credit Agricole), their fears of doing business with Iran have forced them to have no deal with Iran. However, there are some small banks in France who are interested in working with Iran (e.g. Wormser Frères, Delubac, Banque Palatine and Banque Martin Maurel (in the process of merging with Rothschild & Co.)). However, they have not enough capacity to handle all the required transfers. Interestingly, large French companies who work in Iran benefit from German, Italian or Turkish banks to handle their banking and financial tasks! For example, based on d-53 and i-89 problem lines in 2015-2016, group PSA has used an Italian bank and TOTAL have recruited three non-French banks (Europäisch-Iranische Handelsbank AG of Germany, Banque de Commerce et de Placements of Switzerland and Halk Bankasi of Turkey) to process their banking tasks (Figure 45).

Moreover, French are willing to adapt to their host culture, while Iranian culture is still an unknown land for them. These paradoxes have led them to be more cautious than Germans. Finally, led by large companies, trade promotion policy of both France and Iran are politics-oriented that increase stagnation of trade promotion initiatives in-between and have made bilateral trade organizations reasonless and inefficient. Other reasons for trade inertia between Iran and France include big deals of large French banks with the U.S. (rather than medium-sized German or Italian banks that do not work with the dollar), prohibiting them from working with Iran. Moreover, there are negative pressures imposed by Arabs states of the Persian Gulf, U.S., Israel, and some French and Iranian extremists and conservatives to not promote the trade in-between. Finally, these are general problems within the Iranian economy that led to taking unsuitable score in *international credit ratings* (Figure 45).

As depicted in Figures 30 & 40, lower trade complementarity between Iran and France justifies more economic cooperation and co-investments between Iran and France instead of focus on direct import and export (like Iran-Germany's trade regime). This fact is manifested in present deals between Iran and France, formed by cooperation between large companies such as Renault-Pars, IKAP (Iran Khodro-Citroen), TOTAL-NIOC, Bel-Rouzaneh, Danone-Damavand, etc. that all of them have formed around economic cooperation and co-investments. Nevertheless, similar collaborations have not been initiated at SMEs level. Although both countries have the intention to develop their SMEs, they have not seriously considered pursuing this goal at international business contexts (and especially as a case between Iran and France) (Figure 45).

In general, German Mittelstands are small and agile and have constructed effective networking in Iran using their bilateral trade agencies. However, by regard to reliance on large companies, trade structure between Iran and Iran-France trade agencies are weak and un-matured, and consequently, there is a fragile and politicalized trade structure between Iran and France. In other words, incoming French companies in Iran have been large, fragile, and political sensitive and bilateral trade suffer from lack of effective bilateral agencies focused on SMEs (Figure 45).

These reasons collectively have made trade between Iran and France to be fragile and sensitive in comparison with trade regimes of Iran with Germany and Italy (Figure 45).

3-4-3-2-Policy Proposal

Based on conclusions on the 3rd to 4th columns of the matrix and situation presented in the previous section(Figure 45), a policy proposal for business development between Iran and France is presented in Figure 46.

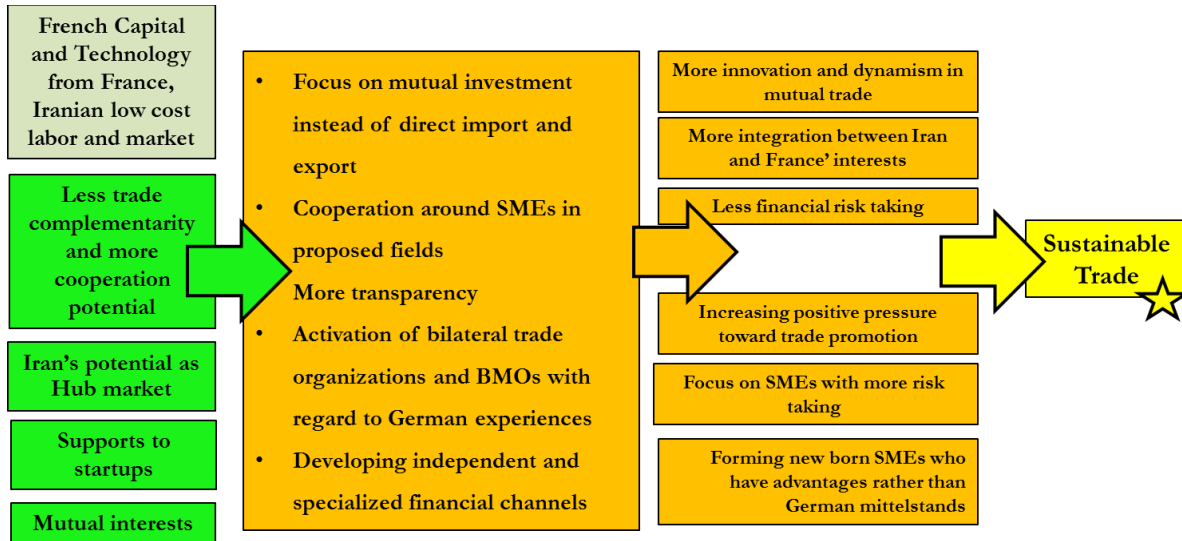


Figure 46-Logical chain of evidence perceived from matrix-collage for proposed policy regarding IR-FR trade promotion

Both sides' attention should be drawn to the development of cooperation between SMEs of Iran and France. Although both Iranian and French SMEs (relatively) are regional and not internationalized, they can cooperate, complement each other mainly at MENA region, and leverage their internationalization process. Based on internalization theory (presented in chapter1) both sides could decrease *transaction costs* to each other and provide a competitive advantage for each other; Iran possesses low-cost energy and labour and a vast internal and neighbouring market. France, on the other side, has suitable financing potential, suitable technologies, brand reputation, and experiences that could be exchanged.

Moreover, the establishment of banks and financial institutions to be independent from the U.S. banking system, networking and activating bilateral trade promotion organization and joint chamber of commerce (like Germans' initiatives in Iran) should be considered for trade promotion in between Iran and France. If trying to promote cooperation between small and medium enterprises of Iranian and French origin, joint chambers as a business membership

organization (BMO) finds more justification for their activities. Such cooperation between SMEs not only create the wealth and employment in both countries but also could leverage political power of French republic towards Iran's supreme interest and product a positive pressure against America, Israel and Arab states of the Persian Gulf region.

To provide abovementioned positive pressure, French labour unions and associations have an important role. They are responsible for protecting the jobs created, followed by Iran-France SMEs cooperation. Thus they will try to protect existing and emerging deals between Iran and France. Based on interviews conducted with experts and conclusion and evaluation of business opportunities through 5th column of the matrix, many topics for this cooperation have been extracted. It could be useful to finalize this section with a review on the advice of the French senate (d-47) after JCPOA regarding trade promotion with Iran that certify past mentioned propositions; *“it’s necessary to construct long-lasting and sustainable cooperation with Iranian parties, bilateral unions and associations become activated, construct the trade with Iran upon mutual respect, should revitalize mutual trust and transparency, should design independent financial and banking channels and develop a cultural policy toward business development aims”*. Abovementioned proposal and advice have been depicted through Figure46.

3-4-4-Futures of trade relations between Iran and France; Challenges and opportunities

Predicting the future of trade relations between Iran and France and probable opportunities for business development is among topics that should be considered for prospect entrepreneurs and investors.

In international marketing researches, the main problem is the “market”. Therefore, it should still be a critical issue to consider the trade between Iran and France by the lens of the market. As reflected through interviews and observations, the main attractions of Iran for French companies are an 80 million population internal market and 300 million peripheral markets in neighbouring countries. It seems that the main issue in the future of trade between Iran and France is this emerging nature of the market. With regard to high levels of wages and salaries in France, labour-intensive investments seems not to have justification in France in near or middle-range future. Thus main topics for mutual business between Iran and France should be shaped to feed

demand in Iran and its neighbouring market. Based on explanations in section 3-1 (on analyzing trade between Iran and France), this market has been shaped mainly around the automotive market by large companies like Renault and PSA as yet. However, this has made the trade regime between countries to be fragile and politicalized.

On the other side, small and medium enterprises in France have been less internationalized in comparison with same SMEs in Germany, Italy, China or even Turkey. However, both Iran and France have a serious intention to incubate and develop their SMEs to provide sustainable employment in their country.

Thus based on the market issue, it could be proposed to develop bilateral cooperation between small and medium enterprises of Iran and France to feed Iranian and western Asian market as a new axe for future business initiatives. Moreover, cooperation between SMEs and large companies from Iran and France for west Asian markets could form a symbiotic international business network, as mentioned by Dana (2000) and Etemad et al. (2001). In general, low-cost technical labour from Iran beside French technology and brand could construct important partnerships in western Asia. Moreover, concerning the considerable presence of France in the west, north and central Africa in the long future, both sides may approach to cooperation for African markets where labour costs are low.

Selected field of cooperation based on section 3-3-3-5-4 are 1-FMCG, 2-Agrofood and agriculture, 3-automotive and spare parts, 4-cultural businesses, 5-pharmaceutical, cosmetics, and healthcare, 6-engineering and construction, 7-oil and gas, 8-commercial services, 9-hoteling, tourism and entertainment, 10-industrial machines, 11-electrical and electronic equipment, 12-transportation, infrastructures and related technologies. All of the abovementioned fields may have justification if practitioners trace the trend of consumption in markets of Iran, Afghanistan, Iraq and commonwealth independent states, and development of middle-class populations in these countries. Business development here includes concepts of sustainability and profitability. Reference to *doing business*⁸⁰ reports of socio-political stability, it seems that markets of western Asia for abovementioned fields are sustainable and profitable for at least a decade and could provide win-win investments for participating companies. Moreover, Donald Trump's decision

⁸⁰ The ease of doing business index is an index initiated by Simeon Djankov at the World Bank Group. Details are available in www.doingbusiness.org

on the U.S. withdrawal signed on 8th may 2018 can not affect all business sectors. Among less fragile fields are as agro-food, the medicine or medical services; thus, French companies engaged in those sectors can continue their business and even develop it in Iran even if sanctions will increase and harsher.

Conclusion on chapter3

In this chapter first, the field was introduced, and a primary theoretical framework was shaped. Then the field was analyzed using framework analysis approach. Interviews had a confirmatory part through which propositions extracted from the preceding section were examined. However, each interview had an initial exploratory part that were used beside observations and document analysis to form 90 codes(problem lines). These codes fragmented into six prescribed themes of the framework and then synthesized into problems, preparative knowledge about the field, incubations, insights and opportunities exist between Iran and France. This chapter concluded with a discussion on opportunities, field and a policy proposal. In the next chapter entitled conclusion main limitations, contribution and findings, proposals for future researches and a discussion of OR model and validity of research have been presented.

Chapter4-Conclusion

A review of research

This chapter aims to conclude on this research and present some required complementary issues and discussions. By the rest, first validity and reliability of research are discussed, and strategies selected by the researcher for managing these issues are explained. Then the main findings and contributions of the research are summarized, and a discussion on the role of problems and needs in the research framework is presented. Finally, research limitations that may affect research and researcher are discussed, and proposals for future researches end this chapter.

The agreement between Iran and world powers (Joint Comprehensive Plan of Action) on 14 July 2015 and hopes for revitalization of business relations in between from one side and lack systematic plans for business development between Iran and western countries on the other side are the primary motivation of the present research. Moreover, with regard to growing importance of emerging markets in the globalized world of business, international entrepreneurship in emerging economies (IEEEs) have been perceived among main research gaps in the field of international entrepreneurship (Khanna and Palepu, 2010) (Ciravegna et al., 2014). For IE researches at the age of globalization and born globals, the role of SMEs is crucial, especially in emerging economies (Felzensztein, 2016). On the other side, those limited researches about IEEEs have focused on a small number of regions and countries among them, and there is no record about Iran (Zolfaghari et al., 2013). It has been advised to examine contextual influences and consider institutional and comparative approaches (Kiss et al., 2012) (Smallbone et al., 2014). Methodologically, the need for qualitative researches on international business and international opportunity recognition has been emphasized by many scholars like Oviatt & McDougal (2005), Nummela and Welch (2006), Sheng and Mullen (2011), Duz (2011), Kontingen and Ojala (2011), Ahmadian (2012), Peiris (2012), and Cuervo-Cazurra (2013).

Above mentioned research gaps, as explained in *the introduction*, inspired the objective of this research, i.e. analyzing business opportunities between two developed and emerging economy. The primary research question was *How can we recognize international business development opportunities in emerging economies?(in cooperation with a foreign developed economic*

partner). By the rest, it was decided to address the inquiry mentioned above through a case study between two countries, thus above question and its associated secondary were operationalized for a field between Iran and France as below;

Primary Question;

- How can we recognize and analyze international business development opportunities in Iran as an emerging economy and France as a developed foreign economy?

Secondary Questions;

- What are problems in front of trade promotion between Iran as an emerging economy and France as an advanced economy?
- What institutional and contextual conditions affect opportunity exploration and exploitation environment between Iran and France?
- What are the opportunities for international business development in Iran as an emerging economy?
- What policies could be proposed to exploit bilateral opportunities?

Thus research questions were formed into two sets of *general* and *specific research questions* respectively.

In chapter1, three main fields-international business, international trade and international entrepreneurship- were reviewed to find alternative definitions, explanations, solutions and models related to international opportunity and market exploration. These reviews resulted in many insights among them were six main themes that could cover the opportunity recognition process: Problems/needs, preparation, incubation, insight, evaluation, elaboration. These themes are finally discussed and operationalized toward the aim of opportunity recognition. Moreover, the main sources of data related to IOR were recognized.

In chapter2 methodological aspects of the research were presented and discussed. Primary research objectives were explained, and four sources of data for IOR were discussed including immersion in the business environment through observation, interaction with trade statistics and commercial trends between two countries, investigating and recording speeches, words, actions and daily problems/needs expressed by entrepreneurs working between countries. Then a *qualitatively driven mixed method* was selected as the main research approach. Consequently,

with regard to the qualitative nature of the research, rules of qualitative data analysis, qualitative metaphors and three main reasoning through research were reviewed. By the rest, provided by the above insights, *case study* was selected as a research strategy and framework analysis as a method for data collection and analysis. Moreover, epistemological positioning and other characters of the present research were determined. At the end of this chapter, the research field of the case study is justified: Iran and France. Finally anticipated initiatives for managing validity and reliability of research were presented. In fact, with regard to the importance of European Union as a trading partner for Iran and the role of France as the first political power and second economic power of European Union and reference to researcher's possibilities for placement, observation and researching in France, this country was selected as a counterpart to analyze its trade relations with Iran.

To address the questions mentioned above in the selected field, *in chapter3*, first, the field was introduced, and a theoretical framework presented. Then a framework⁸¹ for opportunity recognition was constructed upon six main themes extracted from chapter1 to be analyzed based on the rules of analysis and sources of data extracted through chapter2. For implementing the research, 26 interviews, 36-document analysis and 28 observations were conducted. The result of the analyses and synthesis of the columns of the framework were reported split into *problems* between Iran and France(1st column), *identification of business environment*(2nd column), *Incubations* of business theories(3rd column), *insights* about business between Iran and France(4th column), and *evaluated opportunities*(5th column). Last column(6th column) was left because this column was mainly dedicated to storing experiences of implementation. At the same time, the model has not been implemented yet, and there was no considerable amount of same experiences to be mentioned in 6th column. This chapter is concluded with a discussion on opportunities, field and a policy proposal.

⁸¹ Accordingly based on Lumpkin et al., (2014) and in comparison with comprehensive problem solving process presented by Soltanifar & Ansari (2016), 6 themes or *priori issue* for international opportunity recognition were found. Thus researcher constructed an n*6 framework which is fed through four sources of data presented in chapter2; *immersion...*, *interaction with trade statistics...*, *investigating and recording ...* and *daily problems/needs expressed by entrepreneurs...*

By the reset before presenting findings and conclusion, validity and reliability of this research are discussed.

4-1-Validity and reliability of research findings

Detailed explanations about the validity and reliability of research were provided in section 2-4. In general quality and soundness of researches are represented with two main criteria; *validity and reliability*.

Managing the validity or accuracy of finding for each research is highly essential. Researcher should consider some arrangements on research procedures for validating the findings. There are many ways to consider validity and manage subjectivity of researches. As mentioned by Creswell et al.(2014), it is possible to identify and discuss one or more strategies available to check the accuracy of the findings. However, using more than one strategy is preferred. As mentioned in section 2-4, Creswell et al.(2014) have proposed eight strategies for managing the validity of social researches;

1. **Triangulation or** Verifying with more data sources.
2. Use *member checking* or have participants review the results.
3. Use a **rich, thick description** to convey the findings.
4. **Clarify the bias the researcher brings to the study.**
5. **Spend a prolonged time in the field.**
6. **Checking for alternative explanations** or presenting negative or discrepant information that runs counter to the themes;
7. **Review findings with peers** or using peer debriefing to enhance the accuracy of the account.
8. Final Strategy is the **use of an external auditor** to review and recode the entire project.

As mentioned and explained in section 2-4, based on the resources and possibilities of the researcher, for the present research, 1th, 2th, 3th, 4th and 5th strategies were recruited for managing validity of research(using triangulation, providing thick description, using member checking, clarification of biases and spending a prolonged time the field). However, there are other strategies that were not applied in this research mainly due to limitations of the researcher

in terms of time, fund and other resources. As mentioned by Creswell et al.(2014), the application of a set of method could assure validity through a social research.

Especially for researches that have been implemented in case studies design, Robert Yin(2003) has advised four criteria for managing the quality of research(Swanson and Holton, 2009, 338). These tests and considerations of the present research to pass them are presented below;

1-Construct Validity(Conformability); in this regard, multiple sources of data and a chain of evidence were used in the form of *triangulation*. These sources were 26 interviews, 54 document analyses and 10 observations organizes into a framework of 6 columns and 90 rows.

2-Internal Validity(Credibility); this type of validity is usual to be obtained for descriptive or elaborative case studies. Thus it is not necessary for an exploratory case study like present research (Swanson and Holton, 2009, 339). However, as mentioned above(and also in chapter3), the researcher used a *splitting strategy* to arrange interview questions into two phases (exploratory and explanatory-confirmatory).

3-External Validity(Transferability); for this research researcher, has tried to use a well-discussed framework for opportunity recognition that can be extended and replicated for future researches. Moreover, as mentioned in section 2-4, providing *thick descriptions* helps to increase the transferability of research. However, the issue of generalization and extension is under question for case studies as a basic qualitative design(*ibid*).

4-Reliability(Dependability); as advised by Swanson and Holton (2009, 339) for guarantying reliability, using a case study protocol and developing a case study database is suitable to provide the possibility for replication of case study by other teams and extraction of reliable results. For the present research, the researcher presented data gathering and data collection procedures (including constant comparison, grouping, conceptualization, comparison and contrasting) in detail (at the end of chapter2) to be able to be replicated by other researches.

Another side of research quality is reliability. “*How do qualitative researchers check to determine if their approaches are reliable (i.e., consistent or stable)? Yin (2009)suggested that qualitative researchers need to document the procedures of their case studies and to document as many of the steps of the procedures as possible. He also recommended setting up a detailed case study protocol and database, so that others can follow the procedures*”(ibid).

For present research in chapter2, protocol of case study has been designed and presented. Moreover, chapter2 entirely explained the process of data collection and analysis using the framework analysis approach for case-study. Finally, the process of clustering the codes and their conceptualization are presented in chapter3 in detail. All of these explanations and documentation could provide a guide for other researchers for *audit trail of the process of data analysis* and replicate similar initiatives on international opportunity recognition and business analysis for the same cases. On the other side, as mentioned in section 2-4 triangulation among different sources of data can be a strategy for managing the reliability of research.

In general provided framework, rules of opportunity recognition and techniques of qualitative data analysis through present thesis can be applied for opportunity recognition in other fields and between other business blocs. There is no doubt that in other fields and even for this field but in other (time)periods, results will be different.

4-2-Findings

In this section, findings of the research are summarized divided by research questions. In this regard, first, some issues have been elaborated, then specific research questions(customized for the field) will be answered, and the general research questions will be summarized.

Macro, micro or meso? At which level the findings have been presented?

At chapter introduction, level of the research(macro, meso(industry) and micro) was elaborated. It was explained that presented research has findings that can be classified to be useful at all three levels. In fact, each column of matrix-collage includes a set of macro, meso(industry) and micro-level concepts. In search of issues regarding opportunity exploration and exploitation, this research has considered both macro and micro levels and integrated them. In other words, results include problems and insights for business development between two countries that should be considered by the state, companies and also unions. In micro-level extracted opportunities and insights about the field can be interesting for each company and practitioner. Finally, at meso(industry) level, the research includes many discussions on the fruitfulness of specific fields to be initiated or incubated between Iran and France.

What types of companies benefit from findings? Startups, SMEs or MNEs?

Based on the concept of symbiotic networks (Etemad et al. 2001) between MNEs and SMEs, both types of institution could be considered, and they can cooperate around selected opportunity fields. e.g. in agro-food or tourism. In Fact, extracted opportunities are topics that SMEs and MNEs could shape a symbiotic networks around them and count on them as business opportunity although the way that SMEs or MNEs deal with an opportunity may be different. For example, in the field of agrofood both large and small companies from France could count on the Iranian market.

In fact, the researcher has considered opportunities that could gather together organizations of all type and size through a symbiotic network. These opportunity topics could be interesting for all companies, including first-time exporters, SMEs, MNEs or startups.

Which mode of entry have been considered by this research? Import/export, investment or contractual agreements?

As mentioned before, there are three main modes of entry to an international market; 1-import, export and countertrade, 2- foreign direct investment and cooperative modes(including strategic alliances) and 3-contractual agreements(including licensing and franchising). When we talk about opportunity and opportunity recognition, one may ask about the role of entry modes in definitions of research questions. In other words, which type of entry mode this research was looking for? Export, investment, or licensing?

When we talk about "opportunity", we mean topics for direct import/export and/or mutual investment of Iranian or French companies in Iran or France. Here the opportunity of its general definition has been under consideration. Entry modes can be considered among procedures of opportunity exploitation and could be considered through separate researches. In fact, the researcher has tried to find pure opportunities. The *choice of entry mode* is related to exploiting those pure opportunities and needed to be followed into another research topic.

However, in chapter3 opportunities have been reported divided by export to Iran including export of licenses, export to France including export of licenses, FDI in Iran and FDI in France. Here export and import includes import and export of product and also licenses and franchises.

Thus topics that have been extracted as opportunities could be exploited into “selling and buying of goods and services(including licenses) or co-investment in a country that includes import, export, investments and also contractual agreements. Thus all three modes of entry including export, foreign investment and cooperative-modes and contractual agreements have been considered through four groups of extracted opportunities(presented in section 3-3-3-5).

4-2-1-Answers to research questions

In this section researcher is tried to present answers to research questions about the field;

Primary Question was *how can we recognize and analyze international business development opportunities in Iran as an emerging economy and France as a developed foreign economy?*

To answer this how question and for recognizing and analyzing business development opportunities between two countries and Iran and France as the case, the researcher has designed a methodological framework in the form of a matrix. This matrix includes six columns and many rows where data have been synthesized using four tactics of qualitative data analysis; 1-labeling, 2-comparison, 3-grouping, conceptualization and counting, and 4-comparison, contrasting and pattern recognition. Syntheses and conclusions were drawn at the end of each column.

Based on a discussion made in chapter1(section1-4-2-5, the conceptual framework), six columns of the matrix have been labelled as *Problem/need recognition, Preparation and recognition, Incubation, Insight, Evaluation* and *Elaboration*. Mainela *et al.* (2014) introduce a source of data for the rows in the matrix as *interaction with trade statistics, observation of entrepreneurial initiatives, problems expressed by entrepreneurs, immersion in field and registration of innovative ideas emerged through the research process*. Provided by these sources, 90 problem lines were shaped as the rows of the matrix. After the implementation of the framework between Iran and France, it was found possible to merge 2nd and 3rd columns and form the final framework of opportunity recognition in response to the first question of this research(*How can...*).

Thus, a process-based matrix constructed upon five themes of opportunity recognition(Problems/needs, preparation and incubation, insight, evaluation and elaboration) and

sourced by different cases of data could be recruited and framework for opportunity recognition between business blocs.

Moreover, in response to *secondary questions*, below-mentioned explanations were obtained;

1-What are problems in front of trade promotion between Iran as an emerging economy and France as an advanced economy?

In addition to financial problems, **weak communication mechanisms**, the **bureaucracy** of French and Iranian companies, **caution** among Iranian and French companies, **non-agility** of French companies in comparison with Germans and Italians in Iran markets, **reliance on large companies** and sensitivity in front of US sanctions, some **resistances and sabotaging relations** from Iranian and French parties, **confusion of Iranian trust** in French companies and **negligible role of unions** and bilateral associations are among main problems that have impeded Iran-France trade promotion.

2-What institutional and contextual conditions affect opportunity exploration and exploitation environment between Iran and France?

For describing the business environment between Iran and France, it could be said that;

- Iran and France have lower trade complementarity in comparison with Iran and Germany or Iran and Italy.
- French companies are more cautious at the Iranian market in comparison with Germans and Italians.
- France has a negative balance of payment due to high wages and taxes. However, French skill workers have high productivity and quality.
- French SMEs are regional and weak in comparison with German or Italian SMEs who are more internationalized. Main drivers of France international trade are large companies.
- High real exchange rates at France has decreased the export competitiveness of French companies and forced middle-sized companies to be relatively weak and regional in comparison with Germans.
- Germany has focused on unions, associations, and communicating with private sectors at target countries to develop its market.

- Some internal and external groups in Iran and France impose negative force against trade promotion in between.

Despite Germany, France's international trade strategy is pretty politicalized and is relied on larger companies. This issue is originated from economic, social and labour policies of the country that polarized industries to be too large or too small. In comparison with Germany, bilateral trade promotion agencies and performance of France (at least with Iran) are less effective and more focused on large companies. On the other side about Iran, large companies of France do not need to business membership organizations, joint chambers and trade management and brokerage organizations. Thus, Iran-France joint chamber of commerce has not been involved in trade promotion initiatives in between. Accordingly, French banks are very large and have big deals with the U.S. This integration has made them more cautious and reluctant in dealing with Iran. In general, large sizes of business actors working between Iran and France have made them fragile, lazy and bureaucratic. Moreover, internal and external oppositions and sabotages made by some groups and excessive paperwork at both countries have been led to not-agility and lack of dynamism in bilateral trade relations.

The form of trade complementarity between Iran and France in comparison with Germany and Italy necessitates economic cooperation instead of direct import and export with a particular focus on small and medium enterprise instead of large enterprises. For this reason, selected topics for co-investment in France and Iran have been recognized and reported in chapter3(sections3-3-3-5-2 & 3-3-3-5-4). A particular type of this cooperation can be defined between SMEs and Large companies of France and Iran around pretty same fields of activity to shape *symbiotic* international business networks and increase the internationalization of Iranian and French SMEs in competition with German Mittelstands.

3-What are the opportunities for international business development in Iran as an emerging economy?

Based on analogies made in Table 43(chapter3) and comparison between five problem lines researcher could conclude on opportunities for **export from Iran to France** as **1-Oil and gas, 2-Distillation products including base oil, bitumen, organic and inorganic chemicals, and 3-Food and beverages**. Other fields of priority for export from Iran to France are; 4-Fruits and Nuts, 5-Handicrafts, textile and Apparels, 6-Metals and mining, 7- Homebuilding and

construction supplies, 8-Pharmaceuticals, 9-Biotechnology & Medical research, 10-Software and IT Services.

Based on analogies through Table 44(chapter3) and comparison between 9 problem lines researcher could conclude about opportunities for **joint investment in France** that at the time of study **investment of Iranian companies at France is not justifiable with the exception of investment at service sector and cooperating with French startups and knowledge-based companies**. Among abovementioned field are; 1-Knowledgebased products like pharmaceutical and biotechnological, 2-Professional and Commercial services, 3-Logistics and Freights services, 4-Pharmaceutical, bio-technological, 5-IT, ICT and Telecom, 6-Banking services, and 7-Cultural and Art Business.

Based on analogies through Table 45(chapter3) and comparison between 11 problem lines researcher could conclude on opportunities for **export from France to Iran** to as 1-Machineries and components, 2-Oil and gas equipment, 3-Aircrafts, 4-Automobile and auto parts and 5-Electrical and electronic equipment. Other fields of priority for export from France to Iran are 6-transportation infrastructures, 6-Water and Electrical utilities, 7-Construction and engineering, 8-Tourism, Hotels and Entertainment services, 9-Pharmaceuticals, chemicals, medical and biotechnological products, 10-Food & Agriculture and FMCG, 10-Banking services! 11-Professional and Commercial services! 12-Freight and logistics services! 13-IT, ICT and Telecom and 14-Food and Beverages.

Concerning received information and number of shaped 14 problem lines in Table 46 researcher could consider joint-investment in Iran as the most prioritized field for business development between Iran and France. A review on past business initiatives between Iran and France, as mentioned in section 3-1 approves this proposition. As the time, most of the trade regime between Iran and France rely on joint investment of Iran and France in Iran including joint-ventures between Iran-Khodro and Peugeot, or between Renault and Siapa, or between NIOC and TOTAL. Thus according to comparisons between 14 problem lines, it can be said that most interesting **opportunities for joint investment in Iran** are; **1-FMCG, 2-Agrofood, and 3-Autoparts& Automotive** that have been insisted through pretty all problem lines. Other fields of priority have been; 4-Cultural business, 5-Pharmaceutical and cosmetics, 6-Construction and

engineering, 7-Oil and gas, 8-Commercial services, 9-Hotels and entertainment, 10-Machineries, 11-Electrical and electronic equipment and 12-Transportation.

4-What policies can be proposed to exploit bilateral opportunities?

In general, by enforcing multi-lateral cooperation among SMEs and large enterprises of Iran and France, around joint investment in Iran and by the empowerment of bilateral trade organizations, increasing transparency, decreasing bureaucracy and leveraging potentials of Franco-Iranians, one can hope to approach a more dynamic, sustainable and profitable trade regime between Iran and France. Finally, this cooperation, with regard to the political stance of France in the European Union and Security Council, can be appraised toward national security of I.R.Iran(Figure 45)(Figure 46).

4-2-2-Toward middle range theories

Present research was initiated by many general questions. These general questions then became customized for the field(Iran-France relations) into many specific questions. Specific questions were answered above; however, general questions should be addressed.

Concerning discussions made in chapter2 (on research method), findings of qualitative researches, including case-studies, cannot become generalized or provide a general theory but can be used to provide middle-rang theories. As presented by Robert K. Merton(1968) initially for sociology, middle-range theories start with an empirical phenomenon and abstracts from it to create general statements that can be verified by data. Similarly, after the present case study in relation to Iran-France, general research questions of the research can be answered as below;

How can we recognize international business development opportunities in emerging economies?(in cooperation with a foreign developed economic partner).

It seems that framework analysis approach using five to six main themes including *problems/need, preparation and incubation, insights, evaluation of opportunities and elaboration* is applicable for opportunity recognition and international business analysis between business blocs. For conclusion on columns of the framework, a set of techniques including 1- Labeling, 2-Constant comparison, grouping, and conceptualization, 3-Counting, and 4- Comparison and noting patterns can be recruited.

Moreover as mentioned by Sheth(2011), there are five key characteristics—market heterogeneity, sociopolitical governance, chronic shortage of resources, unbranded competition, and inadequate infrastructure—of emerging markets are radically different from the traditional industrialized capitalist society. This proposition was certified to some extent through this research; market heterogeneity is pretty high in Iran, and many large and government-owned companies shape the economy of Iran(and also in France). Moreover, chronic shortage of resources mainly in terms of capital is hurting the Iranian economy and lack of some infrastructure mainly around international banking, affect international investment. However, unbranded competition does not seem to be a considerable part of rural markets in Iran because there many Iranian middle-sized companies working in FMCGs around the country that provide the market by their products.

What are problems in front of trade promotion between an emerging economy and a foreign economic partner?

With regard to conceptual groups shaped through the conclusion of the first column of the framework (entitled *problems*), main problems in front trade promotion between an emerging economy and a foreign economic partner could be presented as *financial Problem(s)*, *problems related to doing business in the emerging country or with its companies*, *problems related to doing business in partner companies or with its companies* and *bilateral trade promotion Problems*. Many examples for each group of the problem have been reported through section 3-3-2-1.

What institutional and contextual conditions affect international opportunity exploration and exploitation environment between an emerging economy and a foreign economic partner?

As mentioned in sections 3-3-2-2 and 3-3-5-1, investigating the case between Iran and France shows that a set of issues affect international opportunity exploration and exploitation environment between two counties;

- *Trade complementarity* between export vector of France and import vector of Iran and vice versa affect their form of business. Less trade complementarity decrease justification for direct import and export.

- *Quality and quantity of past records of business* between two countries, not only in terms of export-import but also foreign direct investment and contractual agreements determine the sustainability of the trade.
- *Both side's economy and international trade regime is relying on large companies*, and this issue made their trade regime fragile.
- Bilateral trade regime is relying on large companies, and this issue decreases the involvement of *joint-chambers of commerce and other business membership organizations*.
- *Political interests and encouraging or impeding role of third parties*(e.g. USA, Israel and the Arab States in the case of Iran-France) sometimes become determining.
- Role of trade unions is crucial! Being outside a trade union could make a basically justified trade regime to be unjustified. For example, doing business with Poland that is an EU member is more facilitated for France in comparison with doing business with Iran that is outside the EU. However, some topics may have more inherent justification for Iran and France.

In general, as mentioned by Hollensen(2011) in chapter1, a firm's choice of its entry mode for a given product/target country and its ability for opportunity exploration and exploitation is the net result of several, often conflicting factors. Each factor has its positive or negative effect on the internalization of the market and transaction costs for the company. These factors could be related to the attractiveness of emerging country and competencies of its companies, the attractiveness of host country and competencies of its companies, and bilateral trade factors that specify transactions costs between two countries. Trade promoters who are working in between should empower positive factors and downsize negative factor as much as possible in a way that their net sum becomes positive.

What are the opportunities for international business development in emerging economies?

As will be discussed in section 4-3, in line with previous research, it certified that international business opportunities in emerging economies mainly are Kirznerian and relied on arbitrage. However, concerning knowledge spillover in the considered emerging economy, Schumpeterian opportunities can be incubated gradually. In general typologies of opportunities as were discussed in section 3-4-1 shows that between emerging economies like Iran and developed

economies like France, most of the opportunities can be potentially explored around foreign direct investment in the emerging economy.

What policies could be proposed to exploit bilateral opportunities?

Policy proposal for trade promotion between the two countries basically depends on the field and is not possible to be generalized. However, the case of Iran-France reveals a necessity for protection of bilateral trade regime against fragility, vulnerability and negative pressures imposed by third parties (e.g. USA). In this regard, development of independent financial channels, empowerment and employment of SMEs, focus of mutual investments and activation of bilateral trade organizations beside decreasing tariff and other no-tariff barriers could be applicable for the sustainability of trade in between.

4-3-Opportunities, problems and needs in the IOR framework

The model presented by Lumpkin et al. (2004) is used in this research. It starts by problem/need recognition and is prepared by environmental analysis. Then problem or needs that are recognized through or before preparation will be incubated and led to insights. They are finally evaluated and elaborated into opportunities for business development. Problem here means any form of disturbance or obstacles that an entrepreneur or his/her society has been confronted with. As mentioned by Mainela et al. (2014), these disturbances could be transformed into opportunity when an entrepreneur tries to overcome them. Some kind of problems are macro-level or related to the general business environment that entrepreneur alone could not solve, thus they could not be included in Lumpkin's model of opportunity recognition. On the other side at least through one of the Four approaches of Mainela et al. (2014), i.e. *practice-based* approach, it has been restated that one of the sources of opportunity recognition are those problems that entrepreneur deals with through his/her daily entrepreneurial initiatives and tries to solve. These solutions finally could be reshaped into international business opportunities.

Thus, for this research, problems have been listed in Table 47. A part of these problems could pass Lumpkin's model of opportunity recognition (or practice-based approach of Mainela et al. (2014)); however, some others do not pass. Table 47 has listed all extracted problems in front of

trade promotion between Iran and France to see which one could pass the Lumpkin process, incubated, evaluated and become a matured opportunity. In other words, in Table 47, it has been indicated which problems or needs can be transformed into opportunity. Moreover, it shows which problems are related to general business environment (have been labelled as *field problems* in the table) but could provide an opportunity, e.g. as social entrepreneurship or governmental entrepreneurship. Moreover, it has been determined which field problems could not lead to an opportunity but could be addressed and reflected into a policy proposal to be considered by governments of chambers of commerce to enhance the general business environment.

Table 47- Splitting business opportunities

Problems list	Problem description	Lead to an Opportunity ?	Opportunity description	Is it a field problem?	Solution proposed for field problem?
Financial problems	Non-agility of French banks and their reluctance to work with Iran	Yes	Joint banks between Iran and France	Yes	Yes, Joint Banks, German and Italian Banks.
	Expensive finance	Yes	Joint Banks, German and Italian Banks.	Yes	Yes, Joint Banks, German and Italian Banks.
	Stagnation of the French banking system	No	-	Yes	Yes, Joint Banks, German and Italian Banks.
	Scaring French by U.S	Yes	Focus on French SMEs	Yes	Yes, Focus on French SMEs
Doing business in Iran	Non-transparency	No	-	Yes, depending on the socio-economic condition of Iran	Yes. Is clarified in the final proposal
	Bureaucracy	No	-	Yes, depending on socio-economic condition of Iran	Yes. Is clarified in the final proposal

	Tax system and labour law	No	-	Yes, depending on socio-economic condition of Iran	Yes. Is clarified in the final proposal
	Corruption, bribery and money laundering	No	-	Yes, depending on the socio-economic condition of Iran	Yes. Is clarified in the final proposal
	Finding the right partner	Yes	Empowering bilateral trade promotion agencies	Yes	Empowering bilateral trade promotion agencies
	Not Seriousness of Iranian side	No	-	Yes, depending on the socio-economic condition of Iran	Yes. Is clarified in the final proposal
	High perceived risk of working in Iran under U.S pressure	Yes	Focus on SMEs as an opportunity		Focus on SMEs
	Lack of corporate governance	Yes	training of corporate governance	yes	training of Iranian companies on corporate governance
	High inflation rates	No	-	Yes, depending on the socio-economic condition of Iran	Yes. Is clarified in the final proposal
	Fragmented market	No	No	No	No

	Not internationalization of Iranian companies	Yes	Presenting consultancy services to be internationalized	Yes	Presenting consultancy services to be internationalized
Doing business in France	High inflation and wage rates	No	-	Yes, depending on socio-economic condition of Iran	Yes. Is clarified in the final proposal
	Bureaucracy	No	-	Yes, depending on the socio-economic condition of Iran	Yes. Is clarified in the final proposal
	Relative inertia of French companies	No	-	Yes, depending on the socio-economic condition of Iran	Yes. Is clarified in the final proposal
	French conservatism	No	-	Yes, depending on the socio-economic condition of Iran	Yes. Is clarified in the final proposal
	Negative trading balance	No	-	Yes, depending on the socio-economic condition of Iran	Yes. Is clarified in the final proposal
Bilateral trade issues	Loss of trust to French companies	No	-	Yes	Yes. Is clarified in the final proposal
	Not effectiveness of bilateral	Yes	Development of bilateral	Yes	Yes. Is clarified in the final proposal

	trade agencies		trade agencies		
	Lack of mutual trust and confidence	No	-	Yes	Yes. Is clarified in the final proposal
	Negotiations are long-lasting and boring	No	-	Yes	Yes. Is clarified in the final proposal
	Mutual communication problems	Yes	Development of bilateral trade agencies	Yes	Yes. Is clarified in the final proposal
	Mafia on economic activities	No	-	Yes	Yes. Is clarified in the final proposal
	Dominance of politics on trade	No	-	Yes	Yes. Is clarified in the final proposal
	Dominance of colonial and North-South viewpoint in the French attitude	Yes	Informing French companies about Iran capabilities	Yes	Informing French companies about Iran capabilities

As reflected in Table 47, opportunities do not necessarily originate from problems. However, many of them are originated from a need or difference in final prices of product or services (so-called *arbitrage*). This finding means that most international business opportunities at least for present research have been Kirznerian rather than Schumpeterian. However, dealing with field problems may lead to the formation of an organization to solve the problem and exploit a business opportunity too. Thus, a field or contextual problem can provide a business opportunity. For example, a lack of bilateral and multilateral business promotion organizations between Iran and France is a dilemma. Thus a practitioner may try to solve this problem by proposing the creation of an export management company (EMC) or inform other entrepreneurs to establish such EMCs. During 2016-2017 period (inspired by signing JCPOA), a considerable number of companies were established in the absence of effective governmental intermediaries or joint-chambers of commerce to present market development services to Iranian and European applicants and/or give them legal, market research, marketing, public relation, market making, talent management or financial services (e.g. *Iranian Office, Ferdowsi Legal, Infomineo*, etc. as mentioned in Introduction). The possibility for extracting opportunities from contextual and field problems through practice-based approach shows that problems of any form can be potentially a source of opportunity. Moreover, opportunities may arise from an unmet need or arbitrage in the market that again can be defined as a form of perceived disturbance. In general, based on this case study it could be said that *all six steps of Lumpkin's model and 4 approaches of Mainela et al. (2014) have interrelations and reciprocal relations to each other*. The researcher has tried to operationalize such relations and inter relative process through a tentative framework with six columns and many rows (entitled matrix collage).

4-4-Discussion and Conclusion

Conclusion on 3rd and 4th column of matrix collage reveals that trading system of France in comparison with Germany is large and fragile, vs. Small and Agile. In other words, under economic, political and labour environment of France (e.g. high real exchange rates, wages and taxes), companies have been polarized into very large or very small enterprises and international trade regime of France at least for trade with Iran and other middle eastern countries is relied on large companies. Large companies are bureaucratic, conservative and non-agile in doing business with Iran.

Consequently, their business promotion strategy is politicalized and relied on negotiation and lobbying with governmental bodies and authorities in target markets. Accordingly, the trade policy of France in Iran mostly relies on connection with governmental companies like the National Iranian Oil Company and Industrial Development and Renovation Organization (IDRO). A considerable number of French companies and banks have big deals with the U.S that have made them vulnerable against sanctions or threats of the U.S government and have increased their conservatism in doing business with Iran. In-return, German and Italian banks and companies are considerably smaller and more agile, and most of them have no considerable monetary connections with U.S thus have more manoeuvrability in trade with Iran.

Quality and quantity of trade complementarity between Iran and France(in comparison with Germany and Italy), implies that both countries relatively produce same products and have same competencies(e.g. in automotive, oil and gas, tourism and agro-food industries) thus should focus more on economic cooperation and joint ventures instead of direct import and export. A review on three decades of trades between Iran and France certifies this proposition while until 2007 and before starting nuclear dispute between Iran and West, France has been ranked as the largest foreign investor in Iran after Islamic revolution (Table 22). After revitalization of relations with western states by 2015, it seems necessary to restart such economic cooperation around joint production in Iran and sale inside the country and export to neighbouring countries. Even under new situation arise by U.S withdrawal from JCPOA by 2018, and even with EU state sponsorships, there are many topics like agro-food, constructions industry or medicine that are not vulnerable to U.S sanctions and still interesting for joint-investment in Iran.

While both Iran and France are willing to develop their SMEs, they can leverage this cooperation to feed the needs of the markets in western Asia. Big internal and neighbouring market, low costs resources and labour from Iran and Technology, brand and capital from France can complement each other and form competitive startups and Born Globals with more internationalized visions. In this regard, French companies who have fewer deals with U.S.A can be better subjects for partnership with Iranian companies. There is no doubt that French SMEs, in comparison with large companies, have less integration with the U.S market thus may have more wills to create their own venture in Iran and its neighbouring markets.

Cooperation between SMEs of Iran and France provides more justification and field of action for bilateral trade organizations, specially Iran-France chamber of commerce and Business-France in Tehran. In the present situation, there are little numbers of SMEs working between Iran and France, and consequently, there is justification for the existence of a bilateral joint-chamber of commerce.

Knowledge spillover can be a driver for cooperation between Iranian and French companies. In Iran, this means spillover of activities of elites, engineers and technical graduates that when accumulatively go beyond a threshold, can benefit related industries. As commented by Acs et al.(2012), knowledge spillover can lead to the appearance of knowledge-based entrepreneurs and even led to attract international investment and encourage cooperation with foreign parties. Provided by a high level of knowledge spillover, Iran may host economic cooperation and joint ventures with French partners to be flourished in the form of joint startups and international new ventures(INVs).

Cooperation between Iran and France also create jobs Iran and France, following these jobs and profits, more companies, groups and unions in France support cooperation with Iran. These groups resist against negative pressures of countries like U.S and Saudi or opposition groups inside Iran and France. Moreover, these cooperation increases the extent of integration and dependency between Iran and France; thus, both countries forced to use their political power toward the national security of another part.

Although based on Lumpkin et al.(2004), six primary themes for international opportunity recognition were extracted, after implementation of the framework, The same conceptualizations have been observed through 2nd and 3rd columns. These resemblances means it is not easy to distinguish between these two columns, so they should be merged for the next implementation of the framework. In other words, for the next application of the framework, it can be wise to consider five columns for the framework including; 1-problems, 2-Preparation and incubation, 3-insight, 4-evaluation and 5-elaboration. In general, this framework can be replicated in other projects of opportunity exploration and exploitation initiated by other groups of researchers and practitioners.

Ciravegna et al.(2014) quotes Marcos Hashimoto, a Brazilian management professor as saying “Brazil is not for beginners.” “Emerging markets in general are not for beginners—they are exciting but difficult, at times dangerous, and often frustrating. Most significantly, they are different”. Thus, any emerging market, including Iran has its own pros, cons and level of risk. Depending on the level of profit that international entrepreneurs perceive in the market, they take risks and manage for costs.

By the rest, theoretical and practical contributions of present research have been reported.

4-4-1-Theoretical contributions

Reference to what was presented in section 4-2, theoretical contributions of the present research can be presented as below;

- Reviewing the literature thoroughly and finding 6 themes for IOR and discussing how can operationalize them for international opportunity recognition
- Providing first normative framework for opportunity exploration and exploitation in international entrepreneurship literature.
- introducing a middle-range theory entitled *small and fragile vs. large and fragile* regarding business promotion initiatives of European countries in risky emerging economies like Iran

4-4-2- Methodological Contributions

Reference to what was presented in section 4-2, methodological contributions of the present research can be presented as below;

- First application of framework analysis approach in international entrepreneurship took place in this research
- A conceptual description of the present trading situation between France and Iran in comparison with companies like Germany and China is presented in section 3-1. This elaboration is a so-called *middle-range theory*⁸², and besides some other notes have been published by Soltanifar et al.(2017a,b) and Ajdari et al.(2016).

as mentioned by Robert K. Merton(1960s) ^{^T}

- A set of rules and insights for international opportunity recognition were extracted including some invented techniques to be applied on trade statistics(HS codes) for pattern recognition and can be considered by other researchers (refer to section 3-3-3-2). These rules can be developed into automated numerical methods of opportunity recognition based on HS codes for future researches.
- A set of qualitative data methods to be used in frameworks analysis approach was presented and applied through section 3-3. Due to the theoretical paucity in qualitative tools of framework analysis and case study(as mentioned by Yin, 2014), these methods and rules can be used in future cases.
- First case of comparison and contrasting and integration among different sources of data were applied to find some shared patterns and then reach some sort of opportunities
- A methodology for analyzing international markets presented that can be considered as the first of its kind

4-4-3-Practical contributions

Some practical contributions of present research mainly about trade between Iran and France can be presented in below;

- First research on analyzing and explaining the business environment between Iran and France was defined
- Reasons for the vulnerability of French trade regime in comparison with other leading European counterparts at least in Iran were diagnosed.
- Problems in front of trade promotion between Iran and France were presented
- Opportunities in between divided in 4 groups export to Iran, export to France, co-invest in Iran and co-invest in France were deduced.
- A set of policies for trade promotion between Iran and France were presented.

Under pragmatic philosophical worldview, one of the key objectives of the present research was implementing an applied research. Thus, the researcher tried to provide a framework for analyzing bilateral business environment and identifying opportunities between Iran and France. During the implementation of the framework, he analyzed problems, obstacles, business

environment, insights and related theories, then proposed four sets of opportunities and some proposals for business development and sustaining the trade between Iran and France. Moreover, he proposed a methodology that can be used for field analysis and opportunity recognition between the other two business blocs. Some of the potential applications for this methodology and the results of such researches can be as follows;

- Projects of international marketing research implemented by consulting companies, holdings and conglomerates and other international companies
- Initiatives of national trade promotion organization for international business research and development with target markets and companies. For example for trade promotion organization of Iran(www.tpo.ir) or Business-France
- Projects of international opportunity recognition with or without a fixed-industry proposition implemented by large international companies or consulting firms
- Business development initiatives of joint chambers of commerce, unions or other bilateral or multilateral associations and organizations (e.g. Iran-France chamber of commerce).

Trade development between Iran and France should not be assumed in contrary to *Resilient economy*⁸³ as a dominant governance paradigm in Iran. If these initiatives can lead current trade regimes between Iran and France to be changed from the exchange of raw material with technology or FMCGs to economic cooperation and joint ventures between, it will be not only toward economic interests of Islamic republic of Iran and French republic but also integrate both countries to each other due to the creation of welfare and employment in Iran and France. Concerning the political stance of France in the EU and Security Council, this integration will be toward national security of the Islamic republic.

4-5-Backgrounds, limitations and proposals

Last section of this thesis is devoted to the limitations of research, proposals for policymakers and agendas for future researches.

⁸³ A paradigm of economic management ordered by Iranian supreme leader, Ayatollah Khamenei, believes national economy should be endogenous but extrinsic

4-5-1-Researcher's background

As mentioned in section 4-1 from Creswell et al.(2014), documentation of the researcher's background and limitations can be a strategy for managing the validity and accuracy of research. As an Iranian national, the researcher had special attention to the supreme interests of the Islamic Republic of Iran unconsciously. However, he also considered the deal between Iran and France as a sustainable game that should be a win-win game. Thus through this initiative, he had an obligation to consider what could be profitable for both Iran and France. Moreover, the researcher has a background in engineering and the managerial discipline and these shaped his philosophical worldview into pragmatism. Moreover, the researcher investigates this issue from the lens of international business and entrepreneurship. Consequently, he did not consider international relations and politics as a leading theme through the research.

4-5-2-Research limitations

Limitations of the present research can be summarized into operational and theoretical limits. These limitations have led to subsequent biases on research results;

Operational limits

- Lack of enough resources and funds for more travels, recruiting other coders and interpreters etc.
- Lack of supports form public and private authorities for data collection
- Reluctance of informants to participate in interviews
- Translation problems while the researcher was not competent in French

Theoretical limit

- Broad scope of research due to lack of a fixed industry presumption
- Lack of high-quality secondary sources of data
- Moreover, what was very important, Lack of applicable models and frameworks of IOR

For conducting present investigation, the researcher was confronted in with many research limits; some limitations go back to lack of enough resources and some other to the nature of

research and its inquiries. These limitations affect the objectivity of the finding and are the main sources of bias through the research. Clarification of research limitations and the bias originating from them could be a strategy for keeping the validity of the research.

Central research inquiry was about opportunity exploration and exploitation between two countries. There was no presumption about a specific industry. That was a dilemma itself and had made research scope too broad; thus, researcher confronted with a pool of data. For dealing with about 90 codes of data, he used the framework analysis approach and applied four techniques of qualitative data analysis for the first time in international entrepreneurship research.

Being a pioneer per se affects the research, while research walk in an entirely dark night and therefore, outcomes may be confined. Due to the exploratory nature of the research and lack of similar applied frameworks, researcher suffered from a profound shortage in terms of the requiring frameworks and tools of opportunity recognition. He did not find enough equipment and materials in the literature. Therefore, he was forced to innovate and design some aspects of the framework and its associated tools. However, he tried to confirm designed tools and methods according to the literature of international entrepreneurship and theories of qualitative data analysis.

On the other hand, such intrinsic issues have a cross-disciplinary nature and political dimensions that inspire the research. However, the researcher had not the possibility to address them seriously due to the subject matter and the scope of the research.

Finding the right informants and inviting and convincing them to participate in interviews was a real dilemma for the researcher. Because of political issues between Iran and the west, conservatism and for keeping business secrets, many of invited people had fear, wonder or reluctance to have an interview. Thus researcher refers to a convenience sampling and tries to attain theoretical saturation based on an available pool of interviewees.

Researcher suffered from a lack of enough resources for travel, fieldworks and recruitment of a professional-competent external auditor. If presented research could benefit a fund or research grant to recruit the second coder, and another reviewer validity of research could be enhanced.

However, the researcher tried to use other strategies as mentioned above(refer to section 4-1) to offset this limitation.

Accordingly, for future, more detailed researches, with the participation of several researchers in the form of an Iranian-French research team, are recommended. Due to the abovementioned discussion and research limits, the researcher can propose some topics and agenda for future researches in section 4-5-3.

4-5-3-Proposals for future researches

At the end of this thesis concerning backgrounds and limitations expressed above, the researcher proposes some topics for future researches;

1-Development of quantitative-numerical methods for the automation of the opportunity recognition process based on trade statistics (HS codes) and what has been proposed in section 3-3-2. This initiative may provide new fields of research on *international opportunity mining* using the pool of trading data.

2-Development of qualitative-quantitative frameworks for analyzing international business environment between two business blocs has its own value while as mentioned in chapter1, the literature suffers from the lack of normative models of international opportunity recognition.

3-Another research initiative can be shaped around investigating opportunities for economic cooperation between Iran and France from one side and a third country on the other side(for examples cooperation between Iranian and French companies in third markets like Iraq, Afghanistan or Azerbaijan). This topic needs to consider the advantages, resources and complementarities of parent countries(Iran and France) and industrial and marketing capabilities of the host country. Moreover, the extension of this research from two countries and business relations between them to three or more countries can be advised based on rules mentioned in section 3-3-3-2.

4-Studies in a specific industry and exploring international opportunities and business environment between business blocs in a selected and predetermined industry has its own value. Selected topics for more investigation have been proposed through section 3-3-3-5. Each

selected field can be drilled down using quantitative-qualitative methods with the proposition of a fixed industry. Application of methods like revealed comparative advantage(RCA) for ranking the markets based on a set of 3 or 4 digits HS codes can be an alternative. Researchers can compare RCAs of home and host countries for a set of products (related to an industry) to find bases for more qualitative inquiries.

5-A research inquiry can be shaped around recording and analyzing success, and failure stories between Iran and France expressed by a set of entrepreneurs to induce new middle range theories, development policies and advice. Cross-case analysis as a research design can be used for this purpose.

In fact, the present study did not address the experiences of actors gathered through past business initiatives between Iran and France because this required a longitudinal study and researcher's resources was not enough to focus on a group of cases in such depth. Subsequent studies may focus on longitudinal studies of experiences of business practitioners working between Iran and France or other selected business blocs.

6-Working on aspects of forming a new trade and cooperation agreement between Iran and the European Union as a new preferential trade cooperation agreement (TCA) between Iran and European states can be another research topic.

7-Problems in front of business development between Iran and France from the lens of international relations and political science or so-called economic diplomacy can be re-analyzed.

8- Resilient economy(being Exogenous and Endogenous) is a dominant thinking on the contemporary economy of Iran. Revision of international trade strategies of Islamic republic of Iran with regard to resilient economy paradigm and in general how to use internal competencies for trading with world powers in a sustainable and less vulnerable way can be considered for future research initiatives.

9-Final proposal can be a reconsideration of present researches with the lens of market approach or some other marketing concepts like creating shared value (CSV) with the proposition of a fixed industry.

The proposed framework of this research was the outcome of an exploratory research. It can be assumed as the first initiative for systematic exploration and exploitation of business opportunities between an emerging economy and an advanced economy. Consequently, the framework needs deeply to be developed in theory and practice. Primary audience of such researches can be state-sponsored for-profit agencies, holdings, international consulting companies, joint chambers of commerce, and international banks or as stated by UNCTAD (2001), Investment Promotion Agencies (IPAs).

Researcher hopes this research to provide a base and motivation for conducting similar researches between business blocs in future. Collectively, the researcher's articulation from the concept of opportunity recognition must be developed in theory and practice. To do so, researcher warmly welcomes all collaboration with other researchers around the world and incoming questions and inquiries in this regard.

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Appendix

1-A sample invitation letter for potential interviewees

Invitation for participation at a research on Iran-France trade promotion

Dear Mrs Corinne F.

Bonjour

My name is Ehsan Soltanifar. I am an entrepreneur, international business consultant for the Iranian market and PhD candidate of international marketing at the University of Tehran and the University of Grenoble-Alpes (a co-direction).

My research project is about "exploring and exploiting business development opportunities between Iran and France".

The outcome of this research, including opportunities, their evaluation and elaboration is presented to Iran-France chamber of commerce to be used for trade promotion between both sides.

To finalize my research I need to have interviews with about 30 practitioners who are involved, interested and informed in this regard.

On the other hand, I have informed that you have had the presence at a recently incoming French delegation to Iran that shows your interest to and observation on Iran-France trade atmosphere.

Thus reference to your role at Burson-Marsteller-France as a respected French company, I would ask for your contribution in this research by participating at a 40 minutes interview by phone and completion of an opportunity appraisal form in about 20 minutes.

This research will be toward both countries supreme interest, so I would really appreciate you if provide me with your e-mail and telephone number to send you the forms and then arrange for abovementioned telephone interview.

*Although your help shows your social and national responsibility, at the exchange of your assistance, it is my pleasure to cite your name at Iranian and English version of the dissertation. Moreover, I will present you a practical report on the results of this research that may be useful for your business development in Iran. My colleagues at www.bazarli.com also write a **FREE** market development and market research report for your business at the Iranian market.*

Declaration of receipt will be really appreciated

Thank you in advance for your participation

Sincerely your-Ehsan Soltanifar(Eng. MBA. ABD)

University of Tehran/University of Grenoble-Alpes

Cellphone; 00989131251143 E-mail; soltanifar@ut.ac.ir

2-Interview Questions

A sample of interview question into two phased have reported below. First phase with exploratory questions try to explore and incubate primary explanation about the case and through the second phase with confirmatory questions, I have tried to confirm and amend shaped structure through the rest of the interview.

2-1-First phase; exploration

General questions and problems

- As an International business consultant, has French companies and entrepreneurs ever referred to you to get consultancy services for doing business in Iran? If yes, from which industries? What have been their motivations and reasons to be interested in the Iranian market? I want to know what factors have made the Iranian market interesting for French entrepreneurs?
- As a French entrepreneur, what problems have you confronted with through you doing business initiative in Iran? Please explain in detail. If you have met other colleagues and they told you about their problems in Iran, please let me know.
- In general, what problems have you perceived in front of business development between Iran and France?
- As an international business consultant, let me know with regard to the feedback you have received from your clients, what are the main challenges in front of business development between Iran and France? What are the main obstacles for MNEs and SMEs to enter Iran as an emerging market?

Recognition of the environment, preparation and incubation

- What are the main field in which Iranians can invest in France? What are the main fields of interest for French companies to invest in Iran? Please reconsider these field with the possibility to benefit from neighbouring markets of Iran and France.

- Please consider 49 business opportunities I have presented to you before. Please indicate which one can be incubated in Iran and which one in France?
- In your point of view if at the time an Iranian come to France and invest in this country, which problem he/she may be confronted with?
- What opportunities French market provide for Iranian entrepreneurs for Investment? What are the pros and cons of investment in France in comparison with countries like Spain, Germany or Poland? If an Iranian practitioner come to you to get consultancy about starting a business in France, do you advise him/her to enter the market? If yes, why? If no, why?

Economic issues

- What are the basic differences and similarities between the economic structures of Iran and France? In other words, how can you compare these two economies?
- How can we analyze the economy of France in the European Union?
- Can we find an economic rationality to justify the interest of French companies to the Iranian market? Does the interest of French companies to Iranian economy derived from some similarities between their needs and mutual economic patterns or just related to personal attractions and potentials of Iranian economy and opportunity hunting of French business people in Iran?

Political and cultural issue

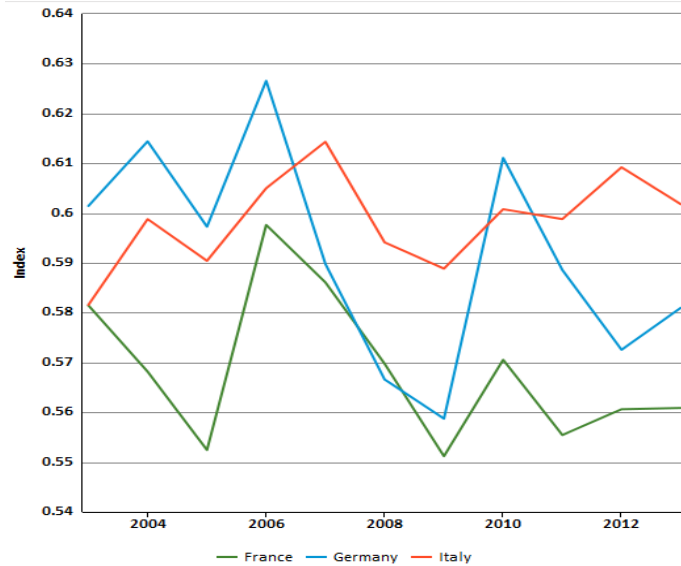
- What are the similarities and differences between purchasing habits and behaviours of Iranian and French costumers? What factors are probably more or less essential for them to? What are the factors that French business people usually recognize Iranians with them?
- In general, what are attitudes of Iranian costumers to French products and services in comparison with German, Italian or Japanese or American alternatives? If it is appraised less or more, you think why?
- What are the marketing tips and notes that you think an Iranian entrepreneur should know through his/her marketing initiative in France?
- How can you evaluate attitudes of French costumers to Iranian products?

- As an expert for economic diplomacy, how can you evaluate the role of lobbying and political manoeuvres in trade promotion of French companies in countries like Iran?
- Can we find characteristics for French capitalism in comparison with German, American or Japanese capitalism and Industrialism?
- How much economic diplomacy and trade promotion organizations have been considered in trade between Iran and France?
- If you have a conclusion, proposal or idea about developing business between Iran and France, please share with us.

2-2-Second phase; exploratory and confirmatory interviews

In this section, the researcher has have tried to confirm or amend the propositions that were shaped through initial interviews, observations and trade analyses and concluded through section 3-1 in this regard besides the above question, below propositions had been share whit interviewees, and they were asked to share their viewpoints or explanations about them;

- How do you evaluate the effectiveness of Iran-France chamber of commerce in comparison with Iran-German chamber of commerce? Iran-France chamber of commerce has 357 members (41 of them are French companies), but Iran-German chamber of commerce has more than 2000 members! You think why this has happened?
- In comparison with Germany, SMEs of France have less presence in Iran! How can you explain this situation? Do you agree with this proposition? If yes, why? If no how can you explain such shortcomings at member of I-F chamber?



A sample complementarity graph

As reflected in the abovementioned figure, trade complementarity between Iran and France is less than complementarity between Iran and Germany or Italy. This means that Iran and France produce the same products and services, so they are less need to directly import from each other in comparison with Iran-Germany or Iran-Italy pairs. How much do you agree with this proposition? Do have any idea, explanation, advice or strategy cope with such issue.

Is it a basic contrast in trade promotion between Iran and France? How can we cope with such a contrast?

A survey(76000 participant) reveals that Iranians highly prefer German(64%) cars(automobiles) than Japanese(17%) cars and French ones(7%). on the other hand, if they have other choices in their automotive selection, they not select French cars as a first choice. Do you agree with this proposition that French product and services have less popularity than German and Japanese products and services at Iran market? If yes, what reasons do you able to imagine for this? If no! How can you explain the abovementioned survey?

Table2-Full

No.	Themes		Research questions
1	Primary category	Management and performance issues in the international firm	<ul style="list-style-type: none"> • How substantial are cross-country market segments? • <u>How can we go about identifying and validating them?</u> • Are they superior to within-country market segments?
2			<ul style="list-style-type: none"> • How can we measure the globalization of the company value chains? • What is the extent of the efficiencies achieved by firms through global configuration of value-adding activities? • What is the impact of world-scale coordination of value-added activities on firm performance?
3			<ul style="list-style-type: none"> • What behavioural factors' impact on managerial decisions regarding entry mode? • What are the antecedents and outcomes of developing-country FDI in advanced economies? • To what extent is offshore sourcing a new organizational force?
4			<ul style="list-style-type: none"> • How should firms measure the success of collaborative ventures? • How can learning be facilitated? • What are the performance consequences of trust and commitment in IB partnerships? • What longitudinal evidence do we have for the success of networks and alliances?
5			<ul style="list-style-type: none"> • What impact does knowledge transfer have on performance? • How do MNCs transfer valuable knowledge from one part of the organization to another? From the firm to independent intermediaries or sales representatives? • What is the appropriate “micro foundation” for knowledge

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			transfer?
6		Product development and innovation	<ul style="list-style-type: none"> • What are the determinants of success in global product development? • What is the role of new products in global markets?
7		<u>Global brands</u>	<ul style="list-style-type: none"> • How valuable are intangible firm assets such as brands for the international company? • How well do global brands achieve local effectiveness? • <u>How do SMEs manage branding in international markets?</u>
8		Relational assets in international business	<ul style="list-style-type: none"> • How can researchers best capture the value of intangible assets such as relational capital in cross-border relationships? • How do firms build relational capital with suppliers and customers in IB? • What is the role of trust and commitment? Do strategies for securing trust vary by culture?
9		Supply chain management and procurement	<ul style="list-style-type: none"> • How do firms design global supply chains? • What is the role of third-party service providers in the supply chain?
10		Standardization vs. adaptation	<ul style="list-style-type: none"> • How do firms reconcile global standardization objectives with local customization needs? • What is the impact of standardization/adaptation on firm performance?
11		Human resource management in international firms	<ul style="list-style-type: none"> • How can firms effectively staff global organizations and measure their performance? • How do firms effectively manage inpatriates/expatriates?
12		<u>Management, strategy, and structure</u>	<ul style="list-style-type: none"> • <u>What is the relative importance of the manager, strategy, and structure in the success of MNEs?</u> • What is the optimal firm size and structure in the global economy? • How do MNEs build strong core values that can be shared across disparate parts?

13	Company internationalization process	<u>Internationalization of firms and industries</u>	<ul style="list-style-type: none"> • How can we best describe firms' international evolution? • How does the experience of firms in international expansion differ among various industry sectors? • <u>What contextual factors moderate the internationalization process?</u>
14		Born-global companies and international entrepreneurship	<ul style="list-style-type: none"> • What makes young, entrepreneurial start-ups successful in IB? • What factors determine the evolution of a born global firm?
15		<u>SME experiences in internationalization</u>	<ul style="list-style-type: none"> • <u>What unique strategies do small and medium-sized firms employ in going international?</u> • <u>How successful are they?</u>
16		<u>Managerial orientations of internationalizing firms</u>	<ul style="list-style-type: none"> • <u>What effect do factors such as global mindset and global culture have on IB success?</u>
17		Emergence of intermediary organizations and hybrid organizational forms Commoditization of organizational processes	<ul style="list-style-type: none"> • What will be the coming architecture of global business?
18		Integration of new technologies	<ul style="list-style-type: none"> • What impact do new information, communications, and manufacturing technologies have on IB?
19		Focus on the multinational enterprise	Explaining the existence, strategy, and organization of MNEs

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20		Multinationality of the firm and performance	<ul style="list-style-type: none"> • What are the returns from international expansion/diversification? • How can they best be measured? • What are the moderating influences on returns from multinationality?
21		<u>Regional and global MNEs</u>	<ul style="list-style-type: none"> • <u>What are the differences between regional and global MNEs?</u> • What performance outcomes can be detected? • How are value chain activities managed across a variety of geographic regions?
22		Integrating mechanisms in the MNE	<ul style="list-style-type: none"> • What are the common processes that allow for greater coordination? • What is the role of integrating mechanisms such as global teams, global centers of excellence, global talent pools, and global product development?
23		Global account management	<ul style="list-style-type: none"> • How do firms best manage their relationships with global (key) accounts? • What skills and capabilities are necessary to successfully serve global customers?
24		Contributions of the internet and information technology to MNEs	<ul style="list-style-type: none"> • To what extent do tools such as the internet and intranets serve as a vehicle to provide virtual connectedness within the multinational enterprise?
25	Globalization of economies	Antecedents, process, and consequences of globalization	-
26		Empirical measurement of globalization Trade, FDI, and offshoring trends	-
27		Trade agreements,	-

			areas, unions The influence of non-governmental	
28			agencies on international business	-
29	Secondary category	Emerging markets (EMs)	<u>Operating in EMs</u>	<ul style="list-style-type: none"> • <u>How does operating in EM markets influence firm success?</u> • To what extent do EMs present a challenge to existing knowledge? • To what extent does global sourcing provide an opportunity for firms to internationalize?
30			EM firms	<ul style="list-style-type: none"> • How do the global branding strategies of firms from EMs differ from those of advanced economies? • How does EM firm success impact global industry structure? • To what extent does global sourcing provide an opportunity for EM firms to internationalize?
31			Multinational enterprise: subsidiary issues	<ul style="list-style-type: none"> -Trade-off between centralization and Decentralization -Coordination of MNE activities across subsidiaries -Best-practice implementation; common processes	• How do the structure and form of MNEs influence their performance?
32			Effectiveness of global teams	<ul style="list-style-type: none"> • How can headquarters effectively address local resistance against global coordination? • How can MNEs integrate their subsidiary skills and competencies into global strategic assets? • What are the factors that moderate the role of subsidiaries in decision-making?
33		Cultural	Convergence of	<ul style="list-style-type: none"> • What evidence do we have on the convergence of global

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	influences/global consumer/consumption issues	customer demand	customer preferences? <ul style="list-style-type: none"> How does the pace of convergence differ by countries at different levels of economic development?
34		Values toward materialism Culture and international business	Does national culture explain IB phenomena or is it just way to explain residual variance?
35		Regional variations in consumption	How does integration within economic regions influence consumer behaviour?
36		Diffusion of innovations; life cycle of products	What patterns can be detected in the cross-national adoption of new products?
37		Corporate social responsibility/ MNE citizenship	-Impact of MNE on society, local stakeholders, technology spillovers, etc. -Creation of value to multiple stakeholders	How do MNEs balance the interests of various stakeholders with the business objectives? How do managers trade-off ethical values with business objectives?
38	Ethical issues in international business	Variation in ethical practices	How do ethical considerations influence decision-making by managers?
39	Public policy issues	-Unintended consequences of globalization -Global poverty -Environmental issues (e.g., pollution, climate change)	What role does international business play in creating global insecurity?
40		Effects of offshoring on wages,	How do we measure the impact of globalization at a country level?

			employment, and standards of living	
41		Methodological issues	-Better operationalization of key constructs such as global industry, a global firm, global strategy, firm performance in international markets - Unit of analysis in IB research	How can we best capture performance at the network or alliance level, as opposed to the firm level?
42			<u>International research design (e.g., country selection, sample selection, data sourcing)</u>	<u>How can qualitative research be effectively used in IB research?</u>
43			Rigour of methodologies employed for empirically testing IB theories	<ul style="list-style-type: none"> • How can we increase the reliability of IB research? • How can we account for partial effects of national culture from organizational culture and other variables?
44	Tertiary category:	Legal aspects of international business	Partnering across borders	How do firms trade off contract-based partnering against relational partnering? What are the performance implications of explicit vs implicit contracts?
45			Conflict resolution in international partnerships	How do firms cope with the absence of formal legal institutions in emerging markets?
46			-Safeguarding intellectual property -Security and risk	How do firms effectively safeguard their intellectual property in cross-border relationships?

			<p>issues in international business</p> <ul style="list-style-type: none"> -Security of employees, information, data, etc. -Company responses to risk (e.g., terrorism, country risk) 	
47			<p>Estimating detrimental impact of terrorism on global business</p>	<p>What role do MNCs have in the security of the regions in which they are located?</p> <p>What should be the responses to long-term supply chain risk?</p>

3- Matrix-Collage of Trade Promotion and Opportunity Recognition between Iran and France

	Problems; Problems perceived in front of trade development between Iran and France	Preparation; knowledge or experiences precede IOR gathered from informants, observation or Doc analysis	Incubation; contemplation an idea or a specific problem through interview, observation or Doc analysis	Insights; Theories or insights shaped through incubation process, literature review or a Eureka moment!	Evaluation; Evaluation of proposed alternative or result of their implementation!	Elabour ation; How to Implement and what has happened through Implementation
i-1 IR FR	1-a mafia exist on trade between Iran and France, 2-bilateral trade is basically win-loss in favour of France	French companies, e.g. at automotive industry have made Iranian economy dependent on themselves but leave Iran at hard days	There is a Pessimism toward French companies and trade with France at Iran	Resistance economy, as expressed by the Iranian supreme leader, should be applied in this case!		
i-2 IR	1-Poor French management control on its Iranian property after acquisition 2-Poor selection and HRM of suitable managers 3-No customization!	1-there is a large amount of unused production capacity at Iranian food companies		1-French licensors can cooperate with Iranian food manufacturers on a contract or licensing bases	1-Joint production at Iran under French license or contracting to export to MENA region 2-colabour ation	

					between Iranian and French R&Ds at food industry 3-Herbs, organic food and processing and packaging are business Opportunities.
i-3 FR	<p>1-in Iran procedures are complicated and no transparent</p> <p>2-attaining to information is very hard</p> <p>3-negotiations are tedious and time consuming</p> <p>4-there is corruption at organizations and international banking issues are basic and still remained</p> <p>4-Frenchs have problem in speaking English</p> <p>5-French import than export</p>	<p>1-Main attractions of Iran for them to come to Iran; a 80 million market, strong middle class and educated, people with good aptitude and PPP, a projected 6% growth rate after JCPA for next 5 years</p> <p>2-Iran seems to be near a turning point</p> <p>3- a French entrepreneur he basically expressed interest in Iranian culture and poem as his main motivator to find residency in Iran</p> <p>4-french are basically more cautious to Iran than Germans.</p>	<p>1-non transparency, Bureaucracy and time consuming procedures harms Iranian business atmosphere</p> <p>2-Frenchs basically have an interest to Iranian culture and community</p> <p>3-poor French management control may be caused by lack of required information.</p> <p>4-french follow "wait and see" for Iran maybe because of corruption</p>		<p>1-Cinema, food, Art museums, literature and other types of business based on culture could be topics for cooperation</p> <p>2-Germans have made better networking than Frenchs in Iran. That came back to cultural and</p>

	6-...	Germans are more courageous and initiative. this roots on German entrepreneurial culture and their better networking in Iran				
i-4 FR	<p>1-there is much politics(bureaucracy) in Iran, very time consuming and complicated procedures for negotiating and finding right people</p> <p>2-high perceived risk specially for long term projects</p> <p>3-high inflation and currency devaluation</p> <p>4-communication problems</p> <p>5-5-Iranian market of contracting is very fragmented</p>	<p>1-Main attractions of Iran to them are market size(80 million) and high incomes form oil and gas. 2-they have used their personal contacts to find their business mediator. 3-working with Iranian organizations has politics and this increase the risk of working here. 4-a big advantage of doing business in morocco or U.A.E is that business procedures there are more clear and transparent for foreign(e.g. all of tenders published in French or English)</p> <p>5-France international trade relied on big companies and we as medium don not expect</p>	<p>1-Iran is recognized as an oil and gas economy like Saudi Arabia but with 80million population!</p> <p>2-There is no trusted business consultant for trade between Iran and France</p> <p>3-construction and engineering in France is very powerful but their investment scope is 5-10 years so they cannot take the risk of working in Iran</p> <p>4-transportation, water treatment, construction and waste management are French fields of</p>	<p>1-there is a need for a public or private professional agencies to linking up between interested foreign investors and target public or private Iranian organizations.</p> <p>2-maybe one the main reasons that have made French more cautious than Germans in international business is that French want or think they should match with host environment while Iran is not perceived as an easy to adapt context for them. Germans on the other side have their own</p>		<p>1-with regard to high risk and complication of starting their business this French company has decided to work on small towns of Iran in future</p> <p>2-</p>

		and receive assistances from government. but Germany has more SMEs. 6-embassy do systematic lobbying for big companies to develop their business internationally. 7-French are and want to be more flexible in the business contexts they go.	competency	style of <i>we work as we are</i> manner!		
i-5 IR FR	1-french banks don't work with Iran 2-frech companies are so cautious about Iran 3-	1-High tax and income level made starting business in France, Hard 2-on the other hand France have high quality skill workers with high productivity 3-classic production may have more justification in Spain or Germany than France	1-with regard to high income and tax production in France by Iranians are not justified with exception of technological, innovative and knowledgebase products and initiatives 2-there are a large number of university graduates in both countries 3-french government provide supports for innovative companies	1-partnership with European companies will facilitate penetration at European markets but the product shall be innovative 2-in terms of workforce cost there may be a complementarity between Iran and France 3-food, pharmaceutical and cosmetics could be proposed as business	1-there is a good potential for collaboration between Iranian and French knowledgebase companies to develop innovative products and services at Iran and France(e.g. Grenoble) for the middle east and	1-A Franco-Iranian entrepreneur could establish an innovative business in France that raw material procured from Iran 2-penetration at European chain stores will facilitate very well by regional co-manufacturing

			and start-ups! 4-Persian oriented branding still works very well in Europe	opportunities	Europe	
i-6 FR	the problems are to find the good agent, the good invest company and the good proceed to send machines 2-And to be able to make bank transfers	1-informant was an opportunity hunter and have travelled to Iran first as a tourist and then as a businessman 2-he told he has to understand traditions, to learn a minimum of Iranian language words and to come back to the country.	informant use travel by delegations to study for participating at related exhibition	1-for French businessmen it's too important to have direct contacts with their target market and know their culture, people, language and...informant said; <i>Time his not only money, business is good if I can meet with the good family. I have mainly immerse myself in the local culture, to be knew and to be appreciate by the people. And after and only after, we will make business?</i>		his market study usually have 3 steps; to discover the country and his traditions, people, laws etc. making a trip in country to look by himself and to have meeting with customers, producers etc. and finally, if the first steps are ok, decide to be an exhibitor or to do another trip and visit.

<p>i-7 FR</p>		<p>1-company is export oriented and have had exploratory trip to Iran immediately after JCPA 2-main attractions of Iran for them; a 80 million market with fast growing middle class consumers that become more and more interested to their products(pet foods!!). Iran also could be a Hub for them to manufacture and distribute their product at middle east(Turkey, Turkmenistan, Azerbaijan etc..). that's because Iran has a big market and big production facilities. 3-from 2 month before the trip they have contacted to some distributing companies 4-I have visited Iran-Agro food-expo and think there is a big potential to work on food and FMCGs between Iran and France 5-I have used consultancy of a</p>	<p>1-France use to promote very large company such as Airbus, Alstom, Renault... first and then open doors for promotion of the Small and Medium Companies 2-Iran-France chamber of commerce(CFICI) did not promote its activities to and through the right channels, there is not much added value of being a member of CFICI for Iranian company or French companies. 3-so we have usually relied on out personal visits and participation and exhibitions 4-For many years it was not permitted to trade with Iran, now we should expect more French SMEs to find</p>	<p>1-at present situation that still is high risk FMCG companies are from rare industries always interested to work in or with Iran! 2-for export from Iran to France food and beverages, textile may be suitable 2-for export from France to Iran, electricity, transportation, infrastructures, automotive, metro and industrial equipment are suitable exporting commodities, moreover winter sports and their equipment could be exported to Iran 3-French embassy usually have lobbying services to big companies like Peugeot or total. we as SME usually get some</p>	<p>1-finding suitable partner in Iran was a challenge that tried to be solved by contacting Iranian distributors 2-banking issues are tried to be solved by opening bank accounts in Switzerland, Turkey and U.A.E 3-because of payment problems we proposed advanced payment method to our Iranian partner! 4-anyway our product is very simple and this stage of business(direct export) our main issue is getting export permission</p>
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		French company and ICCIM to arrive in Iran.	interest in Iran.	services form our regional chambers of commerce. 4-there is an big interest among French companies to do partnerships with Iran.		from Iranian government that will be done by our Iranian partner
i-8 IR FR	1-Banking imperfections are logistics based but main problem I think is lack of <i>international corporate governance</i> among Iranian companies! 2-language problems exist between both part business promotion 3-	1-FMCG, Food, cosmetics have refereed to me to get consultancy 2-Iran in France still is perceived as an oil economy although we know Iran have potentials in knowledgebase economy too. 3-for starting business with Frenchs, first encounter is important. they want to communicate with you. 4-Germany and Italy have more SMEs than France 5-Lobbying and politics in France via the people who have links is very important	1-It's a good idea to invited many foreign practitioners and/or dual nationality Iranians to be a part of board of directors of Iranian companies. This evolve them work as facilitators at international business promotion of Iranian companies.	1-board of directors at Iranian companies should become internationalize, board members should be selected from among proactive practitioners evolved at international context 2-if we can communicate with French businessmen well, we can take more results that what we attain from British's or Germans 4-Lobbying in the form of networking in France relied on people not companies!	1-there is a good potential for cooperation between Iranian and French technological start-ups and international board could leverage this collabour ations.	1-using dual Iranian-European experienced managers as a board member or at least consultants could facilitate internationalization of the board. 2-a platform to organize dual nationality Iranians toward country's international biz dev. 3-training Iranian board

						internationally could be useful
i-9 FR IR	<i>This interviewee mainly filled opportunity appraisal form, and there found no time for the full interview</i>					There are high potentials among Iranian knowledge-based companies
i-10 IR	1-French are so cautious about their initiatives at Iran, 2-French is at high level bureaucracy like Iran, they have inertia and are not agile	1-we have not benefitted form services of Iran-France chamber, moreover as a French big company we don't think that we need to their services! 4-after decision of French companies to exit Iran, Iranian's perceive French companies as disloyal and unreliable partners at least in terms of aftersales services.	1-one of the reasons that made French companies to be so bureaucratic is that most of them are BIG companies in comparison with German counterparts	1-big companies don't think they need CFICI services. SMEs need to comprehensive services of CFICI but don't receive enough CFICI series! So CFICI remained pretty useless! 2-through a comparison with AHK we may deduce that this rooted to some extend at France international trade structure!? 3-handicrafts and oil products(base oil, waxes, bitumen, finished oil		1-a prestigious French company have transferred its share to its Iranian partner to be able to the U.S sanctions. 2-despite i-1, this company could constructs a good organizational culture and OCB 3-both side should consider a serious plan to reconstruct missed mutual

				products) from Iran and oil and gas industry equipment have good potential to be exported.		trust!
i- 11 IR FR	1-I meet many Iranian companies, they express their interest at the first but finally I found them unsure and unserious. I don't know why? 2-many Iranian companies are not even able to pay usual cost of finding right people in France, they want everything for free!?	1-there are many public relation and business relations agencies in France who could be recruited for marketing and matchmaking between Iranian and French companies. Law office and lawyers could does well. 2-during travel of MEDEF Delegation from France, Iranian host had a good arrangement but organization of French delegation was not prepared well! 3-in France there are many people who have friendship or familial links with officials and present lobbying services... 4-MEDEF is so Political..!It is not able to make the market		1-there is a considerable amount of Iranians in Europe who are willing to work through Iran-Europe business promotion. 2-MEDEF of France is so inefficient in comparison to SEQUA of Germany 3-Doing business in Iran or France by French and Iranians are risky until the time both side don't want to cover a part of this risk, sustainable business will not shape in between.		

		for you.				
i-12 IR FR	<p>1-understanding the laws and regulations required for business in Iran is very hard</p> <p>2-there some cultural difference that need presence of cultural facilitator</p> <p>3-bureacracy is very problematic in both countries</p>	<p>1-Many middle aged Iranians at France who find working situation unsuitable there, want to come back and start their business in Iran. many French have the same idea!</p> <p>2-there is no place for Iranians to come from Europe to put their ideas into practice.</p> <p>3-bureaucracy of France and Iran are at the same level and have made administrative procedures idle and non-agile</p> <p>4-there is a mafia of French trade brokers!</p> <p>5-services of Iran-France chamber of commerce is not acceptable at all!</p>	<p>1-when we consider high tax, wages and business atmosphere of France I cannot advise this country to Iranian entrepreneurs to set up a formal and classic business</p>	<p>1-there is mafia through Iran-France trade deals, but how much this mafia is powerful we don't know!</p>	<p>1-electronic, computer and telecom, winter sports like skiing, Tourism and hoteling, cosmetics, restaurant, theatre, leisure products, luxury products and banking are fields of priority between Iran and France</p>	<p>1-for starting your business in France recruit a lawyer because this country has many regulations</p>
i-13	<p>Main problem is lack of independent financial channels in between beside non-transparency</p>					

	and corruption in Iran					
i-14	<i>This interviewee mainly filled opportunity appraisal form, and there found no time for full interview</i>				Consultancy and professional services have neglected between countries	
i-15	<i>This interviewee mainly filled opportunity appraisal form, and there found no time for full interview</i>		Cooperation with SMEs of Iran will be highly interesting for us		There are many topics for cooperation around technical affairs	
i-16 FR	1-political risks, corruption, competitiveness, transparency and political interference at administrative procedures are among main concerns of my French clients. 2-two main problems are banks and uncertainty and attaining required	1-main industries referred to me to get consultancy about Iran were oil and gas, mining, metals and metallurgy 2-there is a political view at France toward investment of Iranians 3-French international business doctrine is politicalized(e.g. at western Africa). in this regard French	1-if we consider a level of trade in complementarity between Iran and France(rather than Germany), there is still some reasons for cooperation; France have technology, capital and political power, Iran on the other hand have a big	1-more politics at French international business development is inevitable because it has focused mainly on big companies and entrance of big companies is usually a political issue. more over Iranians have political view to international	1-Pharmaceutical, food and agriculture, aerospace, automotive, software and ICT, banking and financial sectors, luxury, cosmetics, perfumes are	

	<p>information at Iran</p>	<p>big companies arrive to the target market primarily and the provide a route for SMEs. Italy and Germany don't enter politics in their into biz development. despite French, German SMEs don't limit themselves to MNE arrivals or Politics</p>	<p>market and could be a gateway for Neighboring markets</p>	<p>business that reinforce politics in between. 2-about Germans SMEs because they have no political power and do not have veto! have focused on quality, pragmatism and efficient communication with private sector of Iran 3-Marriage and religion could be used for Trade development! 5-middle class companies are so limited at the French economy</p>	<p>main fields of priority between Iran and France</p>	
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<p>i- 17 IR FR</p>	<p>1-Brokers and trade barriers are among the problems!</p>	<p>1-National brand of France in Iran is harmed and the same has been occurred for Iran at France. 2-Lobbying as a political maneuvers is more defined at France because social science to more elaborated in this country 3-France relied on SMEs 4-Macroeconomy is applied more in France 5-SMEs at France are regional(because domestic market is enough for them) that Global as it is in Germany 5-French companies are very cautious, they want to go forward gradually and have more bureaucracy than Germans.</p>	<p>1-with regard to cases like Paris Tech and F.Green, despite classic manufacturing businesses, technological and innovative start-ups have high chances to be successful at France.</p>	<p>1-transparency, defining an international vision, collaboration with French technological companies, placement at a cosmopolitan like Paris could help Iranian start-ups to leverage their internationalization</p>		<p>1-interviewed company is among limited French SMEs who could become internationalize. They said that because they have defined their mission internationally at the beginning.</p>
<p>i- 18 FR</p>	<p>1-obtaining long term visa for foreigners is very hard 2-problems in money</p>	<p>1-my motivation for starting business in Iran was my Iranian wife and my interest to</p>	<p>1-Marriage and Culture could be used for Trade development!</p>	<p>1-Interest of French to marry with Iranian or to discover Iranian culture</p>		<p>1-as A French I finally have open an account in</p>

	<p>exchange between Iran and France specially for SMEs</p> <p>3-Despite Big companies like Peugeot who had the present in before, for new comers there many hardships and CFICI don't present any service!</p> <p>4-both sides administrators are very Cautious.</p>	<p>know Iranian culture and community</p> <p>2-I think French embassy is not good at their communications and trade promotion</p> <p>3-French bank have strong ties with U.S and this prohibit them to work with Iran</p> <p>4-Iran's demography made this country interesting for service industry</p> <p>5-Iran is regional superpower with political power, money, workforce, energy, resources and other thing necessary for production.</p> <p>6-I know many people at France that could be useful for medical tourism or medical investment</p> <p>7-France is poor, wage and tax are high!</p>	<p>2-Iran's resources, power and stability made this country interesting for Investment to sale to internal market and export to neighbor countries BUT there are many obstacles for this</p> <p>3-European want to see Iran as a trade hub if Iran decrease political conflicts</p>	<p>or even to become a Shia-Muslim could be a driver of bilateral trade.</p> <p>2-these fans could be good mediator for Iran trade promotion if they get supported.</p> <p>3-Using a right French developer who has many years of experience at each sector could be used for trade development at that sector.</p>		<p>Germany</p> <p>2-the problem of long term visa finally solved by registration of my marriage with my Iranian wife</p>
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<p>i-19 IR FR</p>	<p>1-banking issues will be resolved finally. Main problem for us is to reconstruct the harmed trust between Iran and west. Our job is to convince and provide European companies about Iran.</p>	<p>1-we are a French company and present corporate services, talent management and business intelligence services to European companies at Iran. 2-france may be our last client! We present out services to German, Austrian, Belgian and Italian companies for Iran. 3-investment of Iranians for manufacturing in France is not advised but for services or office development maybe yes.</p>	<p>1-main reason for less presence of companies and members ant CFICI than AHK is that France international trade relied in big companies that don't need to CFICI. Moreover Germany has had better planning for their trade promotion.</p>	<p>1-Invesmtent of Iranians at manufacturing sector of France is not advised. 2-CFICI has fewer members than AHK because France relied on Big companies to promote the trade!</p>		<p>1-we have confronted with no serious problem. At any case we used right facilitators at Iran</p>
<p>i-20 FR</p>		<p>1-Iran is at historical moment and we want to be here at the time. 2-main reason French bank don't work with Iran is that they are very big in comparison with German and Italian bank that decrease their dynamism. Moreover they have deep connections with</p>	<p>1-main reason for less presence of companies and members ant CFICI than AHK is that SMEs of Germany(Called Mittelstand) are more powerful than France,</p>	<p>1-Iran is basically interesting for him and he had no direct economic motivation when he started business in Iran. 2-SMEs more presence in Germany reflected in the members of AHK 3-Country Brand of France is damaged.</p>		

		<p>U.S that made them Cautious.</p> <p>3-Country brand of France in not good at the time.</p> <p>4-Language is among the causes of France trade underdevelopment than Germany</p>		<p>4-French bank are very big, not agile and have connections with U.S that prohibited them to work with Iran.</p>		
i-21	<p>1-French bank and insurances don't work with Iran</p> <p>2-Iranian companies were so optimistic to after JCPA period while they were not provided enough.</p> <p>3-</p>	<p>1-I have received application to get consultancy from Agriculture and food industries of France.</p> <p>2-it is not easy that a knowledge based company from Iran get direct support from French government even if they register a company a France. They should think on professional partnerships French companies.</p> <p>3-we are very undeveloped at <i>partnership</i> as an applied discipline. we do not know how to proceed a partnership project or proposal.</p> <p>4-we have not international</p>	<p>1-so setting a good partnership need to find experienced French SMEs or accompanying a big Iranian company as a leader to come in partnership with other French companies.</p> <p>2-to have a win-win partnership both sides should something to sell(as an Iranian SME or big company)</p> <p>3-main reason that AHK have more members is that Germany have had many more years of business relationship</p>	<p>1-<i>partnership</i> is not developed as a matured field in Iran-France trade relations</p> <p>2-specialized exhibitions are good channels to find potential partners.</p> <p>3-it is not important what opportunities exist in France for Iranians. Know both sides should focus on the field of collaboration in Iran.</p> <p>4-utilities, agriculture and food, dairy products, environmental technologies, Nano-technology, bio-</p>		

		<p>business culture. e.g. answering incoming e-mails regularly.</p>	<p>with Iran. they have attain more experiences and knowledge about Iranian market. so they confronted less uncertainty and have less conservatism(self-enforcing mechanism)</p> <p>4-German companies use their spill over at Iranian market.</p>	<p>technology are France's fields of competency.</p> <p>5-France is very good in system technologies.</p> <p>6-Iran have some competencies in technologies that depth is more important than breadth.</p> <p>7-existing fields of partnership like automotive and hoteling should be developed but their technologies should changed from asymmetric to symmetric.</p>		
i-22 IR		<p>1-sanctions have affected trade between Iran and France in the fields that they have complementarity e.g. aviation</p> <p>2-high volume of knowledge workers and important of big companies are among main similarities between economy of Iran and France.</p>	<p>1-although Iran have less trade complementarity with France in comparison with Germany, there is a degree of overlap between their vectors and this ratio could be changed by both side</p>	<p>1-trade promotion could change trade complementarily through changing internal competencies(e.g. empowerment of internal SMEs), external demand, politics and government policies.</p>		

		<p>2-in comparison with Germany and Italy, SMEs have less role at international trade of Iran</p> <p>3-Real Exchange Rate is high in France</p> <p>4-France have an unsuitable negative balance of Payment</p>	<p>initiatives and investment. This index is not fixed. Moreover France has competitive advantage in products Iran need for its industrialization.</p> <p>2-France have had primary investment in some fields that provide some type of competitiveness for this country in Iran.</p> <p>3-based on literature, France is not a Capitalist economy</p>	<p>2-Real Exchange Rate is high in France; this fact decrease competitiveness of France than most of European states in Production</p> <p>3-French economic structure have made companies to be too big or to small</p> <p>4-this enterprise polarization and economic similarity between to countries justify economic partnerships than direct export?</p> <p>5-main factor that has decreased competitiveness of French market is Labour market, so Iran could present low cost labour to outgoing French investors</p>		
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<p>i- 23 IR FR</p>	<p>1-at the time, although sanctions removed, market seems to be closed 2-Banks don't finance to projects and this is a big problem 2-lack of managerial attitude and presence of brokers are another problems.</p>	<p>1-services we have got from CFICI are visa assistances and appointment arrangement for some cases. 2-I generally agree with this proposition that main part of France international trade is based on big companies than SMEs. Recently ministry of economic and industry have launched an initiative to promotion export of French SMEs.</p>	<p>1-French bank are very big and work with U.S so they cannot be agile to work with Iran like Italian or German medium sized banks. 2-I think countries could work on Agro food businesses. 3-I don't know why members of AHK is more than CFICI, maybe because AHK has more money! in general French in their trade consider often political aspects and German consider business aspects 4-French are more Cautious and come to bazaar after deep research</p>			<p>2-Big companies usually don't refer to CFICI and SMEs refer to their regional chambers of commerce.</p>
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<p>i- 24 G E</p>	<p>1-there is big problem for foreign business practitioners in Iran to find right people or organization to refer to.</p>			<p>Germany have a very systematic program to communicate with private sector and SMEs at countries like Iran.</p>		
<p>i- 25 FR</p>	<p>The main issue is finance. French banks, fearing US sanctions, do not want to take the risk of working with Iran again. The US government has repeated that sanctions related to the nuclear issue are lifted but it takes time to re-establish trust. My view is that French banks will come back on the Iranian market gradually. Finance is the main issue. Otherwise, there is a huge interest among French companies for the Iranian market.</p>	<p>1-in terms of distribution of GDP Iran and France have different economies. 2-, Germany and Japan have very efficient trade promotion policies. This policy includes support for companies, soft power and selling its country like a brand. 3-French cars were popular in Iran. But, maybe Iranian customers want more competition among companies and to have a real choice. Besides, I don't think you can explain French presence exclusively by a "lobbying" policy. Renault for example took the risk some years ago to</p>	<p>the potential of the Iranian market and the possibilities of using Iran as a base to re-export create a lot of opportunities in a very large number of sectors for French companies. Geographically, Iran is closer to France than other markets in Asia or America. Culturally, French companies usually don't have big problems to adapt to Iranian ways. I don't think the main reason in French economic presence in Iran is due to</p>	<p>1-Iran could also attract foreign investment in the high-tech industry. Iran could even do what India has done in developing business connected to outsourcing (western companies locating their research, information department in India). But this would imply further reforms(economic liberalization and more stability) in Iran to get the trust of foreign investors. 2-In the agro-business, textile, automotive industry, telecom, pharmaceuticals, high</p>		

		<p>invest in Iran and Peugeot has just done so. I think, other companies, for some reasons, did not act as effectively as French companies.</p> <p>4-2 reasons for more members in AHK than CIFICI; Germany has historically been the first trade partner of Iran. And the German chambers of commerce in foreign countries are very effective, much more than the French chambers. These German chambers located in foreign countries are one of the most decisive actors in Germany foreign trade promoting policy.</p>	<p>its economic structure. It is more a question of the ability of French companies to the opportunities of the Iranian market.</p>	<p>tech, there are huge possibilities of partnership between Iran and French companies to re-export in the middle east and central Asia. I think the main markets for Iran are in the region.</p> <p>3-2-There are opportunities for French companies to invest and produce in Iran because it may be the best strategy to have access to the Iranian market (car, textiles, pharmaceuticals, hotels, etc.). There may be also possibilities to invest in Iran and re-export in the region (car, textiles, etc.).</p>		
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<p>d-26</p>	<p>Potentials for Export from Iran to France-2011</p>		<p>top concluded priorities from comparison between statistics for Iran export and France import at 2011 and 2014 1-Mineral fuels, oils, distillation products, 2-organic chemicals, 3-plastic articles, 4-edible fruits and nuts</p>	<p>Mineral fuels, oils, distillation products, organic and inorganic chemicals and food products are top priorities for export from Iran to France</p>	<p>Top ten opportunities for export from Iran to France; 1-mineral fuels, oils, distillation products, 2-organic chemicals, 3-plastic articles, 4-edible fruits and nuts, 5-Fertilizers, 6-salt and sulphur and..., 7-cooper and articles, 8-Iran and steel, 9-inorganic chemicals, 10-machineries</p>	
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<p>d- 27</p>	<p>Potentials for Export from Iran to France-2014</p>				<p>Top opportunities for export from Iran to France; 1-mineral fuels, oils, distillation products, 2-plastic articles, 3-organic chemicals, 4-edible fruits and nuts, 5-Iron and steel, 6-Ores, slag and ash, 7-salt, sulphur and..., 8-Articles of iron and steel, 9-edible vegetables and certain roots, 10-dairy products, 11-fertilizers</p>	
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<p>d-28</p>	<p>Potentials for Export from France to France-2011</p>		<p>1-a comparison between statistics on export of France and import of Iran 2011 and 2014 shows that 1-machineries, boilers and reactors, 2-electrical and electronics equipment, 3-cereals, 4-vehicles other than railway, 5-pharmaceutical products, 6-organic chemicals, 7-optical, medical and technical devices, 8-miscellaneous chemical products, 9-miscellaneous edible preparations, 10-plastics and articles, 11-aircraft and spacecraft and parts!? 12-steel and iron articles 2-some field are common at lists of priorities for export to Iran and France. among</p>	<p>mainly machineries, electrical and electronic equipment, vehicles, pharmaceuticals, chemicals, foods, and related commodities have priority to be export form France to Iran.</p>	<p>top opportunities for export from France to Iran; 1-machniery, reactors and boilers, 2-mineral fuels, oils and distillation products, 3-Iron and steel, 4-electrical and electronic equipment, 5-vehicle other than railway, 6-plastics and articles, 7-cereals, 8-animal, vegetable fats and oils, cleavage products, 8-pharmaceuticals 9-optical, technical, medical and products, 10-pulp, paper and</p>	
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			<p>them are chemicals and foods. It seems that both countries have competency in them so these fields could be ideal for partnership in production for sale at regional markets.</p>		<p>board, 11-articles of iron and steel, 12-organic products.</p>	
<p>d-29</p>	<p>Potentials for Export from France to Iran-2014</p>				<p>top opportunities for export from France to Iran; 1-machinery, reactors and boilers, 2-cereals, 3-electrical and electronic equipment, 4-vehicle other than railway, 5-iron and steel, 6-plastics and articles, 7-pharmaceuticals, 8-animal vegetable fats and oils, 9-organic chemicals, 10-</p>	

					paper and pulps, 11-optical, medical, and technical products, 12-articles and Iron and steel.	
d-30	Export of France at 2015				main export of France at 2015 includes 1-pharmaceuticals, 2-machineries, 3-medical and technical devices, 4-perfumes and cosmetics, 5-vehicles, 6-electrical and electronic devices, 7-Aircrafts	

<p>d-31</p>	<p>Potentials for Export from France to Iran-2016 a conclusion on opinions</p>				<p>9-Aerospace and Defense, 17-Automobile & Auto parts, 49-Water Utilities, 11-Construction and Engineering, 22-Tourism, Hotels and Entertainment Services, 39-Pharmaceuticals, Biotechnology & Medical research, 32-Banking Services, 16-Transport infrastructure</p>
<p>d-32</p>	<p>Potentials for Export from Iran to France-2016 a conclusion on opinions</p>				<p>1-Oil & Gas, 18-Textile and Apparel, 5-Metals and Mining, 28-Fruit, Vegetables and Farming and Tobacco, 19-Homebuilding and construction supplies, 4-Chemicals, 39-Pharmaceuticals, Biotechnology & Medical research, 45-Software and IT Services</p>

<p>d-33</p>	<p>Analysing Composition of incoming French Delegation to Iran in February 2014 by Section; based on Thompson Reuters Business Classification</p>			<p>A conclusion on the composition of 3 delegation; 13- Professional and Commercial Services, 11- Construction and Engineering, 10- Machinery, Equipment & Components, 28-Fruit, Vegetables and Farming and Tobacco, 2-Oil & Gas Related Equipment and Services, 14- Freight and Logistics Services, 16-Transport</p>	<p>13-Professional and Commercial Services, 2-Oil & Gas Related Equipment and Services, 11- Construction and Engineering, 10- Machinery, Equipment & Components, 17-Automobile & Auto parts, 33- Investment Banking and Services, 45- Software and IT Services, 6- Construction Materials, 14- Freight and Logistics Services, 32-Banking Services, 41-Communication and Networking, 49-Water Utilities, 4- Chemicals, 9-Aerospace and Defence, 16-Transport infrastructure, and....</p>
<p>d-34</p>	<p>Analyzing Composition of incoming French Delegation to Iran in September 2015 by Section based on TRBC</p>			<p>infrastructure, 4- Chemicals, 9-Aerospace and Defense, 33- Investment Banking and Services, 45-Software and IT Services, 17- Automobile & Auto parts, 41-Communication and Networking, 47-Electrical Utilities & IPPs, 49- Water Utilities, 5-Metals</p>	<p>13-Professional and Commercial Services, 28-Fruit, Vegetables and Farming and Tobacco, 11-Construction and Engineering, 16-Transport infrastructure,5-Metals and Mining, 9- Aerospace and Defense, 14- Freight and Logistics Services, 47-Electrical Utilities & IPPs,2-Oil & Gas Related Equipment and Services,49-Water Utilities, and...</p>

<p>d-35</p>	<p>Analyzing Composition of incoming French Delegation to Iran on May 27 - June 2nd 2016 by Section based on TRBC</p>			<p>and Mining, 6-Construction Materials, 27-Food, 39-Pharmaceuticals, Biotechnology & Medical research, 32-Banking Services,</p>	<p>10-Machinery, Equipment & Components, 4-Chemicals, 11-Construction and Engineering, 14-Freight and Logistics Services, 13-Professional and Commercial Services, 27-Food, 6-Construction Materials, 9-Aerospace and Defense, 17-Automobile & Auto parts, 18-Textile and Apparel, 23-Media and Publishing, 28-Fruit, Vegetables and Farming and Tobacco, and...</p>
<p>d-36</p>	<p>trade complementarity between import of Iran and export of France</p>	<p>An study about trade complementarity between import of Iran and export of Germany (blue line), import of Iran and export of Italy (red line) and import of Iran export of France (green line) is done based on information of www.knoema.com. On the other hand this graphs are yearly cosine(Cos) of an angle between vector of import of IRAN and vector of export of</p>	<p>Based on this study, the complementary between Iran and France are considerably less than Iran's complementarity with Germany and Italy which are two big trade partners for Iran at EU. This means that Iran and France comparatively import and export same things and maybe have the same trade structure.</p>		

		France, Germany or Italy(Cosine Index at International Trade).				
d-37	Challenges of Labour costs and high quality educated craftsmen in German Mittelstands	German economy's solid performance is attributable in part to the exporting prowess of so-called mittelstand, which are the backbone of Germany's manufacturing sector. A typical Mittelstand firm is a small to medium, family owned enterprise, often located in a small town or city.	German labour costs are high, but the labour force is well educated and quality oriented. The Mittelstand account for about 60% of Germany's private sector workforce and 38 per cent of corporate sales.	the Mittelstand do face many challenges, of course. Labour costs in Germany are much higher than china or brazil so they must continually innovate and improve their product lines and for this they rely on skilled craftspeople produced by Germany's educational system. But Germany confront demographical challenges for doing so.. In General France have not successes to internationalize its SMEs like Germany but is hungry for doing so. Iran by have good internal and regional market and a huge volume of potential		Germany has tried to confront this challenge by developing immigration law, vocational trainings abroad and attracting foreigner skilled forces

				high-quality workers can cooperate French SMEs to become internationalized.		
d-38				Dialogues are dominated by Political and Banking issues and still there no place to entrepreneurial topics in between. Among questions of audiences are what is the use of CFICI to make help French companies? 2-cultural work is so important to be done by French and Iranian government(stated by audiences)	Oil and Gas, Automotive, Food and agribusiness and machineries are three priorities of French authorities in Iran.	

<p>d-39</p>		<p>1-the "axis of evil" is badly cracked, 2-Shia Iran has considerable influence on the Middle east and should be used...3-policy of France toward Iran has not been Economically. So we have loosed our market share. This gap is filled by Korea, China and some other European counties 4-sanction have severely affected French companies than others. 5- we observed machineries from Germany and Italy. 6-in before we had a very excellent image in Iran. 7-EU must emancipate itself from American influence 8-Iranian government consider France as key political, economic and cultural role player in the International scene.</p>			
<p>d-40</p>		<p>1-Iran 20 years of closure have significantly hampered the development of the Tourism sector. However, I noticed the presence of many American, French, Italian Tourist and construction of Hotel and infrastructure to meet the demand, 2-The Risk is still tremendous and absence of banking channels still prevent to fund activities</p>	<p>countries like the U.S., Saudi Arabia, U.A.E and Israel shows sabotage against trade promotion between Iran and France.</p>		
<p>d-40</p>		<p>1-relations of Iran with countries like Saudi Arabia has an effect on Iran-France trade stream. 2-distrust between two sides shall be reconstructed by French entrepreneurs who</p>			

		express their interest in doing business with Iran			
d-41		1-if the MEDEF negotiate openly, Americans haggle for their share in the greatest secrecy, 2-Beurcracy, Corruption, rate of privatization and economics reform of government are leading issues affect Trade between Iran and EU			
d-42		1-there is not financial channels necessary for implementations of projects, 2-trade with Iran will not developed if US bank and OFAC continue their pressure on EU banks. 3-doing business atmosphere of Iran is not good based on WB ranking in terms of bureaucracy and corruption. 3-main presence of French in Iran has been academically than economically, 4-bureaurcacy is monolithic, tax system is vague, 5-labour legislation is very rigid, there are ambiguities in the Law of FDI 6-some laws in Iran like article 44 of Iranian constitution limit FDI, 7-In some case implementation of contracts need approval of Iranian parliament, 8-term Joint-venture has not same meaning at Iran and west laws	there are potentials for work in oil and gas, automotive, foods and SMEs		

<p>d-42</p>		<p>1-when French companies turn to their banks to invest in Iran, they threaten simply delete the accounts of their society. Indeed, financial institutions, and even more companies are blacklisted and banned access to the dollar as soon as it is about to operate in Iran. The risk is real. We are often countered that German banks are able to conduct operations in Iran. However, it is understood that the German banking system is different from ours. Indeed, Germany has regional banks that have no interest or subsidiary in the US, which greatly facilitates their transactions because they are not exposed to risks of retaliation. Indeed, Germany has regional banks that have no interest or subsidiary in the US, which greatly facilitates their transactions because they are not exposed to risks of retaliation. However, the big banks and the big German groups face the same challenges as their French counterparts and often choose not to operate in Iran not to jeopardize their interests in the United States.</p>			
<p>d-42</p>		<p>in response to audiences questions; about precautionary of the French government, MEDEF or ... I think part of French political class is under the influence or pressure of groups themselves under the influence of foreign countries and manifest a strong resistance. To counter this resistance, we should use media to inform the public of the</p>	<p>Countries like the U.S., Saudi Arabia, U.A.E and Israel shows sabotage against trade promotion between Iran and France.</p>		

		real risk of trade with Iran			
d-43		<p>1-Iran is 2nd and 4th in the world and have 18% and 10% Gas and Oil reservoirs. 2-although this country represents less than 5% of world productions, Thus the country need to develop this industry. And these factors has made in interesting for US. 3-TOTAL was first company return to Iran after was with Iraq. total did 4 projects in 4 billions\$. At 2008 it decided to exit. Company still have a very good reputation and links among Iranian authorities. 4-Buyback contracts had shortcomings(reservoir recovery, variable remuneration. etc..) that is tried to be improved at new ones, IPC contracts....</p>	<p>development of shared oil and gas fields and recovery of large mature fields are priorities for Iranian government that is hope to that by Total through IPC. For doing so they also need investment! But they are confronting many challenges for this.</p>		
d-44		<p>1-at our trip to Tehran, I ignored instructions to not talking to the press. This show the extend of control on delegation and organization. 2-this moment reflects the will of Iranian and French companies again despite contrary orders of the U.S and some French ministers! 3-at 2010, Iran was the second market for PSA and 8th for Renault. 4-Iran have significant market Potential, 5-if sanctions lifted Iran enjoy the opportunity to export to neighbouring countries like Iran. 6-Chinese have developed their market in our absence. 7-we should regain our place before the Iranian market open completely. 8-Problem of importing parts shortly will be removed by money transfer issues still is</p>	<p>1-instructions show extent of forced imposed by U.S. Jewish and...</p>		

		remained because absence of French banks.			
		In response to audiences questions; one result of cooperation between Iran and France is employment at France and Iran and development of world peace. 2-extend of precautionary vs. audacity of French entrepreneurs depend on banking and political issues.			
d-45		1-France has a proven expertise in farming, genetics and industrialization of food products. Also in bakery and cereals, those are important in Iran. Also, in vegetables and Fruits and Wines!. 2-we have had relations form the 1950s with Iran, seminars. 3-because of sanctions Iranians forced to provide their needs from china that have had low quality. 4-there is some channels for finance, although have restrictions. 5-I invite French companies to Iran because they have extraordinary engineering and technological skills			
d-46		1-the return of French companies in Iran is not compromised if that is done quickly. 2-we saw very good potentials at companies like MAPNA despite sanctions. Despite oil and automobile, capital goods producers benefit opportunities to maintain relations with Iran. 3-problems are taking export licenses from French			

		government while Germans have not this issue			
d-47		<p>1-in Tehran we perceived that it is very necessary to restore the trust!</p> <p>2-Regarding the blocking of banking, we propose designing viable routes, like using a facility that is not exposed to the US and that is not likely to be retaliated against, e.g. Postal bank. 3-delegation proposed building a partnership deep and lasting economic between France and Iran. The Islamic Republic may become an important economic partner for our country and in this respect, one could envisage cooperation between our two countries on major project. We need a trading office in this regard ASAP. 4-delegation proposes to encourage generally the cultural cooperation between France and Iran, by promoting proactive policy. It is true that cultural, ties have unfortunately distended and many projects are still rebuilding. 5-delegation invites them to maintain contact on site by building personal relationships and organizing regular visits. So it is urgent for French companies to prepare their return to Iran.</p>	<p>Five recommendation of senate committee regarding trade promotion with Iran; 1-Basing our bilateral relations on the values of respect and transparency, 2-Restore effectively (an independent) financial and banking flows between France and Iran, 3-Build a profound and lasting economic partnership, 4-Promote a policy of cooperation in cultural matters, 5-To encourage French companies to work with Iran</p>		

<p>d-48</p>		<p>1-main importing from France; Germany, Belgium, Italy, Spain, U.K., U.S.A, Netherland. 2-main exporting to France; Germany, china, Belgium, Italy, U.K., Spain, Netherland, 3-main imports of France; machineries, automotive parts crude oil airplane, Pharmaceutical, plastics, 4-main exports of France; machineries, transportation equipment, airplane, plastics, pharmaceutical, steel and Iran and Beverages, International trade volume of France decreased from 2.1 Billion\$ in 2008 to 0.6 Billion\$ in 2013</p>		<p>main trade of France is through OECD</p>		
<p>d-49</p>	<p>1-main problems are; most of the French companies don't have enough information about Iran and usually use brokers. 2-there is not serious trade promotion agency or organization for IR-FR trade deals.</p>	<p>1-last preferential trade agreement signed between IR-FR refer back to 2003-2004</p>	<p>reasons to promote trade with France; 1-France is a permanent member of security council, 2-Iran has had collaborations with France in terms of Oil, gas and petrochemical, energy, automotive, electrical equipment, glass and cement, Telecom and aviation</p>	<p>recommendations; 1-holding informational seminars, 2-holding cultural days of France</p>		

d-50		<p>The labour productivity level of France is one of the highest in Europe. OECD, 2012 Exports \$505.9 billion (2015) to Iran d-48</p>		<p>in comparison to the U.S.A and Arab states, volume of trade between Iran and France is negligible so they could impose pressure on France not to develop trade with Iran</p>		
d-51			<p>country ranked 34 below the regional average(26)OECD high income</p>	<p>Doing business environment of France is not ideal in terms of tax and labour costs</p>		
d-52		<p>Key Issues of BMO Management</p>		<p>Germany via companies like SEQUA have very well-grounded programs to communicate with SMEs and associations in target markets.</p>		

<p>d-53</p>	<p>1-a market with 80 million customers, Chinese, Koreans, Germans and Italians have an interest too. 3-people have a thirst for trading, ...4-there problems to...Banking issues. Bankers threaten their customers to deal with Iran; transportation insurances are not provided. Still, interest rates are high, ....5-we must keep confidentiality, 6-French companies who have not assets in the U.S. remained in the market. 7-it is important to specify the law system working for each contract</p>			<p>A limited number of French banks work with Iran, which is small. Among them are Wormser Feres and Delubac & Cie</p>		
<p>d-54</p>	<p>1-finalizing the contracts and payment issues are problems, 2-French need a clear signal from U.S treasury. 3- Prohibition on the U.S dollars by the U.S have stopped French banks. 4-But Germans, Belgians and Italians work hard, 5-although currency transfers costs are considerable about 1.5-2% 6-regulatory are same with Europe and further in some cases. 7-loans are expensive(20%), Iranian companies have problems to collect their working capital 8-SMEs working with Iran should accept long payment from Iran, e.g. six months. 9-some European SMEs are trying to clear with their Iranian partners through barters to avoid direct transaction. 10-foreign trading with Iran go through financial intermediaries, 11-there are two currency exchange rates that should be considered at accountancy systems. 12-SMEs are tempted by business with Iran despite financial issues. 13-for doing business in Iran, there need to have a lawyer</p>					
<p>d-55</p>		<p>An incredible optimism just after JCPA shaped and one of its results was MEDEF travel to Iran as the first delegation</p>				

		with 130 members. They told to be confidential!			
d-56		Arrival of French companies in fields like pharmaceutical, health and FMCG will be faster than the automotive and oil industry. Although companies like PSA, Renault and Citroen are going to come back soon.			
d-57		1-France has no suitable economic situation, so companies basically welcome any proposal for partnership. 2-French companies can impose forces on their government to show more flexibility against Iran to improve employment and economy of France. 3-Although U.S regularly express his opposition.			
d-58		1-we don't force to decrease our presence in Iran because we don't have had any business with U.S. 2-Although we forced to change our name and Brand, this could harm our business in Iran, but by presenting high-quality services, we could attract and keep Iranian costumers.	companies/businesses that work mainly in Europe, Asia and Africa and/or don't have major trades with the U.S could be good candidates for trade promotion with Iran		

<p>d-59</p>		<p>Despite French business practitioners, French politician mainly are reluctant or opponent to business promotion with Iran. incoming delegations mainly have just investigated the Iranian economy and business environment, they try to meet and find potential partners but they finally they are waiting for new political stance of Iranian, U.S, European and other governments</p>	<p>business practices at the time are not more than meetings! People are waiting.</p>		
<p>d-60</p>		<p>We are waiting for political stance and situations in Iran and U.S. moreover we welcome any proposal form Our Colleague at NIOC.</p>			
<p>d-61</p>	<p>Sanctions were commonly evaded through money laundering, which discouraged foreign banks from operating locally.</p>	<p>1-In particular, consumer-oriented sectors are counting on Iran’s large (nearly 80 million), young (more than 60% under 30 years old), and urbanized (more than 70%) population to be loyal customers in the future.</p>	<p>How does plan for doing business in Iran; Updating global compliance policies, Overcoming a lack of market data, Finding the right local partners, Reclaiming brand equity. Accessing foreign exchange.</p>		

<p>d-62</p>		<p>1-Iran-Germany Chamber of Commerce(AHK) have more than 2000 members, 2-This organization is located in three store building, 3-have training, publication, market research, Visa, membership, exhibition, hosting and sending delegations, and many other value adding services focused on German and Iranian SMEs</p>	<p>How to plan for doing business in Iran; Updating global compliance policies, Overcoming a lack of market data, Finding the right local partners, Reclaiming brand equity. Accessing foreign exchange.</p>		
<p>d-63</p>	<p>Banking problems still is remained, French companies fear not being paid. Add risk of reinstatement of sanctions; snap-back. And election of Trump!</p>	<p>1-if nothing change in banking system, most of contracts signed don't implemented, 2-French bank are reluctant to Iranian projects, at the time just 3 small French banks work with. 3-the case of BNP was a trauma for bankers and have frightened them. 4-OFAC and U.S. have a two side position; they say there is no problem and later they said but be Cautious! 5-despite some German Landesbanken that are not exposed to dollar, most major French banks have subsidiaries in U.S. Italian, German and Belgian banks in comparison to French are more proactive and issued credit insurance coverage. also Indian, Chinese and Turkish banks.</p>	<p>French companies who have a big business in the world or have a big business with U.S. Scarce! But companies who have not business with U.S or have small business have high motivation to work. Probably Iranian companies look after first group!!? 2-to get rid of this dead</p>		

				end working on SMEs who have not to fear on the U.S or can offset this by benefits of Iran market, is needed.		
d-64			some French parliament members said France is ready to lift money and banking obstacles4/27/2014, but it has not implemented yet!	there are some friends among French politicians but they not so powerful, they should be strengthened by Iran		
d-65		France is going to open a trade promotion office at Tehran	It's one year that France has declared the establishment of an office in Tehran but...	although French SMEs are interested and needy to such initiatives by that is not supported by bureaucracy and big companies of France yet still		
d-66		12 questions on Saipa-Citroen agreement on June 2016		some people inside Iran have a very critics view toward contract between		

				Iran and France at cases like total, Citroën, Peugeot and...tech transfer and monopoly are among these criticisms		
d-67			Brokers' footprint in the attraction of foreign investment to Iran after JCPA	Complicated procedures, augmented hardships by opportunist brokers, mainly Iranian and non-transparency, have magnified presence of brokers in this market!		
d-68		France does not want to be left behind Germany and china at Iran Market.				
d-69		A survey on attitudes of Iranian to Foreign cars shows that 64% prefer German, 17% Prefer Japanese, 7% Prefer French, and 6% Prefer Korean and Chinese Brands		this show there is no considerable difference between French and Korean and even Chinese Brands of automotive at economy class		

<p>d-70</p>		<p>France fishery industries valued about 1 billion dollars at 2015</p>		<p>there are potentials to cooperate in fishing and fisheries industries and management and sustainable use of recourses</p>		
<p>d-71</p>		<p>IKAP established as a joint venture between Saipa and Citroen</p>				
<p>d-72</p>		<p>Iran-France cooperation at Agro-food</p>		<p>Business France in Iran works like AHK but is small and affiliated to Government, CIFICI is not recruited as much as should!</p>		
<p>d-73</p>		<p>Iran-France trade value has been decreased from 2 billion to 0.5 through a decade</p>		<p>A decade of failure at Iran-Fran trade relations</p>		

d-74	Why French automakers don't reveal their agreements in detail			French who basically have signed contracts at MNE scale and confronted with critics on their politics at Iranian and French extremist, inevitably have become Peugeot.		
d-75		Iran-France import and exports in April and May 2016				
d-76		A review on Iran-France relations				
d-77		Iran-France deals is hoped to raise to 5 billion dollars				
d-78		Oil companies do not arrive in Iran until the 2017 elections				
d-79				Agriculture and food, industrial equipment, water utilities and		

				treatment, aircraft, Hi-tech and knowledgebase companies and Tourism have priority to cooperate		
o-80	1-arrangement between IR-FR SMEs, 2-Business France and CFICI are(still) Big oriented! 3-French have communication problems, 4-FR brand reputation is harmed,	1-IR-FR trade complementarity is less and IR-GE, 2-GE have more SMEs than Fr. 3-GE have better networking with Iranian SMEs, 4-French are more Cautious 5-there has not been implemented advertising campaigns for advertise Iranian companies capabilities, 6-many French consider Iran as an Saudi Arabia with 80 million population, 7-main trade stream of -IR-FR is through cooperation rather that import-export. 8- both side have focused on Big companies in these years.	1-GE have work in its SMEs in Iran while FR with MNEs 2-IR & FR both have competencies in Their big companies. 3-so they have focused on big companies to promote their trade rather than SMEs. 4-this plus French banks reluctance, have their trade more political and more Cautious despite Germans.	direct import and export basically have less priority between Iran and France rather than between Iran and Germany and Iran and Italy. On the other hand both countries have competencies in the same field so they should work on mutual investments. In this regard they have focused on bog companies and forgot MNEs, there are obstacles like both side Bureaucracy and weakness of middle size enterprises, banking issues and lack of specialized coordinating		

				agencies.		
o-81		French companies are more Cautious toward Iran market than Germans.				
d-82		French have special interest in Iranian culture, poems and ..., there is an emotional closeness in between, French men have a special interest to marry with Iranian women,	this cultural competencies and interests could be managed and leveraged toward both sides trade promotion and reinforcement			

<p>o-83</p>		<p>1-politics dominated French international trade 2-Many of political authorities of France have a top-down view to Iran</p>	<p>1-like Iran, French international trade policies are dominated by politics, this beside major role of big companies at international trade of Iran and France, big deals in the dollar between France and US and between France and Arab states have made IR-FR trade more and more politicalized! 2-despite French business sector, many of the French politician have still a colonial view toward Iran</p>		
<p>o-84</p>		<p>1-In France there is lobbying like all over the world. 2-here there are many people who have contacts and links...</p>	<p>lobbying in France relies on persons, but because of there business focus(on big companies) they have forced to use politics more and more...and try to make a balance between their Arab, Russian, Iranian, Israeli or American partners.</p>		
<p>o-85</p>				<p>reliance on big deals have made French trade, lazy, politicalized and fragile like Iran.the solution is</p>	

				SMEs		
o-86		<p>A review on the news on incoming delegations and meeting and travels through 2013, 2014 and 2015 show a MOMENTUM shaped at among IR-FR to promote the trade, but from mid-2015 till now this momentum gradually vanished. Reluctance of significant banks and fear of America affect French trade considerably because it had and have mainly big companies to pave the trade road. In this situation, they could not accept this risk, mainly before U.S elections.</p>				
o-87		<p>Reference to contact with TPO, this research could be cloned by TPO to provide trade promotion road maps between Iran and other countries.</p>				
o-88		<p>Baden-Württemberg state of Germany and Iran Small Industries & Industrial Parks Organization (ISIPO) signed an agreement on cooperation between SMEs</p>				

<p>o- 89</p>	<p>- inflation,- infrastructure, - ease of doing business, bureaucratic paperwork and delays, US sanctions not yet removed, control by Iranian authorities, corruption, - trust between French and Iranian actors, reliability of Iranian actors (financial, judicial,...)</p>	<p>France and the UK are competing for the place of second economy in Europe and fifth worldwide. London is competing for the top spot as leading global financial center worldwide.</p>	<p>French big companies don't work with French banks</p>	<p>Establishment of a financial startup by an Iranian entrepreneur in France would require comparative researches on the visa policies for Iranian citizens. Generally speaking, France offers an excellent framework to launch a startup and especially a financial one due to the quality of France's engineers and mathematics research. Many Iranians have already launched their startup in France.</p>		
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<p>o- 90</p>	<p>On May 8, 2018, the United States withdrew from the Joint Comprehensive Plan of Action. Many large European companies like PSA and Siemens declared they leave the country</p>	<p>European Union is going to provide a guardianship package to support European companies who want to keep their deals with Iran and guarantee a sustainable import of crude oil from Iran to keep Iran in JCPOA</p>	<p>With regard to the reluctance of large companies to work with Iran, EU is going to invite many SMEs to cooperate with Iran; this certifies first proposition of this research as is advised in the Farsi version of the thesis 18 months ago!</p>			
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