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## Tourism leakage of accommodation in Bali

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**DISSERTATION**

**TOURISM LEAKAGE FROM THE ACCOMMODATION  
IN BALI**

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**INDONESIAN-FRENCH DOUBLE DOCTORATE DEGREE  
IN TOURISM  
UDAYANA UNIVERSITY, DENPASAR  
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2015**

## DECLARATION OF ORIGINALITY

The work presented in this dissertation is, to the best of my knowledge and belief, original except as acknowledgement in the text. I hereby declare that I have not submitted this material either in whole or in part of a degree at this University or any other institution

Denpasar, April 29, 2015

I Gusti Ayu Oka Suryawardani

## ABSTRACT

### TOURISM LEAKAGE OF ACCOMMODATION IN BALI

Tourism has become the leading economic sector in Bali Province of Indonesia. However, the economic impacts of tourism have not been convinced to be fully beneficial for Balinese community. One of the reasons is tourism leakage that occurs when the industry imports both products and services to support tourism industry in Bali. So far, the amount of tourism leakage in Bali has not been calculated yet. Therefore, there is a need to ascertain the current amount of leakage in Bali tourism.

The objectives of the study are: (i) to calculate the amount of tourism leakage from accommodation sector in Bali at micro (industrial) level; (ii) to calculate the amount of tourism leakage from accommodation sector in Bali at macro (regional) level; (iii) to evaluate the impacts of government subsidies and import reduction by accommodation sector on tourism leakage, job opportunity and income distribution; (iv) to evaluate the perception and preference of foreign tourists on imported and local products as well as the willingness of foreign tourists to spend their money to benefit of Balinese people; (v) to evaluate the points of view of hotel managers related to imported and local products as well as their willingness in reducing the use of imported product and (vi) to develop strategie in minimizing tourism leakage in accommodation in Bali.

Research was designed through quantitative and qualitative approaches. Data was collected by using survey method at four main tourist destinations in Bali, namely: Kuta, Nusa Dua, Sanur and Ubud. There were 79 hotels selected based upon probability proportional to size sampling method which consists of three clusters namely 1,2,3 Star-rated, 4&5 Star-rated either chain and non-chain and Non Star-rated hotels. The number of respondents was 600 foreign tourists were selected as respondents. Calculation of tourism leakage on micro analysis was undertaken by using a method developed by Unluonen, et. al. (2011), meanwhile, on macro analysis was carried out by using a method proposed by Thorbecke (1988) which was based on the Social Accounting Matrix (SAM) of Bali 2010. Perception and preference of foreign tourists on imported and local products were analyzed by using JMP program, meanwhile, Interpretative Structural Modelling (ISM) was undertaken to develope strategies.

The results show that based on the micro analysis, the highest tourism leakage of accommodation sector in Bali is at 4&5 Star-rated chain hotels (51.0 %), followed by 4&5 Star-rated non-chain hotels (22.7 %), 1,2&3 Star-rated hotels (12.0 %), Non-star rated hotels (8.8 %), and with the average leakage of 18.8 %. Based on macro analysis, tourism leakage of accommodation sector in Bali are as follow: (i) Leakage of Non Star-rated hotels is 2.0 %; (ii) Leakage of 1,2&3 Star-rated hotels is 15.7 %; (iii) Leakage of 4&5 Star-rated non-chain hotels is 7.1 %, (iv) Leakage of 4&5 Star-rated chain hotels is 55.3%; and (v) Average leakage of all types of accommodation is 19.5%. Foreign tourists significantly look for local products and are willing to spend their money for Balinese people. Hotel managers are willing to use local product as long as local products are available to substitute the imported products. Strategies for minimization tourism leakage are optimizing the potential of local products, develop agriculture and livestock; reduce the use of imported products for tourists, improve quality of local products and human resources, empower community, urge government to develop and implement supporting policies in minimizing tourism leakage, establish policy on restriction of foreign investment on accommodation in Bali, improve the role of Ministry of Foreign Affairs, Ministry of Industry, Ministry of Trade and Ministry of Tourism and Creative Economy. 7 Ps of marketing mix on service: product, price, place, promotion, people, process and physical evidence need to be implemented in order to support sustainable tourism in Bali

Key words: tourism income, tourism leakage, accommodation sector, Bali.

## SUMMARY

Tourism has been a driving force of economic development in Bali Province and has become the leading economic sector in Bali's economy. However, the economic impact of tourism development has not been convinced to be fully beneficial for Balinese community. There is a phenomenon that tourists' expenditures have not been totally become tourism income of Bali's economy due to some incomes leak out the destination, called tourism leakage, in the form of payment for imported products and services, payment of wages for foreign employees, and profit transfer to foreign owners. Leakage could be defined as losses from the national income flows which have been generated during the transition from the local/national consumption income cycle to the spending chain (Bull, 1991). So that, there is a need to ascertain the current amount of leakage on accommodation occurred in Bali tourism.

The objectives of the study are: (i) to calculate the amount of tourism leakage from accommodation sector in Bali at micro (industrial) level; (ii) to calculate the amount of tourism leakage from accommodation sector in Bali at macro (regional) level; (iii) to evaluate the impacts of government subsidies and import reduction by accommodation sector on tourism leakage, job opportunity and income distribution; (iv) to evaluate the perception and preference of foreign tourists on imported and local products as well as the willingness of foreign tourists to spend their money to benefit of Balinese people; (v) to evaluate the points of view of hotel managers related to imported and local products as well as their willingness in reducing the use of imported products and giving the priority

on local products; and (vi) to develop a strategy in minimizing tourism leakage in accommodation sector in Bali.

Research is designed through quantitative and qualitative approaches. Quantitative analysis was undertaken in order: (i) to calculate tourism leakage by using micro and macro analysis; (i) to calculate tourism leakage by using micro and macro analysis (ii) to analyze perception and preference of foreign tourists on imported and local products; and (iii) to assess the willingness of foreign tourists to spend their money for the benefit of Balinese people. Calculation of tourism leakage through micro analysis was undertaken at industrial level (hotels), meanwhile macro analysis was undertaken to calculate tourism leakage at macro (regional) level. Qualitative analysis was undertaken in order: (i) to evaluate hotel managers' points of view regarding the use of imported and local products, and their willingness in reducing imported products; and (ii) to develop strategy in minimizing tourism leakage based on Interpretative Structural Modeling (ISM).

Calculation of tourism leakage on micro analysis was undertaken by using a method that was developed by Unluonen *et. al.* (2011). Data were collected by a survey at four main tourist destinations in Bali, namely: Kuta, Nusa Dua, Sanur and Ubud. There were 79 hotels selected as sampling hotels. Sampling was undertaken based upon a probability proportional to size sampling method. Three clusters of accommodation were chosen, namely: (i) 1,2&3 Star-rated hotels; (ii) 4&5 Star-rated chain hotels, and 4&5 Star-rated non-chain hotels; and (iii) Non-star rated hotels. Meanwhile, calculation of tourism leakage on macro analysis was undertaken by using a method proposed by Thorbecke (1988). Calculation

was based on the Social Accounting Matrix (SAM) Bali 2010 and other related data.

Perception and preference of foreign tourists on imported and local products as well as assessment of the willingness of foreign tourists to spend their money for the benefit of Balinese people were analyzed by using JMP (John's Macintosh Project), a software program from SAS Company. Moreover, analysis of significance of variables is supported by Likert scale on seven scale categories.

The results show that:

- 1) Based on the micro analysis, tourism leakage of accommodation sector in Bali are as follow: (i) Leakage of Non-star rated hotels is 8.8 %; (ii) Leakage of 1,2&3 Star-rated hotels is 12.0 %; (iii) Leakage of 4&5 Star-rated non-chain hotels is 22.7 %; (iv) Leakage of 4&5 Star-rated chain hotels is 51.0 %; and (v) Average leakage of all types of accommodation is 18.8 %.
- 2) Based on macro analysis, tourism leakage of accommodation sector in Bali are as follow: (i) Leakage of Non-star-rated hotels is 2.0 %; (ii) Leakage of 1,2&3 Star-rated hotels is 15.7 %; (iii) Leakage of 4&5 Star-rated non-chain hotels is 7.1 %; (iv) Leakage of 4&5 Star-rated chain hotels is 55.3%; and (v) Average leakage of all types of accommodation is 19.5%.

Central, provincial and local government play an important role in minimizing tourism leakage, increasing job opportunity and increasing income distribution through policies on giving subsidies. Involvement of accommodation sector was also crucial through minimizing the use of imported products and services, and the utilization of foreign employees. The optimum result was found

through a simulation by using a scenario (simulation-5), in which the government gave subsidies about 40% to Non Star-rated hotel and about 18.5% to 1,2&3 Star-rated hotels. At the same time, accommodation sector also reduced import about 25% on 1,2&3 Star-rated hotels and about 30% on 4&5 Star-rated chain hotels. This simulation-5 resulted in: (i) Decreasing the average leakage by 12.0 % (from 19.5 % to 7.5 %), (ii) Increasing job opportunity by 14.8%, and (iii) Increasing income of low class of people in urban area by 0.26%.

The results show that the average score of perception of foreign tourists on perceived quality of local products was higher than imported products, in which the average score of local products is 5.59 out of 7 scale (categorized well) while imported products is 5.24 (categorized good). Most of foreign tourists (76.8%) preferred local products. Regarding relationship between preference of foreign tourists and their perception on the quality of local products, the statistical results show that there are perfect positive relationships between tourists' preference and their perceived quality of local products. These findings demonstrate that foreign tourists significantly look for local products that are available in Bali.

Different points of view are found between foreign tourists and hotel managers regarding local products. Hotel managers thought that foreign tourists preferred imported products. The reason of hotel managers in choosing imported products is that the quality of imported products is better than local products. Meanwhile statistical results indicate that foreign tourists significantly look for local products. There is a need to encourage hotel managers to change their perception and attitude about local and imported products. The results of this

study support the above idea, in which most of hotel managers are willing to reduce the use of imported products and giving the priority to local products as long as quality and continuity of local products are available in order to substitute the imported products. The less imported products consumed by foreign tourists, therefore tourism leakage will also decrease.

Strategy of minimization of tourism leakage in accommodation sector in Bali is developed based upon the results of Interpretative Structural Modeling (ISM). There are six groups of strategy proposed according to six elements of minimization program for tourism leakage in accommodation sector. Each strategy is composed based on the key elements resulted from ISM. Some of important strategies are: (i) to optimize the potential of local products; (ii) to develop agriculture, livestock, fisheries and handicraft industry; (iii) to empower community; (iv) to reduce the use of imported products for tourists; (v) to urge government to develop and implement supporting policies in order to minimize leakage; (vi) to establish International Trade Policy that reduces import and increases export of local products; (vii) to facilitate public-private partnership on investment in tourism; and (viii) to improve the role of Ministry of Foreign Affairs in promoting Bali tourism worldwide and to encourage tourists to consume local products.

Marketing strategy to minimize tourism leakage in Bali can be undertaken based on the 7 Ps of marketing mix on service and hospitality approach namely product, price, place, promotion, people, process and physical evidence in order to support sustainable tourism in Bali. Process of delivering products and services to

the consumers and participation of people/participants are really important in order to minimize tourism leakage of Bali tourism, including participation of people in developing tourism products, supported by reasonable price, appropriate promotion tools, availability of local transportations in the spots destination which have lower impact on the environment and physical evidence of the products and service offered to the appropriate target market. The final purpose is to achieve sustainable tourism through ensure the quality, continuity and balance between the needs of tourism, protection of the environment and prosperity for the local community, which means that the economic benefit of tourism should not only for the companies concerned but also for the local communities as the host.

It is concluded that tourism leakage needs to be minimized. Quality of products and human resources are crucial to be addressed in order to minimize tourism leakage. By giving more benefits from tourism to the community, it means that quality of life of community will improve, quality of environment will be maintained and improved, and therefore better quality experiences for tourists will be.

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## LIST OF SYMBOLS

$\Sigma$	means	sum of
( )	means	in bracket
$\leq$	means	less than
$\geq$	means	more than
=	means	equal to
$\neq$	means	not equal to
+	means	plus
-	means	minus
$\times$	means	multiply
:	means	devided by
%	means	percentage
F1	means	Country of residence
F2	means	Large code of residence
F3	means	Periodicity viciting Bali
F4	means	Visit more than 5 times
S1	means	Satisfaction of accommodation and restaurants' services in Bali
S2	means	Satisfaction of the whole trips
S3	means	Satisfaction on the level of emotion during visiting Bali
S4	means	Satisfaction on the level of expectation
M1	means	Reason for coming (Visit Friend and Relatives/VFR)
M2	means	Main Purpose
M3	means	Activities
P1	means	accommodation
P2	means	restaurant
P3	means	imported meat
P4	means	local meat
P5	means	imported fisheries
P6	means	local fisheries
P7	means	imported dairy products
P8	means	local dairy products
P9	means	imported fruits
P10	means	local fruits
P11	means	imported vegetables
P12	means	local vegetables
P13	means	imported beverages
P14	means	local beverages
P15	means	building style
P16	means	furniture
P17	means	room decoration
P18	means	architecture
B	means	Benefit for Balinese

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# **PART I**

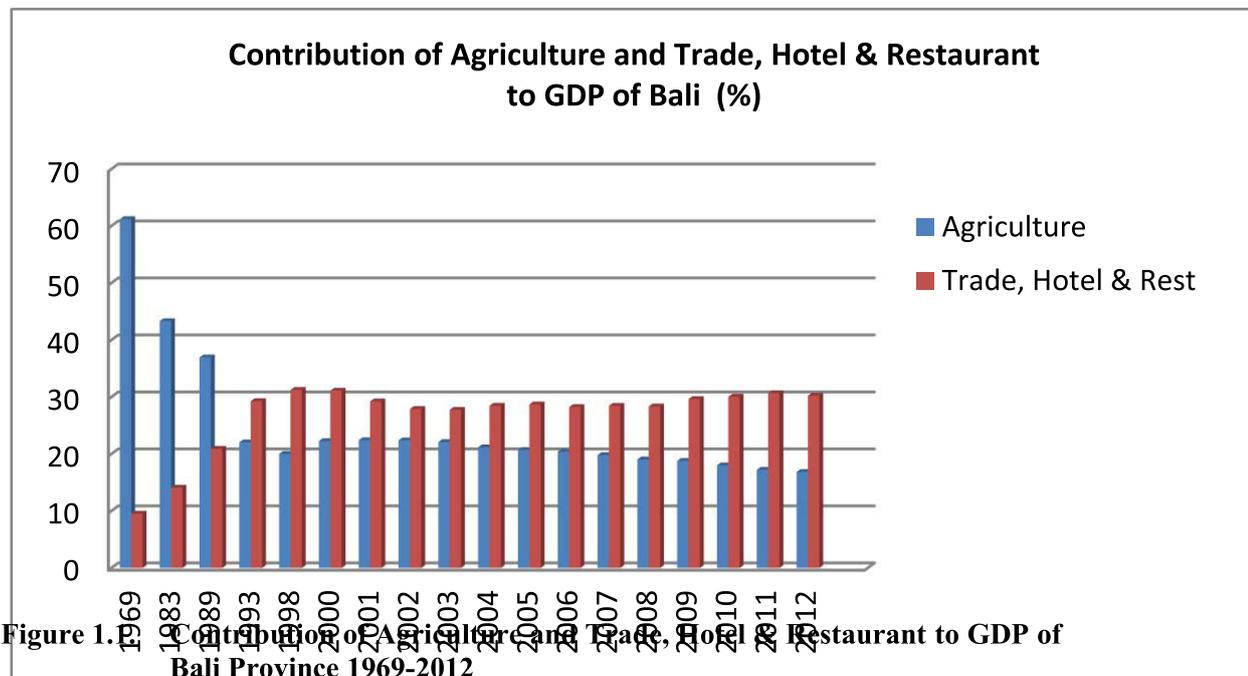
**INTRODUCTION  
LITERATURE REVIEW  
RESEARCH FRAMEWORK AND CONCEPT**

## CHAPTER I INTRODUCTION

### 1.1 Background

Bali has been known as one of the most popular tourist destinations in the world due to its cultural activities and natural scenery. Tourism has now become a driving force in the economic development of Bali Province and has become the leading economic sector in Bali's economy. As Bali's economy has been developed mostly through tourism, the development of the tourism sector in Bali has resulted in an economic shift away from the agricultural sector to the service sector. The contribution of the agricultural sector to the Gross Domestic Product (GDP) of Bali has decreased dramatically from 61.21% in 1969 to 16.84% in 2012 while the contribution of the service sector (trade, hotels, and restaurants) has increased from 9.52% in 1969 to 30.66% in 2012, as can be seen in Figure 1.1. Meanwhile, the contribution of the industrial sector (such as handicraft industry, etc.) has fluctuated but shown an upward trend, growing from 1.67% in 1969 to 9.97% in 2010 (Erawan, 1994 cited in Wiranatha, 2001; Bali Central Bureau of Statistics, 2013), see Figure 1.1. Even though the contribution of the agricultural sector has decreased, however, it still has a crucial role in Bali's economy. This role includes its functions as: (i) a source of jobs and incomes; (ii) a provider of raw materials for agro-industry; (iii) an earner of foreign exchange from the export of several agricultural products such as vanilla, cocoa, seaweed and tuna; (iv) an element in natural resources

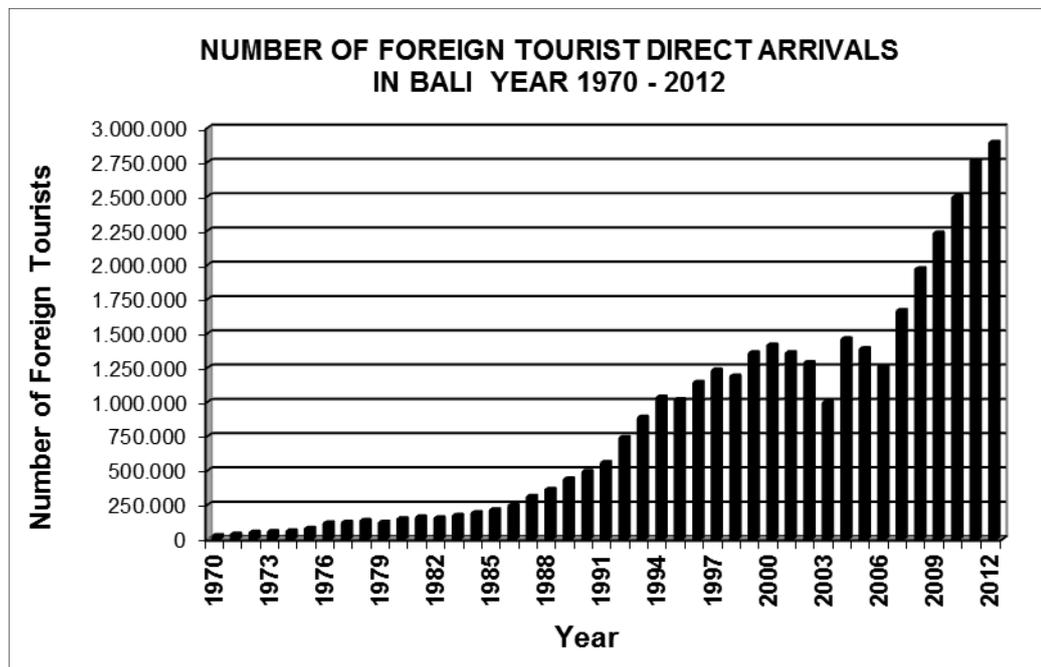
conservation practices; and (v) a tourist attraction for visitors interested in traditional agricultural practices (Antara, 1999 and Wiranatha, 2001).



(Sources: Erawan, 1994 cited in Wiranatha, 2001; Bali Central Bureau of Statistics, 2013).

Tourism in Bali has developed significantly. This can be seen from the increasing number of visitors and tourism facilities. The number of foreign tourist direct arrivals in Bali increased dramatically from 23,340 in 1970 to reach 1,412,839 in 2000. However, the first Bali bombing on 12 October 2002 caused a severe downturn in Bali tourism, and this resulted in a decline in the number of foreign tourist direct arrivals, which dropped to 993,029 in 2003 (refer to Table 1.2). Efforts were undertaken to persuade foreign tourists to visit Bali through a program called “Bali for the World” which was undertaken by the Ministry of Culture and Tourism of the Republic of Indonesia. It can be seen that foreign

tourist direct arrivals increased slightly after the tragedy, i.e. to 1,458,309 tourists in 2004. However, the second Bali bombing in 2005 also led to a drop in the number of foreign tourist direct arrivals, which fell to 1,260,317 in 2006. The Bali bombs had the greatest impact on international tourists visiting Bali if compared to other crises in the history of tourism in Bali (Putra and Hitchcock, 2006). Efforts were undertaken by the government to persuade foreign tourists to visit Bali after the second Bali bombing tragedy. This program, called the “Bali Recovery Program”, was undertaken in 2006 through collaboration between the Ministry of Culture and Tourism and the Bali Tourism Board. Gradual increases in foreign tourist direct arrivals were reported in the following years and by 2012 the number had reached about 2,892,019. During the period from 2007 up to 2012, the average growth rate in foreign tourist direct arrivals to Bali was 14.7 % per year (Bali Government Tourism Office, 2011). The development of foreign tourist direct arrivals in Bali between 1970-2012 is presented in Figure 1.2.



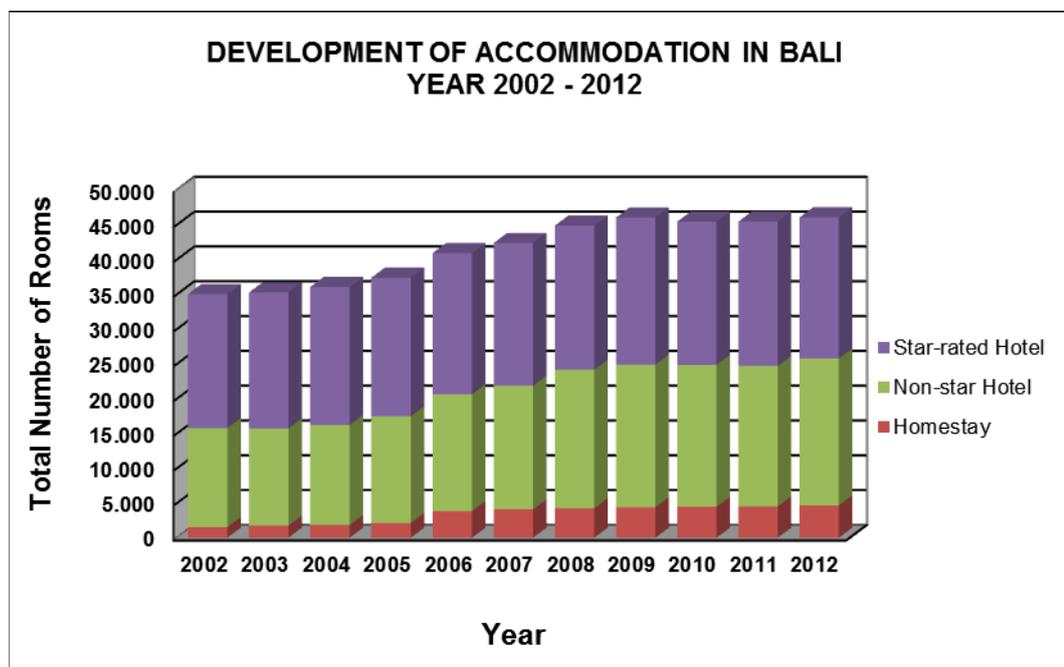
**Figure 1.2. Numbers of Foreign Tourist Direct Arrivals in Bali 1970 – 2012**  
(Source: Bali Government Tourism Office, 2013)

The contribution of Bali tourism to the Indonesia tourism can be seen from direct arrival of international tourist who visit Bali and Indonesia. Data from the Bureau of Statistical of Indonesia shows that the number of direct arrival of foreign tourist to Indonesia in 1997 was 5,185,243 tourist and the number of direct arrival of foreign tourist to Bali in that time was 1,293,657. This means that the contribution of Bali tourism to Indonesia tourism in 1997 was 24.9%. Meanwhile, in the year 2014, the number of direct arrival of foreign tourist who visit Bali was 3,731,735 tourist and to Indonesia was 9,435,411 tourist. So that, the contribution was 39.6% in 2014. It can be seen that fluctuative contribution was found during the periods of 1997 and 2014 with the highest contribution was found in the year 2014 and the average contribution was 31.2%.

As a world-class tourist destination, Bali is supported by the availability of infrastructures, including an international airport which provides international access to Bali, and main roads which provide easy access to various tourism facilities and attractions within the region. Data provided by the Bali Government Tourism Office (2013) show that there were 2,212 units of accommodation with a total of 46,025 rooms registered in Bali in 2012. These included 156 star-rated hotels (20,269 rooms), 1,031 non star-rated hotels (21,114 rooms), and 1,025 homestays (4,642 rooms). This growth in registered accommodations in Bali during the period of 2002-2012 is shown in Figure 1.3. However, the figures provided by the Bali Hotel and Restaurant Association (PHRI Bali) differ. They listed a total of 3,346 units of accommodation (62,407 rooms) in Bali in 2011, consisting of 165 star-rated hotels (22,161 rooms), 1,371 non star-rated hotels (28,585 rooms), 1,760 homestays (9,282 rooms), 15 condotels (1,793 rooms), and 35 rental houses (586 rooms). It could be that more accommodation is available in Bali than the above numbers indicate as there are also many more accommodations which are unregistered or operate illegally.

In 2008, there was a world economic crisis. However it did not have an obvious effect on the arrival of foreign tourists in Bali. This can be seen from the number of foreign tourists visiting Bali, which increased dramatically from 1,968,892 in 2008 to 2,2892,019 in 2012, a rise of about 923,127 during 2008-2012 (see Figure 1.2). In addition, the average tourist expenditure and length of stay also increased during this period. The average expenditure of foreign

tourists per person per day increased from US\$ 137.90 in 2009 to US\$ 158.87 in 2011. The length of stay of foreign tourists also extended from 8.75 days in 2009 to 9.27 days in 2011 (Bali Government Tourism Office, 2013). In view of this steady growth in the number of tourists, the average tourist expenditure, and the length of stay, it seems that tourism in Bali will continue to be a promising source of household income for Balinese inhabitants, and contribute to the national exchange rate as well as increase the number of job opportunities.



**Figure 1.3. Number of Rooms Available in Bali in 2002 – 2012**  
(Source: Bali Government Tourism Office, 2013)

Tourism stimulates the development of other sectors, which has implications for increasing business and job opportunities. Fridgen (1996: 157) states that income earned from tourists will become a major source of government revenue, local purchases, local incomes, and import leakage. The

amount of local income generated per unit of visitor expenditure will become a multiplier for Bali's economy through backward and forward linkages. Data from the Bali Central Bureau of Statistics (2011) show that the lowest multiplier effect from the hotel and restaurant sub-sector was contributed by the agricultural and industrial sectors. Backward linkage of Bali tourism performed the second highest after that of the industrial sector, at 1.71, and forward linkage performed the highest amount at 1.87. Backward linkage of 1.71 means that every one dollar of tourist spending generates 1.71 dollars in local income through backward linkage, i.e. impact on related industries. In this situation, outputs of related industries (such as agricultural products, fishery products, livestock products, handicrafts, etc.) are used as input by the tourism industry in order to fulfill demand from tourists. Thus, every one dollar of tourist spending will generate 1.71 dollars income for these other related industries. Meanwhile, forward linkage of 1.87 means that every one dollar of tourist spending will generate 1.87 dollars in local income through forward linkage, i.e. other industries which use the output of tourism industries as input to their industries. This means that output of the tourism industry is supplied to other industries. For example, accommodation in tourism is used as an input by travel agents. Travel agents offer accommodation to tourists in order to gain profits. In this situation, forward linkage of 1.87 means that every one dollar of tourist spending will generate 1.87 dollars income for travel agents. According to Mill and Morison (2009), if output from backward linkage is supplied to the tourism industry from imported products, then the income generated from tourism will leak out of the

country. Similarly, if the industries which use the output of tourism as input belong to foreigners, then the income from tourism will also leak out of the country.

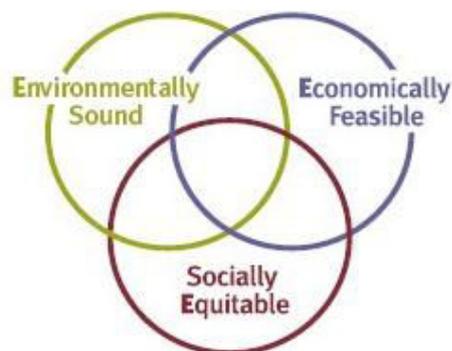
The government of Bali faces the problem of how to maintain the sustainable development of tourism. The concept of “sustainable tourism” derives from the concept of "sustainable development" which has been widely adopted since its appearance in „Our Common Future“ (WCED, 1987). Sustainable development is defined as:

*“ ... development that meets the needs of the present without compromising the ability of future generations to meet their own needs” ... (WCED, 1987:68).*

It contains two key concepts:

- The concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and
- The idea of limitations imposed by “the state of technology” and “social organization on the environment's ability” to meet present and future needs (<http://www.un-documents.net/our-common-future.pdf>).

Elkington (1997) defines sustainable development in terms of a Triple Bottom Line (TBL) that stipulates that development be environmentally sound, economically feasible and socially equitable (see Figure 1.4). The TBL was later expanded and articulated in his book entitled “Cannibals with Forks: *The Triple Bottom Line of 21<sup>st</sup> Century Business*” (Elkington, 1997).



**Figure 1.4. Three Coins of Triple Bottom Line by Elkington (1997:89)**

The concept of sustainable development was later developed into a more specific tourism principle. UNWTO defines sustainable tourism as:

*" ... Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities ... "*  
 (<http://sdt.unwto.org/en/content/about-us-5>).

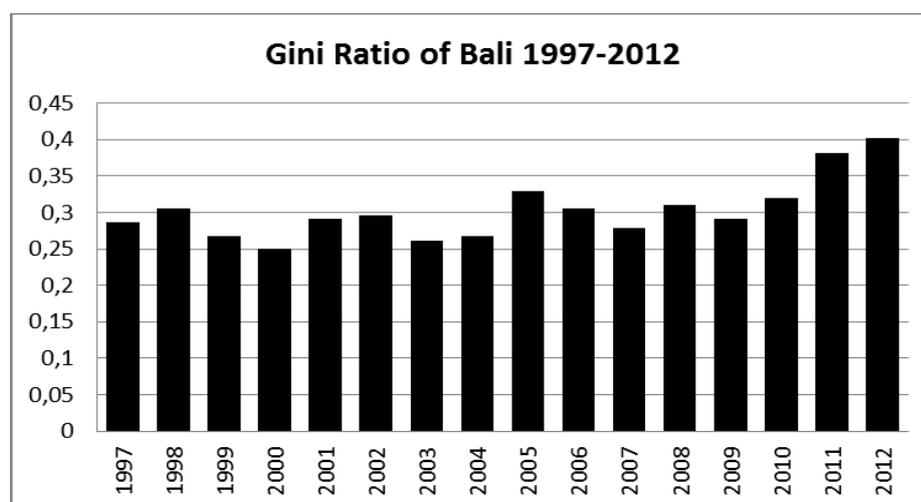
Sustainable tourism development also refers to the environmental, economic, and socio-cultural aspects of tourism development, and a suitable balance must be established between these three dimensions to guarantee its long-term sustainability. In addition, sustainable tourism should also maintain a high level of tourist satisfaction and ensure a meaningful experience for the tourists, raising their awareness about sustainability issues and promoting sustainable tourism practices amongst them (<http://sdt.unwto.org/en/content/about-us-5>). Sustainable tourism is also defined as :

*"... holistic systems that meet the need of present tourists and host regions while protecting and enhancing opportunities for the future. It is envisaged as leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems ..."*  
 (Insula-International Scientific Council for Island Development, 1995 cited from <http://www.insula.org/tourism/charter.htm>).

Furthermore, Elkington (1997) stated that “Triple Bottom Line” means expanding the traditional reporting framework to take into account both ecological and social performance to enhance economic performance. All of those three elements should be coherent with each other, to ensure quality, continuity and balance between the needs of tourism, protection of the environment and prosperity for the local community, which means that the economic benefit of tourism should be beneficial not only for the companies concerned but also for the local communities as the host. The business entity should be used as a vehicle for coordinating stakeholders’ interests, instead of maximizing shareholder (owner) profit, so that it can achieve quality, continuity and balance. Good quality, sustainable tourism provides a quality experience for the visitor, while improving the quality of life of the host communities and protecting the quality of the environment. As regards continuity, sustainable tourism ensures the continuity of the natural resources upon which it is based and the continuity of the culture of the host community with satisfying experiences for visitors. Balanced, sustainable tourism balances the needs of the tourism industry, the natural environment and the local communities. Sustainable tourism emphasizes mutual goals and cooperation among visitors, host communities and destination, in contrast to more traditional approaches to tourism which emphasize their diverse and conflicting needs (WTO, 2007; [http://www.kennuncorked.com/sustainable\\_defined.html#triple](http://www.kennuncorked.com/sustainable_defined.html#triple)).

Even though tourism has brought about development for Bali’s economy for many years, the economic impacts of tourism development have not been

fully beneficial for the Balinese community (Dewi, 2009; Dermawan cited in Wiranatha, 2001). This may be due to several reasons, such as unequal income distribution and unbalanced economic distribution. The income distribution in Bali tends to be unequal, with the downturn of the agricultural sector, which still employs a significant proportion of the labour force (Dermawan, 1999 cited in Wiranatha, 2001). This can be illustrated by the income distribution indicator known as the “Gini Coefficient”. The Gini coefficient is a measure of the inequality of a distribution. It is defined as a ratio with values between 0 and 1. Zero corresponds to perfect income equality (i.e. everyone has the same income) and 1 corresponds to perfect income inequality (i.e. one person has all the income, while everyone else has zero income). The larger the Gini coefficient, the greater the inequality of income distribution between low, middle and high income earners. The Gini coefficient for Bali has increased from 0.29 in 1997 to 0.40 in 2012 (Bali Central Bureau of Statistics, 2013). It shows that income distribution has been getting more unbalanced over these 15 years (see Figure 1.5). Therefore, the elimination of inequality in income distribution is likely to become one of the top priorities of Bali’s economic development.



**Figure 1.5. Gini Ratio of Bali 1997-2012**  
(Source: Bali Central Bureau of Statistics, 2013)

Unbalanced economic distribution is also considered to be a problem in the economic contribution made by tourism. According to Bull (1991), Hudman and Hawkins (1989), Lundberg *et al.* (1991) and Fridgen (1996), one of the causes of unbalanced economic distribution is leakage. They argue that leakages occur when an industry imports both consumption and resources from other countries to support the growth of the industry. Bull (1991) and Lundberg *et al.* (1991) add that, in economic terms, leakages can be defined as losses from the national income flow which have been generated during the transition from the local/national consumption income cycle to the spending chain. Furthermore, Harrison (1992) points out that import can be seen to be a leakage that limits the positive impact of expenditure on a destination. In terms of development of the tourism sector in Bali, the tourism facilities such as big accommodations and big travel agents have been those mostly owned by investors from outside Bali (national or international investors). Therefore, the tourism industry in Bali

seems to be most beneficial to the investors and their small number of employees, as most tourists' expenditure is on accommodation, food and beverages, and tourism transport. In these cases, the economic benefit from tourism is likely to go mainly outside Bali or to other countries, with a small proportion trickling down to the local Balinese community (Dermawan, 1999 cited in Wiranatha, 2001). It can be seen from the Rest of the World account of Bali Province in 2010, that it was about 879.74 billion rupiah in deficit (Bali Central Bureau of Statistics, 2011).

This unbalanced economic distribution as shown by the Gini coefficient of 0.41 in 2012 (refer to Figure 1.5) means that the goal of sustainable tourism development has not been achieved as the economic benefits of tourism have not been received by the host community fairly. As leakage is one factor causing unbalanced economic distribution of tourism benefits to the local community, there is a need to ascertain the current amount of leakage occurring in Bali's tourism.

A study by Rodenburg (1980) is the only reference about import leakage from tourism in Bali. The import leakage was estimated to be about 40% for international standard hotels, and 20% for small economy standard hotels. The import leakage from international standard hotels was estimated from the Nusa Dua Project in 1977, but that from small economy standard hotels was estimated using assumption. There has not yet been any research about tourism leakage in the tourist accommodation sector that has used a combination analysis of micro (industrial) level and macro (regional) level. The focus of the analysis in this

research was on the accommodation sector because the highest percentage of expenditure by foreign tourists in Bali is on accommodation, i.e. 40.5% (Bali Government Tourism Office, 2011).

Regarding the above issues, there is a need to undertake a study to widely improve knowledge related to research approaches, concepts and research methods in tourism leakage both at macro (provincial) level and micro (industrial) level, especially with regard to the accommodation sector. The study at the industrial level (accommodation sector) also needs to be supported by an analysis of the perceptions of hotel owners/management in order to ascertain their points of view on how to minimize the leakages. The results of this research are expected to be useful by leading to better understanding, awareness, and responsibility and gaining positive responses from government and stakeholders that can improve the economic impacts of tourism in order to achieve sustainable tourism in Bali.

## **1.2 Problem Formulation**

Based on the issues of the economic benefits of tourism to Bali's economy as outlined above, the following research problems can be formulated related to the leakage of Bali's tourism revenue at macro and micro levels.

- 1) What is the amount of tourism leakage from Bali's accommodation sector at the micro (industrial) level?
- 2) What is the amount of tourism leakage from Bali's accommodation sector at the macro (provincial) level?

- 3) What are the impacts of government subsidies and import reduction by the accommodation sector on tourism leakage, job opportunities and income distribution?
- 4) What are the perceptions and preferences of foreign tourists regarding imported and local products, and how willing are they to spend their money to benefit the Balinese people?
- 5) What are the points of view of hotel managers related to imported and local products, and how willing are they to reduce the use of imported products and give priority to local products?
- 6) What efforts could be made to minimize tourism leakage from the accommodation sector in Bali?

### **1.3 Research Objectives**

The general objective of this study is to evaluate tourism leakage from Bali at micro and macro levels in order to develop general recommendations to produce a theoretical concept and an applicable framework that can be used to ascertain the real impact of tourism on the economy of Bali. The measurement of leakage at the micro level is undertaken to describe leakage from the accommodation sector (industrial level), while the measurement of leakage at the macro level is undertaken to explain leakage from the accommodation sector at the regional (provincial) level. Specifically the objectives of the study are:

- 1) To calculate the amount of tourism leakage from the accommodation sector in Bali at micro (industrial) level.

- 2) To calculate the amount of tourism leakage from the accommodation sector in Bali at macro (provincial) level.
- 3) To evaluate the impacts of government subsidies and import reduction by the accommodation sector on tourism leakage, job opportunities and income distribution.
- 4) To evaluate the perceptions and preferences of foreign tourists on imported and local products as well as the willingness of foreign tourists to spend their money to benefit the Balinese people.
- 5) To evaluate the points of view of hotel managers related to imported and local products as well as their willingness to reduce the use of imported products and give priority to local products.
- 6) To develop a strategy to minimize tourism leakage in the accommodation sector in Bali.

#### **1.4 Research Benefits**

This research is beneficial in terms of both theory and practice. Theoretically, it improves knowledge related to research approaches, concepts and methods of estimating tourism leakage especially in the accommodation sector. Practically, the research results can be used by policy makers in order to formulate regional policy and generate strategies, as well as to control the expansion of the tourism industry in order to improve regional economic development through increasing job opportunities, understanding and awareness of the causes of leakage and minimizing tourism leakage through a systems approach in order to improve the economic benefits to the Balinese community.

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

Chapter II focuses on a review of the literature regarding the objectives of this research. It begins with a discussion of the national income in an open economy, explaining the importance of export and import in generating national income. It then discusses how the Social Accounting Matrix (SAM) can be applied to calculate tourism leakage. The next section explains the importance of systems theory in developing strategies from different perspectives in order to minimize tourism leakage. This is followed by a discussion of multiplier effects, whereby money spent by tourists in Bali generates incomes through several "rounds". Previous studies related to leakage in tourism are then reviewed to explain the ways in which the development of tourism creates both positive and negative impacts. The positive impacts result in increasing income and job opportunity in a tourist destination. However, these positive impacts are hampered by weaknesses such as tourism leakage. This leads on to a discussion of efforts at minimizing tourism leakage described in previous studies. These are reviewed as a source of information for generating strategy. Lastly, previous studies of various groups' perceptions and preferences in relation to tourism leakage are reviewed, followed by a discussion of ways of minimizing leakages so as to optimize tourism benefits. This chapter ends with a brief conclusion.

## 2.2 National Income in an Open Economy

There are two types of economy, namely an open economy and a closed economy. According to Krugman & Obstfeld (2006) and Lane (1999) an open economy is an economy that has interactions in trade or finance with other countries; meanwhile, a closed economy is an economy that has no interactions in trade or finance with other countries. In a closed economy there is no export or import. Hence, domestic investment must equalize domestic saving at all times. In an open economy, on the other hand, domestic investment can be greater or less than national saving. The difference between saving and domestic investment determines the current account imbalance for an open economy, with a current account surplus indicating that some national saving is being invested abroad, while a deficit implies net capital inflows from abroad which are financing domestic investment.

Gross National Product (GNP) is defined as the value of all final goods and services produced by a nation's factors of production in a given time period. It represents the total net value of all goods and services produced within a nation over a specified period of time, representing the sum of wages, profits, rents, interest, and pension payments to residents of the nation (Krugman & Obstfeld, 2006; and Lane, 1999). National income decomposition in a closed economy is expressed as:

$$Y = C + I + G$$

while national income decomposition in an open economy is expressed as:

$$Y = C + I + G + X - M$$

where:

Y = National income

C = Consumption

I = Investment

G = Government expenditure

X = Export

M = Import

X-M = net export (export minus import).

This identity can be rewritten as:

$$Y - T = C + I + G - T + X - M$$

where:

T = Tax

$$Y - T - C + T - G = I + X - M$$

$$\begin{array}{ccc} \underbrace{\phantom{Y - T - C}} & \underbrace{\phantom{T - G}} & \\ \downarrow & \downarrow & \\ Sp & Sg & \end{array}$$

Krugman & Obstfeld (2006) state that:

letting  $Y - T - C = Sp$ , and

$$T - G = Sg,$$

this equation can be rewritten as

$$(Sp + Sg) = I + X - M$$

$$(Sp + Sg) - I = X - M$$

Since total saving for this economy is  $S = Sp + Sg$ , thus:

$$S - I = X - M, \text{ or}$$

$$S + M = I + X$$

where:

Sp is private saving, and

Sg is government saving

According to Krugman & Obstfeld (2006), an economy's current account is defined as the "difference between exports and imports of goods and services"

Hence, the current account is:

$$X - M = \text{Current Account (CA)} \rightarrow CA = S - I$$

Krugman & Obstfeld (2006) and Lane (1999) stipulate that the requirement for balance in an open economy is that:

the value of (S+M) is equal to (I+X). Thus:  $S + M = I + X$

It can be seen from the above explanation that the two variables, namely import (M) and export (X), are really important in generating national income and trade balance in a country (Krugman & Obstfeld, 2006 and Lane, 1999). This means that cross-country differences in export and import affect the real per capita income levels. It also means that an increase in export results in an increase in national income, while an increase in import brings about a decrease in national income. Krugman & Obstfeld (2006), Lane (1999) and Zhang (2004) said that when a country's import exceeds its export ( $I > E$ ), this means that country has a "deficit" current account. Meanwhile, a country's current account is in "surplus" when the value of its exports exceeds that of its imports ( $E > I$ ).

Regarding tourism, export is generated from payments made by foreign tourists for using accommodation and restaurant services and buying handicrafts, etc. However, if most of these are imported products, foreign services and include the use of foreign employees in tourism, this situation means there is actually an increase in import, which can lead to a decrease in national income. The development of tourism is therefore hampered by a high percentage of tourism leakage generated from the use of imported products, services and the use of foreign employees in operating hotels (Krugman & Obstfeld, 2006; Lane, 1999 and Zhang, 2004).

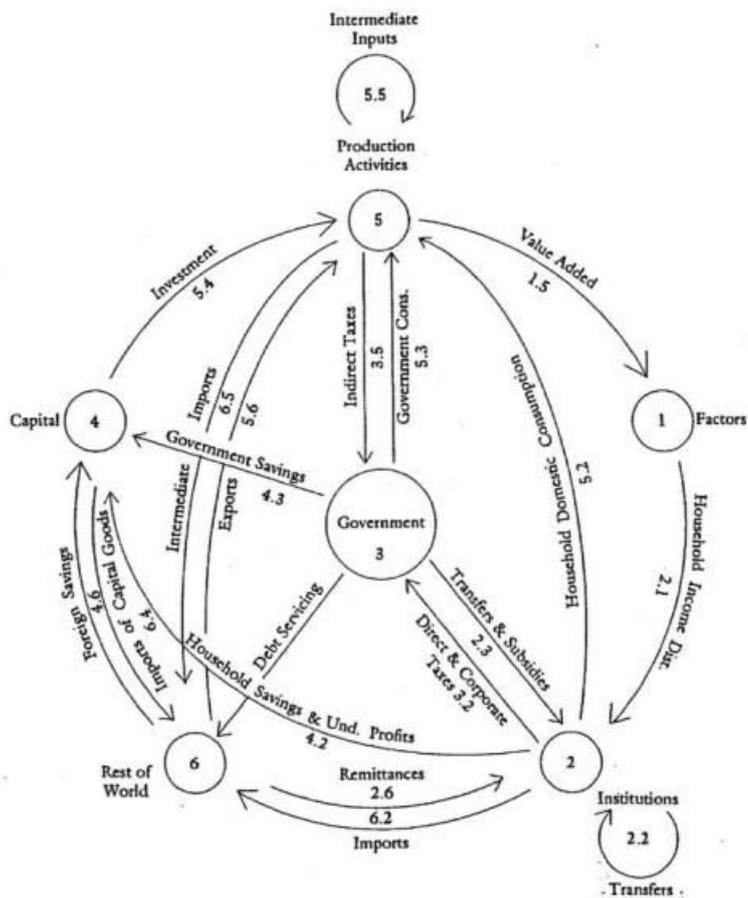
### **2.3 The SAM as an Accounting System and Conceptual Framework**

According to Thorbecke (1988), the genesis of the Social Accounting Matrix (SAM) goes back to Richard Stones' pioneering work on social accounts. Subsequently Pyatt and Thorbecke (1976) cited in Thorbecke (1988) formalized the SAM and showed how it could be used as a conceptual and modular framework for policy and planning purposes. As a data framework, the SAM is a comprehensive and disaggregated picture of the socioeconomic system during a given year. It provides a classification and organizational scheme for the data useful for analysts and policymakers. A SAM is a comprehensive accounting framework that shows the circular flow of income in an economy and captures the transactions between a number of variables. A SAM represents all of the transactions between different factors of production, institutions (households, companies and government), and production activities within an economy with respect to the rest of the world (Thorbecke, 1988). As a single entry accounting system, a SAM is represented in the form of a square matrix with rows and columns, in which each account has its own row and column. Receipts (revenues) are recorded in rows and payments (expenditures) are listed in columns. The sum of all expenditures by a given account (or subaccount) must be equal to the total sum of receipts or income for the corresponding account. In another words, the row sums must be equal to the column sums of the corresponding account (Thorbecke, 1988; Thorbecke, 2000).

A SAM can be regarded as an extension of input-output (I-O) tables (Thorbecke, 1988), a widely used framework to provide detailed information on

the flow of goods and services, as well as on the structure of production costs. In this matrix, final consumption expenditure, capital formation and trade are shown by product or industry of origin, and intermediate consumption both by product or industry of origin and destination. Income generation is shown by the value added (Huseyin, 1996; Keuning *et. al.*, 2010, Thorbecke, 1988; Thorbecke, 2000). The factors of production included in the SAM are male and female labour, and capital, including mixed-income of the self-employed. Furthermore, institutions consist of households, companies, and government. The data for a SAM come from input-output tables, national income statistics, and household income and expenditure statistics and other related sources of data. Therefore, a SAM is broader than an input-output table and typical national account, showing more detail about all kinds of transactions within an economy (Thorbecke, 1988).

Thorbecke (2000) has drawn up a basic SAM for six distinct accounts (see Appendix 2.1). It can be seen that it incorporates all the major transactions within a socio-economic system. Meanwhile, Figure 2.1 reproduces all of the transformations appearing in Appendix 2.1 interpreted more broadly as representing flows (over time) which have to be explained by structural or behavioral relationships (Thorbecke, 2000).



**Figure 2.1.**  
**Flow Diagram of Social Accounting Matrix Transactions**  
 (Source: Thorbecke, 1988: 81)

In the basic SAM in Appendix 2.1, six accounts are distinguished. Production activities produce different goods by buying raw materials and intermediate goods and services (row 1 column 5). In addition, these accounts pay indirect taxes to the government (row 3 column 5) and the remainder is, by definition, value added that is distributed to the factors of production (row 5 column 5).

Production activities receipts (row 5) derive from sales to households (row 5 column 2a), exports (row 5 column 6) and the government (row 5 column 3).

In the present formulation of the SAM no distinction is made between production activities and commodities. It is assumed that a production activity is equivalent to a corresponding commodity. In some instances, the SAM format distinguishes between production activities and commodity accounts. This would be the case when a given production activity produces different commodities, so that these two sets of accounts would require different sectoral breakdowns. For this reason, many SAMs include both production activities and commodities accounts. When commodity accounts appear in a SAM they can best be seen as representing a region's or nation's product markets. They receive income (recorded in row 1 column Total) from the sale of their services to production activities (row 1 column 5) in the form of wages, rent and net factor income received from abroad (row column 6) or from other regions (corresponding to the value added generated by the production activities). In turn, these revenues are distributed (column 1) to households as labor incomes (row 2a column 2a) and to companies as distributed profits (row 2a column 2b). Institutions include households, companies and the government. From row 2a, it can be seen that households receive factor income (wages and other labor income, rent, interest and profits) (row 2a column 2a), income from companies (row 2a column 2b) as well as transfers from government (row 2a column 3) and from the rest of the nation and world (e.g. remittances) (row 2a column 6).

Households' expenditures (in column 2a) consist of consumption of goods from the local region (row 5 column 2a), from other regions and from abroad (row 6 column 2a), and income taxes, with residual savings transferred to the capital

account (row 3 column 2a). Companies (2b) receive profits and transfers from domestic companies (row 2b column 3) and spend on taxes and transfers, with their residual savings channeled into their capital account (row 4 column 2b).

The government account (3) is distinct from administrative public activities included in the production activities account. These public services (such as education) buy intermediate goods, pay wages and deliver public and administrative services. The government account allocates its current expenditures on buying the services provided by the production activities account (row 5 column 3). Other government expenditures (column 3) are transfers and subsidies to households (row 2a column 3) and companies (row 2b column 3) and the remaining savings are transferred to the capital account (row 4 column 3). On the income side, the government receives tax revenues from a variety of sources and current transfers from abroad (row 3).

The fifth account is the combined capital account. On the income side (row 4) it collects savings from households, companies, the government as well as foreign savings and, in turn, channels these aggregate savings into investment (column 4). Finally, transactions between domestic residents, and foreign residents, respectively, are recorded in the Rest of the World Accounts (column 6). These transactions include, on the receipt side, households' consumption expenditures on imported final goods (row 6 column 5) as well as imports of capital goods and raw materials (row 6 column 4). The economy receives income from the rest of the world (column 6) from exports, and factor and nonfactor income earnings. The difference between total foreign exchange receipts and

imports is by definition net capital received from abroad or the rest of the nation and extra regional and foreign savings (Thorbecke, 2000).

The SAM framework can also be used as a conceptual framework and as a basis for modeling. In this case, the generating mechanisms influencing the flows (see Figure 2.1) have to be spelled out explicitly and quantitatively. The first question to address in a SAM-based framework is which accounts should be considered exogenous and which endogenous. The government, the rest of the world and the capital accounts are considered as exogenous, and the factors, institutions, and production activities accounts are considered as endogenous.

The primary income distribution is determined through the triangular interrelationship namely: production activities, factors of production and households. In Figure 2.1, interrelationship appears as the value added flow (denoted by arrow 1.5) from production activities to factor incomes; from the latter to household income distribution (arrow 2.1) which yields, ultimately, the household domestic consumption pattern (arrow 5.2). While the primary income distribution is by far the most important determinant of incomes received by the various socioeconomic groups, a secondary income distribution may work through the family, village, or, more important, through the state in the form of transfers and subsidies (arrow 2.3) and taxes (arrow 3.2) (Thorbecke, 2000).

## **2.4 Systems Thinking**

Systems thinking is a holistic way of thinking where the system refers to interconnected elements that form the whole (Bloom, 2009). This holistic approach embraces complexity through the properties of the whole and related

properties that is only present at the level of the whole. It can thus be said that systems thinking is a way of interpreting the interconnected elements in relation to the whole. Moreover, Hendry (2013) explains that systems thinking focuses on how the thing being studied interacts with the other constituents of the system. A set of elements interact to produce behavior of which it is a part. This means that instead of isolating smaller parts of the system being studied, systems thinking works by expanding its view to take into account larger numbers of interactions as an issue is being studied. This results in sometimes strikingly different conclusions than those generated by traditional forms of analysis, especially when what is being studied is dynamically complex or has a great deal of feedback from other sources, internal or external.

Senge (1994) pointed out that the character of systems thinking makes it extremely effective in addressing the most difficult types of problems to solve: those that involve complex issues, depend a great deal on the past or on the actions of others, and are characterised by ineffective coordination. The patterns in the ways a system's components work together is examined when a systems thinking approach is used. He defines systems thinking as a framework for seeing interrelationship rather than linear cause-effect chains, and for seeing patterns of change rather than static snapshots. In summary, Waldman (2007) states that there are three main characteristics of systems thinking, namely: (i) systems thinking is a framework for seeing wholes; (ii) systems thinking is based on interrelationship; and (iii) systems thinking emphasizes long term analysis.

Moreover, systems thinking provides tools and techniques that unravel complexity, making the full pattern clearer because it assists in seeing the structure that underlies a complex situation. This helps us both to describe dynamic relationships, and to understand the complexity that influences the behaviour of systems (Seiler & Kowalsky, 2011). By understanding a complex situation through identifying a clearer pattern, we can see how proposed interventions will change the patterns effectively, which results in finding possible solutions to the problems.

In the context of organization, Wolstenholme (2000) argues that systems thinking embraces complexity, improves understanding and also helps to build pictures of the whole organization from different perspectives. He notes that system thinking views the organization as a web of interrelated systems with no one system being more fundamental than another. He also concludes that there are two main focuses of systems thinking, namely to examine situations in context and to see how they are interconnected with one another. Moreover, he points out that whenever there are problems within the organization, the systems thinker sees them as arising from underlying structures rather than from individual mistakes.

According to Eriyatno (2012), the systems thinking process has three characteristics, i.e. (i) goal oriented, meaning that the systems thinking process leads to a positive outlook and builds creativity to achieve innovative solutions in order to reach the goal; (ii) holistic, meaning that it is a comprehensive paradigm of thinking based on the idea of the system as a whole, which considers the

importance of interrelationships among system components; (iii) effective, meaning that it places the priority on scientific processes, either conceptual or physical, and that the results of the process can be implemented. In summary, systems thinking provides a key insight for the management of complex systems. In addition, Seiler & Kowalsky (2011) argue that systems thinking is not the first choice of individuals because humans want the easiest and quickest resolution. However, systems thinking reduces uncertainties and establishes clear performance indicators.

## **2.5 The Importance of Tourism Multiplier Effects in Increasing Income and Job Opportunity**

Tourists make an initial round of expenditure in the destination. This expenditure is received as income by tour operators, hotel operators, restaurants and other tourism businesses. It is called “direct effects”. In the second round of expenditures, the tourism businesses use some of the money to purchase goods, pay for wages and salaries and other expenses. The income for the third round may be spent or saved. It is called “indirect effects”. The money paid for goods in the third round may be spent on raw materials in production processes, such as seeds, fertilizers, etc., which lead to the creation of job opportunities. It is called “induced effects”. This process continues until the additional incomes generated by the new round of transactions becomes zero. Indirect and induced effects are called “secondary multiplier effects” (Hughes, 1994; Mill and Morrison, 2009). In Figure 2.2, Antara (1999) illustrates how through the multiplier effects, tourism expenditures have been a driving force in Bali’s economy. This then stimulates

development in other regions outside of Bali province which supply products to fulfill the demand from tourists as well as from communities.

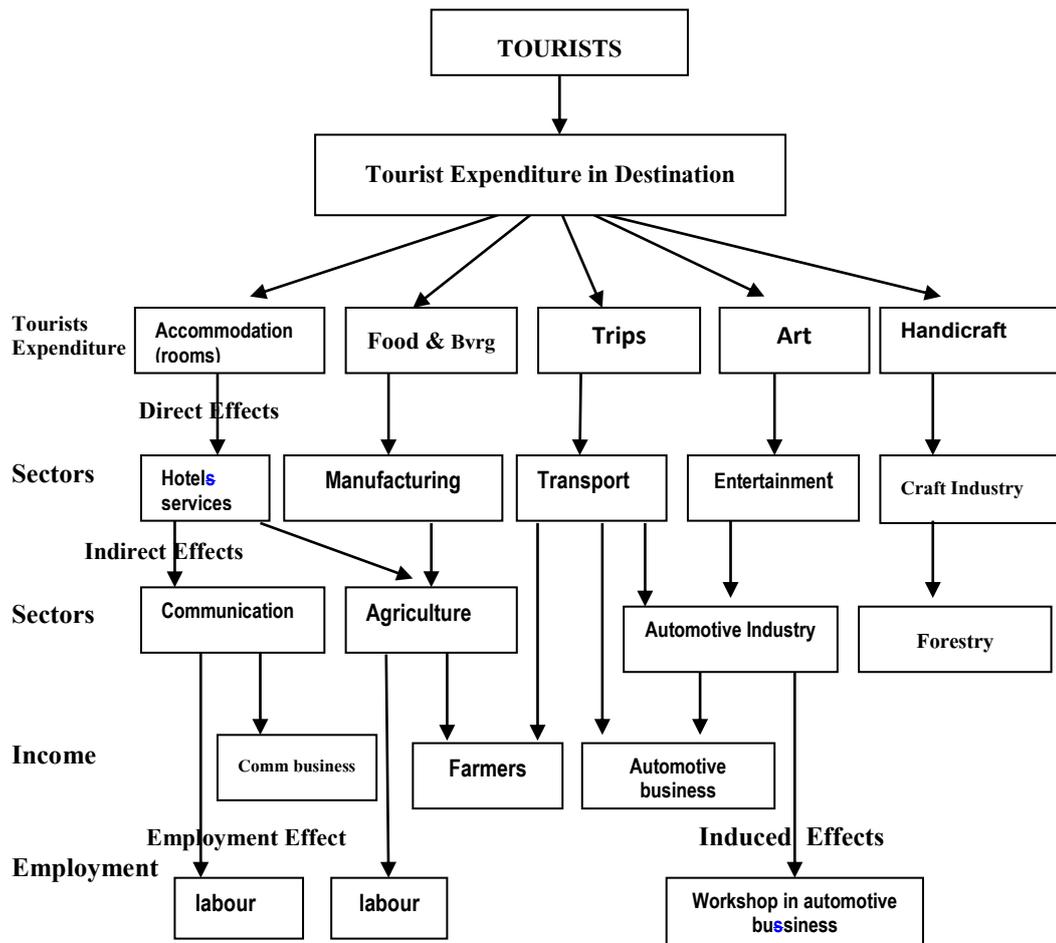


Figure 2.2 Diagram of Direct Effects, Indirect Effects, Induced Effects and Job Opportunity in Tourism Sector (Source: Antara, 1999).

The above diagram explains that foreign and domestic tourists undertake various expenditures in a destination, such as payments for accommodation, food and beverages (F & B), traveling, undertaking tourist activities, purchasing souvenirs and other items. This expenditure will be captured by several sectors of

the economy, so it becomes income of the economy. This is called the ~~direct~~ effects” of tourist expenditures. However, increase in income of the economy will increase the demand for inputs derived from the output of other economic sectors such as agriculture, industry, handicraft, transportation, etc. Moreover, increase in the output from production sectors leads to an increase in payments for the factors of production used in the production process, thereby increasing the income of households and companies. This is called ~~indirect~~ effects”. Furthermore, an increase in a household’s income will encourage an increase in consumption which, in turn, will encourage the generation of other income and expand job opportunities. This is called ~~induced~~ effects”. Indirect effects and induced effects are called ~~secondary~~ effects”. Multiplier effects are calculated from the sum of direct effects and secondary effects. Thus, tourism expenditures do not only increase the income but also increase the job opportunities. Moreover, tourism expenditures also lead to an increase in the demand for various types of goods and services produced by economic sectors that are directly or indirectly related to tourism. The production of these goods and services will create and expand employment in Bali or even beyond Bali. For example, it increases job opportunities in the communication industry, agricultural industry, automotive industry, etc. So, through the multiplier effects, tourism expenditures in Bali have been a driving force for economic development in Bali. Development of Bali’s economy also contributes to the development of other regions outside Bali.

Mill and Morrison (2009) say that the benefits of tourism fall into three categories, namely: i) increasing income, ii) increasing job opportunity, and (iii) increasing foreign exchange earnings.

(i) Increasing Income

Income from tourism expenditures is created through several rounds (direct, indirect and induced effects) as outlined above. Besides the rounds created by tourism expenditures, tourism may also create significant local tax revenues. The tax revenues generated from the tourism sector will then stimulate development of the infrastructure. Tourism can encourage local government to invest in providing better water and sewage systems, roads, electricity, telephone and public transport systems, all of which may help to improve the lives of local residents.

(ii) Increasing Job Opportunity

A major argument for encouraging tourism development is that it provides many job opportunities. Tourism creates primary or direct employment opportunities in accommodation, restaurant, attraction, transportation, and sightseeing operations. Indirect employment is also created in construction, agriculture and manufacturing. The amount of indirect or secondary employment depends upon the extent to which tourism is integrated with the rest of the local economy. The more integration and diversification occurs, the more indirect employment will be generated (Hughes, 1994). He added that tourism is considered to be more labour intensive than other industries. The degree of labour

intensity can be measured in terms of the cost per job created or the employment/output ratio. The employment/output ratio is the number of workers employed by the contribution of tourism to the national income.

Mill and Morrison (2009) point out that although research conclusions are not unanimous, the cost per job created in tourism has been found to be no less than in other economic sectors. A major reason is because tourism is also capital intensive. The heavy costs of providing necessary infrastructure and building structures drastically increase the cost of creating jobs. Fridgen (1996) explains that in the early stages of tourism development, the cost per job created is likely to be high due to the capital costs required. Similarly, the capital/output ratio is high because of the low volume of visitors in the early stages of tourism development. He added that as the destination country develops and as more visitors are attracted, the capital/output ratio declines. The cost per job created is reduced due to the experience and organization of those in the destination. In addition, (Hughes, 1994) says that as tourism increases, physical development takes place in facilities that require less investment than the construction of international-level hotels and resorts. Jobs are therefore created at lower average cost. In the third stage of tourism development, however, the average cost per job created may increase due to higher land prices and the increased engineering costs incurred due to the necessity of using sites that are more difficult to develop. Moreover, as tourism increases, more infrastructures (roads, electricity and sewerage services, etc.) may be necessary as the tourism plant becomes more spread out

geographically. The increasing demand for infrastructure may be caused by the larger numbers of visitors in the destination area.

Fridgen (1996) argues that the cost per job created depends upon the type of facility constructed. The cost is greater for a luxury hotel than for a smaller, more modest property. However, he says that a luxury hotel offers more job opportunities per room and higher employment/output ratios than smaller properties, although the larger properties are more inclined to use imported labor, especially for managerial positions. Moreover, he stated that the key to maximizing the economic and job returns is to use materials and personnel indigenous to the destination area while maintaining standards of quality acceptable to visitors.

Frechtling (1994) reports that tourism has been criticized as an employer. Tourism is a highly seasonal business in many destination areas. To ensure a balance between market demand and staff requirements, tourism businesses tend to adopt one of two strategies. Employees are either laid off during the low season, or additional employees are imported from other regions during the high season. According to Frechtling (1994), with the first approach, tourism cannot provide a meaningful job to a local resident. Meanwhile, with the second approach, there is an increased need for housing for employees who spend most of their wages outside of the destination area. Thus, jobs and income are lost to the local area, meaning that leakage happens. Lastly, Fridgen (1996) and Mill and Morrison (2009) point out that because tourism relies so heavily upon people for delivering a service, it is difficult to achieve increased productivity. The national

output may be difficult to improve if tourism becomes a dominant part of the economy, particularly if the host destination lacks a strong industrial sector, where productivity gains are easier to obtain.

### (iii) Increasing Foreign Exchange Earnings

Many countries have embraced tourism as a way of increasing foreign exchange earnings to produce the investment necessary to finance growth in other economic sectors, particularly in manufacturing. Some countries have required visitors to bring in a certain amount of foreign currency for each day of their stay and do not allow them to take it out of the country at the end of their vacation (Mill and Morrison, 2009).

However, Fridgen (1996) argues that there is a danger of overstating the foreign exchange earnings generated by tourism unless the value of goods and services that must be imported is known. The amount of spending money that leaks from the destination's economy must be subtracted from foreign exchange earnings in order to determine the true impact. Fridgen (1996) gives an example from Australia, where there has been considerable debate about the true economic impact of the growing number of Japanese travelers, especially to places such as Sydney, the Gold Coast, and Far North Queensland. He argues that although the Japanese spend the most per capita of all international groups within Australia, many of the services they purchase are owned by Japanese companies, including package tours, hotels and resorts, duty-free shops and attractions such as cruise operations. In other words, he says, it is perceived that there is a large leakage factor to the Japanese economy from Japanese expenditure in Australia.

According to Fridgen (1996) and Mill and Morrison (2009), exchange earnings will be reduced as an impacts of leakage. In other words, the extent to which a destination can minimize leakage will determine the size of the foreign exchange earnings. Even though tourism brings about economic development, its negative impacts cause many problems, one of which is leakage (Fridgen, 1996; Kennedy, 1993; and Lejarraga and Walkenhorst, 2010).

## **2.6 Previous Studies Related to Leakage in Tourism**

Leakages have long been known as one of the negative economic impacts of tourism (Bull, 1991; Hudman and Hawkins, 1989; Lundberg, *et. al.*, 1991; and Mill and Morrison, 2009). Leakage occurs when the industry imports both consumption and resources from other countries to support the growth of its own industry. In economic terms, leakage could be defined as losses from the national income flow which have been generated during the transition from the local/national consumption income cycle to the spending chain (Bull, 1991). UNEP (2010) states that the direct income for a destination area from tourism is the amount of tourist expenditure that remains locally after taxes, profits, and wages are paid outside the area and after imports are purchased.

Meanwhile, Hudman and Hawkins (1989) define leakage as: (i) import of goods and services for consumption or investment in tourism; (ii) payments for foreign tour operators and agencies; (iii) payment to foreigners for management contract and royalties; (iv) profits which are paid to foreign stakeholders; (v) interest paid for external credits in the tourism sector; (vi) exchange costs for tourism investment; (vii) expenditure on advertising in international marketing

and promotion; (viii) commissions paid to foreign banks, credit card companies and agencies used by tourists; (ix) savings of foreign employees; (x) overseas education and training costs of tourism employees; (xi) savings of employers, employees, and entrepreneurs; and (xii) taxes paid to government. There are also other ‘invisible’ leakages, such as the physical effects of tourism, the depletion or destruction of a country’s infrastructure, natural habitats, environments and historical as well as cultural heritage, which all have a leakage effect on tourism receipts (Smith and Jenner, 1992).

Similar arguments are also supported by Mill and Morrison (2009). The extent to which a destination can minimize leakage will determine the size of foreign exchange earnings. They say that leakage occurs from at least six factors:

- 1) First, imported goods and services that must be purchased to satisfy the needs of visitors. The costs of imported goods must be deducted from earnings. Local manufacturing or handicraft industries may also import part of their raw materials to produce goods for visitors. This is also a cost that has to be subtracted from the foreign exchange earnings from souvenir sales and the sales of other local products.
- 2) Second, imported goods and materials for infrastructure and buildings that are required for tourism development. The use of materials indigenous to the host destination not only reduces import costs but also adds a distinctive look to the local architecture and building interiors.
- 3) Third, payments to foreign factors of production. Commission has to be paid to overseas tour operators and travel agents. If foreign capital is invested in

the country's tourism, interest payments, rent and profit may have to be paid to those outside the country. The amount of local ownership and control is crucial in this regard. Foreign-owned chain hotels will often be staffed, stocked and furnished by people, food, furnishings, fixtures and equipment from the home country.

- 4) Fourth, expenditures for promotion, public relations/publicity and similar services that are undertaken abroad. The cost of maintaining a National Tourism Office (NTO) in a foreign country can be substantial and needs to be set against the foreign exchange earnings from that country.
- 5) Fifth, there are several ways that transfer pricing can reduce foreign exchange earnings. If visitors make purchases in the country of origin for services to be delivered at the destination, the payments for these services will need to be transferred, thus incurring transfer fees. If a tourism company is multinational, payments may be recorded in the country of visitor origin rather than in the destination country, thereby reducing profits and taxes in the destination country. Moreover, purchases by a foreign-owned hotel within the host country may be made from a foreign-owned subsidiary at inflated rates to reduce the taxable income in the destination country. The use of credit cards and traveler's cheques means that local banks are not able to participate in the exchange rate.
- 6) Sixth, foreign exchange earnings will decrease when the import content for tourism is very high, especially for small countries and island nations. Some small-island nations may have import contents for tourism of over 50 percent.

A study by Lejarraga and Walkenhorst (2010) found that countries should seek to maximize the **linkage** and minimize the **leakage** of the tourism economy because maximizing linkages would lead to many benefits. Furthermore, minimizing leakages would imply that the tourism economy will become self-sufficient to fulfill visitors' needs.

A study entitled "The calculation approach for leakages of international tourism receipts: the Turkish case" was undertaken by Unluonen, *et. al.* (2011). The study was based upon the Tourism Satellite Accounts (TSA), Input-Output Tables (IOTs) and data from the State Institute of Statistics (SIS) in Turkey over a five year period. It was found that the proportion of tourism income leakage in 1996 in Turkey was about 38.5%, the proportion of import leakage in international tourism income was 10.3%, and the proportion of delayed leakages in international tourism income was 28.2%. In addition, Unluonen, *et. al.* (2011) say that savings delay the transformation of new economic values into investment. Moreover, they agree that although taxes decrease the economic impact of new dollars, they can be spent later. Finally, they pointed out that when savings and taxes are compared, import inputs were the most important leakage items, because import includes expenditures that flow out from the local or national economy.

Estimation of tourism leakage has also been reported by UNEP. In Thailand, tourism leakage was estimated at about 70%. It means that much of the money spent by tourists ended up leaving Thailand via foreign-owned tour operators, airlines, hotels, imported drinks and food, etc. Estimations for other third world countries were found to range from 80% in the Caribbean to 40% in

India. The average import-related leakage for most developing countries was between 40% and 50% of gross tourism earnings for small economies, and between 10% and 20% for most advanced and diversified economies (cited in UNEP),(<http://www.unep.fr/scp/tourism/sustain/impacts/economic/negative.htm>).

UNWTO (2011) has estimated that on average 55% of gross tourism revenue received by developing countries leaks out, but in some cases leakage has reached as high as 90%. As reported by Ryan (1991), only a third of the total tourism revenue of US\$3.3 billion in Caribbean countries in 1979 stayed in the region. In the island of St. Lucia in the Caribbean, 58% of food and 82% of meat consumed by tourists were imported. In Fiji, just 20% of tourist revenue was retained in its economy in the same year. Meanwhile, Dwyer and Forsyth (1994) estimated that the gross revenue from a package tour accruing to foreign owners of facilities in Australia was about 44% of total tourist expenditures.

According to Meyer (2007), leakage tends to be highest when the local destination economy is weak and lacks the quantity and quality of inputs required by the tourism industry. He said that the prevailing trend in many developing countries is to depend heavily on imports. Therefore, attempts have been made to reduce leakage by developing stronger links between tourism and other sectors in the local economy. He added that government policy needs to concentrate on strengthening the economic linkages between tourism and agriculture to support import substitution.

Although it is argued that the tourism industry is well positioned to create high direct, indirect and induced economic impact, several authors have reported

that the multiplier effects of tourism are often considerably less than expected due to high investment costs (a high dependency on foreign capital, skill, and management personnel, as well as import) (Pavaskar, 1987). Karagiannes (2004) cited in Meyer (2007) supports this argument that the import content and the size of the tourism multipliers are inversely related, so countries with high leakage rate tend to end up with small multipliers and relatively insignificant effects from tourist spending. He said that there were several reasons for this. First, small economies, in particular small island developing states, tend to rely strongly on imports, because they do not have the capacity to produce the goods and services that are required to meet the demands of the industry. Larger states, on the other hand, that do not often face these resource constraints, can develop stronger inter-sectoral linkages between tourism and the rest of the domestic economy. Second, many developing countries that do not have well-developed domestic industries, develop stronger inter-sectoral linkages within the economy, which provides the platform for the efficient distribution of goods and services, and allows domestic industries to try to compete successfully with their overseas business partners (Karagiannes, 2004 cited in Meyer, 2007).

Lundberg, et. al. (1991) concluded that leaks out of the destination economy depend in large part on how the tourist receipts are re-spent within the economy. The more receipts are re-spent within the local economy, the smaller the leakage and the higher the multiplier will be. For developing countries at their initial stage of tourism development, financial, structural and operational supports from foreign countries are indispensable. Therefore, tourism leakage is thus

unavoidable. Rapid tourism development in a developing country is often accompanied by a drastic rise in leakage.

Davidson (1993) defines tourism leakage as tourism profits drained away from the local economy to other countries. In reality, tourism profits are rarely kept in a local economy for over a year. If deposited into local banks as savings, they will be lent to other spenders or investors shortly and re-circulated in the economy. Furthermore, he defines a wider range of tourism leakage by pointing out four common forms of leakage:

- (i) The construction materials for tourism infrastructures are imported from other countries;
- (ii) The profits from tourism operation leak abroad to the owners of tourist facilities;
- (iii) Imports of food, drink, and manufactured goods to meet the demand of inflexible tourists; and
- (iv) Wages paid to foreign workers and not spent in the local economy.

The definition of tourism leakage proposed by Davidson (1993) implies that tourism leakage is associated with three types of activities in tourism development: (i) Financing activity, such as profits reaped by foreign owners and repatriated to foreign countries; (ii) Construction activity, such as imports of building materials for the construction of tourism infrastructures; and (iii) Operating activity, such as imports of food, drink, and foreign labour to facilitate tourism transactions. Based on the activities involved in international tourism, tourism leakage can be classified into three categories (Davidson, 1993):

- (i) Structural leakage that occurs due to the imports of construction materials and technologies in establishing tourism infrastructures.
- (ii) Operational leakage caused by imports of foreign goods, services, and managerial skills necessary for the daily operation of the tourism industry. It is noted that much of the tourism revenue leaks out of developing countries in the form of imports and salaries for skilled foreign workers who occupy managerial and technical positions in the industry.
- (iii) Financial leakage. This is the return to foreign capital providers in the form of profits, dividends, and interests repatriated to capital originating countries. Foreign capital providers can be tourism venture owners, partners, stockholders, and creditors.

Harrison (1992) agrees with Davidson's finding that financial leakage refers to profits repatriation as capital leakage. The impact of the financial leakage on a developing country can be greater than that of the other two categories of leakage. Structural and operational leakages may be short-term if imports are foreign commodities. In contrast, financial leakage can have a long-lasting impact on the local economy because the returns to foreign capital providers are repetitive at constant intervals—monthly, quarterly, or annually - and over a much longer time. If foreign capital is provided in the form of equity financing, the leakage can be permanent. The amount of financial tourism leakage can be significant.

## 2.7 Minimizing Leakages in order to Optimize Tourism Benefits

It is crucially important to reduce leakage in order to increase the economic benefits of tourism in a destination, because leakage leads to a decrease in the multiplier effects of tourism, as Unluonen, *et. al.* (2011) say as follows:

*“...Leakage is convinced as one cause of unbalanced economic distributions and to limit the positive impacts of tourists’ expenditures on a destination. Increase in leakage results in decrease in multiplier effects that reflect the amount of income generated by a unit tourist spending and show the capacity of the tourism industry to create income. The success in minimizing leakage will increase economic development in a destination...”*(Unluonen, *et. al.*, 2011)

Furthermore, Dwyer and Forsyth (1994) say that a tourism multiplier is a ratio measuring the triple effects of tourist spending on the local economy. A higher multiplier suggests a greater augmentative impact of tourist expenditure on the local economy. Bull (1991) observed tourism multipliers ranging from 2.5 (in Canada) to 0.8 (in the Bahamas). He found that large diversified economies tend to have large multipliers, while developing countries and small island states tend to have smaller multipliers because of considerable leakages. Furthermore, Kim and Jamal (2007) reported that tourism income multipliers were 1.96 (in Turkey) and 0.39 (in Western Samoa). The tourism leakage weakens the tourism multiplier. Lundberg, *et. al.* (1991) also stated a similar point of view, is that a decrease in multiplier leads to a decrease in tourism benefit in economic development.

To gain economic benefits from tourism, according to a study by Zheng (2011), successful tourism development minimized three types of tourism leakage, namely financial, structural and operational leakage. Meanwhile, a study done by Lacher and Nepal (2010) found that the diversity of the levels of leakage in three

different villages indicated that by using proper strategies the villages can reduce economic leakage, increase local economic development, distribute tourism income throughout the region and turn more local residents into stakeholders in the tourism industry. Lacher and Nepal (2010) say that:

*“ ... leakage can be reduced in a number of different ways, and that villages attempting to implement a strategy should focus on creating a strategy that suits their unique conditions ...”* (Lacher and Nepal, 2010:94).

Moreover, Lacher and Nepal (2010) has also found that by using precise strategies based on the authenticity of a destination, economic leakage can be reduced, economic development improved, distribution balanced in all sectors, and community participation in tourism development improved. A similar argument is put forward by Ashley, *et. al.* (2006) as cited below:

*“....making tourism more suitable can create stronger linkage with the local economy, increasing local development potential, particularly purchasing directly from local business, recruiting and training local unskilled and semi-skilled staff, entering into neighbourhood partnerships to make the local social environment a better place to live, work and visit for all as well as the ability to improve the local natural environment within its areas of direct and indirect influence ...”* (Ashley, *et. al.*, 2006:421).

Mill and Morrison (2009) also suggest strategies for minimizing leakage, as follows:

- 1) Encourage the use of local products as substitutes for imported ones.

The reason for imported products entering a destination is the incapability of that destination to produce products which fulfill the standard of quality required by tourists. The role of government is important in encouraging the use of local products, while research and development is needed in order to improve product quality.

2) Increase export performance in primary industry

This is crucial, especially for industries such as art and handicraft production.

It can be done though providing subsidies, such as by giving special low interest loans to the craftsman.

3) Implement an incentive program to develop infrastructure using traditional architectural concepts and to encourage the use of local and indigenous goods and materials.

4) Undertake effective and efficient negotiations with multinational companies dealing with travel agencies and tour operators.

5) Reduce the use of imported food, goods and materials and encourage tourists to enjoy the traditional and unique characteristics of a destination, including its foods and beverages, its architecture and interior design.

6) Encourage cultural tourism so that tourists come to a destination with the purpose of understanding its authentic cultural concepts.

7) Promote appreciation of local products.

The effective use of local employees is certain to reduce leakage, say Hemmati and Koehler (2000, cited in Zheng, 2011). They also observe that the capabilities of local employees are generally low in terms of education, work experience and the ability to communicate. Therefore, the tourism industry uses educated employees for special positions in management. The majority of employees in their study were local employees with a really low level of work experience and receiving a salary under the minimum standard, whereas overseas

employees had a better rate of salary as a result of their better education, work experience and excellent ability to communicate.

It seems that leakage in Bali tourism is also significant with some portion of tourism expenditures estimated to leak outside Bali. As an example, substantial profits have been transferred overseas or to regions outside Bali because many of the owners of tourism accommodations are either foreigners or Indonesians living outside Bali .

## **2.8 Previous Studies Related to Perceptions and Preferences**

A study by Davis (2003) on Traveler Perceptions of a Destination found that in the summer season visitors had a different orientation regarding outdoor activities, consumption patterns and preferences. Some visitors were more interested in physical activities, preferring outdoor attractions such as beaches, landscape, cultural attractions and city entertainment. Other groups of visitors tended to focus on environment sense and the softness of culture. It can be seen from this research that actions taken as a result of preferences and choices are an expression of the visitors' perceptions.

Haemon (1999) stated that a study on customer preferences must be focused on an integrated framework and understanding of the consumer's decision making process, especially as regards customer value as this is an important variable that needs to be focused on due to its effect on services quality and customer satisfaction and vice versa. He added that service quality can be a mediator between perceptions and a customer's satisfaction.

Andriotis (2005) carried out his study on "Community Groups' Perceptions and Preferences for Tourism Development: Evidence from Crete". The results showed that the community's support and choices are really important. Three groups expressed a high degree of positivity toward tourism and tourism development, although there were some differences in their agreement regarding the types of tourists, facilities, and actions which are considered beneficial for the island.

Goodrich (1978) found that preferences for (choice of) tourist destinations are largely dependent on the favorableness of a person's perceptions of those destinations. The more favorable the perception is, the greater the likelihood of choice becomes. He said that there are three main implications of his study, two are marketing-related and one is methodological. The first marketing implication for tourism marketers is that they should always try to develop favorable images of their respective tourist areas in order to enhance tourists' choice of (preference for) those areas as imaginative destinations. These images can be developed through advertising of the unique and diverse tourism facilities of a given area or through development of these and other tourist attracting facilities. The second marketing implication is that the diagnosis of a destination's strengths and weaknesses with regard to relevant tourism attributes is helpful in making specific changes, additions, or modifications in the tourism facilities of that destination and also in its marketing support.

Badaruddin and Mageswari (2010) conducted a study on Perception of Domestic Tourist on Tourism Products in Penang Island. It was found that

tourism image is a direct antecedent of perceived quality, satisfaction and tourist behaviour. Perceived quality has a positive influence on satisfaction which determines the domestic tourists' behavior.

## **2.9 The Role of Marketing in Sustainable Tourism Development**

Marketing orientation still dominates today's marketing activities that marketers determine customers' needs and wants, and develop products and segmentation strategies accordingly. For many years, the definition of marketing was:

*"...the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives.."*  
(American Marketing Organization, 2004).

Since the last 30 years, attempts for a more social approach have emerged. While previous definitions, philosophies, and applications have been confusing, the need to recognize society at large, customer relationships, and extended marketing activities resulted in revising definition of marketing as:

*"... Marketing is an organizational function and a set of processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders ..."* (Keefe, 2004).

The final definition focuses on more broad beneficiaries of marketing, and an extension of marketing activities from designing the marketing mix towards more relationship management and the focus on values. However, collaboration with customers and partners has not been practicing (Jamrozny, 2007). He proposed an alternative model which attempts to understand and structurally

differentiate alternative views on marketing, and, based on an integrated macro-marketing perspective, called Sustainable Tourism Marketing Management (STMM) which is focused on marketing from a production and sales orientation towards a more consumer-oriented marketing approach that is societal, causal, environmental, green, relationship, quality of life, and sustainable marketing approaches. Societal marketing develop as an extension of the production, selling, and consumer orientation, considering not only consumer satisfaction but also expanding it towards “society’s well being” and defines as :

*... the obligation of marketing organizations to do no harm to the social environment and, wherever possible, to use their skills and resources to enhance that environment...” (Kotler and Armstrong, 1990).*

The social responsibility of the marketer to do no harm, and to enhance the social environment.

Societal Marketing. In tourism, several research studies explore social marketing as societal marketing approach. Bright (2000) examines the role of social marketing in leisure and recreation, questioning if social marketing primarily influences the acceptance of a social idea or if it is marketing of tourism an application of commercial marketing techniques in a public environment, arguing that individual and social well being should be the driver for marketing activities. Dinan and Sargeant (2000) point out how a promotional campaign provides behavioral codes for tourism and therefore encourages behavior that benefits society at large. The author draws the relationship to sustainable tourism, while specific segments can be targeted, behavioral change accomplished, and the environment is more likely to stay protected. In addition, Wearing and Archer

(2000) and King et al. (2000) examine marketing planning frameworks for sensitive areas. Beyond environmental protection, they argue for integrated planning and marketing control by the park and community, emphasizing the network of actors in the tourism system. Moreover, Wheeler (1993) examines the potential conflict of accountability and social responsibility of tourism marketers in local government. Her case study stressed the ethical dilemmas among organizational goals, individual goals and marketing professional goals, should the marketer engage in environmental, traditional or social marketing. Even though most destination or state tourism agencies work as non-profit agencies, their accountability is measured in economic impact, employment, and visitor statistics. All these studies address the importance of social responsibility, and the interaction of environmental and economic accountability for all social groups. Beyond the “no harm” approach, societal tourism marketing can actively communicate tourism’s benefits to society and promote understanding of social equity and issues through tourism.

Economical Marketing. The economic-marketing approach considers natural, social, and cultural environments externalities. Most of the planning, development and implementation strategies in tourism marketing follow the economic paradigm. Tourism is perceived as an economic activity rather than a living system. Examples include finding effective segmentation strategies, measuring accountability for advertising expenses and maximizing satisfaction and tourists’ expenditures. Relationship marketing strategy creates closer and more personal company/consumer relationships, but also strives for more loyal

and therefore more consuming customers. While economically communities can certainly be a goal in tourism, it is suggested that a shift in paradigm to integrate social and environmental goals (Jamrozy, 2007).

Environmental marketing. The American Marketing Association does not specifically define environmental marketing, but it establishes that environmental impact analysis is the assessment of the impact of a strategy or the decision on the environment, especially the ecological consequences of the strategy or decision. This statement emphasizes the responsibility of the marketer to do no harm environmentally. However, environmental, green, ecological, and sustainable marketing efforts go beyond a resource protection approach and additionally focus on environmentally safe products and production, recycling and reuse. Marketing of tourism challenge of sustainable marketing to be accepted, because it involves a different way of looking at marketing, its objectives, and its strategies that goes beyond societal marketing (Kilbourne, 1998; Peattie, 1999). In addition, Jamrozy (2007) give his argument that tourism supports the environmental marketing relates to product development and protection, when the local tourism industry is dependent on its natural resources for developing experiences an activities. Environmental marketing is also practiced when the hospitality and attraction industries favor recycling, energy savings, and other environmentally conscious activities. Environmental marketing can go a step further when creating a new environmental consciousness that promotes preservation and conservation in the future. A variation of environmental marketing is the “green” marketing concept, however, green marketing also presents a consumer-oriented strategy. In this case,

it makes economic sense to target the green consumer who has a need for green products. Often, ecotourism marketing is adopting this approach, specifically when marketing to the exclusive ecotourist. Ecolabeling then establishes the branding practice within the economic marketing paradigm. In numerous cases, managers use ecotourism and sustainable tourism interchangeably due to their emphases on environmental protection. However, while the focus of ecotourism lies within natural resource protection, experiences, and education in the natural environment (including cultural resources), sustainability refers to more inclusive issues (social equity, economic viability, and environmental protection) as well as diversified resources (Jamrozy, 2007; Kilbourne, 1998 and Peattie, 1999).

Sustainable Tourism Marketing. Sustainable Tourism Marketing Model (STMM) proposed by Jamrozy (2007) reflects to the sustainable development principles based on the Brundtland Report (WCED, 1987). The key to achieving moral implications are environmental health, economic viability, and social equity. While tourism management has adopted the concept of sustainability, the traditional consumer marketing perspective is still based on a classic economic paradigm, in which maximizing profits is the goal of most means. The represents the three dimensions of sustainability, economic viability, social equity and environmental protection. The model does not require a complete balance of objectives, but relies on the ecological living system theory, and the imperative that do not destroy the system's potential for change, adaptability, and creativity. Representing the social equity principle, the societal marketing approach often considers impacts of tourism on the host community and favors socially

responsible actions. Often non profit agencies would promote societal goal, for example, to provide benefits to all residents in a destination community. Environment, in addition, promote healthy connected environments, based on protecting the natural and cultural resources. Marketing would not promote the use of resources, but preservation and pro-environmental behaviors. The ultimate goal would be to promote an understanding that human beings are part of this interrelated living system.

The sustainable marketing orientation does not satisfy the needs and wants of individuals but strives to sustain living systems and benefits are not profit oriented but save the energy and diversity, and competition is replaced by dynamically balance. The paradigm shift suggests moving the objectives of tourism marketing from offering satisfying and profitable tourism experiences towards sustaining living systems. The community is a living system for residents and visitors, tourism experiences enhance the quality of life for the residents, communicate diversity and differences in life style and environment, and contribute to the understanding and appreciation between visitors and hosts. The fundamental shift is to market tourism not as a leisure product but as an experience that enhances quality of life, not just for the individual participants, but for living systems such as human including guests and the hosts. The tourism system is not limited to demand and supply but a system of synergetic components. Tourism experiences do not add to the quality of life but are part of living system communities.

Green tourism marketing suggests that there is a shift in tourism marketing paradigm from economic profit priorities toward sustainability. The sustainability approach adopts a holistic, integrated view of marketing, considering social equity, environmental protection, and economic viability. The paradigm shift naturally occurs by tracing the evolution of marketing approaches from production, sales, and a consumer orientation toward marketing alternatives such as societal, green, responsible, and relationship marketing (Jamrozy, 2007). Green tourism marketing model integrates tourism into a larger holistic context and focuses on quality of life for all stakeholders in the system. Towards sustainable tourism in Bali, it is important to implement the seven Ps of the marketing mix in the tourism industry in Bali, namely tourism product, price, promotion, place, people/participation, process and physical evidence through integrated green tourism marketing. It will results in not only tourist's satisfaction but also expanding it towards society's well being.

### **Indicator of Sustainability of Marketing Mix**

In sociocultural term, how does the marketing mix element demonstrate respect for the sociocultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance. In environmental term, how does the marketing mix element make optimal use of environmental resources, maintain essential ecological processes and help to conserve natural heritage and biodiversity? Meanwhile, in economic: How does the marketing mix elements ensure the viable of the long-term economic operations; provide long-terms socioeconomic

benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities; and contribute to poverty alleviation. The elements of the marketing mix are captured in the core values of the organisation, reflecting the nature of its relationships with key stakeholders, such as suppliers, consumers, employees, host communities and the environment. These relationships signal the degree of the organisation's sustainability orientation.

Marketing mix in tourism and hospitality consist of seven Ps which is accommodated as the expansion of the marketing mix of products developed by Kotler (1991) that originally consists of 4 (four) Ps namely product, price, promotion and distribution. Three additional elements of Ps proposed by Reid, et al. (2010) was added which consists of people, process and physical evidence as the marketing mix of service and hospitality (Reid, et al., 2010).

**Product** is anything that can be offered to a market to satisfy wants or needs (Kotler & Keller, 2006). In tourism, the destination might be the product, made up of private and public goods, or it might be the industry element, such as an attraction, accommodation service or tour operator. The marketer's level of control over the public element of the product will more limited relative to the private element. The host community may form part of the tourism product and impose some obligation on the tourism manager to work to ensure its collaboration rather than confrontation.

**Price** is the money charged for the product's consumption; it can influence demand and is therefore important in managing capacity use by helping to balance

load and is also a key positioning factor, influencing how the product, or brand, is thought of by the consumer relative to the competition (Kotler & Keller, 2006). While premium prices might be attained by niche sustainable tourism products, price rarely captures the full cost of the product's negative externalities. Gössling *et. al.*, (2009) give an example on airlines that invite passengers to voluntarily offset the carbon produced by their travel by adding to the price of their original ticket, but low subscription rates for such offset programmes essentially mean that the cost to the physical environment is not paid in full.

**Promotion** is the means by which firms attempt to inform, persuade, and remind consumers, directly or indirectly about the products and brands that they sell (Kotler & Keller). Marketing communications also represent the brand's voice and allow it to build relationships with customers (Kotler & Keller, 2006). Belz and Peattie suggest a dual focus for sustainability marketing communications: to communicate with the consumer about the sustainability solutions the company provides through its products, and to communicate with the consumer and other stakeholders about the company as a whole. A third focus, however, is the mode of promotion; while attention is paid to reducing environmental and sociocultural impacts in some areas of the organisation's operations, the means by which this is communicated to key audiences. Belz and Peattie (2009) give an example: the lengthy, full-colour brochures that appears without sustainability considerations. A recent increase in online communications and interactive sales promotions, while growth in the use of social media is also assisting relationship building.

**Place**, formally marketing channels, is the range of independent organizations involved in the process of making a product or service available for use or consumption (Kotler & Keller, 2006). In the context of tourism, these organisations add value along the value chain from origin to destination and include the firms and organisations that make up the industry element of Lieper's (1979) tourism system, such as destination marketing organisations, retail travel agencies, tour wholesalers, transportation providers, accommodation providers and attractions. As noted already, these organisations might, in producing consumer value, also add ecological or sociocultural harm.

**People** (residents) and **participants** (tourists) include all human actors who play a part in service delivery and thus influence the buyer's perceptions: namely the firm's personnel, the customer, and other customers in the service environment. Collaborative efforts need to be improved the physical and social environments (Zeithaml, *et. al.*, 2006). Langeard *et. al.*, (1981) highlight the role of human resource management and the notion of the customer mix as key sukses in the service offering. The concept of the customer mix, important for managing service performance outcomes for different consumers with varying needs and wants who are simultaneously present in a service delivery environment, such as a hotel or destination. The view of customers as co-producers of the tourism service (Booms & Bitner, 1981) highlights the need for tourism consumers, as with employees, to be carefully selected, educated and managed. Marketing traditionally undertakes these customer-management roles through targeting appropriate consumer segments and communicating the organisation's

expectations through various marketing communications techniques. Although the term People is now commonly used in Services Marketing literatures, we prefer to use Booms and Bitner's (1981) original term, Participants, in order to distinguish customers and employees from the oft-used People to refer to the broader communities, or society at large, of the triple bottom line.

**Process** describes how the service is assembled, the actual procedures, mechanisms, and flow of activities by which the service is delivered (Zeithaml, *et. al.*, 2006, p. 27). In the tourism context, process might describe such activities as follows: a move away from paper-based to digital booking and account management systems; production of alternative energy forms, such as solar or wind; management of the supply chain for food and beverages, and labour; the use of low-carbon emission transportation modes, such as hybrid- or electric-engine vehicles, for moving visitors to, within and from a destination; and having effective use-minimisation and recycling systems in place, particularly in environmentally precarious locations, such as islands, and protected areas.

**Physical evidence** consists of the environment in which the service is delivered and where the firm and customer interact, and any tangible components that facilitate performance or communication of the service" (Zeithaml, *et. al.*, 2006, p. 27). The important role of this element on both employees and consumers is highlighted in the concept of the service which has multiple functions, including providing employees and customers to move within, deliver and consume the service performance efficiently, respectively, and importantly to communicate with customers. In terms of sustainability, this communication

might involve the organisation's sustainability values, policies and procedures and what is expected of the customer, particularly as a co-producer of the service experience.

### **The Nature of Country of Origin**

Country of origin is one of the most important factors affecting competitive market. Studies show that country of origin is one of the factors that most concerned by marketers as indicator of quality and respect of its impact on consumer purchase intention (Ghazali, et. al., 2008); Lin, & C.S Chen, 2006 and Roth & Diamantopoulos, 2009). Although there are many parameters considered by consumers when decide to buy something, such as brand, colour and design, some researchers cannot ignore country of origin as an extrinsic factors in evaluating products. Country of origin is closely linked to country image. The earliest definition of country image comes from the pioneer, who defined it as the picture, the reputation, the stereotype that businessmen and consumers attach to products of a specific country. This image is created by such variables as representative products, national characteristics, economic and political background, history and traditions. Roth & Diamantopoulos (2009) reveal that country of origin is overall perception of consumers form of the products from a particular country, based on their prior perceptions of the country's production and marketing strengths and weaknesses. Country of Origin is usually abbreviated as "COO", which refers to the country that manufactures, designs or assembles a product or brand with which it is associated, meanwhile Geographical Origin express overall perception of consumers about product from a particular (i)

consumer group, (ii) industry representative, or (iii) island representative (Lee & Lee, 2009). There are various factors that have an impact on country of origin cues like product knowledge and country image. It has become a significant phenomenon in consumer behaviour studies. Availability of heterogeneous food product has been convinced that marketers need to understand customer's experience on attributes. According to Akerlof (1990) food labeling is viewed as a critical mechanism to help ensure consumers to correctly match with products, enable producers to adapt production to meet consumer demands and expectations. Product labels is an important determinant to facilitate the resolution of market failures associated with the supply of high-quality goods. One particular category of labels that has recently received extensive attention among trade representatives are "geographical origin" labels. Informing consumers of the origin of food products via labeling is motivated by the recognition that geography is often correlated with a product's overall quality or, in the stronger case, geography may even be a determinant of a product's ultimate realized quality (Lee & Lee, 2009).

Loureiro and McCluskey (2000) also reveal that Country of origin has been identified an important cue that might be used by global marketers to influence consumers' evaluation of the brand which effect on consumer's perceptions and purchase intention. The quality of agricultural products, consumer groups, industry representatives, and domestic and trade representatives have increasingly considered the potential role of geographical origin labels as consumer information and marketing tools.

## **2.10 Conclusion**

This chapter has reviewed some of the relevant literature on previous studies by a number of experts, including the role of marketing in sustainable tourism development, indicator of sustainability of marketing mix and the nature of country of origin. All of the above explanations will be useful in estimating tourism leakage and generating a strategy to minimize tourism leakage in Bali.

## **CHAPTER III**

### **RESEARCH FRAMEWORK AND CONCEPT**

#### **3.1 Introduction**

This chapter discusses the research framework and concept of this study. It begins with a discussion of the framework, followed by an examination of the concepts used to support the analyses. The concepts used in this study include sustainable tourism, tourism leakage, structure of SAM, accommodation in tourism, perception and preference, and Interpretative Structural Modeling (ISM). This is then followed by a list of the hypotheses tested during this research. This chapter ends with a brief conclusion.

#### **3.2 Framework of the Study**

Tourism leakage has been found to cause a reduction in the tourism benefits at a destination. Several experts say that an increase in leakage results in a decrease in tourism multiplier effects (Bull, 1991; Mill and Morison, 2009). Calculation of the percentage of leakage from tourist accommodation needs to be undertaken in order to understand how tourists' expenditures could benefit Bali's economy. The perceptions of foreign tourists in Bali also need to be assessed in order to find out what exactly it is that foreign tourists need, whether they prefer imported products or local products, as well as to assess their willingness to contribute to the Balinese people by spending their money on local products. It is also of vital importance to know the perceptions of hotel managers in order to get their points of view regarding their exact preferences on products to be served to

foreign tourists. Strategy for minimizing tourism leakage was generated based on all of the above results. Interpretative Structural Modeling (ISM) was used in developing this strategy. The results of this study will be useful in the creation of policy designed to improve the benefits of tourism to the Balinese community.

The framework for this study can be seen in Figure 3.1.

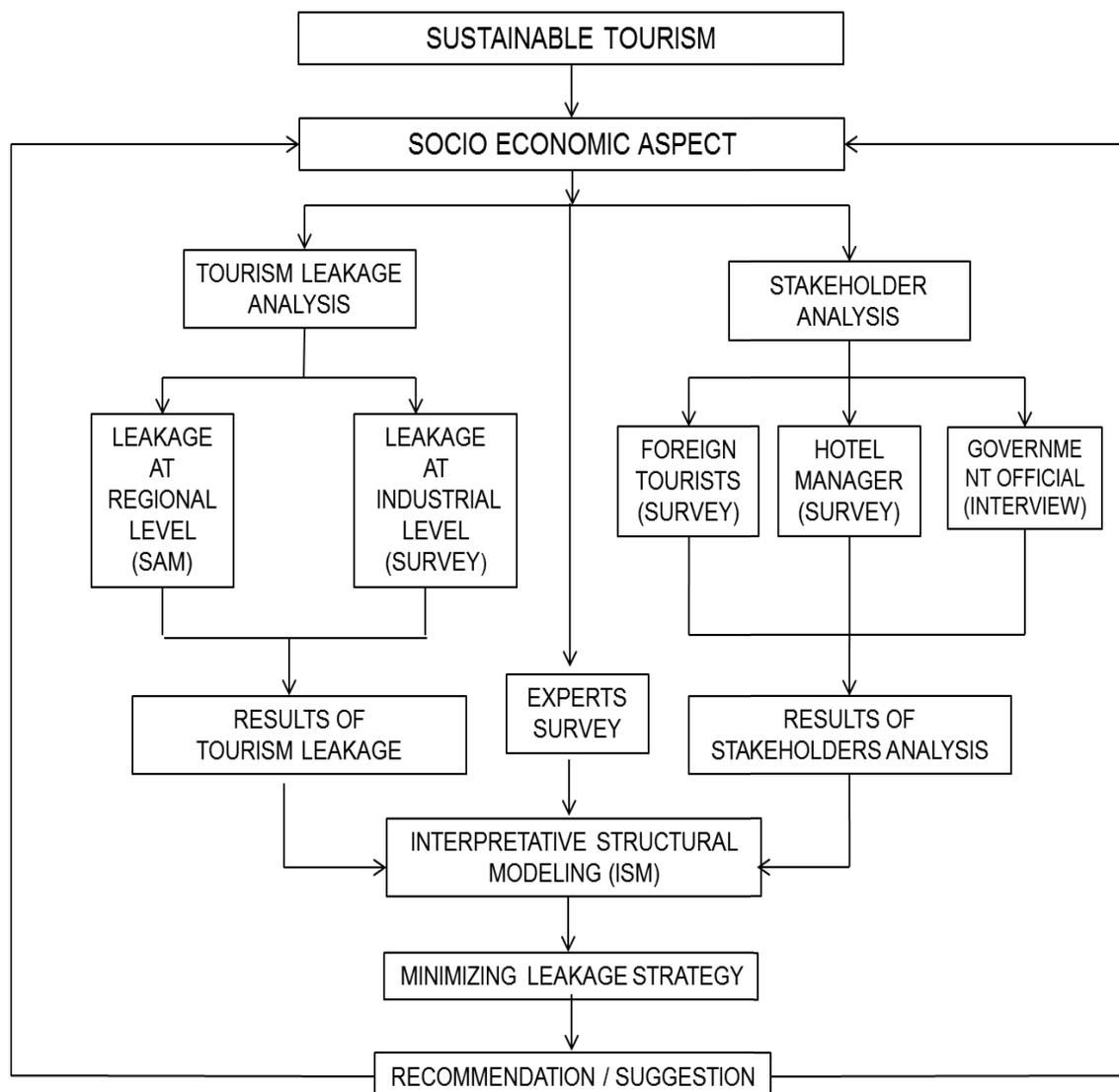


Figure 3.1. Framework of Study

### 3.3 Concepts

Based on the problem formulations and the objectives of the study, various concepts were examined. In order to clarify the model and variables used for calculating and evaluating tourism leakages in the accommodation sector in Bali, definitions and terminologies related to the concept are explained as follow.

#### 3.3.1 Sustainable Tourism

Sustainable tourism is defined by the World Trade Organization (1996) as:

*“ ... holistic systems that meet the need of present tourists and host regions while protecting and enhancing opportunities for the future as leading in managing all of resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support system...”* (WTO, 1996: p.127).

The concept of sustainable tourism was formulated in order to follow up the concept of sustainable development. The issues of sustainable development have been widely acknowledged since its appearance in „Our Common Future“ (WCED, 1987). Sustainable development is defined as:

*“ ... development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The concept of 'needs' in particular the essential needs of the world's poor, to which overriding priority should be given, and the idea of “limitations” imposed by the state of technology and social organization on the environment's ability to meet present and future needs...”* (WCED, 1987).

Sustainable development has been expressed as an adaptive process of change in which the exploitation of resources, the direction of investment and the orientation of technological development changes are made to meet the needs of present and future generations for a better life. Moffat (1993) cited in Wiranatha and Dalem (2010) summarizes components of sustainability as maintaining ecological

integrity and diversity, meeting basic human needs, keeping options open for the future, reducing injustice and increasing self-determination. In terms of tourism development, the concept of sustainable development, so called sustainable tourism, could include three main aspects, namely: sustainability, education and local participation. The aspect of sustainability should cover four ideas, namely it should be environmentally friendly, socially responsible, culturally acceptable and economically viable.

- “Environmentally friendly” means to avoid or minimize the environmental impact of tourist activities.
- “Socially responsible” refers to the ability of the community to absorb input for short or long periods of time, and to continue functioning either without the creation of social disharmony as a result of these inputs or by adapting its functions and relationships, so that the disharmony created can be alleviated or mitigated.
- “Culturally acceptable” refers to the ability of people to retain or adapt elements of their culture which distinguish them from other people. Cultural impacts are more easily seen over the long term and are therefore more difficult to measure.
- “Economically viable” refers to a level of economic gain from the activity sufficient either to cover the cost any special measures taken to cater for the tourist and to mitigate the effects of the tourist’s presence or to offer an income appropriate to the inconvenience caused to the local community visited - without violating any other conditions - or both.

Sustainable tourism includes education for both tourists and hosts. Education for tourists means to provide enlightenment to the tourists concerning the cultural ways and norms of those people whom they are visiting. On the other hand, education for hosts means to give training to the „hosts“ so they are better able to cater for the wishes of the tourists who visit them. Finally, sustainability could be more comprehensive with local participation. Thus the hosts can obtain direct benefits from tourists who visit their area (Martopo and Michelle, 1995 cited in Wiranatha and Dalem, 2010).

### **3.3.2 Tourism Leakage**

In economic terms, leakage could be defined as losses from the national income flows which have been generated during the transition from the local/national consumption income cycle to the spending chain (Bull, 1991). According to the United Nations Environmental Program (UNEP, 2010), there are two main ways that leakage occurs namely import leakage and export leakage. Import leakage occurs when tourists demand standards of equipment, food, and other products that cannot be supplied by the host country, especially in less-developed countries. Food and drinks must often be imported, since local products cannot fulfill the standards set by the hotel, or the host country does not have a supplying industry. Much of the income from tourist expenditures leaves the country again to pay for these imports. Moreover, export leakage arises when overseas investors who finance the resorts and hotels take their profits back to their country of origin ([www.unep.fr/scp/tourism/sustain/impacts/economic/negative.htm](http://www.unep.fr/scp/tourism/sustain/impacts/economic/negative.htm)).

Tourism leakage, in its general meaning, is the part of the tourist expenditure that leaks out of the economy of the host country. McIntosh and Goeldner (1995) define tourism leakage as a combination of imports and savings. According to their definition, imports constitute tourism leakage because tourism revenue is spent outside of the local economy to purchase imported goods and services. On the other hand, earnings generated from tourism, if saved and not loaned to other spenders within a year, are also regarded as leakage because they will not further stimulate the local economy. However, Smith and Jenner (1992) argue that tourism leakage occurs not only because of imports of capital goods and consumables for the tourism industry but also because of debt interest and equity profits repatriated to foreign countries by foreign individuals or companies.

Lejarraga and Walkenhorst (2010) state that tourism brings about several impacts on the destination, namely primary (direct) and secondary (indirect and induced) impacts (Figure 3.2). Direct impacts accumulate from initial tourist spending in the tourism industry, such as on hotel accommodations, transportation and entertainment. Indirect impacts are generated through purchases of goods and services from non-tourist sectors of the local economy, such as food and beverages, equipment, furniture and merchandise. Induced effects are attributable to the increased income of wage-earners related to the tourism economy, such as waiters, tour operators and construction workers, who in turn buy goods and services in the general economy.

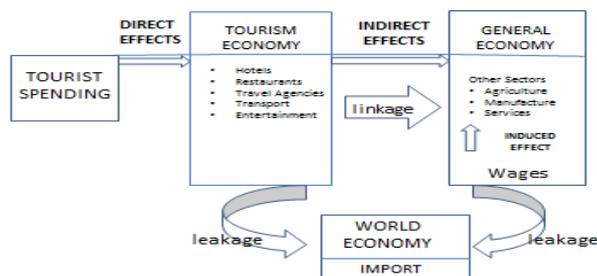


Figure 3.2. Effect of Tourism: Direct, Indirect and Induced Effects  
(Source: Lejarraga and Walkenhorst, 2010).

Lejarraga and Walkenhorst (2010) undertook a study on linkages and leakage in tourism for 151 countries, and they found that (i) low income countries are characterized by indirect effects and higher levels of leakages; (ii) a low degree of leakage is normally associated with a high degree of linkages between tourism and the general economy; and (iii) tourism linkages and leakage are both positively associated with per-capita incomes. Producers in host countries with a high per-capita income naturally find it easier to cater for the demands of tourists. Suggestions arising from their studies are that government should improve intensive linkages between the general economy and the tourism sector, and reduce leakage to increase welfare.

### 3.3.3 Structure of Social Accounting Matrix (SAM) of Bali 2010

The Structure of the Social Accounting Matrix of Bali 2010 consists of eight main accounts, namely: (i) production factors account; (ii) institutions account; (iii) production sectors account; (iv) trade and transportation margin account; (v) commodities account; (vi) capital account; (vii) indirect tax account;

and (viii) the foreign (Rest of the World) account. These main accounts are extended into 63 accounts, namely: (i) 9 production factors accounts, comprising 8 labour accounts and one non labour account; (ii) 12 institution accounts, comprising 10 household accounts, one companies account and one government account; (iii) 19 production sectors accounts; (iv) one trade and transportation margin ; (v) 19 commodity accounts; and (v) 3 exogenous accounts, comprising one capital account, one indirect tax account and one foreign (Rest of the World) account. The complete Social Accounting Matrix (SAM) Account of Bali 2010 which consists of 63 accounts can be seen in Appendix 2.2.

#### **3.3.4 Accommodation in Tourism**

Hospitality is the general term associated with both hotels and restaurants. The term accommodation industry refers specifically to the lodging or hotel industry, while the food and beverages industry refers to the catering industry. These industries encompass a variety of facilities and are a dynamic part of the global travel and tourism industry. Everywhere the traveler goes, a place to eat and a place to stay are necessities. The accommodation industry represents a wide range of lodging facilities from luxurious resorts to modest bed and breakfast establishments. This range of facilities reflects the different needs and preferences of travelers and market dynamics (WTO, 1997).

##### Classification of Accommodation

Accommodation can be classified into various categories, illustrating the diversity of the industry. The wide array of available room types and amenities is

the reflection of an industry that must respond to various consumer needs, including the social and business needs, of the travel market. Any attempt to establish a uniform classification system faces the problem of differing types of accommodations around the world. In 1962, The International Union of Official Travel Organizations, a forerunner of the World Tourism Organization, attempted to establish a globally uniform hotel classification system. Various attempts have been made, but the obstacles to a uniform classification system include variations in definitions, facilities, service standards, management and cultural influences on service which can differ dramatically from country to country (Gee, 1994). While many of the definitions used are similar in a global tourism market place, there are differences among countries between commercial and official classifications (WTO, 1997).

a. Hotels

The term “hotel” has assumed a generic meaning around the world applying to a wide range of property types. According to WTO (1997), there is no one way to classify the different types of hotels. In some countries, the key to the property’s type is based on its amenities identified by the descriptor preceding the word “hotel”. In general, these descriptors identify the target markets that the property aims to attract such as airport hotel, convention hotel, commercial hotel, luxury hotel, budget or economy hotel and resort hotel.

WTO (1997) added that hotels differ by amenities and the levels of service offered. At the lowest level, budget motels tend to focus on cost-conscious travelers as their target market. The overall goal of these establishments is to keep

costs down and pass the operational savings on to the customer. The limited amenities offered vary from chain to chain, each attempting to establish a price-value relationship in the consumers' minds.

b. Resort Properties and Time Shares

According to WTO (1997), resorts are found worldwide, wherever people gather for activities as diverse as golf, tennis, spas, skiing, or a combination of similar recreational activities. Because the resort guest is typically a longer stay client, resort properties generally offer more activities and extended amenities than urban hotels. Although many resort properties are surf-and-sun destinations, resorts today are becoming more specialized (WTO, 1997: 74).

Time shares, like resorts, tend to be located in popular tourist destinations. Time shares basically are individually owned "hotel room interval" which allow the owner to access generally upscale accommodations for a usually fixed period of time each year. The attraction of time share accommodations is that they tend to be more apartment style and may be a part of a hotel, resort, or condominium. The arrangement is a permanent one unless the ownership share in the property is disposed of. Increasingly, the properties are managed by specialized management companies including several major international hotel management organizations such as Marriott, Hilton Hotel Corporation and Disney (Travel and Tourism Intelligence, 1997 cited in WTO, 1997).

c. The Casino/Destination Properties

The Casino/Destination Properties has long been recognized as a specialized property with gaming as the central activity. The concept has been

well-known as accommodations which offer casinos, golf course, a jungle theme park or other entertainment attractions as part of the large resort complex. These properties function to a large degree as self-contained destinations which attempt to keep the guest, including family members, at the property as much as possible. To accomplish this, the resorts include extensive amenities and generally some types of theme park which are part of the property. Although gaming remains central, the extended amenities serve to capture more of the tourist expenditures from all members of the family unit (WTO, 1997).

#### d. Bed and Breakfast

WTO (1997) said that bed and breakfast (B and B) runs the scale from luxury to economy-type accommodations. The business of B and B becomes more highly organized with many of the properties joining international reservations systems. Other modest establishments which offer breakfast and sometimes light meals include hotels and pensions which are often family-run operations.

According to the Indonesian Law on Tourism, No. 14 / 2009, accommodation businesses are part of the tourism industry. In Article no. 14.1 (f), it is stated that accommodation services include hotels, villas, motels, caravans and any other type of accommodation intended for tourism. In this study, the accommodation sectors in Bali which were chosen for sampling are classified into: (i) non-star rated hotels; (ii) 1,2&3 star-rated hotels; (iii) 4&5 star-rated non-chain hotels; and (iv) 4&5 star-rated chain hotels.

### 3.3.5 Stakeholders in Tourism

Tourists view a tourist destination as a whole that is composed of different elements. It is a complex phenomenon and involves different parties which can be viewed as stakeholders. The Stakeholder approach began in organizational management and ethics. It was proposed by Freeman (1984) who suggested that an organization is characterised by its relationship with various groups and individuals. Freeman (1984) defined a stakeholder as:

*“ ... Any group or individual who can affect or is affected by the achievement of the organization's objectives ... ”* (Freeman, 1984: p.46).

In tourism, Freeman (1984) states, stakeholders consist of tourists, government, community, owners of the accommodations or services in tourism industries, associations of tourism industries and experts who have experience in the development of tourism. According to Donaldson & Preston (1995) and Mitchell *et. al.* (1997), the above definition presents a very broad understanding of a stakeholder and it allows almost anyone to be considered a stakeholder. Freeman's definition has been narrowed by Clarkson (1995) who describes stakeholders as “risk-bearers”. He argues that “without the element of risk there is no stake”. Under these definitions however, stakeholders may include: persons, groups, neighbours, organisations, institutions, societies and even the natural environment (Mitchell *et al.*, 1997).

Clarkson (1995) divided stakeholders into two groups: (i) primary stakeholders i.e. those stakeholders without whose continuing participation the organisation cannot survive as a going concern and (ii) secondary stakeholders i.e.

those stakeholders who influence or affect, or are influenced or affected by the organization, but are not engaged in transactions with the organisation and are not essential for its survival. Involvement of stakeholders is really important. Clarkson (1995) found that failure to retain the participation of even a single primary stakeholder group will result in the failure of that corporate system.

Freeman (1984) says that community participation is required in the sustainable tourism development process. Mitchell *et. al.* (1997) suggest that community participation is the very foundation of the sustainability paradigm. However, community participation in tourism development can be a challenge for decision makers, because community members may have a variety of perceptions, attitudes and beliefs about tourism development. The community may not speak with one unified voice, as the members may have different levels of economic dependence on tourism or varying degrees of attachment to the surrounding environments and culture.

### **3.3.6 The Complexity of Consumer Behaviour in Travelling**

Tourist plays an important role in increasing the popularity of a destination. Tourist behavior in choosing a destination has a significant relationship to perception of tourists to destination (Goodrich, 1978; Solomon, 1999; Andriotis, 2005). Mechanisms in forming interaction between tourists and destinations play an important role in creating a relationship between tourists and destinations.

Study by Davis (2003) found that in the summer, visitors have a different orientation in the tour. Some visitors concerned with physical attraction, prefer

outdoor sensations such as beach, landscape, cultural attractions and entertainment. Other groups tend to focus on exploring the environment and culture. It is suggested in his study that the process of innovation in the tourism industry should be focused on better mechanisms to manage a destination. Oh (1999) evaluates the service quality, customer satisfaction and loyalty, that the holistic management model must be applied in destination management. Understanding the consumer decision making process which focuses on customer value as a variable that is very important because of its strength rests on the perception and selection on quality customer service and customer satisfaction. It also said that the quality of service can be a mediator between perception and customer choice.

Andriotis (2005) conducted a study on the perceptions and preferences of the community in the development of tourism to boost local economies. The goal is to determine whether the entrepreneur in the field of tourism and the local population has a positive dependence on tourism development. Benchmarks used in these studies is to use public perception as a guide in the development of future tourism. The results showed that the perceptions and preferences of the public in the area of tourism to boost the economy is really important. Three groups expressed their perceptions exist at high levels positively to the development of tourism, although there are some differences in their agreements relating to the type and origin of tourists, facilities, and management models that are considered beneficial to the area.

Goodrich (1978) conducted a study on the relationship between perceptions and preferences on a destination. Studies demonstrate how the choice of a tourist destination depends on the perception of the fun of these destinations. The results showed that the higher the score, the higher the perception of choice for the destination. The implication of this study is associated with the marketing of a destination, where stakeholders (stakeholders) should seek to develop a positive image of a destination in order to improve the tourist choice of areas that became a tourist destination. Another implication is that the diagnosis of strengths and weaknesses on attributes relevant tourism is very helpful in making changes specifically related to the facilities and services in a destination.

Lin et al. (2012) say that recreation is an activity that is very interested in their spare time to improve the quality of life. In modern society, sports is very important to improve the experience of the different cultures and lifestyles as a form of appreciation for the economic prosperity and progress in the field of technology. Factors that affect tourist arrivals to a destination is a traveler motif, features a destination, distance to destination and tourist perceptions of a destination. Study on the relationship between consumer behavior to marketing an amusement park in Taiwan concluded that consumer behavior has a positive correlation to the perception of tourists in the marketing mix (marketing mix) at the amusement park. Evaluation before making a visit to have a positive relationship to the price. The relationship the highest found in the price (price) and place (place). Among the demographic variables, sex (gender) have a significant impact on consumer choice based on security, comfort and price level. Age and

area of residence has a significant relationship to consumer choice on pricing strategies and marketing activities. This study suggests that attention to market segments based on age, sex and area of residence, because it will affect consumer behavior after carrying out payment transactions on the perceived quality of service.

### **3.3.7 Determinants of Tourist Satisfaction on Destination**

#### **3.3.7.1 Perception and Preference**

Perceptions and preferences are widely used in social research, especially in consumer behavior, such as the study by Solomon (1999) which says that perception is one of the psychological factors that are closely related to the sensory system that plays an important role in influencing decision-making. This response is an important part of the emotional aspects of the interaction of consumers towards products. Moreover, Solomon (1999) defined perception as:

*“...a process that occurs in the mind of consumer where the sensation is selected, organized and interpreted while preference is a further expression of the perception which is expressed in an action based on choice and consumer interest. Action will be taken after going through a long process in the minds of consumers...”* Solomon (1999:43)

Meanwhile, Waite and Hawker (2009) define perception as:

*“ ... ability to see, hear or be aware of something that express a particular understanding as a process of perceiving...”* (Waite and Hawker, 2009: 26).

Solomon (1999) adds that factors influence preference of consumers is consumer insight about products or services, income, tastes or interests of consumers, culture, and previous experience in consuming products and services. This opinion is supported by Kim and Jamal (2007) which states that the perception is

the process by which a person chooses, organizes and interprets information to create a picture of what is seen and felt. Solomon (1999) explains that barriers to receiving marketing messages occur as a result of the limitations of the brain to process information, so that consumers are very selective about what they watch.

Perception has a very close relationship with the sensory system, whereby external stimuli or sensory inputs can be received on a number of channels. The inputs picked up by our five senses constitute the raw data that begin the perceptual process. These responses are an important part of hedonic consumption and the emotional aspects of consumers' interactions with a product. The unique sensory quality of a product can play an important role in helping it to stand out from the competition, especially if the brand creates unique associations with that sensation.

Solomon (1999) points out that barriers to receiving marketing messages arise as a result of the limitations in the brain's ability to process information, so that consumers are very selective about what they pay attention to. The process of perceptual selection means that people tend to be stimulated by only a small portion of the stimuli to which they are exposed. Consumers practise a form of "psychic economy", picking and choosing among stimuli to avoid being overwhelmed. In addition, they also practise "perceptual vigilance", meaning that they are more likely to be aware of stimuli that are related to their current needs. The flip side of perceptual vigilance is "perceptual defense". This means that people see what they want to see and don't see what they don't want to see.

If a stimulus is threatening to us in some way, we may not process it or may distort its meaning so that it becomes more acceptable.

Reisinger (2009) states that the degree to which consumers continue to notice stimulus over time is known as “adaptation.” He says that the process of adaptation occurs when consumers no longer pay attention to a stimulus because it is so familiar. A consumer can become habituated and require increasingly stronger “doses” of a stimulus for it to be noticed. Several factors can lead to adaptation, namely intensity, duration, discrimination, exposure and relevance. “Intensity” means that less intense stimuli are less likely to be noticed. “Duration” refers to the length of exposure to the stimulus; stimuli that require a relatively lengthy exposure time in order to be processed tend to habituate because they require a long attention span. “Discrimination” relates to simple stimuli that tend to habituate because they do not require attention to detail. “Exposure” refers to the frequency of exposure; frequently encountered stimuli tend to habituate as the rate of exposure increases.

Furthermore, Kim and Jamal (2007) state that perception is the process by which an individual selects, organizes and interprets information to create a meaningful picture of the world. Perception is one of the social and psychological factors which, together with other factors such as personality, learning, motives and attitudes, play an important role in influencing a person’s travel decisions.

Preference represents a person’s/customer’s choices, their interests, likes or dislikes. Action will be taken after a long process in the customer’s mind. Several factors have an effect on a customer’s choices, such as income, taste,

culture, and previous experience. In addition, Solomon (1999) states that preference is strongly affected by the customer's point of view, previous experiences, culture, and income.

In this study, these concepts of perception are used to assess how the perceptions of hotel owners/management are related to their points of view regarding reduction in the use of imported goods and services as well as foreign employees in their hotels. Furthermore, those concepts are also adapted to obtain tourists' opinions about certain imported goods.

#### 3.3.7.2 Motivation

Despite sharing equal degrees of satisfaction, tourists with different personal features can report heterogeneous behaviour in terms of their loyalty to a destination (Mittal and Kamakura, 2001). Motivation is defined as “... *reasons for acting or behaving in a particular way toward attaining a goal* ...” (Khan, 1991). As a basic psychological feature, motivation stimulates an organism to act towards a desired goal, controls and sustains a certain goal. It can be considered as a driving force which psychologically reinforces an action toward a desired goal (Bashar, 2010). Motivation is an internal factor that leads people to choose and pursue certain goals and experiences (Higgins et al., 2003). Meanwhile, motivation provides suggestions for increasing level of desire to learn effectively includes interest, attention, relevance, confidence and satisfaction (Allesi and Trollip, 1991). Regarding this study, motivation related to reasons to visit Bali as a destination, which consists of vacation, visiting friends and relatives (VFR),

office task, MICE (Meeting, Incentive, Conference and Exhibition), business, religious, education /research, health/beauty, and sport.

Motivations form the basis of the travel decision process and therefore should also be considered when analysing destination loyalty intentions. Beerli and Martín (2004) propose that “motivation is the need that drives an individual to act in a certain way to achieve the desired satisfaction” (Beerli and Martín, 2004:626). Motivations can be intrinsic (push) or extrinsic (pull). Push motivations correspond to a tourist’s desire and emotional frame of mind. Pull motivations represent the attributes of the destination to be visited. Yoon and Uysal (2005) take tourist satisfaction to be a mediator variable between motivations (pull and push) and destination loyalty. The effect of socio-demographic variables in the tourist decision process is also an issue which has received some attention. Some studies propose that age and level of education influence the choice of destination (Woodside and Lysonski, 1989; Weaver *et. al.*, 1994; Zimmer *et. al.*, 1995). Font (2000) shows that age, educational level, nationality and occupation represent factors of motivation to travel.

Oliver (1999) states that loyalty is a construct that can be conceptualised by several perspectives. Homburg and Giering (2001) measure the construct “future behavioural intention” by using two indicators: the intention of repurchase and the intention to provide positive recommendations. In tourism research, similar approach is adopted and tourist loyalty intention is represented in terms of the intention to revisit the destination and the willingness to recommend it to friends and relatives (Oppermann, 2000; Bigné, *et. al.*, 2001; Chen and Gursoy,

2001; Cai, *et. al.*, 2003; Nininen, *et. al.*, 2004; Petrick, 2001). Therefore, two indicators, “revisiting intention” and “willingness to recommend” are used as measures of destination loyalty intention.

### 3.3.7.3 Familiarity

Familiarity is a quality or condition for being familiar which is classified into spatial proximity and expertise of the country (Bashar, 2010). Spatial proximity describes proximity to an area, while country expertise is the accumulation of a person’s experience of the quality of a destination. In this study, familiarity is related to the satisfaction of tourists during their visit in Bali. It was based on “country of residence” (F1) which covers five continents namely Europe, America, Australia, Africa, and Asia, while “large code of residence” (F2) denotes the residential areas where they live, namely: Old Europe, North Europe, East Europe, South Europe, USA, South America, Africa and Saudi Arabia, Australia, Asia and Indonesia . Meanwhile, country expertise is the accumulation of experience of the quality of a destination (Bashar, 2010). In this study, it is measured in terms of „periodicity“ in visiting Bali (F3) and “visit more than 5 times” (F4). All of the above variables influence people’s travel choices (Reisinger, 2009). The emotional experience of foreign tourists is one of the indicators which can be used to assess their level of satisfaction during their visit. Previous experience influences people’s decision to revisit a destination (Mill and Morrison, 2009). This kind of experience was also assessed in this research.

#### 3.3.7.4 Expectation

Expectation is a cognitive process of motivation which based on the idea that people believe there are relationships between the effort they have made, the performance they achieve and the rewards they receive from their effort and performance. People will be motivated if they believe that strong effort will lead to good performance and good performance will lead to desired rewards (Lunenburg, 2011). Expectancy theory is based on four assumptions (Pinder, 1987). The first assumption is that people join organizations with expectations about their needs, motivations, and past experiences. These influence how individuals react to the organization or activities. The second assumption is that an individual's behavior is a result of conscious choice which means that people are free to choose those behaviors suggested by their own expectancy calculations. The third assumption is that people want different things from the organization (experience, good salary, job security, advancement, and challenge), and the fourth assumption is that people will choose among alternatives to optimize outcomes for them personally. The expectancy theory based on these assumptions has three key elements, namely expectancy, instrumentality, and valence. A person is motivated to the degree that he or she believes that effort will lead to acceptable performance. Performance will be rewarded and the value of the rewards is highly positive (Pinder, 1987). In this chapter, expectation relates to fulfilment of foreign tourists expectations regarding the whole trips in Bali.

### 3.3.8 Interpretative Structural Modeling (ISM)

Interpretative Structural Modeling (ISM) is one of the soft system modeling that can be used in generating a model which are composed by complex issues and unclear elements to become a comprehensive systematic and structured model. Attri and Sharma (2013) define Interpretative Structural Modeling (ISM) as:

*“ ... a process aimed at assisting the human being to better understand what someone believes and to recognize clearly what someone does not know ... ”* (2013: 4).

As a well-established methodology through identifying relationships among specific items and as an interactive learning process, ISM can also be used in generating strategic planning, designing the process, financial decision making, human resources, competitive analysis, ect. (Chidambaranathan, *et.al.*, 2009).

ISM methodology suggests the use of expert opinions based on the various management techniques such as brain storming in developing the contextual relationship among a number of variables. So that, respondents involved in the ISM program are experts who have capabilities and should thoroughly understand the problems and identifying the nature of contextual relationships among the various factors.

Stages in undertaking the ISM program are as follow (Attri and Sharma, 2013):

1. Identify the variables which are relevant to the problem or issue, and then extends with a group problem-solving technique. In this stage, a contextually relevant relationship is developed.

2. Generate a structural self-interaction matrix (SSIM) based on pairwise comparison of variables. The SSIM is converted into a reachability matrix (RM) and generate the structural model.
3. Identify the key factors that drive the system in various categories. Based on their driver power and dependence power, the factors have been classified into four categories, i.e. autonomous factors, linkage factors, dependent and independent factors.

Details of the key factors are as follow:

- a. Autonomous factors. These factors have weak driver power (DP) and weak dependence power. They are relatively disconnected from the system, have few links and may be very strong.
- b. Linkage factors: These factors have strong driver power and strong dependence power. These factors are unstable in any action and will have an effect to the others.
- c. Dependent factors. These factors have weak driver power but strong dependence power.
- d. Independent factors. These factors have strong driver power but weak dependence power. A factor which has a very strong driver power called the „key factor“ falls into the category of independent or linkage factors.

Previous studies use the ISM approach is the study by Saxena et. al. (1990) which identified the key variables using direct and indirect interrelationships amongst the variables and presented the results of the application of ISM

methodology to the case of “Energy conservation in the Indian cement industry”. The results of his study was generate a model to save the energy through energy conservation.

Another study was undertaken by Qureshi *et. al.* (2007) which applied the ISM approach to develop a model of key variables of logistics in outsourcing relationships between shippers and logistics service providers and to study their influence on the productivity and competitiveness of the shipper company. The results indicate that ISM approach is very useful method in developing the model in order to improve efficiency and productivity of logistic service providers.

### **3.4 Hypotheses**

Based on the problem formulations, the following hypotheses have been developed:

- 1) Tourism leakage exists in all types of accommodation in Bali.
- 2) Government subsidies and import reduction by the accommodation sector have impacts on tourism leakage, job opportunities and income distribution.
- 3) Foreign tourists have a positive perception of local products.
- 4) Foreign tourists show a significant preference for local products.
- 5) Foreign tourists are willing to spend their money to benefit Balinese people.
- 6) There is a willingness on the part of hotel managers to reduce the use of imported products and give the priority to local products.
- 7) By setting up an appropriate strategy, tourism leakage in the accommodation sector can be minimized.

### **3.5 Conclusion**

This chapter discusses how the framework of this study is generated and supported by the concepts used in this study. It also identifies the variables that are related to the concepts. Finally, it lists the hypotheses that relate to the research problems.

## **PART II**

### **RESEARCH METHODS, RESULTS AND DISCUSSION**

## **CHAPTER IV**

### **RESEARCH METHOD**

#### **4.1 Introduction**

This research is designed using both quantitative and qualitative approaches. Quantitative analyses were undertaken: (i) to calculate the amount of tourism leakage from the accommodation sector in Bali at micro (industrial) level; (ii) to calculate the amount of tourism leakage from the accommodation sector in Bali at macro (provincial) level; (iii) to evaluate the possible impact of government subsidies and import reduction by the accommodation sector on tourism leakage, job opportunity and income distribution; and (iv) to evaluate the perceptions and preferences of foreign tourists regarding imported and local products as well as their willingness to spend their money to benefit Balinese people. Qualitative analyses were undertaken: (i) to evaluate hotel managers' points of view regarding the use of imported and local products and their willingness to reduce the purchase of imported products; and (ii) to develop a strategy for minimizing tourism leakage based on Interpretative Structural Modeling (ISM).

This chapter is organised into eight sections, namely:

- (i) Section 1: introduction to this chapter.
- (ii) Section 2 discusses how the micro analysis was conducted. It includes information on the research locations and types of accommodation used in this study, the time required for conducting the survey, the method of

sampling used to select hotels, the variables used in calculating tourism leakage, as well as the formulae used in the micro analysis.

- (iii) Section 3 discusses how the macro analysis was undertaken, the sources of data used, and the formulae used in the macro analysis. This section also explains the circular flow of tourist expenditure based on the Social Accounting Matrix (SAM) of Bali Province 2010. How to calculate tourism leakage based on the macro analysis is also discussed in this part.
- (iv) Section 4 discusses how government subsidies together with the participation of the tourism industry could reduce leakage, increase job opportunity and improve income distribution, as calculated through the use of simulations.
- (v) Section 5 describes how foreign tourists' perceptions and preferences were assessed, regarding imported and local products as well as the extent to which they agreed that the money they spent was beneficial for Balinese people.
- (vi) Section 6 discusses how the research on hotel managers' points of view was conducted. This investigated their views on imported and local products as well as their willingness to reduce the use of imported products and pay more attention to using local products in their hotels.
- (vii) Section 7 discusses how Interpretative Structural Modeling (ISM) can be designed to develop a strategy for minimizing tourism leakage in Bali.
- (viii) This chapter ends with a brief conclusion.

## **4.2 Micro Analysis in Calculating Tourism Leakage from the Accommodation Sector**

### **4.2.1 Research Location and Period of Research**

Research for the micro analysis was undertaken at four main tourism destinations in Bali Province, i.e. Kuta, Nusa Dua, Sanur and Ubud during the period of April to June 2013. The locations for this research were selected purposively on the basis that the above destinations are the main tourist destinations in Bali (see Appendix 3.1).

### **4.2.2 Sample Design**

The sample for this micro analysis was designed to calculate tourism leakage from the accommodation sector as well as to obtain hotel managers' points of view regarding the use of imported and local products. The Probability Proportional to Size (PPS) sampling method proposed by Kish (1965: 234) and Yamane (1973) was applied in this research. Probability Proportional to Size (PPS) is a sampling procedure under which the probability of a unit being selected is proportional to the size of the ultimate unit. All units in the population have the same probability of selection irrespective of the size of their cluster (Kish, 1965: 234; and Yamane, 1973).

Three clusters of accommodation were chosen, namely: (i) 1,2&3 Star-rated hotels; (ii) 4&5 Star-rated hotels, both chain hotels and non-chain hotels; and (iii) Non-star rated hotels. The formula proposed by Kish (1965: 234) and Yamane (1973) is:

$$n = \frac{N}{N \cdot \alpha^2 + 1}$$

where:

n = sample size

N = population

$\alpha$  = error

The population of each of these three types of hotel can be seen in Table 4.1. Using this formula with error below 20% ( $\alpha < 0.2$ ), the number of hotels required for the sample was calculated to be 79 (Table 4.1). According to Sevilla *et. al.* (1993) the maximum degree of error that can be tolerated in social science is about 20%.

**Table 4.1**  
**Determination of Sample Size**

No	Cluster	Population (N)	Sample Size (n)	Error ( $\alpha$ )	Remarks
1.	1,2&3 Star-rated hotels	70	21	18%	-
2.	4&5 Star-rated hotels	85	26	17%	12 chain hotels 14 non-chain hotels
3.	Non-star rated hotels	1,563	32	18%	-
Total		1,718	79	18%	

Source: Developed for this research, with data from *Bali in Figures 2011*.

#### 4.2.3 Scope of the Study

The scope of this study is micro level, and is restricted to the accommodation sector. The primary research to measure leakage was undertaken in the area of accommodation only. Tourist spending on accommodation has

been considered to be the highest in comparison to the other subsectors of tourism. About 40.5% of foreign tourist spending and about 35.9% of domestic tourist spending were received as payment for accommodation (Bali Government Tourism Office, 2011).

#### 4.2.4 Method of Data Analysis

The method for calculating tourism leakage was constructed based on the model developed by Unluonen, *et. al.* (2011), but it was modified to calculate tourism leakage from the accommodation sector only. The operational equations are outlined as follow:

$$L = \sum_{i=1}^n L_i$$

where:

L = total leakage

$L_i$  = the leakage items in a group  $i$ .

$n = 3$ , where  $L_1$  is the import leakage group,  $L_2$  is the delayed leakage group, and  $L_3$  is the invisible leakage group.

In this study, the delayed leakage ( $L_2$ ) and the invisible leakage ( $L_3$ ) are not calculated. The import leakage group ( $L_1$ ) is the only form of leakage that is examined in this study, using the following equation:

$$L_1 = \sum_{k=1}^v L_{1k}$$

where :

The number of import leakage items ( $v$ ) was 8

and :

$L_{11}$  = Total payments for the import of goods and services for consumption and investment made by the accommodation sector.

$L_{12}$  = Total payments of earnings transferred abroad, for licenses, technology transfers, royalties, patents, etc. in the accommodation sector.

$L_{13}$  = Total percentage payments to foreign banks for credit card transactions made by foreigners.

$L_{14}$  = Total savings of foreign employees in the accommodation sector and the money they send abroad.

$L_{15}$  = Interest payments on credit provided from abroad

$L_{16}$  = Total payment abroad for training personnel needed by the accommodation sector

$L_{17}$  = Payments for international marketing and promotion by the public sector

$L_{18}$  = Payments for international marketing and promotion by the accommodation sector

Assumptions of the model by Unluonen, *et. al.* (2011) are as follow:

- (i) All imported goods and services that are tourist-related are used in the country of import,
- (ii) The saving tendency of expatriates is equal to the saving tendency of citizens,

- (iii) Regardless of why and by whom they are done, all marketing and promotion activities make some contribution to the tourism demand in the country, and
- (iv) The demand generated from one unit of import input is equal for both tourists and residents.

#### **4.2.5 Variables of Micro Analysis**

Basically, the variables in this study consist of imported products, foreign employees, foreign services, and hotel incomes. All of the variables are outlined below:

- (i) Imported products were classified into imported foods, imported beverages, imported equipment (utensils) and other imported goods and materials related to design, furniture and decoration used in the hotel.
- (ii) Foreign employees is the number of foreigners who work in the accommodation sector as well as their wages and salaries (payment for foreign employees).
- (iii) Foreign services include any fees related to the operation of hotels undertaken overseas, such as services abroad, and payments for foreign productions, overseas education and training costs for hotel employees.

Details of the variables related to the cause of leakage that are used in this study are listed in Table 4.2.

Table 4.2  
Summary of Indicators and Variables Related to Cause of Leakages

No	Indicators	Variables (unit/year)
1	Imported foods	a. Imported meat (beef, chicken, pork, lamb). b. Imported fisheries (fish, prawns, lobsters, octopus, and squid). c. Imported processed food
2	Imported beverages	a. Imported dairy products (fresh milk, yoghurt), and juice. b. Imported wine, beer and other alcoholic drinks.
3	Imported fruits and vegetables	a. Imported varieties of fruits b. Imported varieties of vegetables
4	Imported utensils	a. Imported household utensils (stoves, pans, frying pans, mixers, blenders, cookers, microwave ovens) b. Imported plates, glasses, cups, cutlery, and mugs.
5	Imported goods and materials	a. Imported furniture (beds, tables, desks, chairs, shelves, wardrobes). b. Imported furnishing accessories.
6	Services abroad	a. Promotion and advertising: Indirect Promotion and advertisement through Media Channels (Television, broadcasting) Direct promotion through visiting some countries. b. Public Relations, publicity payments, foreigner operational payments
7	Payments for foreign productions.	a. Transfer payment of commission to travel agents and tour operators. b. Import payment. c. Payment of Government tax on imported goods and services. d. Exchange cost for tourism investment. e. Interest payment for external credits in the tourism sector.
8	Payment for foreign employees	a. Number of foreign employees b. Total payments for foreign employees c. Transfer payments for foreign employees
9	Savings of foreign employees	a. Amount of money saved abroad
10	Education abroad and training costs of tourism employees	a. The number of staff trained overseas b. Payment for overseas training staff

Sources: Hudman and Hawkin (1989); Lacer and Nepal (2010); Mill and Morrison (2009); Unluonen, *et. al.* (2011); and Zheng (2011).

(iv) Another variable was the income received by hotels. A hotel's income was defined as all of the revenue received by the hotel, including income from payment for the rooms, income from the hotel restaurant, laundry and other services supplied by the hotel.

The total revenue of a hotel was calculated based on the following formula:

$$Y = \sum_{i=1}^n Y_i$$

$$Y = Y_1 + Y_2 + Y_3$$

where:

$Y$  = Annual revenue of an hotel

$Y_1$  = Revenue from rooms

$Y_2$  = Revenue from selling food and beverages

$Y_3$  = Revenue from other sources (laundry, spa, telephone, internet, business centre, etc.)

Revenue from rooms = Room nights sold x Room rate (Rupiah/day)

Room nights sold = Average occupancy rate (%) x number of rooms x number of days in a year

All of the above imported products, foreign employees and foreign services as well as the hotels' revenues are calculated for all types of accommodation, namely: (i) Non-star rated hotels; (ii) 1, 2 & 3 Star-rated hotels; (iii) 4 & 5 Star-rated non-chain hotels; and (iv) 4 & 5 Star-rated chain hotels. The percentage of tourism leakage of one hotel can be calculated as the total amount of imported products and services divided by the total revenue of the hotel, using the equation below.

$$\text{Percentage of leakage} = \frac{\text{Total Leakage}}{\text{Total Revenue}} \times 100\%$$

#### **4.2.6 Research Instruments**

A survey was undertaken in order to collect data and information from hotels. Questionnaires and guided interviews were used during the survey. Open ended questions were also asked in order to obtain the information needed. The full questionnaire related to imported products used in the hotels and the points of view of hotel managers can be seen in Appendix 4.1.

The survey involved several steps. The first step was to send a letter to the hotels in the sample regarding data collection. The second step was to give the questionnaire to the hotel's management to complete. Open ended questions were included in this survey. The third step was a meeting between researcher or field assistant and the hotels' management to check whether the data and other information were adequate or not.

It was a difficult and complicated survey as some hotel managers felt unhappy because most of the data and information requested were strictly confidential. However, when the researcher gave assurances that the identity of the hotel would not be mentioned in the survey results, most of the hotels agreed to take part. Nevertheless, several hotels did refuse to give any data or information, so the researcher kept trying other hotels in order to make up the target number for the hotel sample.

#### **4.2.7 Limitations of the Micro Analysis Model**

The main limitation of the model used in this study is that delayed leakage and invisible leakage were excluded due to difficulties in obtaining data

related to delayed leakage (taxes, and savings of entrepreneurs and employees) and calculating the invisible leakage (physical negative impacts of tourism, destruction of the country's infrastructure, natural habitats, environments and historical as well as cultural heritage). Another limitation in calculating leakage in this study is that information on foreign employees' savings and the amount of money they send abroad could not be obtained. This was because the hotels did not know about foreign employees' savings as this kind of data was highly confidential and personal. Therefore, the above variables were excluded from the model. Even though these variables were not included in the model, it did not significantly affect the result (the percentage of tourism leakage), as almost all primary expenses of foreign employees were covered by their company, such as housing, transports, and meals.

### **4.3 Macro Analysis in Calculating Tourism Leakage in the Accommodation Sector**

#### **4.3.1 Research Location and Period of Research**

Research for the macro analysis was undertaken in Bali Province during the period April - October 2013. The locations for this research were selected purposively on the basis that Bali as a tourist destination is one province.

#### **4.3.2 Data and Sources of Data**

##### **4.3.2.1 Data**

The type of data used in this research was quantitative data. Quantitative data is countable data which can be calculated. The following data was collected:

1. Social Accounting Matrix (SAM) of Bali Province 2010.
2. Sectoral value added i.e. wages, profit, indirect tax of Bali Province 2010.
3. Sectoral final demand of Bali Province 2010, such as government consumption, expenditure, investment and export.
4. Household expenditure of Bali Province.
5. Sectoral number of labour of Bali Province 2010.
6. Allocation of labour income and capital of Bali government to households.
7. Allocation of transfer income between households.
8. Allocation of transfer incomes between accommodations.
9. Allocation of income transferred from household to government outside the province/overseas and vice versa.
10. Allocation of income transferred from accommodation sector to government outside of Bali province/overseas and vice versa.
11. Allocation of household savings.
12. Allocation of income of production factors, especially capital to companies and outside of Bali province.
13. Allocation of income transferred outside of Bali province.
14. Other related data which were collected through primary research on all types of accommodation were data on: imported foods, imported beverages, imported utensils and equipment, and other imported raw materials that have been used in the operation of hotels, foreign payments such as commission for travel agents, payment for foreign employees, services abroad such as promotion, public relations, profit transfer as well as management fees.

#### 4.3.2.2 Sources of Data

In the macro analysis, calculation of tourism leakage from the accommodation sector in Bali was based on secondary data from the Bali Central Bureau of Statistics. The basic data used to generate the SAM for Hotels was taken from the Social Accounting Matrix (SAM) of Bali Province 2010. This data was disaggregated to create a 31 x 31 SAM Matrix describing four types of accommodations, namely Non-star rated hotels; 1,2&3 Star-rated hotels; 4&5 Star-rated non-chain hotels and 4&5 Star-rated chain hotels. Other related data were obtained from the SUSENAS (*Survey Sosial Ekonomi Nasional*) National Socio-Economic Survey for 2010, the SAKERNAS (*Survey Angkatan Kerja Nasional*) National Labour Force Survey for 2010, *Indikator Ekonomi Indonesia* or Economic Indicators for Indonesia 2010, the STKIR (*Survey Khusus Tabungan Investasi Rumah Tangga*) Special Survey on Household Investments and Savings for 2010, and the SKIO (*Survey Khusus Input-Output*) Special Survey on Input-Output for 2010.

#### 4.3.3 Identification of Variables

The variables identified for use in the macro analysis are outlined below:

##### 1) Tourism Revenue

Tourism revenue is income generated from tourists' expenditure. Tourism has become one of the major players in the international economy and represents the main income sources for many developing countries (Mill and Morison, 2009).

## 2) Tourist expenditure

Tourist expenditure is the total consumption expenditure made by a visitor or on behalf of a visitor for and during his/her trip and stay at a destination (Mill and Morison, 2009).

## 3) Gross national product (GNP).

The Gross National Product (GNP) is the value of all final goods and services produced by a nation's factors of production in a given time period. It represents the total net value of all goods and services produced within a nation over a specified period of time, representing the sum of wages, profits, rents, interest, and pension payments to residents of the nation (Krugman & Obstfeld, 2006).

## 4) Factors of production

Factors of production are the resources required for generating goods or services, generally classified into four major groups: land (including all natural resources), labor (including all human resources), capital (including all man-made resources), and enterprise (which brings all the previous resources together for production) (Thorbecke, 1988).

## 5) Income Distribution

Income distribution is the distribution of wages earned across a company, industry, or country. Income distribution is how a nation's total Gross Domestic Product (GDP) is distributed amongst its population, which can be illustrated by the income distribution indicator known as the "Gini coefficient". The Gini coefficient is a measure of inequality of a distribution.

It is defined as a ratio between 0 and 1. Zero means perfect income equality and 1 means perfect income inequality. A larger Gini coefficient means a greater inequality in the income distribution of earners.

6) Job Opportunity

Job Opportunity is the chance to get a job. Travel and tourism represent important economic activities that contribute to regional economies and provide a source of both entrepreneurial and household income.

7) Household classifications

According to Bali's Central Bureau of Statistics (2011), households are grouped into:

- a. Agricultural labour in rural areas.
- b. Businessmen who own land in rural areas.
- c. Agricultural labour in urban areas.
- d. Businessmen who own land in urban areas.
- e. Low income households in rural areas.
- f. Non labour force in rural areas.
- g. High income households in rural areas.
- h. Low income households in urban areas.
- i. Non labour force in urban areas.
- j. High income households in urban areas.

The accounts used in the SAM Hotel of Bali 2012 were as follows:

1) Production Factors Account

This account explains the interaction between the supply and demand of production factors. It provides data related to receipts in the rows and payments in the columns. Factors of production are workers (labour), physical capital (like factories and equipment), natural resources and other factors that are used to produce goods and services. In the Social Accounting Matrix (SAM) for Bali 2010, there are two types of production factor accounts namely labour and non labour (capital). The source of income for the labour account is payment from wages and salaries from production factor of labour, while the source of income for the non labour account was payment from capital invested in economic activities.

2) Institutions Account

The institutions account shows transactions of three accounts i.e. households account, companies account and government account as well as transactions to other accounts. The sources of income for institutions are income from factors of production (labour and/or non-labour), income from institutions (i.e. households, companies and government) as well as from abroad (international transactions). All of the income from labour will be received by households. Meanwhile, income from capital will be received by institutions that use capital in their economic activities. This income earned from capital will, in turn, be a source of payments made to institutions, i.e. households, companies and government (as tax paid to government).

Moreover, subsidies are also taken into account, which have the opposite function in transactions compared to taxes, as they are given by the government to certain institutions such as households or communities (Thorbecke, 1988).

### 3) Production Sectors Account

This account represents the balance in transactions between receipts and expenditures incurred during the process of producing either goods or services. The rows explain the income structure while the columns represent allocations for using various outputs from the production sectors. The commodities used are distinguished into domestic and imported commodities that have been used as intermediate input or as final demand by households, government or industries (Thorbecke, 1988).

### 4) Current Account

The current account is part of the balance of payments that records a country's net exports, net income on investments, and net transfers. It is defined as the sum of the balance of trade (goods and services exports less imports), net income from abroad and net current transfers. It expresses the difference between a nation's savings and its investment. The current account is an important indicator of an economy's health. A positive current account balance indicates that the nation is a net lender to the rest of the world, while a negative current account balance indicates that it is a net borrower from the rest of the world. In other words, current account „deficit“

means that imports exceed exports. Meanwhile, current account „surplus“ indicates that exports exceed imports. A nation’s current account balance is influenced by numerous factors, such as trade policies, exchange rate, competitiveness, inflation rate and others. An increase in exports results in increasing the current account surplus (Krugman & Obstfeld, 2006).

#### 5) Capital Account

The capital account is an account stating the amount of funds and assets invested in a business by the owners. In terms of economics, the capital account is part of the balance of payments recording a nation's outflow and inflow of financial securities. Capital account surplus indicates an imbalance in a nation's balance of payments in which payments received by the country for selling domestic assets exceed payments made by the country for purchasing foreign assets. In other words, investment by the domestic economy in foreign assets is greater than foreign investment in domestic assets. A capital account surplus contributes to surplus in the balance of payments. The term Capital has several meanings and it is used in many business contexts. In general, capital is accumulated assets or ownership. More specifically, capital is the amount of cash and other assets owned by a business. These business assets include accounts receivable, equipment, and land/buildings of the business. Capital can also represent the accumulated wealth of a business, represented by its assets less its liabilities (Krugman & Obstfeld, 2006).

6) Other Accounts

The trade and transportation margin account describes the price difference between producers and consumers. This was excluded in this research as all of the margins were included in each transaction.

7) The Indirect tax netto account describes indirect tax minus subsidies. On the one hand this explains government receipts, while on the other it explains the tax paid by producers on the selling price of their products.

8) The Rest of the World Account comprises accounts to capture the range of transactions that take place between domestic and international entities.

9) Receipts and Expenditures Account

This account describes the balance of circular flow of receipts and expenditures accounts in the accommodation sectors in Bali tourism.

10) Hotel Production Account

This account describes the balance of circular flow in the production process in the accommodation sectors in Bali's tourism.

#### **4.3.4 Method of Data Analysis**

According to Thorbecke (1988) cited in Nursetyohadi (2009), the SAM model consists of four basic accounts, namely: (i) production factors, (ii) institutions, (iii) production sectors, and (iv) other accounts or Rest of The World. The first three accounts are called endogenous accounts while the last account is called an exogenous account (Thorbecke, 1988). This is shown in Table 4.3.

**Table 4.3**  
**Scheme of Social Accounting Matrix (SAM)**

Expenditure Receipt			Endogenous Account			Exogenous Account	Total
			Factors of Production	Institutions	Production Sectors		
			1	2	3	4	5
E n d o g e n o u s  A c c o u n t	Factors of Production	1	$T_{11}$ 0	$T_{12}$ 0	$T_{13}$ Allocation of value-added to production factors	$X_{14}$ Revenue of production factors from overseas	$Y_1$ Factorial distribution of revenue
	Institutions	2	$T_{21}$ Allocation of revenue to the institution	$T_{22}$ Transfer between institution	$T_{23}$ 0	$X_{24}$ Transfer from overseas	$Y_2$ Distribution of institutional revenue
	Production Sectors	3	$T_{31}$ 0	$T_{32}$ Domestic demand	$T_{33}$ Intermediate goods	$X_{34}$ Export and investment	$Y_3$ Total output on production sectors
Exogenous Account		4	$T_{41}$ Allocation of revenue to overseas (Leakage)	$T_{42}$ Saving	$T_{43}$ Import and tax	$X_{44}$ Other transfers	$Y_4$ Total revenue from other accounts
Total		5	$Y'_1$ Sum of expenditure from production factors	$Y'_2$ Sum of expenditure from institutions	$Y'_3$ Total input	$Y'_4$ Sum of other expenditures	

Source: Thorbecke (1988)

Table 4.3 shows how the Social Accounting Matrix (SAM) illustrates the interrelationships between sectors, such as income distribution and the impact of Consumption, Investment and Export-Import on regional income and job opportunities. From Table 4.3 the following matrix equation can be formulated:

$$Y = T + X \dots \dots \dots (1)$$

where :

Y = national/regional income

T = endogenous income

X = exogenous income

Income distribution of endogenous and exogenous accounts can be formulated as follows:

$$Y_1 = T_{13} + X_{14} \dots \dots \dots (2)$$

$$Y_2 = T_{21} + T_{22} + X_{24} \dots \dots \dots (3)$$

$$Y_3 = T_{32} + T_{33} + X_{34} \dots \dots \dots (4)$$

$$Y_4 = T_{41} + T_{42} + T_{43} + X_{44} \dots \dots \dots (5)$$

Equation (2) shows factorial income distribution, while equation (3) shows institutional income distribution, equation (4) shows total output of production factors, and equation (5) shows other total income (exogenous).

Meanwhile, expenditure distribution of endogenous and exogenous accounts can be formulated as follows:

$$Y''_1 = T_{21} + T_{41} \dots \dots \dots (6)$$

$$Y''_2 = T_{22} + T_{32} + T_{42} \dots \dots \dots (7)$$

$$Y''_3 = T_{13} + T_{33} + T_{43} \dots \dots \dots (8)$$

$$Y''_4 = X_{14} + X_{24} + X_{34} + X_{44} \dots \dots \dots (9)$$

Equation (6) shows the total expenditure of production factors, while equation (7) shows total expenditure of institutions, equation (8) shows total

input consumption by production sectors, and equation (9) shows other total consumption (exogenous).

#### **4.3.5 Limitations of the Social Accounting Matrix**

The Social Accounting Matrix (SAM) model has a number of limitations and makes several assumptions. The assumptions are: (i) all of the products produced by each sector are consumed during a certain period; (ii) the input-output relationships in the production activities are linear or constant returns to scale; (iii) there is no substitution between production factors that have been used in the production process; (iv) a group of products is not produced at the same time by two or more companies; (v) prices remain constant; and (vi) the economy is in an equilibrium condition (Thorbecke,1988).

#### **4.3.6 Social Accounting Matrix for Hotels in Bali**

The SAM for Hotels in Bali was developed in this research based on the SAM Bali 2010 through the analysis of endogenous and exogenous accounts. The three endogenous accounts are: production factors, institutions and production sectors. The institutions account is subdivided into households, companies and government accounts. In this research, the “companies” are providers of tourist accommodation, which are classified into four types of accommodation, namely Non-star rated hotels; 1,2&3 Star-rated hotels, 4&5 Star-rated non-chain hotels, and 4&5 Star-rated chain hotels. The analysis of institutional income distribution focuses on the total income of each type of accommodation . Meanwhile, the

exogenous account consists of the supply of commodities from the hotel and non-hotel accounts, capital account, current tax account and Rest of the World Account. Total receipts or revenues are described in rows, and total expenditures in columns. It is easier to understand that the total receipts shown in the rows are used for some activities in the columns. In a SAM account, a balance is made in every transaction between rows and columns. The SAM for Hotels in Bali 2010 was developed in this research in the form of a SAM Matrix<sub>31 x 31</sub>. It can be seen in Appendix 4.3.

#### **4.3.7 Tourism Leakage Calculation Based on Macro Analysis**

Before calculating the amount of leakage in Bali's tourism, discussion is focused on analysing the transactions between the receipts account and expenditures account for each type of accommodation. This is followed by an analysis of the production account for each type of accommodation. Calculation of tourism leakage is based on the above accounts.

##### **4.3.7.1 Account of Receipts and Expenditures of Hotels in Bali**

The hotel receipts and expenditures accounts describe the balance of circular flow between the receipts and expenditures accounts of each type of accommodation. Transactions on the receipts side show the income of each hotel. These transactions consist of: (i) Payment of production factors from labour; (ii) Payment of production factors from non labour; (iii) Transfer from households; (iv) Transfer between companies; (v) Transfer from government as payment of

subsidies; (v) Transfer from overseas in the Rest of the World Account. Meanwhile, transactions on the expenditure side describe the expenditure of each hotel. These transactions consist of: (i) Transfer to households; (ii) Transfer between companies; (iii) Direct tax; (iv) Saving (undistributed profit); and (v) Non labour payment to overseas entities. The design of the receipts and expenditures accounts for hotels can be seen in Table 4.4.

**Table 4.4**  
**Receipt-Expenditure Account for Hotels in Bali**

<b>Expenditure</b>	<b>Receipt</b>
<ul style="list-style-type: none"> <li>• Transfer:               <ul style="list-style-type: none"> <li>○ transfer to households</li> <li>○ transfer between companies</li> </ul> </li> <li>• Direct tax</li> <li>• Savings (undistributed profit)</li> <li>• Non labour payment sent overseas</li> </ul>	<ul style="list-style-type: none"> <li>• Payment for production factors:               <ul style="list-style-type: none"> <li>○ Labour</li> <li>○ Non labour</li> </ul> </li> <li>• Transfer:               <ul style="list-style-type: none"> <li>○ from households</li> <li>○ between companies</li> <li>○ from government</li> <li>○ from overseas</li> </ul> </li> </ul>

#### 4.3.7.2 Production Account for Hotels in Bali

The production account for hotels describes the balance of circular flow in the production process in the accommodation sector in Bali. Transactions on the receipts side show income generated during the production process. These transactions consist of: (i) Selling of intermediate demand; (ii) Selling of goods and services; (iii) Selling of capital goods; and (iv) Import. Meanwhile,

transactions on the expenditure side describe the expenditure of each hotel during the production process. These transactions consist of: (i) Purchasing intermediate demand; (ii) Wages and salaries; (iii) Company's surplus; and (iv) Indirect tax. The design of a production account for hotels in Bali is shown in Table 4.5.

**Table 4.5**  
**Production Account for Hotels in Bali**

Expenditures	Receipts
<ul style="list-style-type: none"> <li>• Purchasing intermediate demand</li> <li>• Wages and salaries</li> <li>• Company's surplus</li> <li>• Indirect tax</li> </ul>	<ul style="list-style-type: none"> <li>• Selling intermediate demand</li> <li>• Selling goods and services</li> <li>• Selling capital goods</li> <li>• Export</li> <li>• Import</li> </ul>

More details on the calculation of tourism leakage in the macro analysis are outlined in Chapter 5.

#### **4.4 Impact of Government Subsidies and Import Reduction by the Tourism Industry on Tourism Leakage, Job Opportunity Distribution and Income Distribution**

##### **4.4.1 Multiplier Analysis of the Social Accounting Matrix**

According to Thorbecke (1988), multiplier analysis in the SAM Model is similar to the multiplier analysis of the Leontief Inverse Matrix in Input-Output Model. This means that the multiplier analysis of the Leontief Inverse Matrix can be used in this study to assess the impact of changes in some sectors of the economy.

Regarding the SAM Matrix for Hotels in this study, it was assumed that the average hotel expenditure  $A_{ij}$  was the comparison between the expenditure from sector j to sector i with the total expenditure being j ( $Y_j$ ). Thus:

$$A_{ij} = T_{ij} / Y_j \dots\dots\dots (10)$$

can be expressed in a matrix as follows:

$$A = \begin{bmatrix} 0 & 0 & A_{13} \\ A_{21} & A_{22} & 0 \\ 0 & A_{32} & A_{33} \end{bmatrix} \dots\dots\dots (11)$$

If equation (1) is divided by Y, then, it is found that:

$$Y/Y = T/Y + X/Y \dots\dots\dots (12)$$

Then, equation (10) was substituted into equation (12), to become:

$$\begin{aligned} I &= A + X/Y \\ (I - A)Y &= X \\ Y &= (I - A)^{-1} X \dots\dots\dots (14) \end{aligned}$$

If  $M_a = (I - A)^{-1}$  then:

$$Y = M_a X \dots\dots\dots (15)$$

where:

A = *direct coefficients* describing the direct effect of any changes in one sector to the other sectors.

(I-A) = Leontief matrix (Matrix Identity minus Matrix A)  
 Matrix Identity is a matrix which has the value of 1 in its diagonal.

(I-A)<sup>-1</sup> = Ma = Inverse Leontief matrix = (accounting multipliers) describing the impact of changes in one sector on the other sectors of the whole SAM.

X = vector column of each type of accommodation.

#### 4.4.2 Analysis of Policy Scenarios

Regarding this study, matrix SAM<sub>31x31</sub> was expanded to Matrix SAM<sub>108 x 108</sub> in order to assess the impact of changes in one or more sectors on the other sectors. In this case, the purpose was to assess the impact of government subsidies and of import reduction by tourism industries on several aspects of the economy, such as tourism leakage, job opportunity and income distribution. This was done through conducting a number of simulations, based on the steps outlined below:

- (i) Calculate the input coefficient of each sector  $A_{ij}$  by dividing  $T_{ij}$  by  $Y_j$  (the endogenous value of each cell was divided by the total amount).
- (ii) Undertake the same calculation for each cell of Matrix 108x108 in order to generate Matrix A
- (iii) Matrix  $(I - A)$  or matrix Identity minus Matrix A.
- (iv) Work out the Inverse Leontief matrix or  $(I-A)^{-1}$
- (v) Multiply each cell of the Leontief matrix of SAM<sub>108x108</sub> by the vector column for each type of accommodation, namely Non-star rated hotels; 1,2&3 Star-rated hotels; 4&5 Star-rated non-chain hotels, and 4&5 Star-rated chain hotels.
- (vi) By simulating different combinations of government subsidies and import reduction by the tourism industry, the impact of each combination was assessed. Details of the simulation results are outlined in Chapter 5.

## **4.5 Perceptions and Preferences of Foreign Tourists Regarding Imported and Local Products and Willingness to Spend Money for Balinese People**

### **4.5.1 Research Location and Period of Research**

A survey on foreign tourists was undertaken during the period of April to June 2013 in four main destinations in Bali, i.e. Kuta, Nusa Dua, Sanur and Ubud. The locations for this research were selected purposively on the basis that the above destinations are the main tourist destinations in Bali.

### **4.5.2 Design of Foreign Visitors Sample**

The Accidental sampling technique (Zikmund, 1997) was chosen to select a sample of foreign tourists visiting Bali. The population size was taken to be the number of foreign tourists who visited Bali in year 2011, which was about 2.6 million. Using the calculation method proposed by Kish (1965: 234) and Yamane (1973) with an error of 5% ( $\alpha=0.05$ ), the number of respondents was set at 600. Respondents were interviewed based on a questionnaire. The questionnaire for foreign tourists is shown in Appendix 4.2.

### **4.5.3 Scope of the Study**

This study focused mainly on the perceptions and preferences of foreign tourists regarding imported and local products. This included their perceptions on whether or not they needed to have imported foods and beverages like those they consumed in their own countries. An assessment was also made of their willingness to participate in the development of Bali's tourism by asking them to

what extent they agreed that the money they spent during their visit benefited Balinese people.

#### **4.5.4 Identification of Variables**

In order to assess familiarity, satisfaction, motivation, perceptions and the willingness of foreign tourists to contribute to the reduction of the use of imported products, the following variables were identified:

##### **1) Characteristics of foreign tourists**

The data collected on the characteristics of foreign tourists was used to assess familiarity. According to Bashar (2010), familiarity is a quality or condition for being familiar. It is important to assess this when determining a marketing strategy as it influences people's perceptions, motivation and behaviour when travelling. He classified familiarity into "spatial proximity" and "expertise of the country". Spatial proximity describes proximity to an area, while country expertise is the accumulation of a person's experience of the quality of a destination (Bashar, 2010). In this study, familiarity was assessed based on :

- a. the variable "country of residence", symbolized by "F1", the variables for which are the "five continents" namely Europe, America, Australia, Africa and Asia; and
- b. the variable "large code of residence", which is the code for the residential area where they are living, and is symbolized by "F2".

Meanwhile, “country expertise” was classified by:

- a. the variable „periodicity“ in visiting Bali (F3), and
  - b. the variable “visit more than 5 times” (F4).
- 2) The variable “satisfaction” (S) was classified into four types, i.e.:
- a. Satisfaction with accommodation and restaurant services in Bali (S1),
  - b. Satisfaction with the whole trip (S2),
  - c. Satisfaction with level of emotion during visit (S3), and
  - d. Satisfaction related to level of expectation (S4).
- 3) The variable “motivation” was classified into three types:
- a. Reasons for coming (Visit Friends and Relatives/VFR) (M1),
  - b. Main purpose (M2), and
  - c. Activities (M3).
- 4) The variable “perceptions” was classified into perceptions regarding services (P1, P2) and perceptions regarding products (P3 – P18).
- 5) Willingness to spend money for the benefit of Balinese people (B).
- 6) Preference of foreign tourists regarding imported and local products.

All of the above variables are presented in Table 4.6.

**Table 4.6**  
**Variables of Familiarity, Satisfaction, Motivation and Perception, and**  
**Benefits for Balinese**

NO	VARIABLES	REMARKS	CODE
1	FAMILIARITY	Country of residence	F1
		Large code of residence	F2
		Periodicity visiting Bali	F3
		Visit more than 5 times	F4
2	SATISFACTION	Satisfaction with accommodation and restaurant services in Bali	S1
		Satisfaction with the whole trip	S2
		Satisfaction with the level of emotion while visiting Bali	S3
		Satisfaction related to the level of expectation	S4
3	MOTIVATION	Reason for coming (Visit Friends and Relatives/VFR)	M1
		Main Purpose	M2
		Activities	M3
4	PERCEPTIONS	Perceptions regarding the services of:	
		• accommodation	P1
		• restaurants	P2
		Perceptions regarding products:	
		• imported meat	P3
		• local meat	P4
		• imported fishery products	P5
		• local fishery products	P6
		• imported dairy products	P7
		• local dairy products	P8
		• imported fruits	P9
		• local fruits	P10
		• imported vegetables	P11
		• local vegetables	P12
		• imported beverages	P13
		• local beverages	P14
		• building style	P15
		• furniture	P16
		• room decoration	P17
		• architecture	P18
5	BENEFIT	Benefits for Balinese	B

#### 4.5.5 Method of Data Analysis

##### 4.5.5.1 Analysis of Perceptions

The perceptions of foreign tourists related to their satisfaction level were assessed by using a seven-point Likert rating scale (Westbrook, 1980; and

Colman, *et. al.*, 1997). The range of intervals of the seven points on the scale was counted based on the formula proposed by Likert (1965) in Westbrook (1980) as follows:

$$\text{Interval} = \frac{n-1}{n} = \frac{7-1}{7} = 0.857$$

where:

n = number of points on the scale

So, the interval score was grouped and interpreted as in Table 4.7.

**Table 4.7**  
**Scale, Interval and Level of Interpretation**

Scale	Interval Score	Level of Interpretation
1	1.00 – 1.86	Extremely poor
2	1.87 – 2.72	Very poor
3	2.73 – 3.58	Poor
4	3.59 – 4.44	Fair
5	4.45 – 5.30	Good
6	5.31 – 6.15	Very good
7	6.16 – 7.00	Extremely good

- a. To assess the level of satisfaction, the levels of rating are: (1) Extremely Dissatisfied, (2) Dissatisfied, (3) Slightly Dissatisfied, (4) Mixed between Dissatisfied and Satisfied, (5) Slightly Satisfied, (6) Satisfied, and (7) Extremely Satisfied. An alternative rating scale could also be possible, such as: (1) Extremely Disagree, (2) Disagree, (3) Slightly Disagree, (4) Uncertain, (5) Slightly Agree, (6) Agree, and (7) Extremely Agree.
- b. To assess the feeling of tourists regarding their visit, the levels of rating are: (1) Terrible, (2) Unhappy, (3) Mostly Dissatisfied, (4) Mixed between dissatisfied and satisfied, (5) Mostly Satisfied, (6) Pleased, and (7) Delighted.

- c. To assess foreign tourists' thinking about their visit and emotional experience, the levels of rating are: (1) Very displeased, (2) Displeased, (3) Slightly displeased, (4) Mixed between displeased and pleased, (5) Slightly pleased, (6) Pleased, and (7) Very pleased.
- d. To assess foreign tourists' perceptions regarding the services of accommodation and restaurants, the levels of rating are: (1) Extremely poor, (2) Very poor, (3) Poor, (4) Fair, (5) Good, (6) Very good, and (7) Extremely good.
- e. To assess foreign tourists' agreement over whether they spent their money in Bali to benefit the Balinese, the levels of rating are: (1) Extremely disagree, (2) Disagree, (3) Slightly disagree, (4) Mixed between disagree and agree, (5) Slightly agree, (6) Agree, and (7) Extremely agree.

#### 4.5.5.2 Reasons for Using Seven Point Scale

The reason for using seven-point scales was to obtain a more detailed and optimal response from respondents. A number of studies have been conducted to examine the effects of different numbers of response categories on the reliability and validity of rating scales and the response patterns (Cicchetti, *et al.*, 1985; Schutz & Rucker, 1975 in Colman *et. al.*, 1997). According to Bearden, *et.al.* (1993) cited in Colman *et. al.* (1997), in contemporary psychometric practice, the majority of rating scales, Likert scales, and other attitude and opinion measures contain either five or seven response categories. Colman *et. al.*, 1997 said that Symonds (1924) was the first to suggest that reliability is optimized with seven response categories, and other early investigations tended to agree. Colman *et.*

*al.*, 1997 added that in an influential review article, Miller (1956) argued that the human mind has a span of absolute judgment that can distinguish about seven distinct categories, a span of immediate memory for about seven items, and a span of attention that can encompass about six objects at a time, which suggested that any increase in the number of response categories beyond six or seven might be futile. Furthermore, according to Neumann (1994) odd numbers of response categories have generally been preferred because they allow the middle category to be interpreted as a neutral point, and more recent research has tended to reinforce the general preference for 5-point or 7-point scales. The above arguments allow the researcher to use a scale of seven response categories in order to achieve an optimum level of reliability reliability.

#### 4.5.5.3 Preference

Preference is a further action of perception of a visitor's mind, so visitors are asked questions based on their choices, likes or dislikes related to imported products and local products (Solomon, 1999). To analyze the preferences of foreign tourists for imported or local products, two choices were offered: imported products and local products. The relationships between foreign tourists' preferences and their evaluation of local products was also analyzed using JMP software.

#### 4.5.5.4 Data Analysis

JMP software (SAS Company) Version-10 was used in analyzing perceptions, preferences and the relationships between variables. JMP is the

abbreviation for John's Macintosh Project developed by John Sall and others at SAS Institute in the late 1980s as an interactive statistical visualization and discovery tool. According to Sall, the JMP name also conveys "the idea of a lively product that jumped responsively to the user's wishes" (Okerson, 2011).

#### 4.5.6 Validity and Reliability

Validity and reliability tests were undertaken to examine the truth of data. The validity test is used to examine accuracy and credibility of the results (Sevilla *et. al.*, 1993; Simamora, 2004; and Zikmund, 1997). Product moment correlation ( $r_{xy}$ ) was calculated (r-value) and compared with the r-table. If the r-value > r-table, this means that the measurement of variables is valid (Sevilla *et.al.*, 1993; Simamora 2004; and Zikmund, 1997). In this research, there were 33 questions regarding foreign tourists' perceptions regarding imported and local products, which were examined through responses from 600 foreign tourists. With the level of significance of 5%, the critical value was 0.08 (Appendix 4.1). The product moment correlation formula ( $r_{xy}$ ) can be seen below (Sevilla *et.al.*, 1993; Simamora, 2004; and Zigmund, 1997).

$$r_{xy} = \frac{n \sum XY - (\sum X)(\sum Y)}{\sqrt{(n \sum X^2 - (\sum X)^2)(n \sum Y^2 - (\sum Y)^2)}}$$

Remarks:

- $r_{xy}$  = product moment correlation
- N = number of sample
- X = value
- Y = total value of questionnaire for each respondent

The reliability test is used to examine the stability and consistency of responses given by respondents. Consistency means that the approaches made by the researcher are consistent if the same approaches are also made by other researchers for different research projects (Sevilla *et. al.*, 1993; Simamora, 2004; and Zikmund, 1997). The Alpha Cronbach formula was used to examine the reliability of data. Instruments are reliable if the value of alpha Cronbach  $> 0.6$  by using the formula below (Simamora, 2004: 77).

$$r_i = \left( \frac{k}{k-1} \right) \left( 1 - \frac{\sum \sigma_b^2}{\sigma_t^2} \right)$$

Remarks:

$r_i$	= reliability
$k$	= number of questions
$\sum \sigma_b^2$	= number of variance
$\sigma_t^2$	= total variance

In this research, validity and reliability tests were undertaken by using computer program SPSS 11.5 for Windows.

#### 4.5.7 Research Instruments

Research was undertaken by involving 12 field assistants at four main tourism destinations of Bali i.e., Kuta, Nusa Dua, Sanur and Ubud. Research preparation was carried out based on the following steps:

- 1) Explaining the questionnaires to all field assistants in order to make sure that all of them understood about the data and information needed.
- 2) Exploratory research was undertaken on foreign tourists in the first three days of research. The sample size for the exploratory research was 5% from total

respondents. The sample size was 600 respondents, so the sample size for the exploratory research was 30 respondents.

- 3) Results of the exploratory research were analyzed in order to check whether the method of data collection was correct in accordance with the research objectives.
  - a) Checking of transcripts to minimize error.
  - b) Making sure that data and information were not ambiguous, by using codes, comparing data with its code, and making notes related to the data code.
  - c) In order to avoid language barriers, field assistants needed to be good at English. Twelve students from the English Department of the Faculty of Letters of Udayana University were selected as field assistants.

## **4.6 Points of View of Hotel Managers**

### **4.6.1 Research Location and Period of Research**

The research location for obtaining the views of hotel managers was the same as that for the micro analysis, which was undertaken in four main tourism destinations in Bali i.e. Kuta, Nusa Dua, Sanur and Ubud during the period of April-June 2013.

### **4.6.2 Sample Design**

The hotel sample in this research was the same as for the micro analysis (see point 4.2.2), using the Probability Proportional to Size (PPS) sampling

method proposed by Kish (1965: 234) and Yamane (1973). The sample consisted of 79 hotels (see Table 4.1). Three clusters of accommodation were chosen namely (i) 1, 2 & 3 Star-rated hotels; (ii) 4 & 5 Star-rated chain and non-chain hotels, and (iii) Non-star rated hotels.

#### **4.6.3 Identification of Variables**

As a qualitative analysis, the variables which needed to be assessed regarding hotel managers' points of view were as follows:

- 1) Reasons for Choosing Imported Products
- 2) Points of View of Hotel Managers regarding Local Products
- 3) Points of View of Hotel Managers regarding the Causes and Impacts of Leakage in the Tourism Industry
- 4) Willingness to reduce imported products and give priority to local products.

#### **4.6.4 Method of Data Analysis**

Qualitative analysis was carried out on hotel managers' reasons for choosing imported products, their views on local products, their views on the cause and impact of tourism leakage as well as their willingness to reduce imported products and give priority to local products. Research instruments in this part were the same as the research instruments used in the micro analysis as the data and information obtained were in the same questionnaire (see Appendix 4.1). However, more detailed discussion was involved in this part as the nature

of qualitative research required the researcher to be active in discussion based on open ended questions.

## **4.7 Interpretative Structural Modeling (ISM)**

### **4.7.1 Determining Experts**

A strategy for minimizing tourism leakage in the accommodation sector in Bali was developed based on Interpretative Structural Modeling (ISM). ISM is an interactive learning process involving inter-relationships between variables through the use of experts' ideas, opinions and experience, utilising brainstorming management techniques to develop the contextual relationship among the variables. For this purpose, experts should be well conversant with the problem under consideration. ISM can be used to qualitatively gain individual cognitive structures. (Attri and Sharma, 2013).

Regarding this study, experts were selected purposively who understand the contextual relationship between variables regarding strategy for the minimization of tourism leakage in the accommodation sector in Bali. The experts included government officials, stakeholders in tourism and the community representative. According to Attri and Sharma (2013) and Reza *et al.* (2010), there is no requirement regarding the number of respondents (experts) involved in this model as long as: (i) the researcher is convinced that the number of experts chosen is capable of analysing the contextual relationship between the variables; and (ii) the experts are capable of communicating a holistic sense of the elements and their relations which define system structure. The number of

experts selected for this study was 9 experts from the Government of Bali Province, tourism stakeholders, community representative and academia. By analyzing inter-relationships between variables, a strategy for minimizing tourism leakage was developed.

#### **4.7.2 Constructing Elements**

Saxena (1990) used nine elements in his research on assessing the impact of indirect relationships on energy conservation. In the present research, six of the nine elements are used to develop a strategy to minimize tourism leakage from accommodation in Bali. The reason for using six elements was that these were related to the research topic. The six elements are as follow:

1. Program goals (G)
2. Program needs (N)
3. Affected community (T)
4. Program constraints (C)
5. Possible changes in the program (M)
6. Involvement of agencies in the policy (A)

Each element consisted of sub-elements which have contextual relationships with each other in accordance with the strategy to minimize tourism leakage in the accommodation sector in Bali. The contextual relationships between these elements are outlined in Table 4.8.

**Table 4.8**  
**Elements and Contextual Relationship between Elements**  
**In Minimizing Tourism Leakage in Accommodation Sector in Bali**

Elements	Contextual Relationship
1. Program goals (Gi)	Gi contribute in achieving Gj
2. Program needs (Ni)	Ni supports Nj
3. Affected sectors (Ti)	Ti its role influences Tj
4. Program constraints (Ci)	Ci causes Cj
5. Possible changes in the program (Mi)	Mi results in Mj
6. Involvement of agencies in program (Ai)	Ai its role supports Aj

$$ij = 1,2,3 \dots (i,j \leq 10)$$

The initial process begins with an assessment of the contextual relationship between each sub element on each element through brain-storming with the experts. In conducting ISM research, experts must give their opinion regarding the level of contextual relationship between sub-elements by filling in a matrix of the contextual relationship with the appropriate letter: V, A, X or O. These four letters are used to denote the direction of a relationship between two factors (i and j), as follows:

1. V for the relation from factor i to factor j (i.e., factor i will influence factor j)
2. A for the relation from factor j to factor i (i.e., factor i will be influenced by factor j).
3. X for a two-way relationship (i.e., factors i and j will influence each other)
4. for no relation between the factors (i.e., factors i and j are unrelated).

Based on the contextual relationships, the SSIM (Structural Self-Interaction Matrix) is developed (Attri, *et. al.*, 2013 and Reza *et. al.*, 2010). The various steps involved in ISM modeling are as follows:

1. Identify the elements which are relevant to the problem. This could be done by a survey or group problem solving technique.

2. Establish a contextual relationship between elements with respect to which pairs of elements would be examined. These contextual relationships between elements were developed using a questionnaire. The questionnaire is presented in Appendix 4.4, and the list of respondents can be seen in Appendix 4.5.
3. Develop a structural self-interaction matrix (SSIM) of elements, based on experts' opinion by using the questionnaire. This matrix indicates the pairwise relationship among elements of the system.
4. Develop a reachability matrix from the SSIM.
5. Partition the reachability matrix into different levels.
6. Convert the reachability matrix into conical form.
7. Draw a digraph based on the relationship given in the reachability matrix and remove indirect links.
8. Transitive links.
9. Convert the resultant directed graphs (digraph) into an ISM-based model by replacing element nodes with the statements.
10. Review the model to check for conceptual inconsistency and make the necessary modifications.

The various steps involved in the ISM technique are illustrated in Appendix 4.6.

All steps 4 to 10 were undertaken by using the computer program "Ever Vision"

Software, dDSS Ver. 1.0.01, developed by Roni Wijaya.

### **4.7.3 Limitations of Interpretative Structural Modeling**

According to (Attri and Sharma, 2013), there may be many variables to a problem or issue. An increase in the number of variables to a problem or issue will increase the complexity of the ISM methodology. Therefore, we can only consider a limited number of variables in the development of a better ISM model. Other variables which are least affecting a problem or issue may not be taken into account in the development of the ISM model.

### **4.7.4 Conclusion**

Some research methods were developed in this chapter in order to address the objectives of this study, and help the researcher to understand the research problems in more detail. In addition, by undertaking research on consumer research on foreign tourists, it can help the researcher to understand what exactly is needed by foreign tourists during their visit in Bali. By combining the results regarding hotel managers' points of view, a strategy can be developed based on ISM. This strategy will be useful for the long term development of tourism in Bali.

## **CHAPTER V**

### **RESULTS**

#### **5.1 Results of Micro Analysis of Tourism Leakage on Accommodation Sector**

##### **5.1.1 Introduction**

In this part, calculation of tourism leakage on accommodation sector in Bali is undertaken in a micro analysis by using a method that was developed by Unluonen *et. al.* (2011). Data was collected by a survey that was undertaken in four main tourist destinations in Bali, namely: Kuta, Nusa Dua, Sanur and Ubud. There were 79 hotels selected as sampling hotels. Sampling was undertaken based upon a probability purposive to size sampling method. Description of characteristics of the sampling hotels is explained in this part. Ownership and management system applied in the hotels was also outlined in this part. Moreover, description of imported products, services and foreign labour used by hotels were discussed, as well as the sources of leakage at the hotels. Annual revenue of the sampling hotels and other expenses are analysed in this section, as well as the amount of tourism leakage on accommodation sector. Finally, this section will be closed by conclusion.

##### **5.1.2 Characteristics of the Sampling Hotels**

Sample was selected based on a proportional purposive to size sampling method (Kish, 1965; Yamane, 1973), involving three clusters of accommodation, namely: (i) 1,2&3 Star-rated hotels, (ii) 4&5 Star-rated hotels either chain or non-chain hotels, and (iii) Non-star rated hotels. There were 79 of hotels randomly

selected at the four main tourist destinations in Bali, namely: Kuta, Nusa Dua, Sanur and Ubud. The sample size was exceeded the planned sample size in order to reduce error (less than 20% of error), i.e. 21 samples of 1,2&3 Star-rated hotels (18% of error), 12 samples of 4&5 Star-rated chain hotels and 14 samples of 4&5 Star-rated non-chain hotels (17% of error), and 32 hotels of Non-star rated hotels (18% of error) (see Table 5.1.1).

**Table 5.1.1**  
**Number of Hotels Selected as Sample**

No	Cluster	Population (N)	Sample Size (n)	Error ( $\alpha$ )	Remarks
1.	1,2&3 Star-rated hotels	70	21	18%	-
2.	4&5 Star-rated hotels	85	26	17%	12 chain hotels 14 non-chain hotels
3.	Non-star rated hotels	1,563	32	18%	-
Total		1,718	79	18%	

As shown in Table 5.1.1, all of the sample sizes had an error below 20%. These sample sizes fulfilled the requirements of accepted maximum error, i.e. 20% (Sevilla *et. al.*, 1993).

Locations of sampling hotels for the 4&5 Star-rated chain hotels were mostly in the area of BTDC (Bali Tourism Development Corporation) at Nusa Dua area, meanwhile for the 4&5 Star-rated non-chain hotels were mostly located in Sanur and Kuta, and some of them were located in Ubud and Nusa Dua area. On the other hand, 1,2&3 Star-rated hotels and Non-star hotels were spread out in the area of Sanur, Kuta, and Ubud.

The average number of rooms, room occupancies, length of stay and room rates of the sampling hotels were as follow (see Table 5.1.2):

(i) The average number of rooms

The average of 77 rooms were available at the 1,2&3 Star-rated hotels; about 217 rooms were available at the 4&5 Star-rated chain hotels; about 140 rooms were at the 4&5 Star-rated non-chain hotels, and about 37 rooms were at the Non-star hotels.

(ii) The average room occupancy

The average room occupancy of the 1,2&3 Star-rated hotels was 70.7%; at the 4&5 Star-rated chain hotels was 70.3%; at the 4&5 Star-rated non-chain hotels was 68.3%; and the average room occupancy of the Non-star hotels was 60.5%.

(iii) The average length of stay

The average length of stay of 1,2&3 Star-rated hotels was 5.0 days; at 4&5 Star-rated chain hotels was 4.2 days; at 4&5 Star-rated non-chain hotels was 4.5 days; and the average length of stay of Non-star hotels was 5.5 days.

(iv) The average room rates

The average room rates of the 1,2&3 Star-rated hotels was 590,000 rupiah/room/night; at the 4&5 Star-rated chain hotels was 3,065,000 rupiah/room/night; at the 4&5 Star-rated non-chain hotels was 1,395,000 rupiah/room/night; and the average room rates of the Non-star hotels was 455,000 rupiah/room/night.

**Table 5.1.2**  
**The Average Number of Rooms, Room Occupancies, Length of Stay**  
**and Room Rates in Year 2012**

No	Type of Hotel	Average			
		Number of Room	Room Occupancies (%)	Length of Stay (Days)	Room Rates (Rph/Room/Night)
1.	1,2&3 Star rated hotels	77	70.7	5.0	590,000
2.	4&5 Star rated hotels				
	• Chain hotels	217	70.3	4.2	3,065,000
	• Non-Chain hotels	140	68.3	4.5	1,395,000
3.	Non-star rated hotels	37	60.5	5.5	455,000

Owners of sampling hotels were mostly Indonesian, except 8.3% of the 4&5 Star-rated chain hotels are owned by foreigners. Meanwhile, management systems of the sampling hotels were as follows: (i) 60% of 1,2&3 Star-rated hotels were managed by national hotel groups, and 40% were individually managed; (ii) 100% of the 4&5 Star-rated chain hotels were managed by international chain-hotels; and 70% of the 4&5 Star-rated non-chain hotels were managed by national hotel groups, and 30% were managed individually; and (iv) 100% of Non-Star hotels were managed individually (see Table 5.1.3).

**Table 5.1.3**  
**Ownership and Management System of the Sampling Hotels**

Type of Hotel	Ownership of the Hotel		Management System		
	Indonesian (%)	Foreigner (%)	International Chain (%)	National Hotel Group (%)	Individual (%)
1,2&3 Star rated hotels	100	-	-	60	40
4&5 Star-rated hotels					
	• Chain hotels	91.7	8.3	100	-
	• Non-chain hotels	100	-	70	30
Non-star rated hotels	100	-	-	-	100

Employees at the sampling hotels were mostly Indonesian, except several foreigners worked at the Star-rated hotels. The detail information of the employees at the sampling hotels was as follows: (i) the average number of employees in each 1,2&3 Star-rated hotels were 89 Indonesian (99.84 %) and 0.14 foreigners (0.16%); (ii) the average number of employees in each 4&5 Star-rated chain hotels were 355 Indonesians (98.36%) and 6 foreigners (1.64%); at each 4&5 Star-rated non-chain hotels were 227 Indonesian (99.69 %) and 0.71 foreigners (0.31%); and (iii) the average number of employees in each Non-Star hotels was 37 persons (100% Indonesians) (see Table 5.1.4).

**Table 5.1.4**  
**The Average of Indonesian and Foreign Employees of the Sampling Hotels**

Type of Hotel	Employees			
	Indonesian		Foreigner	
	Persons	(%)	Persons	(%)
1,2&3 Star-rated hotels	89	99.84	0.14	0.16
4&5 Star-rated hotels				
• Chain hotels	355	98.36	6.00	1.64
• Non-chain hotels	227	99.69	0.71	0.31
Non-star rated hotels	37	100	-	-

### 5.1.3 Description of Imported Products Used by Hotels

Variety and amount of imported products were different among types of hotels (see Table 5.1.5). In all types of hotels, the highest variety and amount of imported products were bought by 4&5 Star-rated chain hotel. It was followed by 4&5 Star-rated non-chain hotels and 1,2&3 Star-rated hotels. The lowest variety and amount of imported products were bought by Non Star-rated hotel. Types of

products that were imported by Star-rated hotels were foods, beverages and dairy products, fruits and vegetables, and utensils and equipment. On the other hand, Non-star rated hotels imported foods, beverages and dairy products only.

In term of imported foods, beef was the most imported meat by all types of sampling hotels, followed by lamb and salmon. Even though all types of Star-rated hotels imported meats, but some kinds of meats such as chicken, pork, and duck were supplied locally. All fisheries products such as fish, prawn, lobster, crab, squid, shell, and scallop were also supplied locally, except salmon. Some other foodstuffs were also imported by most Star-rated hotels, such as cheese, butter, olive oil, mayonnaise, pasta, spaghetti, tomato paste, sundried tomato, tabasco, origano, asparagus, fettuccini, mozzarella, sunflower seed, oats, almond, cherries, berlotti bean and tortilla flour. The Non star-rated hotels only imported beef and lamb.

Various fruits and vegetables were also imported by all Star-rated hotels. The imported fruits and vegetables included apples, red and green grapes, oranges, lettuce, baby romaine, and celery. However, Non-star rated hotels did not import fruits and vegetables. They bought local fruits and vegetables because they preferred local fruits and vegetables to serve their guests.

Types of imported alcoholic beverages in all Star-rated hotels were dominated by wine, liquor, tequila, absolut vodka and civas regal. Meanwhile, in Non-star rated hotels, imported beverages were dominated by wine and only small amount of other alcoholic beverages. In addition, dairy products were also mostly imported by all types of Star-rated hotels. Moreover, several types of imported

cutleries, utensils, and other equipment were imported by all types of Star-rated hotels. However, this kind of products was not imported by Non Star-rated hotels.

**Table 5.1.5**  
**Imported Products in the Sampling Hotels**

Type of Hotels	Imported Products			
	Foods	Beverages and Dairy Products	Fruits and Vegetables	Utensils & Equipment's
1,2&3 Star-rated hotels	√	√	√	√
4&5Star-rated hotels				
• Chain hotels	√	√	√	√
• Non-chain hotels	√	√	√	√
Non-star rated hotels	√	√	X	X

The amount of imported products bought by all type of hotels could be seen from the amount of expenditure by each type of hotels, as follow (See Table 5.1.6):

- (i) 4&5 Star-rated chain hotels. The average of annual expenditure per hotel for foods was 60,449,912,377 rupiah; for beverages and dairy products was 215,905,143,409 rupiah; for fruits and vegetables was 1,648,298,590 rupiah; and for utensils and equipment was 1,521,407,622 rupiah.
- (ii) 4&5 Star-rated non-chain hotels. The average of annual expenditure per hotel for foods was 1,061,941,074 rupiah; for beverages and dairy products was 11,824,311,429 rupiah; for fruits and vegetables was 89,472,114 rupiah; and for utensils and equipment was 54,804,143 rupiah.
- (iii) Non-star rated hotels. The average of annual expenditure per hotel for foods was 54,960,125 rupiah; and for beverages and dairy products was 287,433,883 rupiah.

**Table 5.1.6**  
**Average of Annual Expenditure per Hotel**  
**for Imported Products by the Sampling Hotels**

Type of Hotels	Average of Annual Expenditure per Hotel for Imported Products by the Sampling Hotels (Rph/Year)			
	Foods	Beverages and Dairy Products	Fruits and Vegetables	Utensils & Equipment's
1,2&3 Star-rated hotels	535,273,728	1,011,754,732	97,448,300	161,350,991
4&5Star-rated hotels				
• Chain hotels	60,449,912,377	215,905,143,409	1,648,298,590	1,521,407,622
• Non-chain hotels	1,061,941,074	11,824,311,429	89,472,114	54,804,143
Non-star rated hotels	54,960,125	287,433,883	-	-

#### 5.1.4 Annual Revenue of the Sampling Hotels

Sources of hotel's revenues include: income from rooms, foods and beverages, and other incomes. Income from rooms is payment for rooms by guests. Income from foods and beverages is all payments for foods and beverages by guests. Other incomes are all incomes of the hotel which were obtained from payment of any activities in the hotel other than payment for room, foods and beverages. Other incomes include payment for laundry, spa, telephone call, internet, business centre, etc.

Hotel's revenues varied according to the hotel type, number of rooms available, availability of meeting or function rooms, and other services provided in the hotel. In general, the highest rank of the hotels' revenues found at the 4&5 Star-rated chain hotels. Details of maximum, minimum and annual revenues of the sampling hotels in year 2012 were outlined as follows (see Table 5.1.7):

- (i) The average of annual revenue of 1,2&3 Star-rated hotels was 13,181,295,025 rupiah, with the maximum revenue of 50,709,091,727 rupiah, and the minimum revenue of 2,495,755,755 rupiah.
- (ii) The average of annual revenue of 4&5 Star-rated chain hotels was 170,119,419,556 rupiah, with the maximum revenue of 460,031,335,082 rupiah, and the minimum revenue of 30,222,865,050 rupiah.
- (iii) The average of annual revenue of 4&5 Star-rated non-chain hotels was 74,643,178,071 rupiah, with the maximum revenue of 317,696,767,042 rupiah, and the minimum revenue of 2,479,079,750 rupiah.
- (iv) The average of annual revenue of Non-star rated hotels was 4,976,567,476 rupiah, with the maximum revenue of 15,058,779,450 rupiah, and the minimum revenue of 955,935,000 rupiah.

**Table 5.1.7**  
**Annual Revenue of the Sampling Hotels in Year 2012**

Type of Hotels	Revenue (Rupiah)		
	Maximum	Minimum	Average
1,2&3 Star-rated hotels	50,709,091,727	2,495,755,755	13,181,295,025
4&5 Star-rated hotels			
• Chain hotels	460,031,335,082	30,222,865,050	170,119,419,556
• Non-chain hotels	317,696,767,042	2,479,079,750	74,643,178,071
Non-star rated hotels	15,058,779,450.00	955,935,000.00	4,976,567,476

## **5.1.5 Tourism Leakage of the Sampling Hotels**

### **5.1.5.1 Sources of Tourism Leakage**

Accommodation is one of the main sources of leakage in tourism industry. Percentage of leakage will depend on the amount of import components that were consumed by hotels. According to Platullo (1996), high levels of tourism leakage in modern tourism development emerge from tour package in tourism, such as accommodation, meals, airline and ground transportation.

In general, the sources of leakage of the sampling hotels were as follows:

- (i) Imported foods, i.e. all imported foods that were used by hotels to serve their guests.
- (ii) Imported beverages, i.e. all imported beverages that were used in hotels to serve their guests.
- (iii) Imported of fruit and vegetables, i.e. all imported fruit and vegetables that were used in hotels to serve their guests.
- (iv) Imported utensils and equipment, i.e. all imported utensils and equipment that were used in hotels.
- (v) Overseas marketing or education, i.e. all overseas activities that were undertaken by hotel's personnel to improve the ability of staffs and/or to improve the performance of hotels. These activities include promotion and other marketing activities as well as training for staffs and hotel management that was done outside the country.
- (vi) Payment for foreign employees, i.e. payment for foreign employees.

- (vii) Payment for booking fees, i.e. payment for booking fees that was paid to overseas travel agents.
- (viii) Payment for online fees, i.e. payment for online agent in overseas.
- (ix) Management fee, i.e. payment for the international chain hotel management system.
- (x) Profit transfer for foreign owners, i.e. profit which was transferred to owners in overseas.

#### 5.1.5.2 Calculation of Revenue and Leakage of the Sampling Hotels

Revenue of a hotel can be calculated as below:

$$Y = \sum_{i=1}^n Y_i$$

$$Y = Y_1 + Y_2 + Y_3 \dots \dots \dots (1)$$

where:

Y = Annual revenue of a sampling hotel

Y<sub>1</sub> = Revenue from rooms

Y<sub>2</sub> = Revenue from selling foods and beverages

Y<sub>3</sub> = Revenue from others (laundry, spa, telephone, internet, business centre, etc.)

Based on the sources of revenue, an example of calculation for annual revenue of a sampling hotel is as follow:

Type of hotel : 4&5 Star-rated chain hotel

Code of sampling hotel : 3

Calculation of the annual revenue of this hotel included:

(i) Revenue from rooms (Y<sub>1</sub>) = Rph 213,952,596,624

(ii) Revenue from selling foods and beverages (Y<sub>2</sub>) = Rph 76,411,641,651

(iii) Revenue from others: laundry, spa, etc. (Y<sub>3</sub>) = Rph 15,282,328,330

The annual revenue of this hotel was = Y<sub>1</sub> + Y<sub>2</sub> + Y<sub>3</sub> = Rph 305,646,566,605



Therefore, percentage of leakage of one hotel can be calculated as below:

$$\text{Percentage of leakage} = \frac{\text{Total Leakage}}{\text{Total Revenue}} \times 100\% \quad \dots \dots \dots (3)$$

Based on the calculation of revenue and leakage outlined above, the percentage of tourism leakage of the sampling hotel was:

$$\begin{aligned} \text{Percentage of Leakage} &= \frac{\text{Total Leakage}}{\text{Total Revenue}} \times 100\% \\ &= \frac{\text{Rph } 150,545,430,975}{\text{Rph } 305,646,566,605} \times 100\% \\ &= 49.25 \% \end{aligned}$$

More details of the calculation of revenue and leakage of all sampling hotels are shown in Appendix 5.1, 5.2, 5.3, and 5.4.

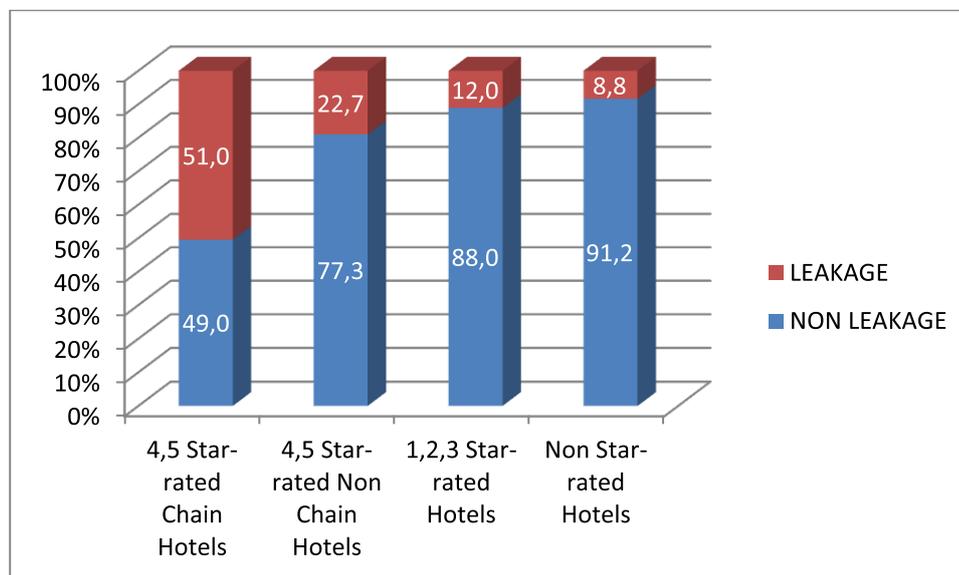
### **5.1.5.3 Average Tourism Leakage of the Sampling Hotels**

Based on the calculations of revenue and leakage of all sampling hotels that are shown in the Appendix 5.1, 5.2, 5.3, and 5.4, the average tourism leakage of the sampling hotels were as follows:

- (i) the average leakage of the 1,2&3 Star-rated hotels was 12.0 %;
- (ii) the average leakage of the 4&5 Star-rated chain hotels was 51.0 %;
- (iii) the average leakage of the 4&5 Star-rated non-chain hotels was 22.7 %; and
- (iv) the average leakage of the Non-star rated hotels was 8.8 % (see Table 5.1.8 and Figure 5.1).

**Table 5.1.8**  
**Average Tourism Leakage of the Sampling Hotels**

No	Type of Hotels	Average		
		Leakage (%)	Non Leakage (%)	Total (%)
1.	1,2&3 Star-rated hotels	12.0	88.0	100
2.	4&5 Star-rated hotels			
	• Chain hotels	51.0	49.0	100
	• Non-chain hotels	22.7	77.3	100
3.	Non-star rated hotels	8.8	91.2	100



**Figure 5.1**  
**Average Tourism Leakage of the Sampling Hotels**

The results showed that the highest percentage of tourism leakage from the accommodation sector in Bali was on the 4&5 Star-rated chain hotels (51.0 %). It was followed by the 4&5 Star-rated non-chain hotels (22.7 %), and 1,2&3 Star-rated hotels (12.0 %). Meanwhile, the lowest leakage was on the Non-star rated hotels (8.8%). These results indicated that (i) the higher the level of hotel classification, the more leakage will be; and (ii) the accommodations which were

owned by foreigners and/or managed by international chain hotel systems have more leakage than other type of accommodations. The more leakage, therefore the less revenue from tourism will be received by the host country and community. In another word, more profit from tourism will go to outside of the country. It is suggested that for future development of accommodation sector in Bali, priority should be given to accommodations which are owned and/or managed by local and national company in order to minimize the leakage and to maximize the benefits for local community.

#### **5.1.5.4 The Sequence of the Sources of Tourism Leakage**

Based on the survey undertaken on 79 hotels, the sequence of the sources of leakage were as follow:

- (i) Overall, imported beverages were the first source of leakage in all types of hotels. Meanwhile, profit transfer for foreign owners was also the main source of leakage in 4&5 Star-rated chain hotel. This was the second source of leakage after imported beverages. In 4&5 Star-rated chain hotel, management fees paid to international chain management were the third source of leakage.
- (ii) Imported foods and payment for online fees also played a crucial role as the sources of leakage in mostly all type of hotels. In 4&5 Star-rated chain and non-chain hotels, the payment for foreign employees was also a significant source of leakage.
- (iii) Imported fruit and vegetables were also as source of leakage especially for all Star-rated hotels.

- (iv) Lastly, imported utensils and payment for booking fee stated in the last rank of the source of leakage.

The sequence of leakage's sources in each type of hotel is shown in Table 5.1.9.

**Table 5.1.9**  
**The Sequence of the Sources of Tourism Leakage in the Sampling Hotels**

Type of Hotels	Sequence of the Sources of Leakage									
	1	2	3	4	5	6	7	8	9	10
1,2&3 Star-rated hotels	b	a	i	c	e	h	d	-	-	-
4&5 Star-rated hotels										
• Chain hotels	b	f	a	e	j	i	g	c	d	h
• Non-chain hotels	b	a	i	c	e	g	d	h	-	-
Non-star rated hotels	b	i	a	h	-	-	-	-	-	-

**Remarks:**

a : Imported foods

b : Imported beverages

c : Imported fruit and vegetables

d : Imported utensils and equipment

e : Payment for overseas marketing or training

f : Profit transfer for foreign owners

g : Payment for foreign employees

h : Payment for booking fees

i : Payment for online fees

j : Payment for international chain hotel management fees

Furthermore, the amount of leakage from each source of tourism leakage for each type of accommodation is presented in Table 5.1.10. As can be seen from Table 5.1.10, the highest amount of tourism leakage on all types of accommodation was imported beverages. The amount of imported beverages was about 65% of total leakage of Non-star rated hotels; about 45% of 1,2&3 Star-rated hotels; about 70% of 4&5 Star-rated non-chain hotels; and about 64% of 4&5 Star-rated chain hotels. Meanwhile, imported foods were also important source of leakage on all types of accommodations. Among all types of

accommodation, the highest imported foods were occurred on 1,2&3 star-rated hotels (about 24% of total leakage). Management fee was one source of leakage in 4&5 Star-rated hotels as this type of accommodation managed by international chain hotel management. It was about 4% of the total leakage of 4&5 Star-rated hotels. In addition, profit transfer was also occurred at 4&5 Star-rated hotels, as one of the sampling hotels owned by foreigner. The profit transfer was about 0.1% of total leakage of 4&5 Star-rated hotels.

**Table 5.1.10**  
**The Amount of Leakage from Each Source**  
**for Each Type of Accommodation in Bali**

No	Source of Leakage	Non-Star rated Hotels (Rupiah)	1,2&3 Star-rated Hotels (Rupiah)	4&5 Star-rated Non-Chain Hotels (Rupiah)	4&5 Star-rated Chain Hotels (Rupiah)
1	Foods	85,902,675,005 (12.6%)	37,469,160,987 (23.7%)	77,521,698,402 (6.3%)	213,933,002,184 (20.5%)
2	Beverages	449,259,159,786 (65.7%)	70,822,831,218 (44.8%)	863,174,734,286 (69.8%)	667,635,480,000 (64.1%)
3	Fruits and Vegetables	-	6,821,380,980 (4.3%)	6,531,464,288 (0.5%)	1,735,344,000 (0.2%)
4	Good, Utensils, Equipment, Materials	-	11,294,569,374 (7.2%)	4,000,702,429 (0.3%)	1,376,700,000 (0.1%)
5	Marketing and Staff Training	-	8,820,000,000 (5.6%)	108,938,461,538 (8.8%)	49,800,000,000 (4.8%)
7	Payments for Foreign Employees	-	-	87,600,000,000 (7.1%)	21,984,000,000 (2.1%)
10	Online fees	147,996,492,159 (21.7%)	22,686,927,806 (14.4%)	89,115,720,828 (7.2%)	37,104,023,687 (3.6%)
11	Booking Fees	-	-	-	6,370,851,474 (0.6%)
12	Management Fees	-	-	-	40,828,660,693 (3.9%)
13	Profit Transfer	-	-	-	604,457,301 (0.1%)
<b>Total Leakage</b>		683,158,326,950 (100%)	157,914,870,365 (100%)	1,236,882,781,771 (100%)	1,041,372,519,339 (100%)
<b>Number of Sample</b>		32 hotels	21 hotels	14 hotels	12 hotels
<b>Total Revenue of Hotels</b>		7,778,374,966,375	1,318,129,502,481	5,448,951,999,207	2,041,433,034,666
<b>Percentage of Leakage</b>		<b>8.8%</b>	<b>12.0%</b>	<b>22.7%</b>	<b>51.0%</b>
<b>Average Leakage</b>		<b>18.8%</b>			

### **5.1.6 Conclusion**

Calculation of tourism leakage on accommodation sector in Bali showed that the highest percentage of leakage of the sampling hotels on accommodation sector was on the 4&5 Star-rated chain hotels (51.0 %), followed by the 4&5 Star-rated non-chain hotels (22.7%), and 1,2&3 Star-rated hotels (12.0%). Meanwhile, the lowest leakage was on the Non-star rated hotels (8.8 %). Overall, the average tourism leakage on accommodation sector in Bali was 18.8 %.

These results indicate that (i) the higher the level of hotel classifications, the more leakage will be; and (ii) accommodation which was owned by foreigner and/or managed by international chain hotel system had more leakage than other types of accommodation. The more leakage, therefore the less revenue from tourism will be received by the host country and community. In another word, more profit from tourism will go to outside of the country.

It was found that sources of leakage were imported food and beverages, payment for booking fees, online fees, and management fees. Payment for profit transfer for the ownership of the accommodation was also been found as source of tourism leakage on 4&5 Star-rated chain hotels.

## **5.2 Results of Macro Analysis of Tourism Leakage on Accommodation Sector**

### **5.2.1 Introduction**

In this part, tourism leakage from accommodation sector in Bali is calculated in macro analysis by using Social Accounting Matrix (SAM) approach. SAM Hotels of Bali tourism was developed in a matrix\_31x31 which was based on Social Accounting Matrix of Bali Province 2010 and other related data from Central Bureau Statistic of Bali Province. In order to ascertain the amount of leakage from each type of accommodation, description of account of receipt-expenditure and account of production of each hotel type is outlined. Then, it is continued with the calculation of leakage of each hotel type. This part is closed by conclusion.

### **5.2.2 Description of Account for Each Type of Hotel**

#### **5.2.2.1 Receipt-Expenditure Account and Production Account of Non-star Rated Hotels**

##### **a. Receipt-Expenditure Account of Non-star Rated Hotels**

Receipt-Expenditure account depicts linkages between receipt account and expenditure account. Based on Matrix SAM\_31x31 (see Appendix 4.3), sources of receipt of Non Star-rated hotels in Bali were: (i) Income which was generated as payment of production factors of non labour. It was about 269.56 billion rupiah (row 12 column 6 of Matrix SAM\_31x31 in Appendix 4.3); (ii) Transfer from household was about 24.20 million rupiah (row 12 column 11); (iii) Transfer between hotels was about 77.06 billion rupiah (sum of row 12 column 12 up to row 12 column 16); (iv) Transfer from government was about 61.02 million

rupiah (row 12 column 17); and (v) Transfer from overseas was about 3.39 billion rupiah (row 12 column 31). Total receipt of Non-star rated hotels was the sum of all the above incomes, i.e. 350.10 billion rupiah (row 12 column Total). Summary of the receipt-expenditure account of Non-star rated hotels is presented in Table 5.2.1.

**Table 5.2.1**  
**Receipt-Expenditure Account of Non-star rated Hotels in 2012**

Expenditure	Amount (Million Rupiah)	Receipt	Amount (Million Rupiah)
1. Transfer:		1. Payment for production factors:	
• Transfer to household	16,581.61	• Labour	0.00
• Transfer between companies	160,682.08	• Non labour	269,563.38
2. Direct tax	107,420.53	2. Transfer:	
3. Saving (undistributed profit)	62,812.44	• From household	24.20
4. Non labour payment to overseas	2,604.21	• Between companies	77,063.87
		• From government	61.02
		• From overseas	3,388.40
<b>Total</b>	<b>350,100.87</b>	<b>Total</b>	<b>350,100.87</b>

Remark: based on SAM of Bali 2010

The above results show that receipt of Non-star rated hotels was dominated by income which was generated as payment of production factors from non labour. It was about 269.56 billion rupiah or 77.00 % of the total income. It then followed by transfer between hotels about 77.06 billion rupiah or 22.01% of the total income.

Furthermore, the total receipt of Non-star rated hotels was used as expenditure (see SAM<sub>31x31</sub> at Appendix 4.3). This expenditure included: (i) Transfer to household was about 16.58 billion rupiah (row 11 column 12 of SAM<sub>31x31</sub>); (ii) Transfer between companies (hotels and non-hotels) was about 160.68 billion rupiah (sum of row 12 column 12 up to row 12 column 16); (iii) Direct tax to the government was about 107.42 billion rupiah (row 17 column 13); (iv) Undistributed profit (saving) was 62.81 billion rupiah (19.94 % of the total receipt) was used as capital account for the companies (row 29 column 12); and (v) Payment of non labour to other regions or overseas was about 2.60 billion rupiah (row 31 column 12). The results show that direct taxes paid by Non Star-rated hotels were really high, about 107.42 billion rupiah or 30.68% of the total receipt (see Table 5.2.1).

#### b. Production Account of Non-star rated Hotels

Production account describes linkages between transactions on production process. Based on Matrix SAM<sub>31x31</sub> (see Appendix 4.3), total receipt of production account was 136.58 billion rupiah. The sources of receipt on production account were as follows: (i) Selling of intermediate input was 26.79 billion rupiah; (ii) Selling of goods and services for final consumption was 107.60 billion rupiah (row 24 column 11 plus row 24 column 17); (iii) Export was 2.46 billion rupiah (row 24 column 31); (iv) Import was 276.25 billion rupiah (row 30 column 24). Summary of the receipt of production account of Non-star rated hotels is presented in Table 5.2.2.

Furthermore, the receipt of Non-star rated hotels was used to some activities or expenditures, as follow: (i) Purchasing for intermediate input was about 58.43 billion rupiah (sum of row 24 column 18 up to row 28 column 18 of SAM\_31x31); (ii) Payment for labour wages and salaries was about 53.29 billion rupiah (row 1 column 18); (iii) Surplus of the companies was about 23.34 billion rupiah (row 6 column 18); (iv) Payment for indirect taxes was about 1.52 billion rupiah (row 30 column 24). Summary of the production account of Non-star rated hotels is presented in Table 5.2.2. As shown in Table 5.2.2, the highest expenditure of Non-star rated hotels was for purchasing intermediate input (raw materials). It was about 58.43 billion rupiah or 42.78% of the total expenditure. It was followed by purchasing for labour payment about 53.29 billion rupiah or 39.02% of the total expenditure.

**Table 5.2.2**  
**Production Account of Non-star rated Hotels in 2012**

<b>Expenditure</b>	<b>Amount (Million Rupiah)</b>	<b>Receipt</b>	<b>Amount (Million Rupiah)</b>
1. Purchasing intermediate demand	58,432.32	1. Selling intermediate demand	26,793.04
2. Wages and salaries	53,292.15	2. Selling goods and services	107,603.11
3. Companies' Surplus	23,338.94	3. Selling capital goods	0.00
4. Indirect tax	1,515.46	4. Export	2,458.97
		5. Import	276.25
<b>Total</b>	<b>136,578.87</b>	<b>Total</b>	<b>136,578.87</b>

Remark: based on SAM of Bali 2010

### 5.2.2.2 Receipt-Expenditure Account and Production Account of 1,2&3 Star-rated Hotels

#### a. Receipt-Expenditure Account of 1,2&3 Star-rated Hotels

Based on Matrix SAM<sub>31x31</sub> (see Appendix 4.3), sources of receipt of 1,2&3 Star-rated hotels in Bali were: (i) Income which was generated as payment of production factors of non labour. It was about 8.13 trillion rupiah (sum of row 13 column 6 up to row 13 column 10 of Matrix SAM<sub>31x31</sub>); (ii) Transfer from household was about 1.41 billion rupiah (row 13 column 11); (iii) Transfer between hotels was about 183.03 billion rupiah (sum of row 13 column 12 up to row 13 column 16); (iv) Transfer from government was about 911.28 million rupiah (row 13 column 17); and (v) Transfer from overseas about 79.70 billion rupiah (row 13 column 31). Total receipt of 1,2&3 Star-rated hotels was 8,391.84 billion rupiah (row 13 column Total). Summary of the receipt-expenditure account of 1,2&3 Star-rated hotels is presented in Table 5.2.3. The results in this table show that the highest contributor to the receipt account of 1,2&3 Star-rated hotels was payment from production factors from non labour. It was 96.84% of the total receipt. Others were very small, such as income between companies (2.18%) and transfer from overseas (0.95%).

Meanwhile, referred to Matrix SAM<sub>31x31</sub> (see Appendix 4.3), the expenditure of 1,2&3 Star-rated hotels consisted of several activities, namely: (i) Transfer to household was 850.39 billion rupiah (row 11 column 13 of SAM<sub>31x31</sub>); (ii) Transfer between companies (hotels and non-hotels) was 283.04 billion rupiah (sum of row 12 column 13 up to row 16 column 13); (iii) Direct tax to the government was 4.25 trillion rupiah (row 17 column 13); (iv)

Undistributed profit (saving) was 2.49 trillion rupiah (row 29 column 12); and (v) Payment of Non labour to other regions or overseas about 515.74 billion rupiah (row 31 column 13). Summary of the receipt-expenditure account of 1,2&3 Star-rated hotels is presented in Table 5.2.3. The results in this table show that the highest expenditure of 1,2,3 Star-rated hotels was direct tax (50.70% of the total expenditure). It was followed by saving or undistributed profit (29.65%), and transfer to household (10.13%). Others were small, such as non labour payment to overseas and transfer between companies.

**Table 5.2.3**  
**Receipt-Expenditure Account of 1,2&3 Star-rated Hotels in 2012**

Expenditure	Amount (Million Rupiah)	Receipt	Amount (Million Rupiah)
1. Transfer:		1. Payment for production factors:	
• Transfer to household	850,397.93	• Labour	0.00
• Transfer between companies	283,036.74	• Non labour	8,126,785.73
2. Direct tax	4,254,761.85	2. Transfer:	
3. Saving (undistributed profit)	2,487,904.13	• From household	1,413.18
4. Non labour payment to overseas	515,744.49	• Between companies	183,033.59
		• From government	911,28
		• From overseas	79,701.36
<b>Total</b>	8,391,845.14	<b>Total</b>	8,391,845.14

Remark: based on SAM of Bali 2010

b. Production Account of 1,2&3 Star-rated Hotels

According to production account of 1,2&3 Star-rated hotels (see Matrix SAM<sub>31x31</sub> at Appendix 4.3), total receipt was 3.32 trillion rupiah. The sources of receipt were as follow: (i) Selling intermediate demand was about 939.55 billion rupiah; (ii) Selling goods and services of final consumption was about

314.55 billion rupiah (sum of row 25 column 11 and row 25 column 17); (iii) Export was about 2.72 trillion rupiah (row 25 column 31); and (iv) Import was about 649.79 billion rupiah. This receipt was used for some transactions, as follow: (i) Purchasing for intermediate input was 1.26 trillion rupiah (sum of row 24 column 20 up to row 28 column 20); (ii) Payment for labour wages and salaries was 1.11 trillion rupiah (row 2 column 19); (iii) Company's surplus was 803.08 trillion rupiah (row 7 column 19); and (iv) indirect tax was about 142.59 trillion rupiah (row 30 column 25). Summary of production account of 1,2&3 Star-rated hotels is shown in Table 5.2.4.

**Table 5.2.4**  
**Production Account of 1,2&3 Star-rated Hotels in 2012**

Expenditure	Amount (Million Rupiah)	Receipt	Amount (Million Rupiah)
1. Purchasing intermediate demand	1,262,595.29	1. Selling intermediate demand	939,554.19
2. Wages and salaries	1,111,268.03	2. Selling goods and services	314,549.85
3. Company's Surplus	803,078.43	3. Selling capital goods	0.00
4. Indirect tax	142,585.86	4. Export	2,715,220.17
		5. Import	649,796.60
<b>Total</b>	3,319,527.61	<b>Total</b>	3,319,527.61

Remark: based on SAM of Bali 2010

#### 5.2.2.3 Receipt-Expenditure Account and Production Account of 4&5 Star-rated Non-Chain Hotels

##### a. Receipt-Expenditure Account of 4&5 Star-rated Non-Chain Hotels

Total receipt for 4,5 Star-rated Non-chain hotels in Bali was about 6.13 trillion rupiah (see Matrix SAM<sub>31x31</sub> at Appendix 4.3). Based on this matrix,

the sources of receipt were as follow: (i) Income from the payment of production factors of non labour was about 5.59 trillion rupiah (sum of row 14 column 6 up to row 14 column 10 of Matrix SAM<sub>31x31</sub>); (ii) Transfer from household was about 4.26 billion rupiah (row 14 column 11); (iii) Transfer between companies was about 354.12 billion rupiah (sum of row 14 column 12 up to row 14 column 16); (iv) Transfer from government was about 2.47 billion rupiah (row 14 column 17); and (v) Transfer from overseas was about 172.73 billion rupiah (row 14 column 31). The summary of receipt-expenditure account of 4&5 Star-rated non-chain hotels is presented in Table 5.2.5. The results show that the highest contributor to the receipt account of 4&5 Star-rated Non-chain hotels was payment from production factors of non labour (91.30% of the total receipt). It was followed by income between companies (5.78%), and receipt from overseas (2.82%).

Meanwhile, total expenditure of 4&5 Star-rated Non-chain hotels was 6.13 trillion rupiah, and it consisted some transactions, as follow: (i) Transfer to household was 401.26 billion rupiah (row 11 column 14 of SAM<sub>31x31</sub>); (ii) Transfer between companies (hotels and non-hotels) was 173.14 billion rupiah (sum of row 12 column 14 up to row 16 column 14); (iii) Direct tax to government was about 3.26 billion rupiah (row 17 column 14); (iv) Undistributed profit (saving) was 1.90 trillion rupiah (row 29 column 14); and (v) Payment of non-labour to other regions or overseas was about 394.73 billion rupiah (row 31 column 14). The summary of expenditure of receipt-expenditure account of 4&5 Star-rated non-chain hotels is presented in Table 5.2.5. From this table, it can be

said that the highest expenditure of 4&5 Star-rated Non-chain hotels was direct tax (53.13% of the total expenditure). It was followed by saving (31.06%), transfer to household (6,55%), non-labour payment to other regions and overseas (6.44%), and transfer between companies (2.82%).

**Table 5.2.5**  
**Receipt-Expenditure Account of 4&5 Star-rated Non-Chain Hotels in 2012**

Expenditure	Amount (Million Rupiah)	Receipt	Amount (Million Rupiah)
1. Transfer:		1. Payment for production factors:	
• Transfer to household	401,256.81	• Labour	0.00
• Transfer between companies	173,140.53	• Non labour	5,596,190.75
2. Direct tax	3,256,473.49	2. Transfer:	
3. Saving (undistributed profit)	1,904,170.93	• From household	4,261.47
4. Non labour payment to overseas	394,736.13	• Between companies	354,119.95
		• From government	2,472.60
		• From overseas	172,733.12
<b>Total</b>	6,129,777.89	<b>Total</b>	6,129,777.89

Remark: based on SAM of Bali 2010

b. Production Account of 4&5 Star-rated Non-Chain Hotels

From receipt side of production account (see Matrix SAM<sub>31x31</sub> in Appendix 4.3), total receipt was 7.19 trillion rupiah. It was obtained from some transactions as follow: (i) Selling intermediate input was about 2.15 trillion rupiah; (ii) Selling goods and services of final consumption was about 540.59 billion rupiah (sum of row 26 column 11 and row 26 column 17 of SAM<sub>31x31</sub>); (iii) Export was about 6.38 trillion rupiah (row 25 column 31); and (iv) Import was about 1.88 trillion rupiah. Summary of the receipt side of production account of 4&5 Star-rated Non-chain hotels is shown in Table 5.2.6.

On the other hand, the total receipt of 4&5 Star-rated Non-chain hotels was used to some activities as follows: (i) Purchasing intermediate input was about 3.82 trillion rupiah (sum of row 24 column 20 up to row 28 column 20 of SAM\_31x31); (ii) Payment for labour wages and salaries was about 1.68 trillion rupiah (row 3 column 20); (iii) surplus of the company was about 1.39 trillion rupiah (row 9 column 21); and (iv) Payment for indirect tax was about 309.02 billion rupiah (row 30 column 26). Summary of the expenditure side of production account of 4&5 Star-rated Non-chain hotels is shown in Table 5.2.6.

**Table 5.2.6**  
**Production Account of 4&5 Star-rated Non-Chain Hotels in 2012**

Expenditure	Amount (Million Rupiah)	Receipt	Amount (Million Rupiah)
1. Purchasing intermediate demand	3,815,216.11	1. Selling intermediate demand	2,153,770.52
2. Wages and salaries	1,683,787.70	2. Selling goods and services	540,587.20
3. Company's Surplus	1,386,236.92	3. Selling capital goods	0.00
4. Indirect tax	309,019.83	4. Export	6,377,602.16
		5. Import	1,877,699.32
<b>Total</b>	7,194,260.56	<b>Total</b>	7,194,260.56

Remark: based on SAM of Bali 2010

#### 5.2.2.4 Receipt-Expenditure Account and Production Account of 4&5 Star-rated Chain Hotels

##### a. Receipt-Expenditure Account of 4&5 Star-rated Chain Hotels

Total receipt for 4&5 Star-rated Non-chain hotels in Bali was 3.81 trillion rupiah (see Matrix SAM\_31x31 at Appendix 4.3). Sources of receipt were: (i) Income generated from payment of production factors of non labour. It was about

3.65 billion rupiah (sum of row 15 column 6 up to row 15 column 10 of Matrix SAM\_31x31); (ii) Transfer from household was about 46.08 million rupiah (row 15 column 11); (iii) Transfer between companies was about 114.97 billion rupiah (sum of row 15 column 12 up to row 15 column 16); (iv) Transfer from government was about 2.47 million rupiah (row 15 column 17); and (v) Transfer from overseas was about 49.91 billion rupiah (row 15 column 31). The summary of receipt account of 4&5 Star-rated chain hotels is presented in Table 5.2.7. The results showed that the receipt account of 4&5 Star-rated chain hotels was dominated by payment from production factors from non labour (95.67 % of the total receipt). It was followed by income between companies (3.02 %) and transfer from overseas (1.31 %).

Meanwhile, total expenditure of 4&5 Star-rated chain hotels was 3.81 trillion rupiah (see Matrix SAM\_31x31 at Appendix 4.3). The expenditure account consisted of several transactions, as follow: (i) Transfer to household was 68.47 billion rupiah (row 11 column 15 of SAM\_31x31); (ii) Transfer between companies (hotels and non-hotels) was 379.32 billion rupiah (sum of row 12 column 15 up to row 16 column 15); (iii) Direct tax to the government was about 1.56 trillion rupiah (row 17 column 15); (iv) Undistributed profit (saving) was about 911.72 billion rupiah (row 29 column 15); and (v) Payment for non labour to other regions or overseas was about 893.69 billion rupiah (row 31 column 15). The summary of expenditure account of 4&5 Star-rated chain hotels is presented in Table 5.2.7.

**Table 5.2.7**  
**Receipt-Expenditure Account of 4&5 Star-rated Chain Hotels in 2012**

<b>Expenditure</b>	<b>Amount (Million Rupiah)</b>	<b>Receipt</b>	<b>Amount (Million Rupiah)</b>
1. Transfer:		1. Payment for production factors:	
• Transfer to household	68,467.14	• Labour	0.00
• Transfer between companies	379,320.97	• Non labour	3,647,217.64
2. Direct tax	1,559,211.55	2. Transfer:	
3. Saving (undistributed profit)	911,724.08	• From household	46.08
4. Non labour payment to overseas	893,689.99	• Between companies	114,972.47
		• From government	263.33
		• From overseas	49,914.21
<b>Total</b>	<b>3,812,413.73</b>	<b>Total</b>	<b>3,812,413.73</b>

Remark: based on SAM of Bali 2010

b. Production Account of 4&5 Star-rated Chain Hotels

From receipt side of production account, total receipt of 4&5 Star-rated chain hotels was about 2.03 trillion rupiah (see Matrix SAM<sub>31x31</sub> at Appendix 4.3). The receipt account consisted of several transactions, as follow:

(i) Selling intermediate input was about 658.87 billion rupiah; (ii) Selling goods and services of final consumption was about 173.82 billion rupiah (sum of row 27 column 11 and row 27 column 17 of Matrix SAM<sub>31x31</sub>); (iii) Export was about 2.64 trillion rupiah (row 26 column 31); and (iv) Import was about 2.44 trillion rupiah.

From expenditure side of production account, total receipt of 4&5 Star-rated chain hotels was 2.03 trillion rupiah. The expenditure account consisted of some transactions, as follow: (i) Purchasing for intermediate input was about

935.53 billion rupiah (sum of row 24 column 21 up to row 28 column 21 of SAM\_31x31); (ii) Payment for labour wages and salaries was about 434.94 billion rupiah (row 4 column 21); (iii) Surplus of the company was about 619.14 billion rupiah (row 9 column 21); (iv) Payment for indirect tax was about 44,65 billion rupiah (row 30 column 27). Summary of production account of 4&5 Star-rated chain hotels is presented in Table 5.2.8.

**Table 5.2.8**  
**Production Account of 4&5 Star-rated Chain Hotels in 2012**

Expenditure	Amount (Million Rupiah)	Receipt	Amount (Million Rupiah)
1. Purchasing intermediate demand	935,532.71	1. Selling intermediate demand	658,874.73
2. Wages and salaries	434,938.91	2. Selling goods and services	173,822.83
3. Company's Surplus	619,137.41	3. Selling capital goods	0.00
4. Indirect tax	44,648.30	4. Export	2,643,230.95
		5. Import	2,441,671.18
<b>Total</b>	2,034,257.33	<b>Total</b>	2,034,257.33

Remark: based on SAM of Bali 2010

### 5.2.3 Calculation of Tourism Leakage from Accommodation Sector in Bali Based on Macro Analysis

The sources of tourism leakage based on macro analysis were as follows:

(i) transfer to overseas from production factors, which consists of payment for labour and payment for capital ownership; and (ii) transfer to overseas from institution for payment of non labour, this includes payment for goods and

services. Therefore, the calculation of tourism leakage from accommodation sector in Bali was calculated by using the formula below:

$$\text{Leakage} = \frac{\text{Transfer of income from production factors to overseas} + \text{Payment of Non Labour to overseas}}{\text{Total of Production}} \times 100\%$$

where:

- Transfer of income from production factors to overseas was income from **production factors** which was transferred to overseas. It consisted of:
  - Payment for labour (row 31 column 1 up to row 31 column 4 of Matrix SAM<sub>31x31</sub>), and
  - Payment for capital ownership (row 31 column 6 up to row 31 column 9 of Matrix SAM<sub>31x31</sub>).
- Payment of non labour to overseas was income transferred to overseas from **institution or company** (row 31 column 12 up to row 31 column 15 of Matrix SAM<sub>31x31</sub>).
- Total production was total income generated during production process (see production account for each hotel in Table 5.2.2, Table 5.2.4, Table 5.2.6, and Table 5.2.8).

Summary of transfer of income from production factors to overseas and payment of non labour to overseas, as well as total production of each type of accommodation is presented in Table 5.2.9.

#### **Example of calculation of leakage:**

Leakage of Non-star rated hotels (see Table 5.2.9):

$$= \frac{(0 + 127.15) + (2,604.21)}{136,578.87} \times 100\% = 1.99\% = 2.0\%$$

Based on the above formula, leakage of other types of accommodations was calculated. The results are as follows (see Table 5.2.9):

- (i) Leakage of 1,2&3 Star-rated hotels was 15.66%;
- (ii) Leakage of 4&5 Star-rated Non-chain hotels was 7.14%;
- (iii) Leakage of 4&5 Star-rated chain hotels was 55.31%; and
- (iv) The average leakage of hotels was 19.48%.

Table 5.2.9 shows the amount of tourism leakage from each type of accommodation in Bali. Detail of the amount of tourism leakage on each type of accommodation is outlined as follow:

- i. The amount of tourism leakage of Non-star rated hotels was 2,0%. It consisted of capital ownership (127.15 million rupiah or 0.09%) and payment of non labour (2.6 billion rupiah or 1.91%).
- ii. The amount of tourism leakage of 1,2&3 Star-rated hotels was 15.66%. It consisted of capital ownership (3.9 billion rupiah or 0.12%), and payment of non labour (515.7 billion rupiah or 15.54%).
- iii. The amount of tourism leakage of 4&5 Star-rated non-chain hotels was 7.14%. It consisted of payment for labour (933.02 billion rupiah or 0.01%), payment for capital ownership (118.37 billion rupiah or 1.64%), and payment of non labour (394.74 billion rupiah or 5.49%).
- iv. The amount of tourism leakage of 4&5 Star-rated chain hotels was 55.31%. It consisted of payment for labour (41.66 billion rupiah or 1.43%), payment for capital ownership (669.58 billion rupiah or 23.08%) and payment of non labour (893.69 billion rupiah or 30.80%).

According to Table 5.2.9, the highest percentage of tourism leakage was found on 4&5 Star-rated chain hotels (55.31%), followed by 1,2&3 Star-rated hotels (15.66%); 4&5 Star Non-chain hotels (7.14%); and the lowest leakage was on Non-star rated hotels (2.0%). The average of leakage of all types of accommodation was 19.48%.

**Table 5.2.9**  
**Percentage of Tourism Leakage of Bali Tourism on Accommodations Sector in 2012**

No	Production Activities	Types of Accommodation				TOTAL (Million Rupiah)
		Non-Star rated Hotels (Million Rupiah)	1,2&3 Star-rated Hotels (Million Rupiah)	4&5 Star-rated Non Chain Hotels (Million Rupiah)	4&5 Star-rated Chain Hotels (Million Rupiah)	
1	Total of Production	136,578.87	3,319,527.61	7,194,260.56	2,901,333.11	13,551,700.15
2	Income from production factors which was transferred to overseas:					
	a. Labour	-	-	933.02 (0.01%)	41,659.82 <b>(1.43%)</b>	42,592.84 (0.31%)
	b. Capital ownership	127.15 (0.09%)	3,945.79 (0.12%)	118,373.85 (1.64%)	669,584.74 <b>(23.08%)</b>	792,031.54 (5.84%)
3	Payments of Non Labour to overseas	2,604.21 (1.91%)	515,744.49 <b>(15.54%)</b>	394,736.13 <b>(5.49%)</b>	893,689.99 <b>(30.80%)</b>	1,806,774.83 (13.33%)
	<b>Leakage (%)</b>	<b>2.00</b>	<b>15.66</b>	<b>7.14</b>	<b>55.31</b>	<b>19.48</b>

Remark: based on SAM of Bali 2010

Based on Table 5.2.9, the causes of a high leakage on 4&5 Star-rated chain hotels were the payments on production factors which were transferred to overseas and the payment of non labour to overseas. More detail explanation is described as follow:

- i. Payment from institution (companies/hotels) for non labour to other regions outside Bali and overseas was 893,689.99 billion rupiah or 30.80% of the total production.

- ii. Payment for capital ownership which was transferred to other regions outside Bali and overseas was 669,584.74 billion rupiah or 23.08% of the total production.
- iii. Payment for labour which was transferred to other regions outside Bali and overseas was 41,659.82 billion rupiah or 1.43% of the total production.

Furthermore, type of accommodation 1,2&3 Star-rated hotels was the second highest on tourism leakage from accommodation sector in Bali. It was higher than leakage of 4&5 Star-rated non-chain hotels. It is because of a high percentage of payment on non labour either to other regions outside Bali or to overseas. The leakage from non labour of 1,2&3 Star-rated hotels was 15.53% of the total production. Meanwhile payment for non labour on 4&5 Star-rated Non-chain hotels was 5.49% of the total production. In fact, payment for capital ownership of 4&5 Star-rated Non-chain hotels was higher than those on 1,2&3 Star-rated hotels. It was 118,373.85 billion rupiah (23.08%) for 4&5 Star-rated hotel, meanwhile payment for capital ownership of 1,2&3 Star-rated hotel was 3,945.79 billion rupiah or 0.12%.

#### **5.2.4 Conclusion**

This part demonstrates calculation of tourism leakage on accommodation sector in Bali based on macro analysis by using SAM Hotels of Bali 2010. Sources of tourism leakage on accommodation sector are capital ownership of accommodation, and payment for imported goods, services and foreign labours. The results show that the highest percentage of tourism leakage was found on 4&5 Star-rated chain hotels (55.32%), followed by 1,2&3 Star-rated hotels

(15.66%), and 4&5 Star non-chain hotels (7.15%). The lowest leakage was on Non-star rated hotels (2.0%). These results indicate that 4&5 Star-rated chain hotels bring about more tourism leakage as they use many imported goods and services, foreign labour as well as capital ownership. Therefore, less revenue from tourism will be received by the host or local community, as more profits from tourism will go to outside of the region or country. Finally, it is estimated that less contribution to local economy and less benefits for local Balinese community.

### **5.3 Impact of Government Subsidies and Import Reduction by Accommodation Sector on Tourism Leakage, Job Opportunity and Income Distribution**

#### **5.3.1 Introduction**

In this section, impacts of government subsidies and import reduction by accommodation sector on tourism leakage, job opportunity, and income distribution are presented. Government plays an important role in reducing tourism leakage through policies on subsidies. To prove that government subsidies impact on tourism leakage, job opportunity distribution and income distribution, simulations were carried out. In this simulation, government subsidies were illustrated in terms of giving electricity subsidies to the hotels. In addition, accommodation sector can also take a part in reducing tourism leakage through minimizing imported products as well as minimizing the utilization of foreign employees (Fletcher, 1994; Lacher and Nepal, 2010; Lejarraga and Walkenhorst, 2010). In this simulation, import reduction from the tourism industries were illustrated in terms of reduction in the use of imported products and foreign employees. By using multiplier effect analysis of SAM Hotel of Bali 2010, a series of simulation on the role of government and accommodation sector was undertaken. In the SAM Hotel of Bali, the account of Trade and Transportation Margin was excluded because this margin was already included in every transaction, so that the SAM matrix becomes SAM<sub>108x108</sub> (Appendix 5.5). Simulation was undertaken based on the assumption that all other accounts on “ceteris paribus”, which means that all other accounts remain constant, except

Government account and account of Overseas Transaction (Rest of the World Account) (Thorbecke, 1988). The simulation followed the steps below:

- i. Determining matrix SAM<sub>108x108</sub> (A)
- ii. Determining Matrix Identity SAM<sub>108x108</sub> (I)
- iii. Determining matrix (Identity-A) SAM<sub>108x108</sub> (I-A)
- iv. Determining Inverse matrix SAM<sub>108x108</sub> (Inverse)
- v. Multiplication between Inverse matrix of SAM<sub>108x108</sub> and vector matrix (1x108) of all types of accommodation (Non-star rated hotels; 1,2&3 Star-rated hotels; 4&5 Star-rated chain hotels; and 4&5 Star-rated non-chain hotels).

### 5.3.2 Simulation

Impact of government subsidies and impact of reducing import by accommodation sector on job opportunity, tourism leakage, and income distribution was undertaken in six simulations. The first simulation was undertaken under a scenario as shown in Table 5.3.1, involving government subsidies and reduction of import (goods, services and foreign labour) by accommodation sector. Detail of the scenario for the first simulation is outlined below:

- i. Government subsidies were given to all types of accommodation as follow: 15% to Non-star rated hotels; 15% to 1,2&3 Star-rated hotels; 12% to 4&5 Star-rated non-chain hotels; and 5% to 4&5 Star-rated chain hotels; and
- ii. Import reduction was undertaken by accommodation sector, as follow: 15% reduction by 1,2&3 Star-rated hotels; 15% reduction by 4&5 Star-rated non-

chain hotels; and 15% reduction by 4,5 Star-rated chain hotels, but no import reduction by Non-star rated hotels.

Based on the simulation results, the impact of the above scenario on tourism leakage, job opportunity and income distribution is shown in Table 5.3.2.

**Table 5.3.1**  
**Scenario of Government Subsidies and Import Reduction**  
**by Accommodation Sector of Bali for the First Simulation**

Simulation-1	Non Star-rated hotels (%)	1,2,3 Star-rated hotels (%)	4,5 Star-rated non-chain hotels (%)	4,5 Star-rated Chain hotels (%)
Government subsidies	15	15	12	5
Import reduction	0	-15	-15	-15

Remarks: • (-) means reducing import  
• based on SAM of Bali 2010

**Table 5.3.2**  
**Impact of Simulation-1 on Production Activities and Leakage**  
**in Accommodation Sector of Bali Tourism**

No	Production Activities	Types of Accommodations (billion rupiah)				TOTAL (billion rupiah)
		Non-star rated Hotels	1,2&3 Star-rated Hotels	4&5 Star-rated non-chain Hotels	4&5 Star-rated chain Hotels	
1	Total of Production	142,977.88	3,322,005.47	7,120,643.61	2,819,636.51	13,405,263.47
2	Income from production factors which was transferred to overseas:					
	a. Labour	-	-	931.97 (0.01%)	41,468.61 (1.47%)	42,400.59 0.32(%)
	b. Capital ownership	134.04 (0.09%)	3,948.12 (0.12%)	117,160.58 (1.65%)	645,789.62 (22.90%)	767,032.36 (5.72%)
3	Payments of Non Labour to overseas	4,183.78 (2.93%)	446,558.14 (13.44%)	293,898.00 (4.13%)	412,428.63 (14.63%)	1,157,068.54 (8.63%)
	<b>Leakage (%)</b>	<b>3,02</b>	<b>13,56</b>	<b>5,79</b>	<b>39,00</b>	<b>14,67</b>

Remark: based on SAM of Bali 2010

a. Impacts on Tourism Leakage

The first simulation resulted in the average tourism leakage decreased by 4.81%, i.e. from 19.48 % to 14.67 %. The highest reduction was found at 4&5 Star-rated chain hotels (16.31 %), decreasing from 55.31% to 39.00%. It was followed by 1,2&3 Star-rated hotels (2.10%), decreasing from 15.66% to 13.56%; and then 4&5 Star-rated non-chain hotels (1.35%), decreasing from 7.14% to 5.79%. However, there was an increase of tourism leakage at Non-star rated hotels by 1.02%, i.e. from 2.00% to 3.02% (see Table 5.3.3).

**Table 5.3.3**  
**Comparison of Tourism Leakage in Accommodation Sector of Bali Tourism**  
**between Before and After the First Simulation**

No	Types of Accommodations	Simulation-1		Difference (%)
		Before (%)	After (%)	
1	Non Star-rated hotels	2.00	3.02	-1.02
2	1,2,3 Star-rated hotels	15.66	13.56	2.10
3	4,5 Star-rated non-chain hotels	7.14	5.79	1.35
4	4,5 Star-rated chain hotels	55.31	39.00	16.31
<b>Total</b>		<b>19.48</b>	<b>14.67</b>	<b>4.81</b>

Remark: based on SAM of Bali 2010

b. Impact on Job Opportunity

Results of the first simulation showed that government subsidies and efforts in reducing import by accommodation sector brought about a positive impact on job opportunity, even though it increased slightly (6 new jobs), from 91.030 people to 91.036 people. Job opportunity distribution on four types of accommodation were as follows; (i) one new job at Non Star-rated hotels; and (ii) 6 new jobs at 1,2,3 Star-rated hotels. However, one person lost their job in 4,5 Star-rated non-chain hotels. Even though the impacts were not really significant,

however, the scenario of the first simulation showed that it could reduce unemployment (see Table 5.3.4). More detail of distribution of new job opportunities can be seen in Table 5.3.5. The distribution of new job opportunity was 4 (four) jobs for local employees and 2 (two) for foreign employees.

**Table 5.3.4**  
**Impact of First Simulation on Job Opportunity**  
**in Accommodation Sector of Bali Tourism**

Types of Accommodations	Number of Labour (People) before Simulation-1			Number of Labour (People) after Simulation-1		
	Local	Non Local	Total	Local	Non Local	Total
Non Star-rated Hotels	1,356	122	<b>1,478</b>	1,357	122	<b>1,479</b>
1,2,3 Star-rated Hotels	21,015	9,796	<b>30,811</b>	21,019	9,798	<b>30,817</b>
4,5 Star-rated non-chain Hotels	35,110	11,573	<b>46,683</b>	35,124	11,573	<b>46,682</b>
4,5 Star-rated chain Hotels	11,245	813	<b>12,058</b>	11,245	813	<b>12,058</b>
<b>Total</b>	<b>68,726</b>	<b>22,304</b>	<b>91,030</b>	<b>68,730</b>	<b>22,306</b>	<b>91,036</b>

Remark: based on SAM of Bali 2010

**Table 5.3.5**  
**Impact of First Simulation in Increasing Job Opportunity**  
**in Accommodation Sector of Bali Tourism**

Types of Accommodations	Number of Labour (People)		Total (people)
	Local	Non Local	
Non Star-rated Hotels	0.8	0.1	0.9
1,2,3 Star-rated Hotels	4.0	1.9	5.8
4,5 Star-rated non-chain Hotels	-0.5	-0.2	-0.7
4,5 Star-rated chain Hotels	0.1	0.0	0.1
<b>Total (people)</b>	<b>4.3</b>	<b>1.8</b>	<b>6.1</b>

Remark: based on SAM of Bali 2010

### c. Impact on Income Distribution

Positive impact of the first simulation also occurs on income distribution (see Table 5.3.6). As shown in Table 5.3.6, an increase in income occurs on household group of non-agriculture in the urban area. It increases from 18.44 % to become 18.65 %. However, there is a decreasing income in upper class both in the rural and urban area, i.e. from 24.47% to become 24.46% (urban area), and from 13.22% to become 13.14% (rural area).

**Table 5.3.6**  
**Impact of First Simulation on Income Distribution**  
**of Household in Bali**

Household	Income Distribution			
	Before Simulation-1		After Simulation-1	
	Income (Million Rph)	Distribution (%)	Income (Million Rph)	Distribution (%)
<b>Household Agriculture</b>				
Labour in rural area	844,316.54	1.55	845,410.78	1.53
<b>Business people who have land in rural area</b>	<b>4,670,966.70</b>	<b>8.57</b>	<b>4,734,745.83</b>	<b>8.59</b>
Labour in urban area	681,969.10	1.25	682,193.92	1.24
Business people who have land in urban area	4,467,254.40	8.19	4,501,325.96	8.17
<b>Household Non Agriculture</b>				
Lower class in rural area	6,787,310.54	12.45	6,855,223.67	12.44
Non labour in rural area	3,151,534.17	5.78	3,169,559.52	5.75
Upper class in rural area	7,209,504.23	13.22	7,243,526.34	13.14
<b>Lower class in urban area</b>	<b>10,056,816.67</b>	<b>18.44</b>	<b>10,281,609.98</b>	<b>18.65</b>
Non Labour in urban area	3,312,723.30	6.08	3,329,978.83	6.04
Upper class in urban area	13,341,351.07	24.47	13,481,857.47	24.46
<b>TOTAL</b>	<b>54,523,746.73</b>	<b>100.00</b>	<b>55,125,432.31</b>	<b>100.00</b>

Remark: based on SAM of Bali 2010

This first simulation also brings about a decrease in wages/salaries (see Table 5.3.7), as follow: (i) decreasing about 0.062% in wages/salaries of local labour from 2,129,953 million rupiah to 2,128,790 million rupiah; (ii) decreasing about 0.037% in wages/salaries of non-local labour from 1,155,089 million rupiah to 1,154,716 million rupiah. Totally, wages/salaries decrease about 0.053%, from 3,285,042 million rupiah to 3,283,506 million rupiah.

**Table 5.3.7**  
**Impact of Simulation-1 on Wages/Salaries of Labour**  
**on Accommodation Sector of Bali Tourism**

Types of Accommodations	Wages/Salaries (Million Rph)					
	Before Simulation-1			After Simulation-1		
	Local	Non Local	Total	Local	Non Local	Total
Non-star rated Hotels	50,811	2,743	<b>53,553</b>	50,594	2,731	<b>53,325</b>
1,2&3 Star-rated Hotels	788,757	324,197	<b>1,112,955</b>	787,711	323,768	<b>1,111,479</b>
4&5 Star-rated non-chain Hotels	1,004,827	678,752	<b>1,683,578</b>	1,004,936	678,826	<b>1,683,762</b>
4&5 Star-rated chain Hotels	285,559	149,397	<b>434,956</b>	285,549	149,392	<b>434,941</b>
<b>TOTAL</b>	<b>2,129,953</b>	<b>1,155,089</b>	<b>3,285,042</b>	<b>2,128,790</b>	<b>1,154,716</b>	<b>3,283,506</b>

Remark: based on SAM of Bali 2010

Furthermore, simulations were also undertaken on other five scenarios with different combinations between government subsidies and efforts in reducing import by accommodation sector. Summary of the results of all simulations can be seen on Appendix 5.3.8. The details of each simulation are presented at Appendix 5.3.1 up to Appendix 5.3.6.

**Table 5.3.8**  
**Recapitulation of Results of Simulations using Scenarios of Government Subsidies and Import Reduction of Bali Tourism**

SIMULATION	SCENARIOS								SIMULATION RESULTS				
	Government Subsidies				Reduce Import				Average Leakage			Average	Income Distribution
	Non star	1,2&3 Star	4&5 star non-Chain	4&5 Star Chain	Non Star	1,2&3 Star	4&5 Star Non-Chain	4&5 Star Chain	Before (%)	After (%)	Difference (%)	Job Opportunities Distribution (People)	on Lower classes in urban areas
Simulation 1	15	15	12	5	0	-15	-15	-15	19.49	14.67	-4.82	6	increase 0.21%
Simulation 2	15	6	6	0	0	-5	0	-20	19.49	13.33	-6.16	10	increase 0.12%
Simulation 3	25	15	5	0	0	-15	0	-25	19.49	11.07	-8.42	28	increase 0.21%
Simulation 4	38	15	0	0	0	-20	0	-30	19.49	7.93	-11.56	13	increase 0.24%
<b>Simulation 5</b>	<b>40</b>	<b>18.5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-25</b>	<b>0</b>	<b>-30</b>	<b>19.49</b>	<b>7.53</b>	<b>-11.96</b>	<b>15</b>	<b>increase 0.26%</b>
Simulation 6	30	10	0	0	0	-15	-15	-15	19.49	11.34	-8.15	-43	increase 0.14%

Remark: based on SAM of Bali 2010

### 5.3.3 The Simulation Results with the Optimum and the Worst Impacts

#### a. Simulation with Optimum Impact

The optimum result of six scenarios is found in the fifth simulation (Simulation-5) with the combination of government subsidies and efforts in reducing import by accommodation sector as shown in Table 5.3.9. The results of the fifth simulation show that the impacts are as follow:

- (i) Tourism leakage in accommodation sector decreases by 11.96 %, i.e. from 19.49 % to become 7.53 % (see Table 5.3.10),
- (ii) Job opportunity increases by 15 people (see Table 5.3.11), and
- (iii) Income of low class in urban area increases by 0.26 % (see Appendix 5.3.4).

**Table 5.3.9**  
**Scenario of Government Subsidies and Import Reduction by Accommodation Sector of Bali Tourism for the Fifth Simulation**

Simulation-5	Non-star rated hotels (%)	1,2&3 Star-rated hotels (%)	4&5 Star-rated non-chain hotels (%)	4&5 Star-rated chain hotels (%)
Government subsidies	40	18.5	0	0
Import reduction	0	-25	0	-30

Remarks: • (-) means reduction  
• based on SAM of Bali 2010

**Table 5.3.10**  
**Comparison of Tourism Leakage in Accommodation Sector of Bali Tourism between Before and After the Fifth Simulation**

No	Types of Accommodations	Simulation-5		Difference (%)
		Before (%)	After (%)	
1	Non-star rated Hotels	2.00	4.53	2.53
2	1,2&3 Star-rated Hotels	15.66	8.25	-7.40
3	4&5 Star-rated non-chain Hotels	7.15	7.15	00
4	4&5 Star-rated chain Hotels	55.32	7.86	-47.45
<b>Total</b>		<b>19.49</b>	<b>7.53</b>	<b>-11.96</b>

Remarks: • (-) means reduction  
• based on SAM of Bali 2010

**Table 5.3.11**  
**Impact of Fifth Simulation on Job Opportunity**  
**in Accommodation Sector of Bali Tourism**

Types of Accommodations	Number of Labour (people)		Total (people)
	Local	Non Local	
Non-star rated Hotels	1.10	0.10	1.19
1,2&3 Star-rated Hotels	6.24	2.91	9.15
4&5 Star-rated non-chain Hotels	2.53	0.83	3.37
4&5 Star-rated chain Hotels	1.02	0.07	1.10
<b>Total (people)</b>	<b>10.89</b>	<b>3.92</b>	<b>14.80</b>

Remark: based on SAM of Bali 2010

b. Simulation with the Worst Impact

The sixth simulation (Simulation-6) resulted in the worst impact on tourism leakage, income distribution and job opportunity. The sixth simulation is undertaken by using a scenario of the combination of government subsidies and efforts in reducing import by accommodation sector, as shown in Table 5.3.12.

The results of the Simulation-6 show that the impacts are as follow:

- (i) Tourism leakage in accommodation sector decreases by 8.15 %, i.e. from 19.49 % to become 11.34 % (see Table 5.3.13),
- (ii) Income of low class in urban area increases by 0.14 % (see Appendix 5.3.5)
- (iii) However, a negative impact occurs on job opportunity, i.e. there is a decreasing job opportunity by 43 people. It means that there will be 43 people lost their job (33 local labours and 10 non-local labours) (see Table 5.3.14).

**Table 5.3.12**  
**Scenario of Government Subsidies and Import Reduction by Accommodation Sector of Bali Tourism for the Sixth Simulation**

Simulation-6	Non-star rated hotels (%)	1,2&3 Star-rated hotels (%)	4&5 Star-rated Non-chain hotels (%)	4&5 Star-rated Chain hotels (%)
Government subsidies	30	10	0	0
Import reduction	0	-15	-15	-15

Remarks: • (-) means reduction  
 • based on SAM of Bali 2010

**Table 5.3.13**  
**Comparison of Tourism Leakage in Accommodation Sector of Bali Tourism between Before and After the Sixth Simulation**

No	Types of Accommodations	Simulation-6		Difference (%)
		Before (%)	After (%)	
1	Non-star rated Hotels	2.00	3.94	1.95
2	1,2&3 Star-rated Hotels	15.66	10.58	-5.06
3	4&5 Star-rated non-chain Hotels	7.15	3.17	-3.98
4	4&5 Star-rated chain Hotels	55.32	42.61	-22.68
<b>Total</b>		<b>19.49</b>	<b>11.34</b>	<b>-8.15</b>

Remark: based on SAM of Bali 2010

**Table 5.3.14**  
**Impact of Sixth Simulation on Job Opportunity in Accommodation Sector of Bali Tourism**

Types of Accommodations	Number of Labour (people)		Total (people)
	Local	Non Local	
Non Star-rated Hotels	0.30	0.03	0.33
1,2,3 Star-rated Hotels	-5.07	-2.36	-7.43
4,5 Star-rated non-chain Hotels	-21.76	-7.17	-20.93
4,5 Star-rated chain Hotels	-6.28	-0.45	-6.74
<b>Total (people)</b>	<b>-32.81</b>	<b>-9.99</b>	<b>-42.77</b>

Remark: based on SAM of Bali 2010

### **5.3.4 Conclusion**

This section discusses about the impacts of government subsidies and import reduction by accommodation sector on tourism leakage, job opportunity, and income distribution. The role of government in reducing tourism leakage of accommodation sector in Bali through policy of subsidy is considered to be important. Moreover, the involvement of accommodation sector in reducing leakage is also very crucial. It can be undertaken through minimizing import of goods and services as well as minimizing the utilization of foreign labours. Simulations in order to assess the impact of government subsidy and import reduction by accommodation sector are also discussed. The results suggest that optimum impacts on tourism leakage, job opportunity, and income distribution can be reached through an appropriate scenario. The optimum scenario is undertaken by the fifth simulation (Simulation-5) with the combination of government subsidies (40% for Non-star rated hotels and 18.5% for 1,2&3 Star-rated hotels), and efforts of import reduction (25% of 1,2&3 Star-rated hotels and 30% of 4&5 Star-rated chain hotels). This scenario leads to a reduction of tourism leakage by 11.96%, an increasing job opportunity by 15 people, and an increasing income of low class in urban area by 0.26 %.

## **5.4. Perceptions and Preferences of Foreign Tourists regarding Imported and Local Products**

### **5.4.1 Introduction**

A survey on foreign tourists who visited Bali was undertaken during the period of April to June 2013. The sample comprised 600 foreign tourists who had agreed to respond to a questionnaire. They answered the questions related to their perceptions and preferences concerning imported and local products. The results of the validity test show that the questionnaire was valid with an  $r$ -value (0.207) >  $r$ -table (0.08), see Appendix 5.6. Meanwhile, the reliability test gave a value of alpha Cronbach (0.67) > 0.6. This means that consistent results would be found if the research were undertaken on other similar subjects.

This chapter discusses the characteristics of the respondents, analysed by country of origin, citizenship, sex, age, occupation, place of stay, type of accommodation, as well as expenses and length of stay in Bali.

### **5.4.2 Characteristics of Foreign Tourists who Visited Bali**

#### **5.4.2.1 Country of Origin**

The respondents' countries of origin were categorized into 5 groups, namely: European Countries, Australia and New Zealand, United States of America, African countries, and Asian countries. The largest group came from European Countries (58%), followed by Australia (25%), United States of America (10%), African countries (5%), and Asian countries (2%) (see Figure 5.4.1).

#### 5.4.2.2 Code of Citizenship

The citizenship of the respondents was categorized into 9 groups, namely: (1) North Europe: Norway, Sweden, Estonia, Ukraine, Lithuania and Denmark; (2) USA; (3) Australia and New Zealand; (4) Africa and Saudi Arabia; (5) Asia: Japan, China, Thailand, Singapore, South Korea and India; (6) Old Europe: Germany, Netherlands, France, UK, Belgium, Ireland and Switzerland; (7) South Europe : Spain, Italy and Greece; East Europe : (8) Czech Republic and Poland; and (9) South America. The highest percentage of the respondents came from Old Europe (42.18%), followed by Australia and New Zealand (25.67%). The percentage in each of the other citizenship groups was less than 10%, i.e.: North Europe (9.00%), USA (8.34%), Asia (4.50%), East Europe (5.18%), America (1.33%), and Africa and Saudi Arabia (0.34%) (see Figure 5.4.2).

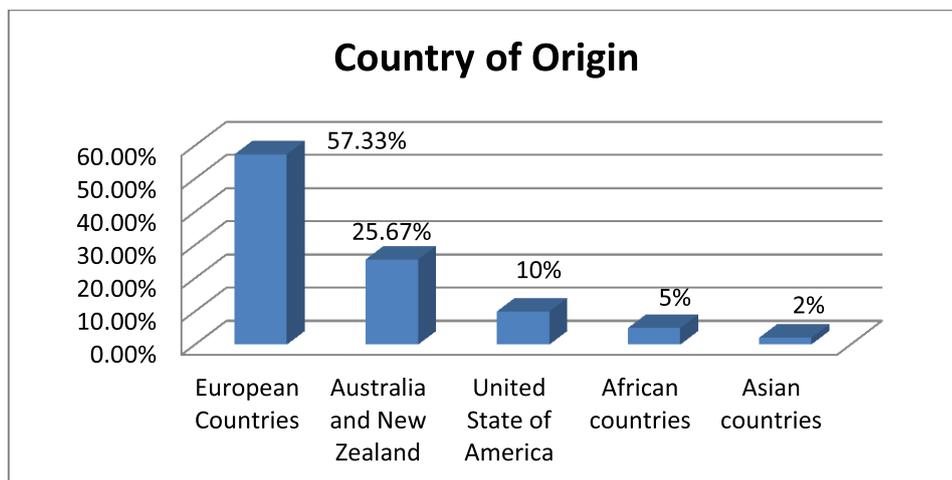


Figure 5.4.1. Percentage of Respondents based on Country of Origin

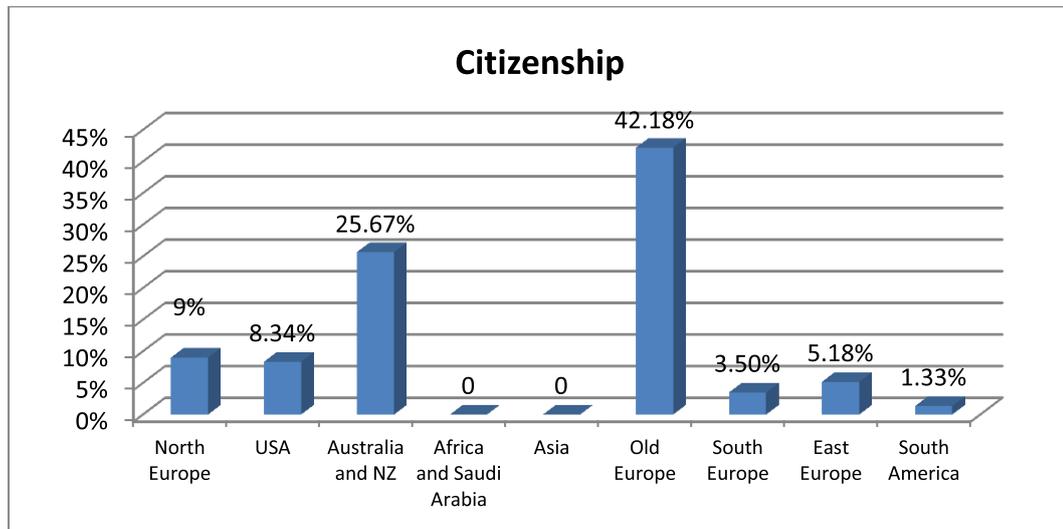


Figure 5.4.2. Percentage of Respondents based on Citizenship

#### 5.4.2.3 Sex

Of the 600 respondents, 44.67% were male and 55.33% female, a difference of 10.66 % (see Figure 5.4.3). This suggests that female tourists to Bali outnumbered males by a ratio of 5:4.

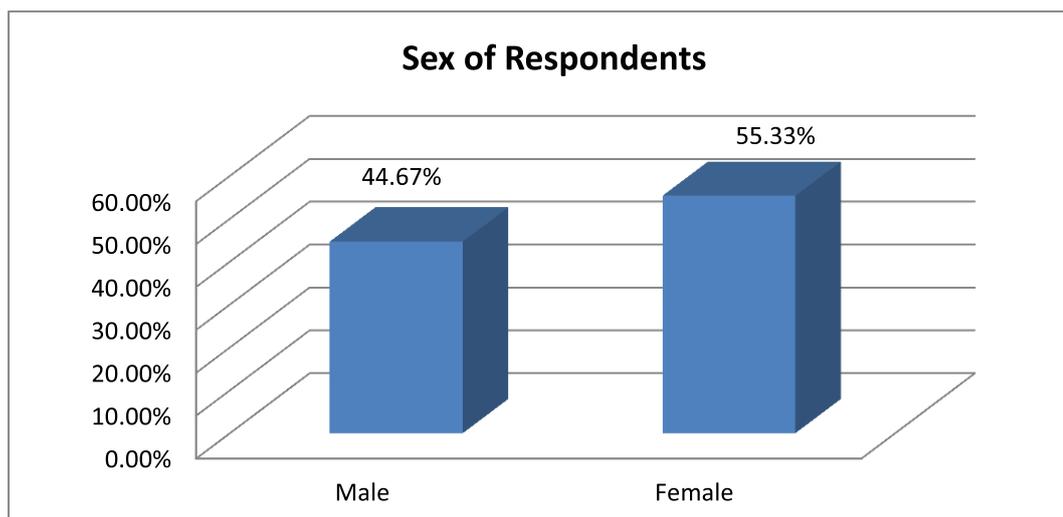


Figure 5.4.3. Percentage of Respondents Based on Sex

#### 5.4.2.4 Age

The biggest age group of respondents was 26 – 55 years (58%). This was followed by the 16 – 25 years age group (28%), and then 56 years or older (14%). None of the respondents was aged 15 years or younger (Figure 5.4.4).

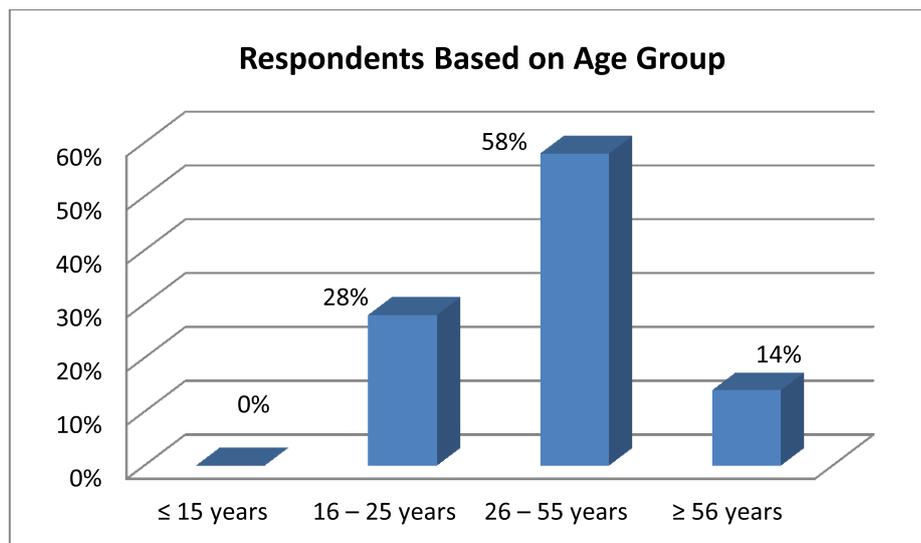


Figure 5.4.4. Percentage of Respondents Based on Age Group

#### 5.4.2.5 Occupation

The most common occupation of respondents was student/university student (25.33%), followed by professional/manager/executive (22.00%), and then private employees (11.17%). Other specified occupations each made up less than 10%, namely: retired (7.83%), entrepreneur (7.67%), housewife (4.33%), government official (4.17%), police/army (1.67%), while other unspecified occupations accounted for 15.83% (see Figure 5.4.5).

#### 5.4.2.6 Place of Stay

The survey was undertaken at four main tourist destinations in Bali, namely: Kuta, Nusa Dua, Sanur and Ubud. Most of the respondents were staying in Kuta (51.16%). Sanur ranked second (22.20%), followed by Nusa Dua (16.77%) and Ubud (9.88%) (see Figure 5.4.6).

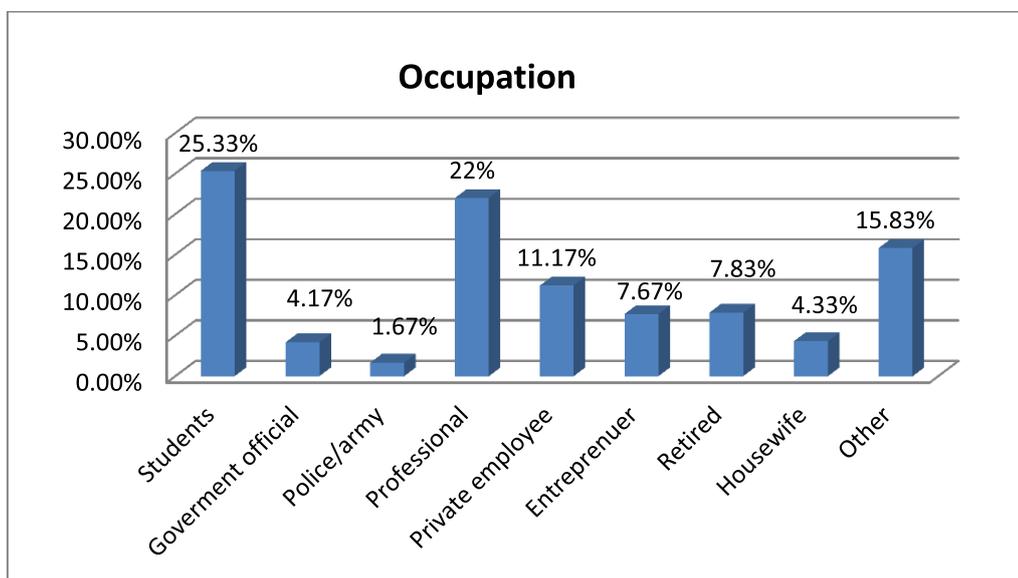


Figure 5.4.5. Percentage of Respondents based on Occupation

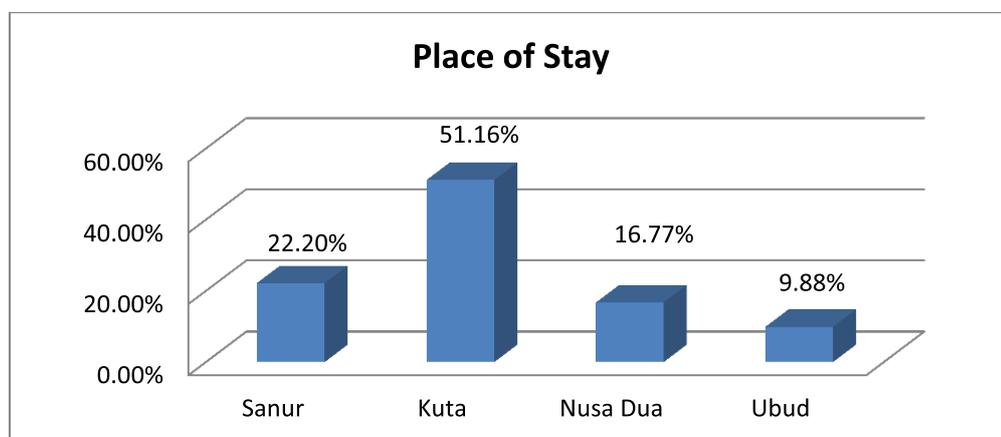


Figure 5.4.6. Percentage of Respondents based on Place of Stay

#### 5.4.2.7 Type of Accommodation

More than one-third of the respondents were staying at Non-star rated hotels (37.33%), followed by just under a quarter at 4&5 Star-rated non-chain hotels (23.84%) and a fifth at 1,2&3 Star-rated hotels (20.33%). The rest of the respondents were staying at 4&5 Star-rated chain hotels (18.50%) (see Figure 5.4.7). A survey undertaken by the Bali Government Tourism Office in 2012 showed different results because it was divided into 6 categories, as follows: (i) Star-rated hotels (65.8%); (ii) Non-star rated hotels (8.9%); (iii) Cottages (5.4%); (iv) Villas (16.4%) and (v) Family/friend's houses (1.7%), and other (1.8%) (Bali Government Tourism Office, 2012). Nevertheless, these two studies do show similar figures for the total percentage of foreign tourists staying at star-rated hotels. In the current study this was 62.67% (i.e. the total percentage of those staying at (i) 1,2&3 star-rated hotels, plus (ii) 4&5 Star-rated chain hotels, plus (iii) 4&5 Star-rated non-chain hotels), while in the survey undertaken by the Bali Government Tourism Office (2012) it was 65.8%.

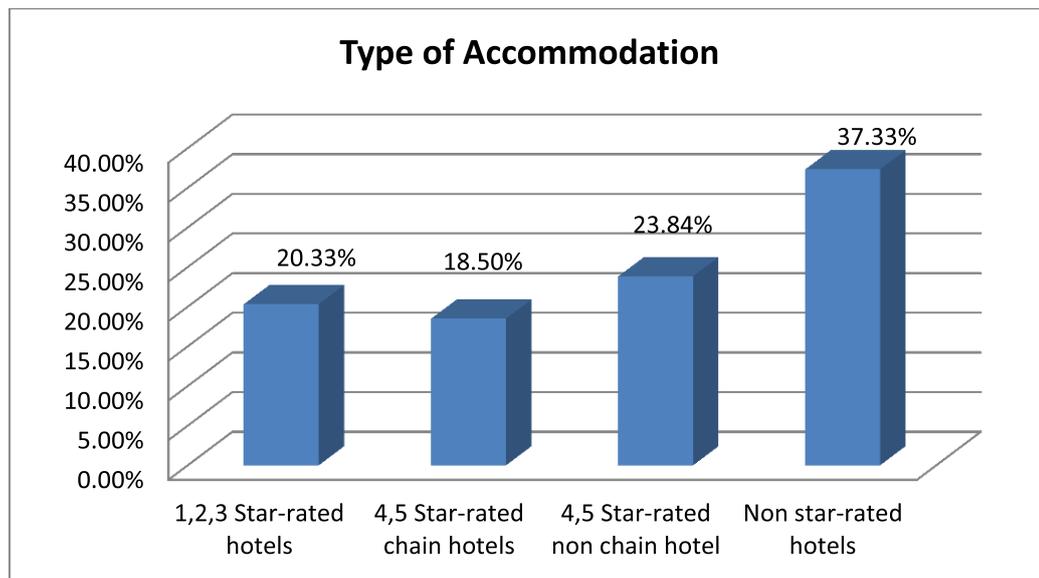


Figure 5.4.7. Percentage of Respondents based on Type of Accommodation

#### 5.4.2.8 Length of Stay

The average length of stay for all respondents during their visit in Bali was 6.5 days. This is shorter than the findings of the Bali Government Tourism Office in 2011 (Bali Government Tourism Office, 2012), who found that the average length of stay was 9.27 days (see Table 5.4.1). This is understandable, because the survey undertaken by the government involved a much wider sample than this study.

**Table 5.4.1**  
**Average Length of Stay**

No	Average Length of Stay	Amount
1	According to this study, in 2012	6.50 days
2	According to a study by the Bali Government Tourism Office, in 2011	9.27 days

### 5.4.3 Opinion, Expectation and Satisfaction of Respondents

The opinions, expectation and satisfaction level of foreign tourists who visited Bali were assessed using a Likert Scale (Likert, 1965 cited in Westbrook, 1980). Based upon interviews with 600 respondents who were randomly selected, the results were as follow.

#### 5.4.3.1 Opinion of Accommodation Services

The opinions of foreign tourists regarding the accommodation services provided by the hotels were mostly “very good” (32.50%), “extremely good” (32.17%), and “good” (27.67%). Only a few of the respondents were unhappy with the accommodation services, i.e. “poor” (0.66%), “extremely poor” (0.50%), and “very poor” (0.33%). Further details are shown in Table 5.4.2. On average, the opinion of accommodation services in Bali was “very good” (5.86 on a 7-point scale).

These results show that most of the respondents enjoyed the services provided by the accommodation sector in Bali. Several of them said as follows: (i) “Think about Bali: is the excellent service”; (ii) “People are extremely friendly, services is excellent”; and (iii) “Have stayed in two hotels, so far...have been very pleased”. Although the foreign tourists’ opinions of accommodation services were positive, the quality of services should still be maintained and improved further, since tourism is a highly competitive industry, both in Indonesia as well as abroad.

**Table 5.4.2**  
**Opinion of Accommodation Services**

No	Levels of Opinion	Number of Respondents	Percentage (%)	Likert Score
1	Extremely poor	3	0.50	3
2	Very poor	2	0.33	4
3	Poor	4	0.66	12
4	Fair	37	6.17	148
5	Good	166	27.67	830
6	Very Good	195	32.50	1,170
7	Extremely Good	193	32.17	1,351
Total		600	100	3,518
Average Likert Score				5.86
Level of Interpretation based on Likert Scale				<b>Very Good</b>

#### 5.4.3.2 Opinion of Restaurant Services

The opinions of foreign tourists regarding restaurant services in Bali were mostly “very good” (39.00%), “good” (36.50%) and “extremely good” (15.00%). Only a few were unhappy with the services of restaurants, i.e. “poor” (0.67%), “very poor” (0.50%) and “extremely poor” (0.33%). Further details are shown in Table 5.4.3. On average, the opinion of restaurant services was “very good” (5.57 on a 7-point scale). The above results show that most of the respondents enjoyed the services provided by the restaurants in Bali. Several of them gave very good comments on these, as follows: (i) “Excellent food, service and nature”; and (ii) “I have been traveling a lot, Bali is wonderful place to visit, enjoyable local food with affordable price”.

**Table 5.4.3**  
**Opinion of Restaurant Services**

No	Levels of Opinion	Number of Respondents	Percentage (%)	Likert Score
1	Extremely poor	2	0.33	2
2	Very poor	3	0.50	6
3	Poor	4	0.67	12
4	Fair	48	8.00	192
5	Good	219	36.50	1,095
6	Very good	234	39.00	1,404
7	Extremely good	90	15.00	630
Total		600	100	3,341
Average Likert Score				5.57
Level of Interpretation based on Likert Scale				<b>Very good</b>

#### 5.4.3.3 Expectation Level regarding the Whole Trip in Bali

Regarding fulfilment of their expectations about the whole trip in Bali, most of the respondents agreed that their expectations matched the reality found in Bali (“agree” 50.17%, “extremely agree” 22.67%, and “slightly agree” 13.33%). Some of them were still mixed between disagree and agree (9.50%), but only a few disagreed (slightly disagree 2.33%, disagree 1.50%, and extremely disagree 0.50%). Further details are shown in Table 5.4.4. On average, the respondents agreed (5.75 on a 7-point scale) that their visit to Bali was exactly like they had expected it to be.

These findings show that foreign tourists felt that they had got mostly what they expected during their visit in Bali. Some of them gave very good comments, such as: (i) “Bali is romantic island to visit, I love people, scenery, culture and nice beach, I want to be here until die...”; (ii) “It was really great trip

and I will be happy to come back”; and (iii) “As expected relaxing with friendly Balinese people”.

**Table 5.4.4**  
**Expectation Level on the Whole Trip in Bali**

No	Expectation Level	Number of Respondents	Percentage (%)	Likert Score
1	Extremely disagree	3	0.50	1
2	Disagree	9	1.50	8
3	Slightly disagree	14	2.33	3
4	Mixed between disagree and agree	57	9.50	100
5	Slightly agree	80	13.33	310
6	Agree	301	50.17	1,938
7	Extremely agree	136	22.67	1,288
Total		600	100	3,648
Average Likert Score				<b>6.08</b>
Level of Interpretation based on Likert Scale				<b>Agree</b>

#### 5.4.3.4 Emotional Experience

The emotional experience of foreign tourists is one of the indicators which can be used to assess their level of satisfaction during their visit. Mill and Morison (2009) say that previous experience influences people’s decision to revisit a destination. This kind of experience was also assessed in this research. The results show that the emotional experience of foreign tourists in Bali were mostly “pleased” (52.67%) and “extremely pleased” (32.67%). Only a few respondents chose “slightly pleased” (7.67%), “mixed between displeased and pleased” (5.50%), “slightly displeased” (0.67%), “displeased” (0.67%), or “very displeased” (0.17%). The respondents’ emotional levels while in Bali are shown in detail in Table 5.4.5. On average, the level was “pleased” (6.09 on a 7-point scale). This result indicates that the foreign tourists felt good as they could cool

down their emotion during their visits in Bali. In other words, it could be said that most of these foreign tourists felt happy. This could also be seen from several comments, as follow: (i) “Think about Bali: is romantic and inspiring place”; (ii) “People are extremely friendly and helpful”; (iii) “Scenery is excellent with beautiful landscape”; (iv) “I was really enjoy recuperative spa....definitely will come back and bring some friends”; and (v) “Unforgettable memories”.

**Table 5.4.5**  
**Emotional Level**

<b>No</b>	<b>Level of Emotion</b>	<b>Number of Respondents</b>	<b>Percentage (%)</b>	<b>Likert Score</b>
1	Very displeased	1	0.17	1
2	Displeased	4	0.67	8
3	Slightly displeased	4	0.67	12
4	Mixed between displeased and pleased	33	5.50	132
5	Slightly pleased	46	7.66	230
6	Pleased	316	52.66	1,896
7	Very pleased	196	32.67	1,372
Total		600	100	3,651
Average Likert Score				6.09
Level of Interpretation based on Likert Scale				<b>Pleased</b>

#### 5.4.3.5 Level of Satisfaction with the Whole Trip in Bali

Respondents’ levels of satisfaction with the whole trip in Bali were mostly “satisfied” (53.83%), “extremely satisfied” (30.67%) and “slightly satisfied” (10.32%). Only a very few of them said they were unhappy regarding their trip in Bali, i.e. “dissatisfied” (0.67%), “extremely dissatisfied” (0.17%) and “slightly dissatisfied” (0.17%). The satisfaction levels of foreign tourists regarding their

trip in Bali are shown in detail in Table 5.4.6. On average, the level was “satisfied” (6.08 on a 7-point scale).

**Table 5.4.6**  
**Foreign Tourists’ Level of Satisfaction with the Whole Trip in Bali**

No	Levels of Satisfaction	Number of Respondents	Percentage (%)	Likert Score
1	Extremely dissatisfied	1	0.17	1
2	Dissatisfied	4	0.67	8
3	Slightly dissatisfied	1	0.17	3
4	Mixed between dissatisfied and satisfied	25	4.17	100
5	Slightly satisfied	62	10.32	310
6	Satisfied	323	53.83	1,938
7	Extremely satisfied	184	30.67	1,288
Total		600	100	3,648
Average Likert Score				6.08
Level of Interpretation based on Likert Scale				<b>Satisfied</b>

The survey results on foreign tourists’ level of satisfaction with their whole trip in Bali indicate that most foreign tourists feel really satisfied with their whole trip. This can also be seen from their comments, such as: (i) “A Great place, would love to live here, will be back”; (ii) “Have been enjoying Bali for 28 years, want to be here until the end of my life”; (iii) “The trip was very pleasant, all aspects like people, scenery, culture, beach, weather and sightseeing contribute to the whole of paradise”. Although the level of satisfaction was positive, the quality of services should be maintained and further improved to strengthen Bali’s bargaining position as one of the most famous destinations in the world.

#### 5.4.3.6 Level of Agreement on Spending Money to Benefit Balinese People

About 40.50% of the respondents agreed, 18.67% slightly agreed and 16.33% extremely agreed that their spending of money was for Balinese people “in priority”. On the other hand, some were still doubtful/mixed between disagree and agree (16.00%), and a few also slightly disagreed (4.17%), disagreed (3.50%), or extremely disagreed (0.83%). Further details are shown in Table 5.4.7. On average, the agreement level on this matter was 5.53 on a 7-point scale (agree).

**Table 5.4.7**  
**Agreement on Spending Money by Foreign Tourists**  
**for Balinese People in Priority**

No	Level of Agreement	Number of Respondents	Percentage (%)	Likert Score
1	Extremely disagree	5	0.83	5
2	Disagree	21	3.50	42
3	Slightly disagree	25	4.17	75
4	Mixed between disagree and agree	96	16.00	384
5	Slightly agree	112	18.67	560
6	Agree	243	40.50	1,452
7	Extremely agree	98	16.33	686
Total		600	100	3,210
Average Likert Score				5.53
Level of Interpretation based on Likert Scale				<b>Agree</b>

The results indicate that foreign tourists in Bali mostly agree to spend their money for Balinese people “in priority” because it could improve Balinese people’s welfare. Moreover, improving the quality of life of the host communities and protecting the quality of the environment will provide better quality experiences for visitors, so the goals of sustainable tourism could be achieved. As Elkington (1997) states, the three elements of triple bottom line should be

coherent with each other, in order to improve the quality, continuity and balance between the needs of the tourism industry, protect the environment and enhance prosperity for the local community. To be able to enhance the prosperity for the local community, the economic benefits from tourism should not only be beneficial for the companies but also for the local communities, as the host.

Opinions on accommodation services and restaurant services, expectation levels concerning the whole trip in Bali, levels of emotional experience, satisfaction levels, and the level of agreement regarding spending money for Balinese people are presented in Figure 5.4.8 below.

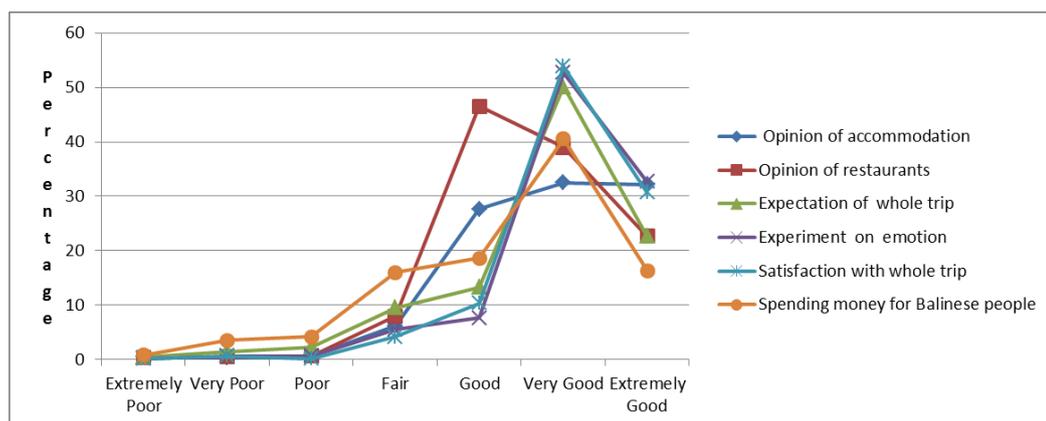


Figure 5.4.8 Opinions, Expectations and Satisfaction of Foreign Tourists

#### 5.4.4 Perceptions of Foreign Tourists Regarding Imported and Local Products

Perceptions and preferences of foreign tourists were assessed on 10 imported products and 10 local products that were served or used for guests in hotels or restaurants in Bali. These products were namely: imported and local meats, fishery products, dairy products, fruits, vegetables, beverages, as well as modern and local Balinese building style, furniture, room decoration, and

architecture. A seven-point Likert Scale (Likert, 1965 cited in Westbrook, 1980) was used to assess the perceptions of the 600 foreign tourists in the sample. JMP Software (SAS Company) was used to analyse the responses statistically. The average scores for perceptions on imported and local products can be seen in Table 5.4.8 and Figure 5.4.9.

**Table 5.4.8**  
**Average Scores for Perceptions on Imported and Local Products**

No	Products	Perception			
		Average Likert Score			
		Imported	Interpretation	Local	Interpretation
1	<i>Meat</i>	6.24#	Extremely good	5.32	Very good
2	<i>Dairy Products</i>	6.08#	Very good	5.58	Very good
3	<i>Beverages</i>	5.56#	Very good	4.82	Good
4	<b>Building style</b>	5.21	Good	6.12#	Very good
5	<b>Room decoration</b>	5.04	Good	5.81#	Very good
6	<b>Architecture</b>	5.03	Good	6.31#	Extremely good
7	Vegetables	5.00	Good	5.53	Very good
8	<b>Fruits</b>	4.85	Good	5.63#	Very good
9	<b>Fishery Products</b>	4.83	Good	5.80#	Very good
10	Furniture	4.53	Good	5.00	Good
	Average	5.24	Good	5.59	Very good

Key:

#: products with a higher than average score

Italics indicates preference for the imported product

Bold indicates preference for the local product

The results show that the overall average score for local products was slightly higher than that for imported products (average score for local products was 5.59, while that for imported products was 5.24).

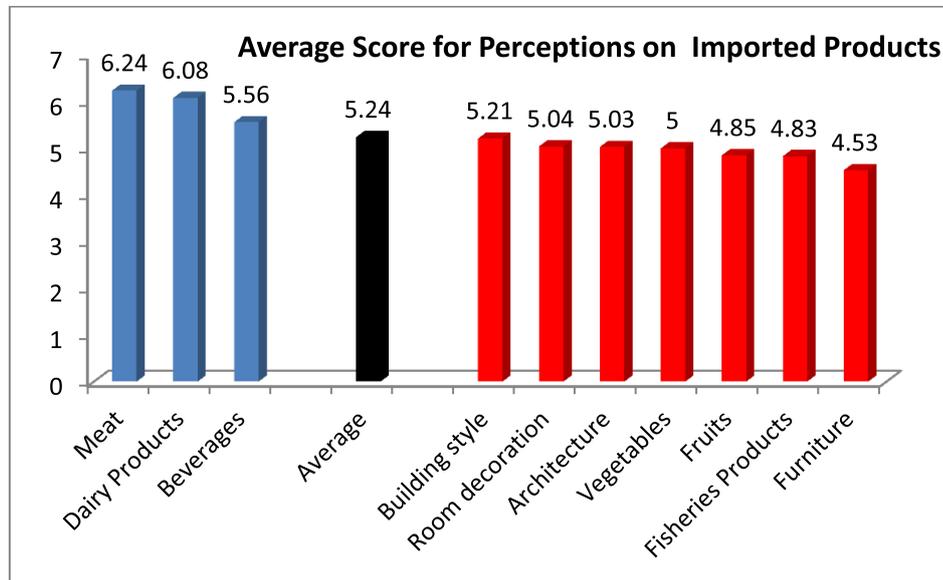


Figure 5.4.9. Average Score for Perceptions on Imported Products

Figure 5.4.9 shows that the imported products which scored higher than the average were: meat, dairy products and beverages. Meanwhile Figure 5.4.10 shows that local products which scored higher than average were: architecture, building style, room decoration, fishery products and fruits.

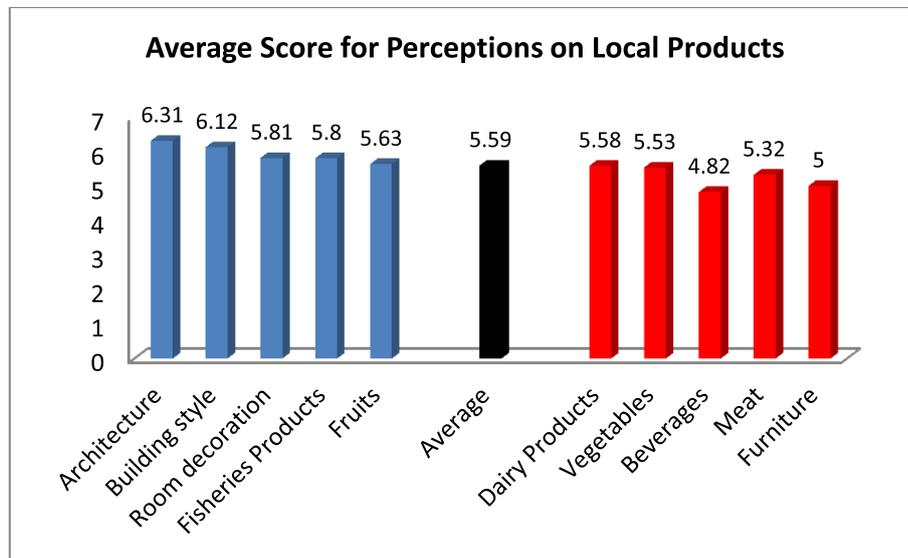


Figure 5.4.10. Average Score for Perceptions on Local Products

## 5.4.5 Preference of Foreign Tourists and Evaluation of Local Products

### 5.4.5.1 Preference of Foreign Tourists for Local Products

Based on the percentages of foreign tourists who stated a preference for local products, the average score was 76.79%. The local products which scored higher than average were: building style, room decoration, fruits, furniture, fishery products, vegetables, and architecture. Even though local meats, local dairy products, and local beverages were also preferred by many of the respondents, these products scored below the average score. This indicates that most foreign tourists prefer imported meat, dairy products and beverages. The percentages of respondents who preferred local products can be seen in Figure 5.4.11.

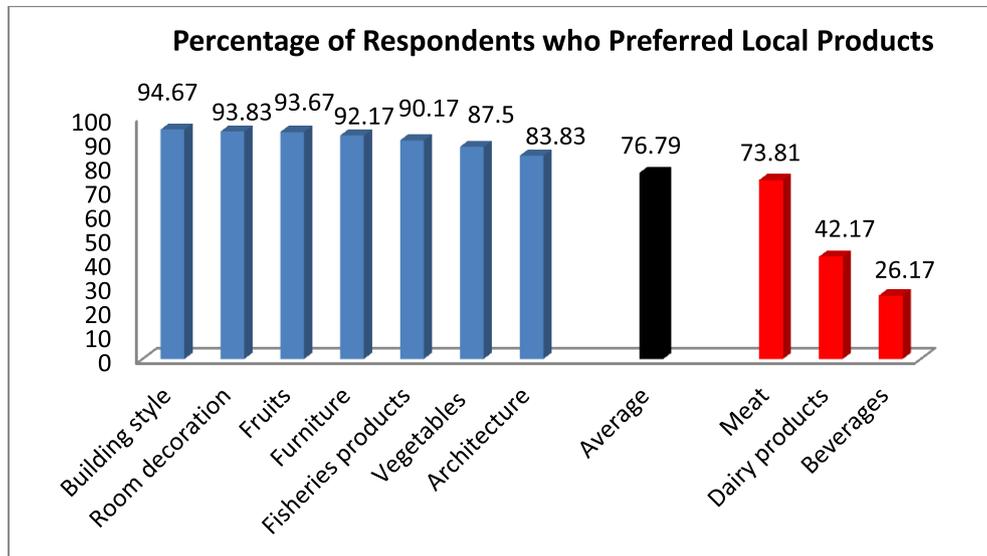


Figure 5.4.11. Percentage of Respondents who Preferred Local Products

#### 5.4.5.2 Evaluation of Perceived Quality of Local Products and Preference by Foreign Tourists

The relationships between the perceived quality of local products and the preference of foreign tourists for the local products were analysed statistically (see Table 5.4.9). The results show that the P-values for all of these products were  $\leq 0.01$ . It can therefore be claimed that they are significant at the error level of 1% or a confidence level of 99%, which indicates that there were perfect positive relationships between the perceived quality of local products and the preference of foreign tourists for those local products. Those local products included building style, room decoration, fruits, furniture, fishery products, vegetables, architecture, meat, dairy products, and beverages. The statistical results demonstrate that tourists have a positive attitude towards local products available in Bali.

**Table 5.4.9**  
**Statistical Results of Foreign Tourists' Preference for Local Products**

<b>Preference for Local Products</b>			
<b>Perceived Quality of Local Products</b>	<b>F Value</b>	<b>Statistical Significance</b>	<b>Conclusion</b>
Building style	8.36	0.000 ***	Positive relationship
Room decoration	15.28	0.000***	Positive relationship
Fruits	31.56	0.000***	Positive relationship
Furniture	9.16	0.000***	Positive relationship
Fishery products	39.56	0.000***	Positive relationship
Vegetables	60.03	0.000***	Positive relationship
Architecture	14.49	0.000***	Positive relationship
Meat	71.85	0.000***	Positive relationship
Dairy products	76.86	0.000***	Positive relationship
Beverages	57.82	0.000***	Positive relationship

Remarks: \* : P value  $\leq 0.1$   
 \*\* : P value  $\leq 0.05$   
 \*\*\* : P value  $\leq 0.01$

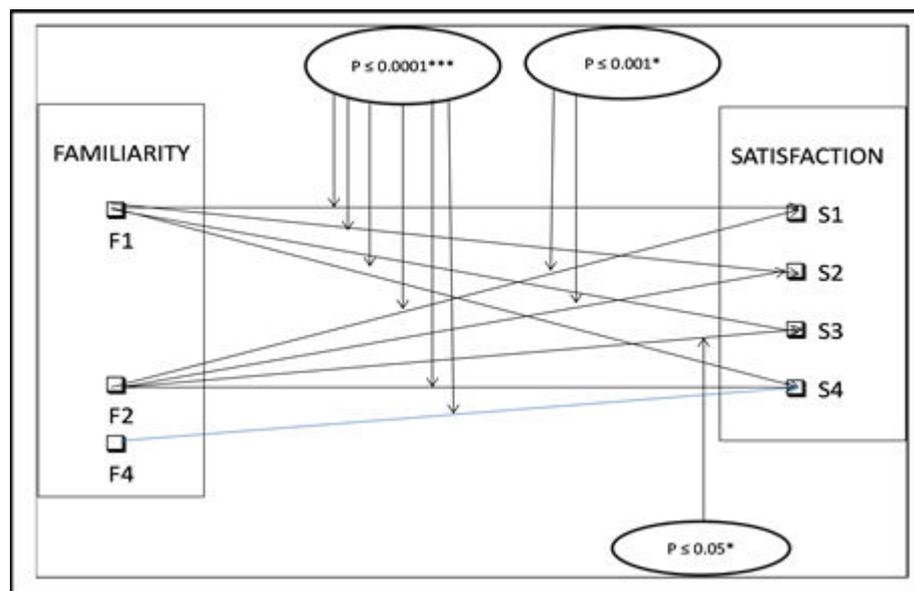
#### **5.4.6 Analysis of Relationships between Variables**

Analysis of relationships between the following variables was undertaken: familiarity, satisfaction, motivation, perception on quality of services, perception on quality of imported product, perception on quality of local products and benefit for Balinese people. Results of statistical analysis using the JMP statistical program are outlined below.

##### **5.4.6.1 Relationship between Familiarity and Satisfaction**

Familiarity (F) is a quality or condition for being familiar. In this study, familiarity is related to the satisfaction of tourists during their visit in Bali. Familiarity consists of spatial proximity and expertise of the country (Bashar,

2010). Spatial proximity describes proximity related to areas. In this study, it was based on “country of residence” (F1) which covers five continents namely Europe, America, Australia, Africa, and Asia, while “large code of residence” (F2) denotes the residential areas where they live. Meanwhile, country expertise is the accumulation of experience of the quality of a destination (Bashar, 2010). In this study, it is measured in terms of „periodicity“ in visiting Bali (F3) and “visit more than 5 times” (F4). According to Reisinger (2009), all of the above variables influence people’s travel choices. The relationships between familiarity and satisfaction are shown in Figure 5.4.12.



**Figure 5.4.12**  
**Relationships between Familiarity and Satisfaction**

Remarks:

F1 = Code of country of residence

F2 = Large code of residence

F3 = Periodicity of visit

F4 = More than five times visit

S1= Satisfaction with accommodation and restaurant services in Bali

S2 = Satisfaction with the whole trip

S3 = Level of emotion during visit

S4 = Level of expectation

Most of the variables had a significant relationship with the others, as shown in Figure 5.4.13. Two variables of familiarity had significant relationships with four variables of satisfaction, namely: (i) variable F1 (Code of country of residence) had significant relationships with variables S1, S2, S3 and S4 (Satisfaction with accommodation and restaurant services in Bali, satisfaction with the whole trip, level of emotion during visit, and level of expectation); (ii) variable F2 (Large code of residence) also had significant relationships with variables S1, S2, S3 and S4; and (iii) variable F4 (More than five times visit) had a significant relationship only with variable S4 (Level of expectation).

#### 5.4.6.2 Relationship between Familiarity and Benefit for Balinese

Familiarity is expected to have a relationship with the variable “Benefit for Balinese” (B). It means that there was a relationship between familiarity and the idea of spending money for Balinese people while visiting Bali. The results are shown in Table 5.4.10. As can be seen from Table 5.4.10, only variable F3 (Periodicity of visits) has a significant relationship with variable B (Benefit for Balinese) at a significant level of P-value  $\leq 0.05$ .

**Table 5.4.10**  
**Relationship between Familiarity and Benefit for Balinese**

<b>Familiarity (F)</b>	<b>Benefit for Balinese (B)</b>
F1 (Code of country of residence)	ns
F2 (Large code of residence)	ns
F3 (Periodicity of visits)	$P \leq 0.05$
F4 (More than five times visit)	Ns

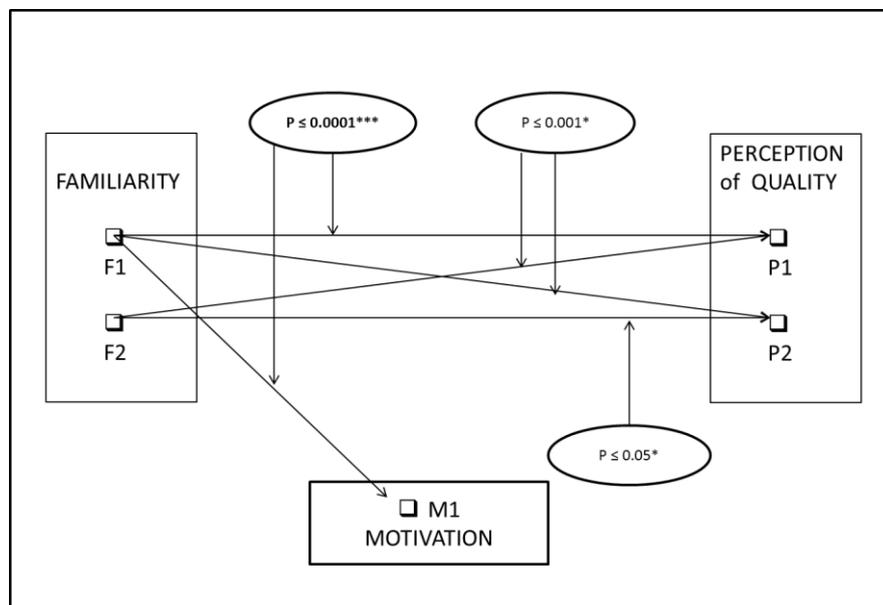
Remarks:

ns = non significant

### 5.4.6.3 Relationship between Familiarity and Perception of Quality

#### 5.4.6.3.1 Relationship between Familiarity and Perceptions on Quality of Services

Familiarity was expected to have a relationship with perceptions about the quality of services in the accommodation and restaurant sector. The results are presented in Figure 5.4.13. They show that variable F1 (Code of country of residence) had a significant relationship with variable P1 (Quality of accommodation services) and with P2 (Quality of restaurant services). In addition, variable F2 (Large code of residence) had significant relationships with variables P1 and P2.



**Figure 5.4.13**

#### **Relationships between Familiarity and Perceptions on Quality, and Motivation**

Remarks:

P1 = Quality of accommodation services

P2 = Quality of restaurant services

#### 5.4.6.3.2 Relationship between Familiarity and Perceptions on Quality of Products

There were significant relationships between variable F (Familiarity) and variable P (Perception of quality of products), as outlined below:

- 1) Relationships between F1 (Code of country of residence) and P (Perception of product quality) were as follow:

There were significant relationships between variable F1 (code of country of residence) and the variables imported meat (P3), local meat (P4), local fishery products (P6), imported dairy products (P7), local fruits (P10), imported beverages (P13), local beverages (P14) and local building style (P15).

- 2) Relationships between F2 (Large code of residence) and P (Perception of product quality) were as follow:

There were significant relationships between variable F2 (large code of residence) and the variables imported meat (P3), imported dairy products (P7), imported fruits (P9) and imported vegetables (P11).

- 3) There was no relationship between variable F3 (periodicity of visit) and perceptions of local product quality (P).

- 4) The relationships between F4 (more than five times visit) and perceptions of product quality were as follow:

There were significant relationships between variable F4 (more than five times visit) and imported meat (P3), imported beverages (P13), local beverages (P14) and local building style (P15).

Details of the relationships between familiarity and perceptions of the quality of products are shown in Table 5.4.11.

**Table 5.4.11**  
**Relationship between Familiarity and Perception of Quality of Products**

Familiarity (F)	Perception on Quality of Products (P)							
	P3 Imported Meat	P4 Local meat	P5 Imported fisheries	P6 Local fisheries	P7 Imported dairy products	P8 Local dairy produc ts	P9 Imported fruits	P10 Local fruits
F1	P ≤ 0.05*	P ≤ 0.05*	ns	P ≤ 0.005*	P ≤ 0.05*	Ns	ns	P ≤ 0.05*
F2	P ≤ 0.001*	ns	ns	ns	P ≤ 0.001*	Ns	P ≤ 0.05*	ns
F3	ns	ns	ns	ns	ns	Ns	ns	ns
F4	P ≤ 0.05*	ns	ns	ns	ns	Ns	ns	ns

**Table 5.4.11 (continued)**

Familiarity (F)	Perception on Quality of Products (P)							
	P11 Imported vegetables	P12 Local vegetables	P13 Imported beverages	P14 Local beverages	P15 Local building style	P16 Local Furnitu re	P17 Local room decoration	P18 Local architec- ture
F1	ns	ns	P ≤ 0.05*	P ≤ 0.001*	P ≤ 0.05*	Ns	ns	ns
F2	P ≤ 0.05*	ns	ns	ns	ns	Ns	ns	ns
F3	ns	ns	ns	ns	ns	Ns	ns	ns
F4	ns	ns	P ≤ 0.05*	P ≤ 0.05*	P ≤ 0.001*	Ns	ns	ns

Remarks:

F1 = Code of country of residence

F2 = Large code of residence

F3 = Periodicity of visit

F4 = More than five times visit

ns = non significant

#### 5.4.6.4 Relationship between Familiarity and Motivation

Among the variables concerned with familiarity (F) and motivation (M), only variable F1 (Code of country of residence) had a significant relationship with variable M1 (Visit Friends and Relatives). The results are shown in Table 5.4.12. As can be seen from this Table, only variable F1 (Code of country of residence) had a significant relationship with variable M1 (Visit Friends and Relatives) at a significance level of  $P \leq 0.0001^{***}$ . Motivation is a basic psychological feature

that stimulates an organism to act towards a desired goal, controls and sustains certain goal-directed behaviors. It can be considered as a driving force which psychologically reinforces an action toward a desired goal (Basar, 2010).

**Table 5.4.12**  
**Relationship between Familiarity and Motivation**

Familiarity (F)	Motivation (M)		
	M1	M2	M3
F1	$P \leq 0.0001^{***}$	ns	ns
F2	ns	ns	ns
F3	ns	ns	ns
F4	ns	ns	ns

Remarks:

M1 = Reason for coming = to Visit Friends and Relatives (VFR)

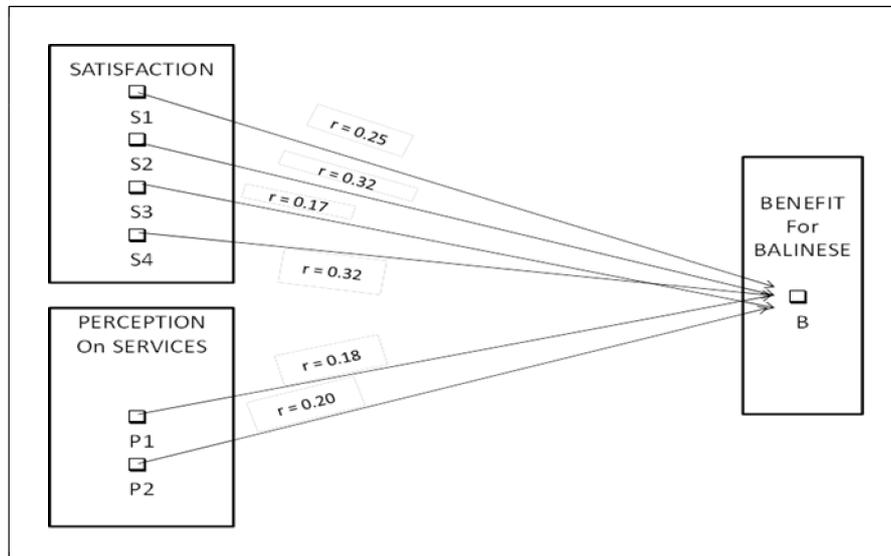
M2 = Main purpose

M3 = Activity

ns = not significant

#### 5.4.6.5. Relationships between Motivation, Satisfaction, Perception of Quality of Services and Benefit for Balinese

In this study, only the variable VFR (Visit Friends and Relatives) of motivation (M) influenced foreign tourists to agree with spending money for Balinese people. However, it was a very weak correlation ( $r = 0.07$ ). Moreover, there was also a relationship between variable S (Satisfaction) and variable B (Benefit for Balinese), although this relationship was also very weak. Moreover, there was a relationship between variable P (Perception of quality of services) and variable B (Benefit for Balinese), even though the relationship was really weak. These relationships can be seen in Figure 5.4.14.



**Figure 5.4.14**  
**Relationship between Satisfaction, Perception of Quality**  
**of Services and Benefit for Balinese**

Remarks:

- S1= Satisfaction with accommodation and restaurant services in Bali
- S2 = Satisfaction with the whole trip
- S3 = Level of emotion during visit
- S4 = Level of expectation
- P1 = Quality of accommodation services
- P2 = Quality of restaurant services

#### 5.4.6.6 Relationship between Perception of Quality of Products and Benefit for Balinese

There were relationships between variable P (Perceptions on the quality of all products either imported or local products) and variable B (Benefit for Balinese), even though the relationships were really weak. These can be seen in Table 5.4.13.

**Table 5.4.13**  
**Relationship between Perceptions on**  
**Quality of Products and Benefit for Balinese**

Benefit for Balinese	Perception on Quality of Products (P)							
	P3 Imported Meat	P4 Local Meat	P5 Imported Fisheries	P6 Local Fisheries	P7 Imported Dairy Products	P8 Local Dairy Products	P9 Imported Fruits	P10 Local Fruits
	r = 0.2	r = 0.3	r = 0.20	r = 0.18	r = 0.16	r = 0.15	r = 0.19	r = 0.17

**Table 5.4.13 (continued)**

Benefit for Balinese	Perception on Quality of Products (P)							
	P11 Imported vegetable	P12 Local vegetable	P13 Imported beverage	P14 Local beverage	P15 Local building style	P16 Local furniture	P17 Local room decoration	P18 Local architecture
	r = 0.19	r = 0.7	r = 0.2	r = 0.21	r = 0.5	r = 0.8	r = 0.14	r = 0.01

## **5.5 Point of View of Hotel Managers**

### **5.5.1 Introduction**

A qualitative survey through in-depth interview was undertaken in Bali during April to June 2013. There were 79 accommodation managers from various accommodation types interviewed in order to obtain their points of view regarding the use of imported products. The selection of accommodation managers was undertaken based on proportional to size sampling method, involving three clusters of accommodation, namely: (i) 1,2&3 Star-rated hotels, (ii) 4&5 Star-rated hotels either chain or non-chain hotels, and (iii) Non-star rated hotels. There were several different points of view gained from different types of hotel managers. The points of view of hotel managers are outlined into several parts, as follow: (1) Reasons to use imported products; (2) Quality and availability of local products; (3) Point of view of hotel managers about cause and impact of leakage in tourism; (4) Willingness in reducing the use of imported products and give the priority on local products; and (5) Discussion.

### **5.5.2 Reasons in Choosing Imported Products**

As revealed by Bull (1991) that import was one of the causes for economic leakage which occurred when food and beverage must often be imported, since local products had been considered not eligible to fulfill the requirement of the hotel's standard of products, and the host country doesn't have a supplying industry. Points of view regarding the reason for using imported products were different among types of hotels in Bali. The reasons were as follow:

(1) Quality reason. Quality of imported products was the main reason for using imported products. Most of Star-rated hotels either 4&5 Star-rated chain or non-chain hotels as well as 1,2&3 Star-rated hotels tended to use imported products. Hotel managers from Star-rated chain hotels said that products must have a high standard of quality in order to fulfill the requirement of chain hotel standard. They thought that imported meats, dairy products and alcoholic beverages have a better quality in comparison to the local products. They firmly explained that Star-rated hotels need a high quality of imported food, alcoholic beverage, and utensil as well as other equipment in order to fulfill the quality standard requirement.

In term of utensils and equipment, most of 4&5 Star-rated either chain or non-chain hotels used imported products for utensils, cutlery, beds and bath equipment as the compulsory for high standards quality of international chain hotel and this kind of imported products have better quality than local products. On the other hand, most of Non-star rated hotel did not use imported utensil and equipment. Furthermore, some imported room decorations had been used by 4&5 Star-rated hotel. They used a combination of modern and local style for room decoration because they also desired to show the authentic Balinese arts.

(2) Competition among hotels on presenting better quality of products and services. According to the hotel managers, there were a lot of Star-rated hotels available in Bali which offer variety of attractive restaurant's menus. They said that imported meat, dairy product and alcoholic beverage were

compulsory for chain hotels in presenting a high quality cuisine. They argued that imported products have excellent quality and better than local products.

- (3) To avoid complaint. Hotel managers thought that foreign tourists preferred imported products. According to the hotel managers, most of foreign tourists would like to consume imported meats, dairy products, and alcoholic beverages as they obtain in their home countries. The imported meats are particularly beef and lamb which have fatty and smooth texture, as well as fresh and durability dairy products, and variety of alcoholic beverages that had not been found in local products. By providing those imported products, it will meet the tourists' need.

This study found that 4&5 Star-rated chain hotels had the highest demand for imported products, followed by 4&5 Star-rated non-chain hotels and 1,2&3 Star-rated hotels. Meanwhile, most of Non-star rated hotel preferred serving local products to their guests. This finding was gained from the information given by hotel managers in all types of hotels.

### **5.5.3 Point of View of Hotel Managers on Local Products**

Points of view of hotel managers regarding local products, particularly quality and availability of local products, were as follow:

- (1) Most of local foods could not fulfill the requirement by hotels either in term of quality or quantity. The hotel managers explained that some meats, especially beef and lamb need to be imported. However, they usually use some other local meats, such as chicken and pork, as the quality of these kinds of meat can fulfill tourist's need. Fish products are also available

abundantly in Bali, because Bali as a small island is surrounded by sea with many kinds of fish product.

- (2) Availability and seasonality of horticulture products. Bali has variety of authentic fruits. However, availability of local fruits did not continue due to seasonality of the fruits. This situation encourages hotel managers to use imported fruits, such as apples, oranges, grapes, cherries, almond, etc. However, availability of local vegetables was sufficient to fulfill demand of hotels, even though 4&5 star-rated hotels imported several vegetable products which were not available locally or could not fulfill by local producers, such as dried spinach, sundried tomato, asparagus, fettuccini, sunflower lettuce, baby romaine, celery seed, berlotti bean, etc. Furthermore, most star-rated hotels imported alcoholic beverage and dairy products in order to fulfill the requirement of hotels, as the variety and quality of local alcoholic beverages and local dairy products were not sufficient to fulfill the demand of tourists.
- (3) Local furniture, room decoration and building style. Managers of all type of hotels had similar points of view on the use of local furniture, building style, room decoration and architecture. They said that tourists mostly prefer authentic Balinese furniture, room decoration, building style as well as Balinese architecture which were artistic and unique.

#### **5.5.4 Points of View of Hotel Managers on Cause and Impact of Leakage in Tourism Industry**

Different points of view from hotel managers had been found in term of cause and impact of economic leakage in tourism. Some of hotel managers for all type of star-rated hotels understood that cause of economic leakage in tourism were the use of imported products, services and foreign labours. Their mindset had been on how to serve their guests with high quality of products. However, some of them did not care about economic leakage in tourism due to imported products as long as they found good quality of products to serve their guests.

Different points of view had been found from hotel managers/owners of Non-Star-rated hotels. They mostly did not understand about economic leakage in tourism. In fact, according to them, they have already used mostly local products. However, most of them realized that the use of imported alcoholic beverages were very important to serve their guests.

#### **5.5.5 Willingness in Reducing Imported Products and Giving the Priority on Local Products**

Regarding the willingness in reducing imported products, most of hotel managers agreed to reduce the use of imported products and to give priority on local products as long as the quality and availability of the local products could fulfill tourists' need. Moreover, most of hotel managers really concerned regarding the use of local components in tourism by serving local products to foreign tourists. For example, creating variety of restaurant's menus by using local products was one of the solutions to improve the role of local products in tourism.

However, most of hotel managers were really concern about the quality of all types of product, such as foods, beverages, dairy products, food stuffs, fruits and vegetables. They realized that the quality of local products were mostly poorer in comparison to imported products. They also suggested that the availability of local products as a substitute for imported product was also crucial. Some suggestions had been given by some hotel managers to improve the quality of local products, such as: (i) to improve the ability of farmers in producing better quality of local products (including livestock and horticulture products such as fruits and vegetables) by giving the farmers a better education and training; (ii) to give some funding to farmers in order to improve the quality of farming system; and (iii) to suggest the local government to pay more attentions on development of agricultural products to fulfill requirement of quality standard needed by hotels in order to fulfill tourists' need.

From points of view of hoteliers, enhancing the quality of human resources is also really important by working together between government, hotel associations, farmers and agricultural industry in order to improve quality of local products.

### **5.5.6 Conclusion**

Points of view of accommodation managers on the importance of imported products have not met the tourists' need on local products. The manager tends to behave by giving too much respect to the quality of imported products in comparison to the local products. Therefore, they prefer to serve imported products to foreign tourists. This incorrect perception and attitude of hotels'

managers toward tourists' need lead to incorrect decision and actions. Such behavior of accommodation managers brought about dependence on imported products to fulfill tourists' demand. This led to increase tourism leakage in Bali.

The results suggest that accommodation managers should change their habits in order to reduce current tourism leakage from accommodation sector. Moreover, the government policy should encourage the development of better quality of agricultural products, including fruits, livestock and wines in Bali. Some funding techniques should be proposed to assist local producers. Hotel managers are willing to reduce the use of imported products, and to give priority on local products as long as the quality and availability of the local products could fulfill tourists' need.

## 5.6 Minimization of Tourism Leakage in Accommodation Sector in Bali

Minimization of tourism leakage in accommodation sector in Bali consists of six elements, namely: (1) program goals, (2) program needs, (3) affected sectors, (4) program constraints, (5) possible changes in the program, and (6) involvement of agencies in the policy. Each element consists of sub-element which has contextual relationships among each other in accordance to the minimization strategy for tourism leakage in accommodation sector in Bali. The contextual relationship of each sub-element is presented in Table 5.6.1.

Table 5.6.1  
Contextual Relationship of Each Sub-element within the Element

Elements	Contextual Relationship
1. Program goals ( $G_i$ )	$G_i$ contributes in achieving $G_j$
2. Program needs ( $N_i$ )	$N_i$ supports $N_j$
3. Affected sectors ( $T_i$ )	$T_i$ influences $T_j$
4. Program constraints ( $C_i$ )	$C_i$ causes $C_j$
5. Possible changes in the program ( $M_i$ )	$M_i$ results in $M_j$
6. Involvement of agencies in policy ( $A_i$ )	$A_i$ supports $A_j$

$ij = 1,2,3 \dots (i,j \leq 10)$

### 5.6.1 Program Goals for Minimization of Tourism Leakage

Element of program goals for minimization of tourism leakage from accommodation sector in Bali consisted of 10 sub-elements, namely:

1. To improve community welfare
2. To optimize the potential of local products
3. To develop agriculture, livestock, fisheries and handicraft industry
4. To increase regional income

5. To increase job opportunity
6. To conserve environment and to preserve culture
7. To empower community
8. To reduce the use of imported products for tourists
9. To increase export of local products
10. To achieve sustainable tourism

Analysis of the contextual relationships among the sub-elements of program goals by using ISM method resulted in reachability matrix (RM) as shown in Table 5.6.2. Based on the RM in Table 5.6.2, the key sub-elements of program goals for minimization of tourism leakage are: (i) To optimize the potential of local products (E2); (ii) To develop agriculture, livestock, fisheries and handicraft industry (E3); (iii) To empower community (E7); (iv) To reduce the use of imported products for tourists (E8); and (v) To increase export of local products (E9). According to Driver Power (DP) and Dependence (D), these five sub-elements of the program goals located at the fourth sector (independent), but other five sub-elements located at the second sector (dependent), as shown in Figure 5.6.1. This finding stated that these five sub-elements will have a major driven power to achieve the goals for minimization of tourism leakage from accommodation sector in Bali. Therefore, focus should be given to these five sub-elements.

Table 5.6.2  
Reachability Matrix of Program Goals for Minimization of Tourism Leakage

No.	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	DP
E1	1	0	0	1	1	1	0	0	0	1	5
E2	1	1	1	1	1	1	1	1	1	1	10
E3	1	1	1	1	1	1	1	1	1	1	10
E4	1	0	0	1	1	1	0	0	0	1	5
E5	1	0	0	1	1	1	0	0	0	1	5
E6	1	0	0	1	1	1	0	0	0	1	5
E7	1	1	1	1	1	1	1	1	1	1	10
E8	1	1	1	1	1	1	1	1	1	1	10
E9	1	1	1	1	1	1	1	1	1	1	10
E10	1	0	0	1	1	1	0	0	0	1	5
D	10	5	5	10	10	10	5	5	5	10	

Remarks:

DP : Driver Power

D : Dependence

E1 : To improve community welfare

**E2 : To optimize the potential of local products**

**E3 : To develop agriculture, livestock, fisheries and handicraft industry**

E4 : To increase regional income

E5 : To increase job opportunity

E6 : To conserve environment and to preserve culture

**E7 : To empower community**

**E8 : To reduce the use of imported products for tourists**

**E9 : To increase export of local products**

E10: To achieve sustainable tourism

Furthermore, the structural hierarchy of all sub-elements of program goals for minimization of tourism leakage is presented in Figure 5.6.1. Based on this figure, the sub-element at the highest level will have strong influences to the lower level sub-elements. In this case, sub-elements E2, E3, E7, E8 and E9 have strong influences to sub-elements E1, E4, E5, E6 and E10.

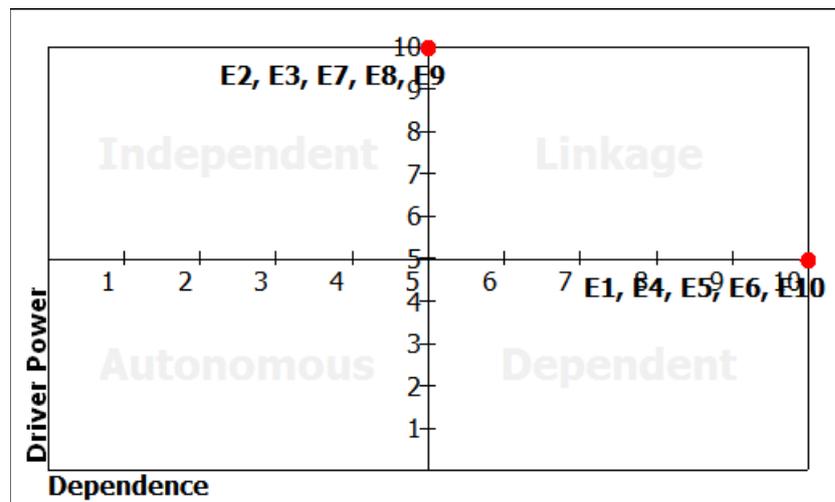


Figure 5.6.1. Relationships between Driver Power and Dependence of Sub-elements of Program Goals for Minimization of Tourism Leakage

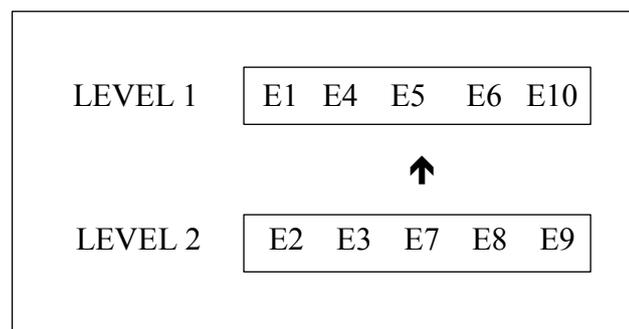


Figure 5.6.2. Structural Hierarchy of Sub-elements of Program Goals for Minimization of Tourism Leakage

### 5.6.2 Program Needs for Minimization of Tourism Leakage

Element of program needs for minimization of tourism leakage from accommodation sector in Bali consists of 10 sub-elements, namely:

1. Qualified human resources
2. Good management in agribusiness, livestock, fisheries and handicraft industry

3. Participation of farmers, cattlemen, fishermen and craftsmen
4. Quality, quantity, continuity of local products
5. Substitute products
6. Good quality of seed, livestock and raw materials
7. Funding for investment
8. Business Partnership
9. Government's role
10. Coordination between stakeholders

Analysis of the contextual relationships among the sub-elements of program needs by using ISM method resulted in reachability matrix (RM) as shown in Table 5.6.3. Based on the RM in Table 5.6.3, the key sub-element of program needs for minimization of tourism leakage is government's role (E9). According to Driver Power (DP) and Dependence (D), this sub-element is at the fourth sector (independent), and other three sub-elements, namely: good quality of seed, livestock and raw materials (E6); Quality, quantity, continuity of local products (E4); and substitute products (E5) locate at the second sector (dependent), as shown in Figure 5.6.3. However, there are 6 other sub-elements located at the third sector (linkage), namely: Qualified human resources (E1); Good management in agribusiness, livestock, fisheries and handicraft industry (E2); Participation of farmers, cattlemen, fishermen and craftsmen (E3); Funding for investment (E7); Business Partnership (E8); and Coordination between stakeholders (E10).

Table 5.6.3  
Reachability Matrix of Program Needs for Minimization of Tourism Leakage

No.	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	DP
E1	1	1	1	1	1	1	1	1	0	1	9
E2	1	1	1	1	1	1	1	1	0	1	9
E3	1	1	1	1	1	1	1	1	0	1	9
E4	0	0	0	1	1	0	0	0	0	0	2
E5	0	0	0	0	1	0	0	0	0	0	1
E6	0	0	0	1	1	1	0	0	0	0	3
E7	1	1	1	1	1	1	1	1	0	1	9
E8	1	1	1	1	1	1	1	1	0	1	9
E9	1	1	1	1	1	1	1	1	1	1	<b>10</b>
E10	1	1	1	1	1	1	1	1	0	1	9
D	7	7	7	9	<b>10</b>	8	7	7	1	7	

Remarks:

DP : Driver Power

D : Dependence

E1 : Qualified human resources

E2 : Good management in agribusiness, livestock, fisheries and handicraft industry

E3 : Participation of farmers, cattlemen, fishermen and craftsmen

E4 : Quality, quantity, continuity of local products

E5 : Substitute products

E6 : Good quality of seed, livestock and raw materials

E7 : Funding for investment

E8 : Business Partnership

**E9 : Government's role**

E10: Coordination between stakeholders

This finding states that the sub-element of government's role will have a major driver power for program needs in order to minimize tourism leakage from accommodation sector in Bali. Therefore, focus should be given to the government's role. Moreover, conscientious attentions should be given to the linkage's sub-elements (E1, E2, E3, E7, E8, and E10) because they have causal relationships each other and the relationships tend to be unstable.

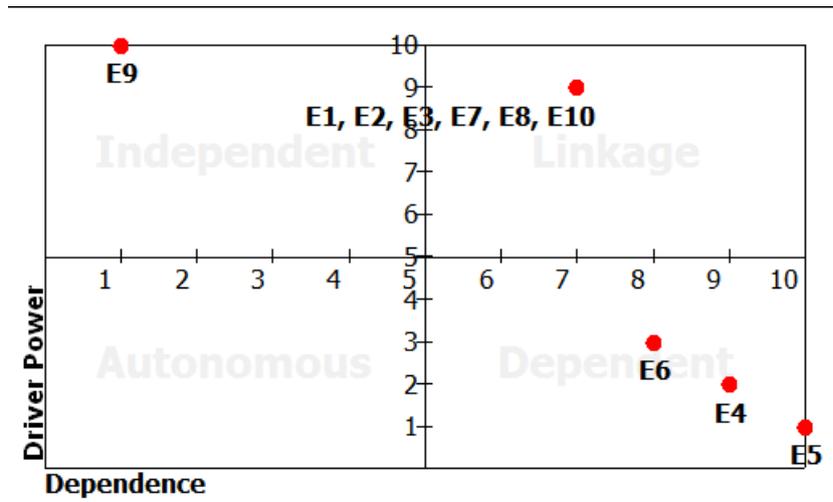


Figure 5.6.3. Relationships between Driver Power and Dependence of Sub-elements of Program Needs for Minimization of Tourism Leakage

Furthermore, the structural hierarchy of all sub-elements of program needs for minimization of tourism leakage is presented in Figure 5.6.4. Based on this figure, the sub-elements at the highest level have strong influences to the lower level sub-elements. In this case, the sub-element E9 has strong influence to other sub-elements E1, E2, E3, E4, E5, E6, E7, E8, and E10.

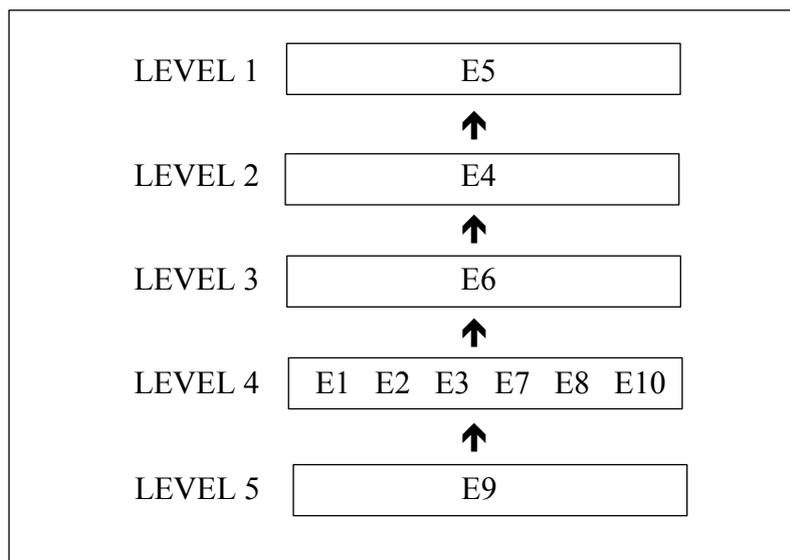


Figure 5.6.4. Structural Hierarchy of Sub-elements of Program Needs for Minimization of Tourism Leakage

### 5.6.3 Affected sectors for Minimization of Tourism Leakage

Element of affected sectors for minimization of tourism leakage from accommodation sector in Bali consists of 8 sub-elements, namely:

1. Local community
2. Community leader
3. Community organization
4. Tourism industry
5. Agricultural, animal husbandry, and fisheries industries
6. Handicraft industry
7. Local employees
8. Government

Analysis of the contextual relationships among the sub-elements of affected sector by using ISM method resulted in reachability matrix (RM) as shown in Table 5.6.4. Based on the RM in Table 5.6.4, the key sub-elements of affected sectors for minimization of tourism leakage are: (i) Community leader (E2); (ii) Community organization (E3); and (iii) Government (E8). According to Driver Power (DP) and Dependence (D), these three sub-elements are at the fourth sector (independent), and other three sub-elements locate at the second sector (dependent), namely: Agricultural, animal husbandry, and fisheries industries (E5); Handicraft industry (E6); and Local employees (E7). However, other two elements are in the third sector (linkage), namely Local community (E1) and

Tourism industry (E4). The relationships between Driver Power (DP) and Dependence (D) of affected sectors are shown in Figure 5.6.5.

This finding states that these three sub-elements (E2, E3 and E8) will have a major driven power to influence the affected sectors for minimization of tourism leakage from accommodation sector in Bali. Therefore, focus should be given to these three sub-elements, namely: Community leader, Community organization, and Government. Moreover, a conscientious attention should be given to the linkage's sub-elements (Local community and Tourism industry) because they have causal relationships and the relationships tend to be unstable.

Table 5.6.4  
Reachability Matrix of Affected sectors for Minimization of Tourism Leakage

No.	E1	E2	E3	E4	E5	E6	E7	E8	DP
E1	1	0	0	1	1	1	1	0	5
E2	1	1	1	1	1	1	1	1	<b>8</b>
E3	1	1	1	1	1	1	1	1	<b>8</b>
E4	0	0	0	1	1	1	1	0	4
E5	0	0	0	0	1	0	1	0	2
E6	0	0	0	0	1	1	1	0	3
E7	0	0	0	0	1	0	1	0	2
E8	1	1	1	1	1	1	1	1	<b>8</b>
<b>D</b>	4	3	3	5	<b>8</b>	6	<b>8</b>	3	

Remarks:

DP : Driver Power

D : Dependence

E1 : Local community

**E2 : Community leader**

**E3 : Community organization**

E4 : Tourism industry

E5 : Agricultural, animal husbandry, and fisheries industries

E6 : Handicraft industry

E7 : Local employees

**E8 : Government**

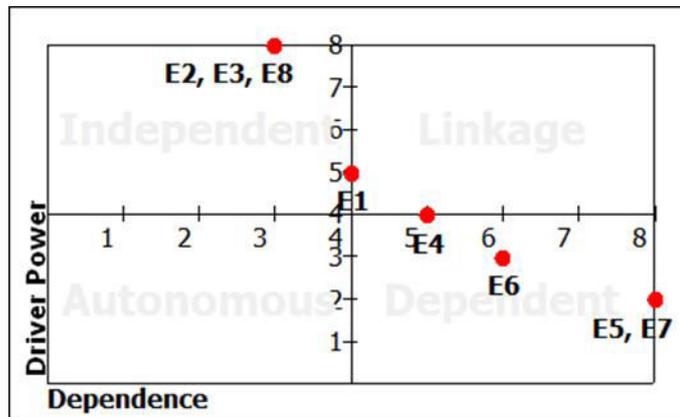


Figure 5.6.5. Relationships between Driver Power and Dependence of Sub-elements of Affected Sectors for Minimization of Tourism Leakage

Furthermore, the structural hierarchy of all sub-elements of affected sector for minimization of tourism leakage is presented in Figure 5.6.6. Based on this figure, the sub-elements at the highest level have strong influences to the lower level sub-elements. In this case, Community leader (E2), Community organization (E3) and Government (E8) have strong influence to other sub-elements, namely E1, E4, E6, E5 and E7.

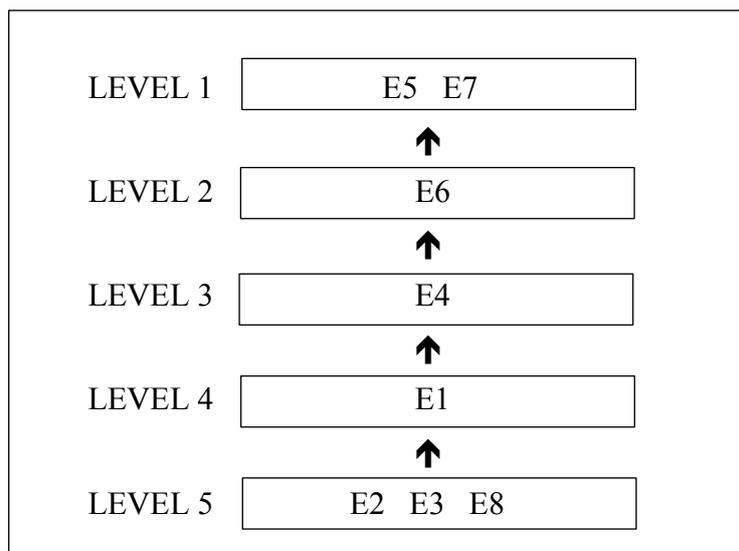


Figure 5.6.6. Structural Hierarchy of Sub-elements of Affected Sectors for Minimization of Tourism Leakage

#### **5.6.4 Program Constraints for Minimization of Tourism Leakage**

Element of program constraints for minimization of tourism leakage from accommodation sector in Bali consists of 9 sub-elements, namely:

1. Lack of capability and skill of local human resources
2. Lack of availability and quality of local products
3. Lack of capability of local management
4. Lack of local infrastructure
5. Lack of capital investment
6. Lack of information and communication technology
7. National Investment Policy
8. International Trade Policy
9. Foreign Currencies Fluctuation

Analysis of the contextual relationships among the sub-elements of program constraints by using ISM method resulted in reachability matrix (RM) as shown in Table 5.6.5. Based on the RM in Table 5.6.5, the key sub-elements of program constraints for minimization of tourism leakage are: (i) International Trade Policy (E8) and (ii) Foreign Currencies Fluctuation (E9). This finding shows that these two sub-elements have a major driven power to the program constraints for minimization of tourism leakage from accommodation sector in Bali. Therefore, focus should be given to these two sub-elements.

Table 5.6.5  
Reachability Matrix of Program Constraints for Minimization of Tourism Leakage

No.	E1	E2	E3	E4	E5	E6	E7	E8	E9	DP
E1	1	1	1	1	1	1	0	0	0	6
E2	0	1	0	0	0	0	0	0	0	1
E3	0	1	1	0	0	0	0	0	0	2
E4	0	1	1	1	0	0	0	0	0	3
E5	1	1	1	1	1	1	0	0	0	6
E6	1	1	1	1	1	1	0	0	0	6
E7	1	1	1	1	1	1	1	0	0	7
E8	1	1	1	1	1	1	1	1	1	9
E9	1	1	1	1	1	1	1	1	1	9
D	6	9	8	7	6	6	3	2	2	

Remarks:

DP : Driver Power

D : Dependence

E1 : Lack of capability and skill of local human resources

E2 : Lack of availability and quality of local products

E3 : Lack of capability of local management

E4 : Lack of local infrastructure

E5 : Lack of capital investment

E6 : Lack of information and communication technology

E7 : National Investment Policy

**E8 : International Trade Policy**

**E9 : Foreign Currencies Fluctuation**

Furthermore, relationships between Driver Power (DP) and Dependence (D) of program constraints are shown in Figure 5.6.7. According to this figure, three sub-elements are at the fourth sector (independent), namely: (i) International Trade Policy (E8); (ii) Foreign Currencies Fluctuation (E9); and (iii) National Investment Policy, and other three sub-elements locate at the second sector (dependent), namely: Lack of availability and quality of local products (E2); Lack

of capability of local management E3; and Lack of local infrastructure (E4). However, other three remain elements are in the third sector (linkage), namely: Lack of capability and skill of local human resources (E1); Lack of capital investment (E5); and Lack of information and communication technology (E6). Conscientious attentions should be given to these linkage's sub-elements (E1, E5 and E6) because they have causal relationships among each other, and the relationships tend to be unstable.

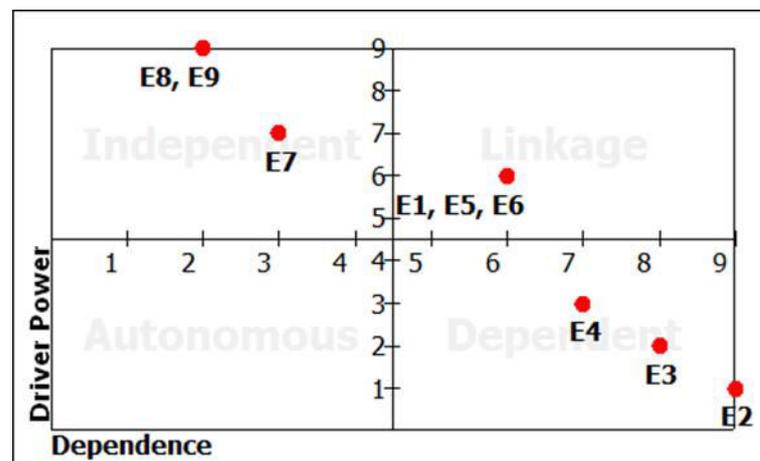


Figure 5.6.7. Relationships between Driver Power and Dependence of Sub-elements of Program Constraints for Minimization of Tourism Leakage

Furthermore, the structural hierarchy of all sub-elements of program constraints for minimization of tourism leakage is presented in Figure 5.6.8. Based on this figure, the sub-element of International Trade Policy (E8) and (ii) Foreign Currencies Fluctuation (E9) has strong influence to other sub-elements. On the other hand, the most dependent sub-element was lack of availability and quality of local products (E2).

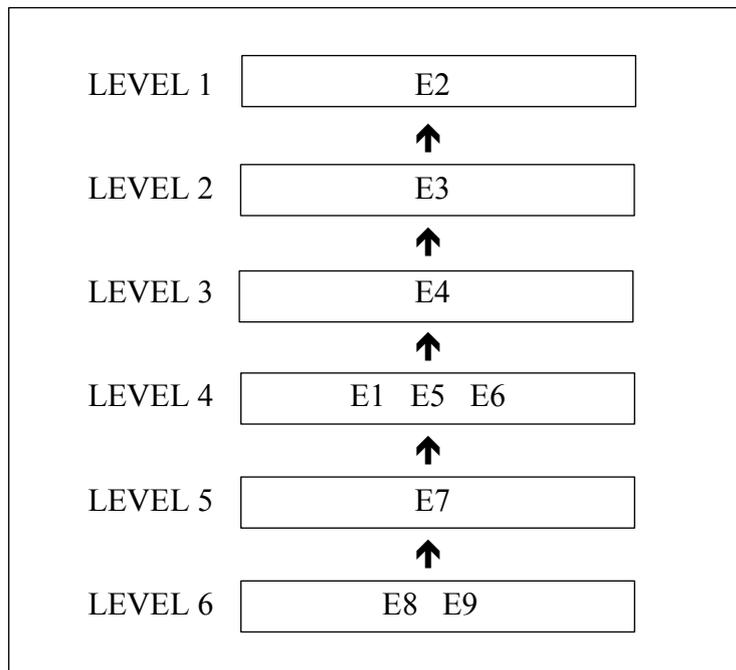


Figure 5.6.8. Structural Hierarchy of Sub-elements of Program Constraints for Minimization of Tourism Leakage

### 5.6.5 Possible Changes in the Program for Minimization of Tourism Leakage

Element of possible changes for minimization of tourism leakage from accommodation sector in Bali consists of 10 sub-elements, namely:

1. Decrease in import and increase in value-added
2. Increase and equalize income distribution
3. Change point of view of hotel managers on import oriented
4. Increase quantity, quality and continuity of local products
5. Development of capability of local human resource
6. Improve business management
7. Empowerment of agriculture, livestock, fisheries and craft industries
8. Policy on restriction of foreign investment

9. Strengthen forward and backward linkage

10. Public-private partnership on investment

Analysis of the contextual relationships among the sub-elements of possible changes by using ISM method resulted in reachability matrix (RM) as shown in Table 5.6.6. Based on the RM in Table 5.6.6, the key sub-elements of possible changes for minimization of tourism leakage are: (i) Policy on restriction of foreign investment (E8), and (ii) Public-private partnership on investment (E10).

Table 5.6.6  
Reachability Matrix of Possible Changes for Minimization of Tourism Leakage

No.	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	DP
E1	1	1	1	1	1	1	1	0	1	0	8
E2	0	1	0	0	0	0	0	0	0	0	1
E3	1	1	1	1	1	1	1	0	1	0	8
E4	1	1	1	1	1	1	1	0	1	0	8
E5	1	1	1	1	1	1	1	0	1	0	8
E6	1	1	1	1	1	1	1	0	1	0	8
E7	1	1	1	1	1	1	1	0	1	0	8
E8	1	1	1	1	1	1	1	1	1	0	<b>9</b>
E9	1	1	1	1	1	1	1	0	1	0	8
E10	1	1	1	1	1	1	1	0	1	1	<b>9</b>
D	9	<b>10</b>	9	9	9	9	9	1	9	1	

Remarks:

DP : Driver Power

D : Dependence

E1 : Decrease in import and increase in value-added

E2 : Increase and equalize income distribution

E3 : Change point of view of hotel managers on import oriented

E4 : Increase quantity, quality and continuity of local products

E5 : Development of capability of local human resource

E6 : Improve business management

E7 : Empowerment of agriculture, livestock, fisheries and craft industries

**E8 : Policy on restriction of foreign investment**

E9 : Strengthen forward and backward linkage

**E10: Public-private partnership on investment**

Furthermore, relationships between Driver Power (DP) and Dependence (D) of possible changes are shown in Figure 5.6.9. According to this figure, two sub-elements (E8 and E10) are at the fourth sector (independent), and another sub-element, namely Increase and equalize income distribution (E2) locates at the second sector (dependent). Meanwhile, other seven elements are in the third sector (linkage), namely E1, E3, E4, E5, E6, E7 and E9. This finding states that two sub-elements, namely Policy on restriction of foreign investment, and Public-private partnership on investment have a major driven power to support possible changes for minimization of tourism leakage from accommodation sector in Bali. Therefore, focus should be given to these two sub-elements (E8 and E10). However, conscientious attentions should be given to these linkage's sub-elements (E1, E3, E4, E5, E6, E7 and E9) because they have causal relationships among each other, and the relationships tend to be unstable.

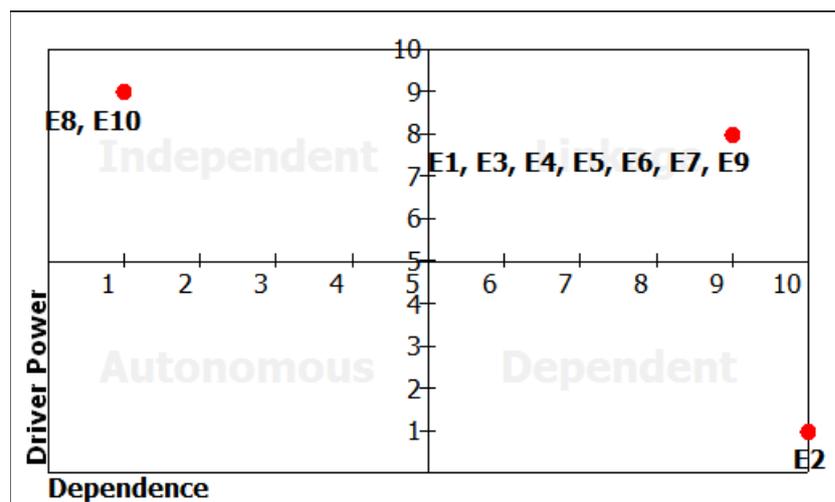


Figure 5.6.9. Relationships between Driver Power and Dependence of Sub-elements of Possible Changes for Minimization of Tourism Leakage

Furthermore, the structural hierarchy of all sub-elements of possible changes for minimization of tourism leakage is presented in Figure 5.6.10. Based on this figure, the sub-elements at the highest level have strong influences to the lower level sub-elements. In this case, policy on restriction of foreign investment (E8), and public-private partnership on investment (E10) have strong influence to other sub-elements. The most dependent sub-element of possible changes for minimization of tourism leakage is increase and equalize income distribution (E2).

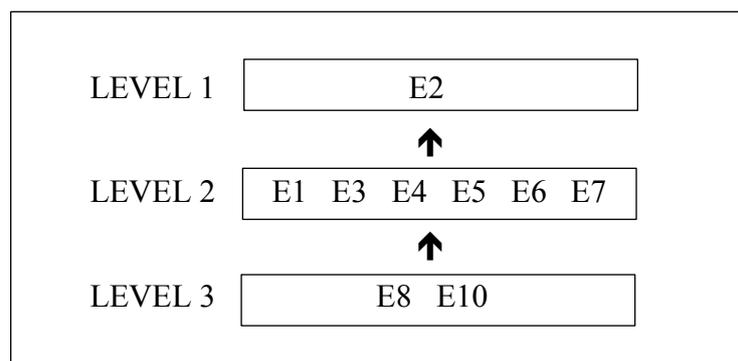


Figure 5.6.10. Structural Hierarchy of Sub-elements of Possible Changes for Minimization of Tourism Leakage

### 5.6.6 Involvement of Agencies in the Program for Minimization of Tourism Leakage

Element of involvement of agencies in the program for minimization of tourism leakage from accommodation sector in Bali consisted of 10 sub-elements, namely:

1. Government Tourism Office
2. Government Office of Trade and Industry

3. Government Office of Agriculture, Animal Husbandry and Fisheries
4. Government Office of Plantation and Forestry
5. Government Office of Manpower and Transmigration
6. The Ministry of Tourism & Creative Economics, and Ministry of Foreign Affairs
7. The Ministry of Finance
8. Regional and City Government
9. Association of tourism organizations
10. Research Centres and NGOs

Analysis of the contextual relationships among the sub-elements of involvement of agencies by using ISM method resulted in reachability matrix (RM) as shown in Table 5.6.7. Based on the RM in Table 5.6.7, the key sub-element of involvement of agencies in the program for minimization of tourism leakage was the Ministry of Foreign Affairs. This finding stated that this sub-element has a major driven power to the involvement of agencies for minimization of tourism leakage from accommodation sector in Bali. Therefore, focus should be given to the sub-element of the Ministry of Tourism & Creative Economics, and Ministry of Foreign Affairs.

Furthermore, relationships between Driver Power (DP) and Dependence (D) of the involvement of agencies are shown in Figure 5.6.11. According to this figure, two sub-elements were at the fourth sector (independent), namely: the Ministry of Tourism & Creative Economics, and Ministry of Foreign Affairs (E6), and The Ministry of Finance (E7). The other remain eight elements were in the

third sector (linkage), namely E1, E2, E3, E4, E5, E8, E9 and E10. Conscientious attentions should be given to these linkage's sub-elements (E1, E2, E3, E4, E5, E8, E9 and E10) because they have causal relationships among each other, and the relationships tend to be unstable.

Table 5.6.7  
Reachability Matrix of Involvement of Agencies  
in the Minimization Strategy of Tourism Leakage

No.	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	DP
<b>E1</b>	1	1	1	1	1	0	0	1	1	1	8
<b>E2</b>	1	1	1	1	1	0	0	1	1	1	8
<b>E3</b>	1	1	1	1	1	0	0	1	1	1	8
<b>E4</b>	1	1	1	1	1	0	0	1	1	1	8
<b>E5</b>	1	1	1	1	1	0	0	1	1	1	8
<b>E6</b>	1	1	1	1	1	1	1	1	1	1	<b>10</b>
<b>E7</b>	1	1	1	1	1	0	1	1	1	1	9
<b>E8</b>	1	1	1	1	1	0	0	1	1	1	8
<b>E9</b>	1	1	1	1	1	0	0	1	1	1	8
<b>E10</b>	1	1	1	1	1	0	0	1	1	1	8
<b>D</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	1	2	<b>10</b>	<b>10</b>	<b>10</b>	

Remarks:

DP : Driver Power

D : Dependence

E1 : Government Tourism Office

E2 : Government Office of Trade and Industry

E3 : Government Office of Agriculture, Animal Husbandry and Fisheries

E4 : Government Office of Plantation and Forestry

E5 : Government Office of Manpower and Transmigration

**E6 : The Ministry of Tourism, and Ministry of Foreign Affairs**

E7 : The Ministry of Finance

E8 : Regional and City Government

E9 : Association of tourism organizations

E10: Research Centres and NGOs

Furthermore, structural hierarchy of all sub-elements of the involvement of agencies in the program for minimization of tourism leakage is presented in Figure 5.6.12. Based on this figure, the sub-element at the highest level has strong influences to the lower level of sub-elements. In this case, the sub-element of the Ministry of Tourism and Ministry of Foreign Affairs (E6) influenced all other sub-elements (E1, E2, E3, E4, E5, E7, E8, E9 and E10).

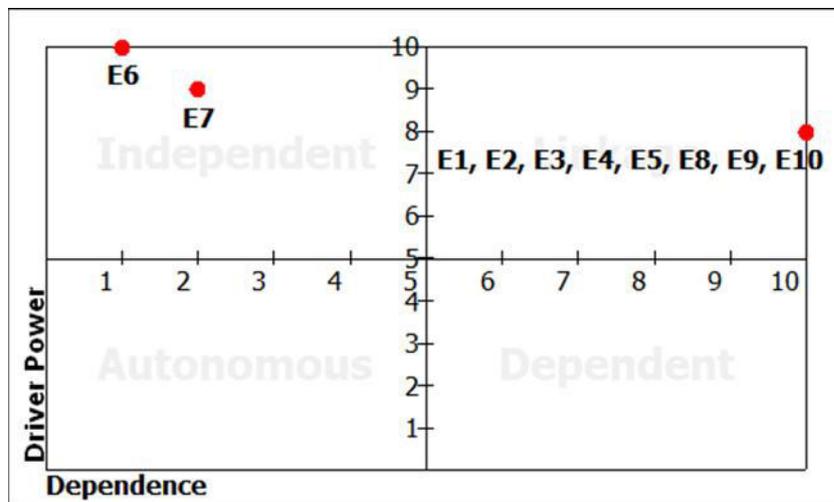


Figure 5.6.11. Relationships between Driver Power and Dependence of Sub-elements of Involvement of Agencies in the Minimization Strategy of Tourism Leakage

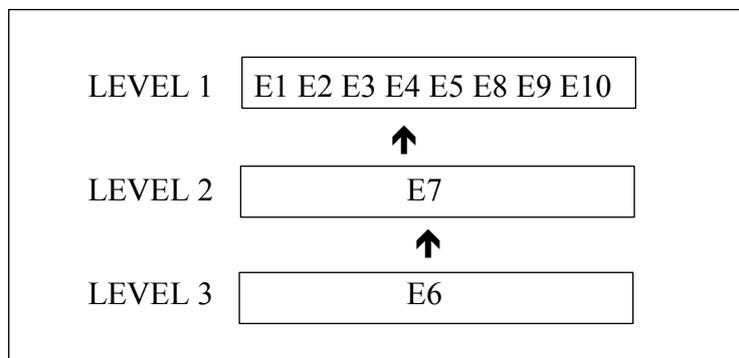


Figure 5.6.12. Structural Hierarchy of Sub-elements of Involvement of Agencies in the Minimization Strategy of Tourism Leakage

## **CHAPTER VI**

### **DISCUSSION**

#### **6.1 Introduction**

This chapter aims to discuss all results of this study. Firstly, results of micro and macro analyses of tourism leakage in different types of accommodations in Bali are discussed in Sub-Chapter 6.2. Causes of slightly different results from the micro and macro analyses are explained based on different approaches used. In the Sub-Chapter 6.3, discussion is focused on simulation by using scenarios involving government intervention by giving subsidies and efforts of accommodation sector on import reduction. Impacts of both interventions can be seen on tourism leakage, job opportunity and income distribution.

Furthermore, analysis on perception and preference of foreign tourists on imported and local products is discussed in Sub-Chapter 6.4. Relationships between variables in affecting foreign tourists' satisfaction, perception on quality of products and services as well as the willingness of spending money for Balinese people in priority are also discussed in this sub-chapter.

In the following sub-chapter, discussions on points of view of hotel managers regarding imported and local products used in the hotel are presented. In the last sub-chapter, strategy in minimizing tourism leakage is discussed based on the results of Interpretative Structural Modeling (ISM). This chapter will be closed by a simple conclusion.

## 6.2 Micro and Macro Analysis of Tourism Leakage in Accommodation Sector

The calculation of tourism leakage in accommodation sector in Bali was undertaken based on two analyses, namely micro and macro analysis. The results of these two analyses showed similar results on 4&5 Star-rated chain hotels which had the highest tourism leakage among all types of accommodations, i.e. 51.0 % (micro analysis) and 55.3 % (macro analysis). However, slight different results had been found on other types of accommodations, namely Non-star rated hotels; 1,2&3 Star-rated hotels; and 4&5 Star-rated non-chain hotels. The lowest tourism leakage was found on Non-star-rated hotels, i.e. 8.8 % (micro analysis) and 2.0 % (macro analysis). Furthermore, tourism leakage on 1,2&3 Star-rated hotels was 12.0 % (micro analysis) and 15.7 % (macro analysis). On the other hand, there was a significant different of tourism leakage occurred on 4&5 Star-rated non-chain hotels, i.e. 22.7 % (micro analysis) and 7.1 % (macro analysis). The average tourism leakage in accommodation sector in Bali was 18.8 % (micro analysis) and 19.5 % (macro analysis) (see Table 6.1).

**Table 6.1**  
**Tourism Leakage in Accommodation Sector in Bali**

No	Types of Accommodation	Tourism Leakage	
		Micro Analysis (%)	Macro Analysis (%)
1	Non-star rated hotels	8.8	2.0
2	1,2&3 Star-rated hotels	12.0	15.7
3	4&5 Star-rated non-chain hotels	22.7	7.1
4	4&5 Star-rated chain hotels	51.0	55.3
<b>Average</b>		<b>18.8</b>	<b>19.5</b>

There was a slight different result of these two analyses, particularly on 4&5 Star-rated non-chain hotels. It might due to different methods used for micro

and macro analysis. The micro analysis of tourism leakage was undertaken based on a simple arithmetic model following Unluonen, *et. al.* (2011). Data was collected through a survey research which was undertaken in 79 sampling hotels at four main tourism destinations in Bali, namely Kuta, Nusa Dua, Sanur and Ubud. Meanwhile, macro analysis was undertaken by using Social Accounting Matrix (SAM) of Bali's economy following a model developed by Thorbecke (1988). Macro analysis was based on statistical data of Bali Province and other data sources in order to develop SAM of Hotel in Bali (SAM Hotel). SAM Hotel expresses a tourism account of Bali which describes circular flows of Bali tourism (see Appendix 4.3). This SAM Hotel was developed from SAM Bali 2010 and other related data.

Furthermore, the reasons of a slight different result from these two analyses were as follow:

- (1) Macro analysis by using SAM Hotel included transactions between sectors in detail. These transactions included transactions between factors of production, production sectors, institutions, commodities, capital account and indirect taxes, as well as transactions between domestic and foreign activities including imported of capital goods, raw materials as well as the use of foreign employments. According to Thorbecke (1988), transactions between domestic and foreign activities are recorded in the Rest of the World (ROW) accounts. Some of these transactions were not calculated in the micro analysis. By using SAM for macro analysis, it means that the analysis was comprehensive, disaggregated, consistent and using complete data system that

captures the interdependence that exists within a socioeconomic system (Thorbecke, 2000). This argument also supported by Hara (2008) who said that SAM shows how the money flows in the economy/society involving three important entities, namely production factors, production sector and institution. So that, by using SAM approach, transaction between production factors, production sector and institution related to four types of accommodations give more detail results.

- (2) Number of sampling hotels was also another cause of different result. Data collection of the micro analysis on this study was based upon the Probability Purposive to Size sampling (PPS) according to Kish (1965). However, SAM Hotel used in the macro analysis was developed based on the population of the tourism accommodations available in Bali.
- (3) Tourism leakage on 1,2&3 Star-rated hotels and 4&5 Star-rated non-chain hotels. Based on the macro analysis, tourism leakage on 1,2&3 Star-rated hotels (15.7%) was higher than tourism leakage on 4&5 Star-rated non-chain hotels (7.1%). Meanwhile, the micro analysis showed different results, i.e. tourism leakage on 1,2&3 Star-rated hotels (12.0 %) was lower than tourism leakage on 4&5 Star-rated non-chain hotels (22.7 %). According to the macro analysis, the percentage of payments of non labour that was transferred to other regions of Indonesia and to other countries on 1,2&3 Star-rated hotels was higher than those of 4&5 Star-rated non-chain hotels. These results indicated that payments of non labour to overseas on 1,2&3 Star-rated hotels

(15.5 %) was higher than those on 4&5 Star rated non-chain hotels (5.5 %) (refer to Table 5.2.9 in Chapter 5).

Assessment of the tourism leakage based on the micro and macro analysis are really important. Micro analysis supports the macro analysis basically on collecting data and information from all type of accommodations. However, macro analysis give more accurate results because this analysis demonstrate transactions between sectors in detail which representing transaction within Bali province, including transactions between factors of production, production sectors, institutions, commodities, capital account and indirect taxes, as well as transactions between domestic and foreign activities including imported of capital goods, raw materials as well as the use of foreign employees. Meanwhile, the micro analysis is only focused on the calculation of tourism leakage within the tourism industry itself based on the use of imported products, including imported foods, beverages, fruit and vegetables and good, utensils, equipment and material used in the operational hotels in the operational of the accommodation. Meanwhile, source of services are the use of foreign employees in operational hotels, marketing and staf training, online fees, booking fees, management fees and profit transfer.

Based on the results of both analyses as shown in Table 6.1, the highest percentage of leakage either macro or micro analyses was on 4&5 Star-rated chain hotels. The sources of tourism leakage on 4&5 Star-rated chain hotels based on macro analysis as shown in Table 5.2.9 (see Chapter 5) were income from production factors which was transferred to overseas and payments of non labour

to overseas. The highest leakage was payments of non labour to overseas (30.80%). This included import of goods and services. It was followed by income from production factors that were transferred to overseas, i.e. payment for capital ownership (23.08%), and payment for labour (1.43%).

Moreover, the main sources of tourism leakage on 4&5 Star-rated chain hotels based on micro analysis as shown in Table 5.1.10 (see Chapter 5) were imported beverages (64.1% of total leakage) and foods (20.5% of total leakage). The results of micro analysis gave more explanations to the results of macro analysis which was saying the highest leakage was payment of non labour to overseas (30.80%) which included import of goods and services. The import goods were mostly beverages and foods.

These results show that accommodation that is managed by international chain systems and/or owned by foreigners had higher leakage than other types of accommodation. The more leakage, therefore the less revenue from tourism is received by the host country and community. In another word, more revenue from tourism goes to outside the destination region or country.

Tourism leakage impacts on multiplier effect. Archer and Fletcher (1996) said that an increasing in the amount of leakage in any tourist-based economy in a country or region, therefore its multiplier effect decreases. Furthermore, Var and Quayson (1985) stated that the magnitude of tourism multiplier coefficient depends on tourist spending, the economic base of a region/country and its economic relations. When a destination region/country is self-sufficient in capital, production and services, so that it has a greater multiplier coefficient. Moreover,

when there is an extended economic base in a destination region/country, therefore the multiplier effect will be greater due to less import and greater value added.

Regarding the percentage of tourism leakage from other countries, it was reported by UNEP (2010) that tourism leakage of Thailand was 70% and India was 40% in 2000. According to report by UN-Economic Commission for Latin and the Caribbean (2010), tourism leakage of Caribbean was estimated about 80%, Mauritius was 90%, Seychelles was 60%, Saint Lucia was 44.8%, and Jamaica was 40% in 1991. Hemmati and Koehler (2000) revealed that leakage was ranging between 40% to 60% of total tourism earnings for many small island destinations. However, it has not been found how much the percentage of leakage can be tolerant. In this study, the percentage of leakage was calculated only based on leakage that was occurred in accommodation sector. So that, a further research needs to be undertaken in order to obtain the percentage of leakage from total tourism revenue in Bali.

### **6.3 Impact of Government Subsidies and Import Reduction by Accommodation Sector on Tourism Leakage, Job Opportunity and Income Distribution**

Government could play an important role in reducing leakage through a policy of subsidy intervention. In addition, tourism industry could also take an important role in reducing leakage through minimizing the use of imported products and services, as well as the utilization of foreign employees. Based on the simulations that were outlined in Chapter 5, the optimum result in minimizing tourism leakage, increasing job opportunity and income distribution could be

achieved by a scenario involving variables of government subsidy and import reduction. This scenario was called Simulation-5 in this study, i.e. government gave subsidies 40% to Non-star rated hotels, and 18.5% to 1,2&3 Star-rated hotels, but no subsidy was given to either 4&5 Star-rated non-chain hotels or 4&5 Star-rated chain hotels. At the same time, accommodation sector reduced the use of imported products and services by 25% on Non-star rated hotels and 30% on 4&5 Star-rated chain hotels. The results show that tourism leakage decreases by 11.96% from 19.49% to 7.53%, and new job opportunity increases by 15 peoples (refer to Table 5.3.10 and Table 5.3.11 in Chapter 5). In addition, this simulation results in increasing of income distribution on lower classes in urban areas by 0.26%. Antara (1999) supported the fact that there were linkages between government intervention, tourism sector and production sector in Bali. He found that increasing in government expenditure together with increasing in tourist's expenditure encouraged economic growth in Bali.

The results of simulation also show that it was important to minimize the tourism leakage through reduction of imported goods and services, as well as minimization of utilization of foreign labours by accommodation sector. As stated by Mill and Morrison (2009), any money spent on import leaks out of the destination's economy. Regarding the importance of reducing import in order to reach optimum results in minimizing leakage, the results show that imports need to be minimized. However, the minimum limit of import needs to be considered carefully, as shown by the scenario of Simulation-6 (refer to Table 5.3.12). In fact, regarding the results of Simulation-6, it can be seen that putting import in a

certain condition results in a decreasing job opportunity of 43 persons (refer to Table 5.3.14). This indicates that import could not be minimized to the lowest amount, because import plays an important role in generating national income and trade balance between countries.

Export and import transactions are important economic activities for every country. According to Zhang (2004), cross-country differences in export and import affect the real per capita income levels, which mean that export and import are highly correlated across countries to national income. However, efforts need to be undertaken to keep international account in trade balance condition. Adam Smith and David Ricardo (Hollander, 1911; Ruffin, 2002; Sukirno, 2010) argued that development in international trade results in improvement of prosperous nations through imports as well as exports. Based on the Most of Favour Nation Principle of World Trade Organization (WTO), each country has right to be treated similarly among countries' members. This principle means that each country must improve their capability in producing products and services. Trade between countries is getting more useful if each country has their own comparative advantages.

Tourism is one of international trade in services which has been used in some countries to be one of their products in international trade as source of increasing national income. Bali has comparative advantages on uniqueness of culture, and people, as well as on attractiveness of beaches and scenery. Tourism in Bali has become an important service sector in order to increase national income as well as to improve community's standard of living and prosperity.

#### **6.4 Perception and Preference of Foreign Tourists on Imported and Local Products**

Based upon 10 types of product considered in this study (refer to Table 5.4.8 in Chapter 5), foreign tourists perceived that quality of local products was higher than imported products, in which the average score of local products was 5.59 out of 7 Likert's scale (categorized very good) but imported products was 5.24 (categorized good). Among all local products, some products had higher score than the average score, namely building style, room decoration, architecture, fisheries products, and fruits. It means that local building style, room decoration, architecture, fisheries products, and fruits were considered better than imported products. However, imported meat, dairy products and beverages had higher scores than the average score. It means that imported meat, dairy products and beverages were considered better than local products.

Regarding preferences of foreign tourists between imported and local products, the results showed that most of foreign tourists preferred local products (refer to Figure 5.4.11 in Chapter 5), except for meats, dairy products and beverages. On the other hand, based upon the relationships between perceived quality of local products and preference of foreign tourists, the statistical results show that the preference of foreign tourists have significant positive relationships to all local products (refer to Table 5.4.9 in Chapter 5). This finding demonstrates that foreign tourists significantly looked for local products which are available in Bali.

However, inconsistent result was found on one of the products, namely "meat". Based on the percentage of foreign tourists who preferred local meat, the

result shows that 73.81% of them preferred local meat. This means that 73.81% out of 600 respondents preferred local meat and 26.19% of them preferred imported meat (refer to Figure 5.4.11 in Chapter 5). In fact, the results show that perception of foreign tourists on local meat based on Likert evaluation was lower than imported meat. The Likert's score of perception on local meat was 5.32 (categorized very good) and the score of imported meat was 6.24 (categorized extremely good) (refer to Table 5.4.8 in Chapter 5). This finding means that even though most of foreign tourists preferred local meat, however their perception on local meat was lower than imported meat.

Inconsistent in decision making process was happened in respondents' mind. It might due to a reason, as follow. There was unclear question in the questionnaire regarding the word "meat", because the word "meat" could be either beef, chicken, pork, lamb or other meat products. However, a survey was undertaken by researcher on the flight from Denpasar to Paris by interviewing six foreign tourists who just completed their vacations in Bali. It was found that all of them gave really clear explanation on their consuming behaviour on meat in Bali. They only felt unsatisfied on consuming local beef and local lamb, but they had not have any problem on consuming local chicken, local pork or local duck during their stay in Bali. Regarding this ambiguous questions on meat, further research needs to be undertaken clearly in this part by classified meat in a more detail, such as mentioning beef, chicken, pork, lamb, duck, or other meat products in the questionnaire.

## **6.5 Relationships Between Variables**

### **6.5.1 Relationships between Variables of Familiarity and Variables of Satisfaction**

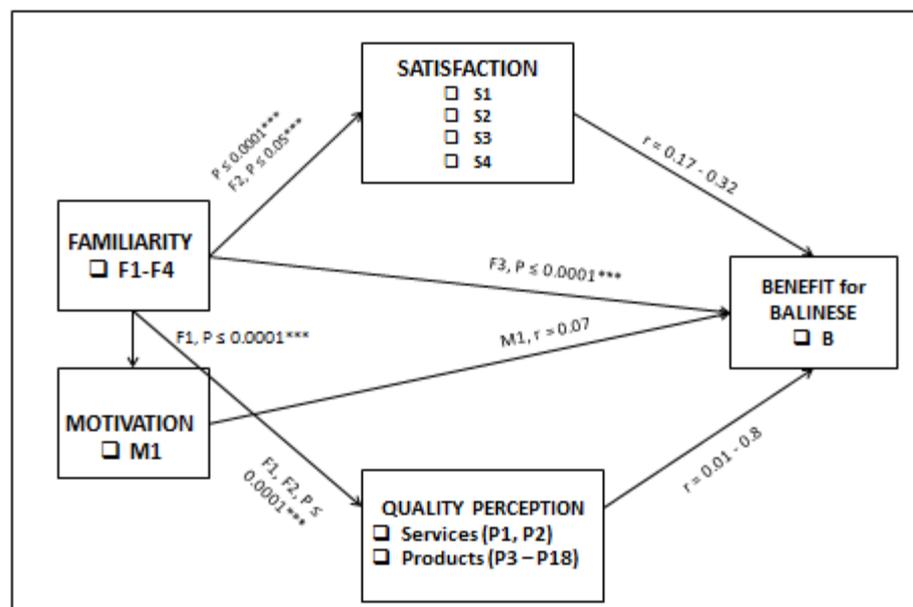
The relationships between the variables of familiarity and the variables of satisfaction were also tested by using statistical analysis (see Figure 6.1). The results show that there were very significant relationships between some variables of familiarity and all variables of satisfaction ( $p\text{-value} \leq 0.0001^{***}$ ), as shown in Figure 5.4.12 in Chapter 5. These very significant relationships were found between variable code of country of residence and all variables of satisfaction (satisfaction with the services of accommodation, the services of restaurants, the whole trips, the level of emotion during visiting Bali, and the level of expectation). In addition to that, there are almost similar relationships between variable large code of residence and all variables of satisfaction, as shown in Figure 5.4.12 in Chapter 5. These findings state that there are strong relationships between the places of residence of foreign tourists who visited Bali and the level of their satisfactions.

Furthermore, there was also a very significant relationships between the variable more than five times visit of familiarity and the variable level of expectation of satisfaction (refer to Figure 5.4.12 in Chapter 5). This finding indicates that foreign tourists who have visited Bali more than five times were already familiar with the situation in Bali, therefore they satisfied with their expectation. However, variable periodicity to visit of familiarity had no significant relationship with all variables of satisfaction.

Regarding the variables of Familiarity (F) and Motivation (M), only variable F1 (Code of country of residence) had a significant relationship with variable M1 (Visit friends and relatives/VFR). Motivations can be intrinsic (push) or extrinsic (pull). Push motivations correspond to a tourist's desire and emotional frame of mind. Pull motivations represent the attributes of the destination to be visited. Visit friend and relatives (VFR) was the main reason for coming to Bali, and only variable F1 (Code of country of residence) had significant relationship with variable motivation (M). According to Yoon and Uysal (2005), socio-demographic variables to be a mediator variable between motivations (either pull or push motivation) and destination loyalty. In case of Bali, desire to do travelling was pushed by the reason on visiting friends and relatives as one of the effects of socio-demographic variables. Being familiar of a destination (Bali) as they have friend and relatives to be visited was the main reason to do travelling to Bali. Similar results have been found between relationship between familiarity and satisfaction, and between familiarity and motivation. These results support the study by Bashar (2010) who reveals that familiarity influence satisfaction on travelling especially on spatial proximity which describes proximity to an area. Proximity or feeling closeness influence feeling of being motivated to visit friends and relatives to a destination.

### 6.5.2 Relationships of Some Variables with Variable Benefit for Balinese People

Regarding the idea of tourist expenditures spent mostly for Balinese, four variables affecting the willingness of foreign tourists to spend their money for Balinese people in priority were tested by using statistical analysis. These variables were namely: satisfaction, familiarity, motivation and perception on the quality of products and services of Bali tourism. The results show that all variables affect the variable benefit for Balinese, as shown in Figure 6.1.



**Figure 6.1. Relationships between Variables**

The results of analysis of relationships between variables in detail are outlined as follow:

A significant relationship was found between the variable periodicity to visit Bali and the variable benefit for Balinese (refer to Table 5.4.10 in Chapter 5). This finding indicates that the more often visiting Bali, the higher the willingness to contribute to Balinese people.

Positive correlations were found between all variables of satisfaction (satisfaction on services of accommodation, on services of restaurant, on the whole trips, level of emotion during visiting Bali, and level of expectation) and the variable benefit for Balinese people (refer to Figure 5.4.14 in Chapter 5). The results indicate that the higher the satisfaction of foreign tourists in visiting Bali, the higher benefit for Balinese people. However, these relationships were relatively weak (coefficient of correlations = 0.17 - 0.32).

Positive correlation was found between the variable visit friend and relative (VFR) of motivation and the variable benefit for Balinese, although the relationship was very weak (coefficient of correlation = 0.07). This result indicates that the more foreign tourists visiting friend and relative in Bali, the higher benefit for Balinese people.

Positive correlations were found between variables of perception on quality of services and the variable benefit for Balinese (refer to Figure 5.4.14 in Chapter 5). The correlations between two variables of perception on quality of services and the variable benefit for Balinese were ranging from 0.18 to 0.20. The similar results were found between variables of perception on quality of local products and the variable benefit for Balinese (refer to Table 5.4.13 in Chapter 5). The correlations between all variables of perception on quality of local products

and the variable benefit for Balinese were ranging from 0.01 to 0.8. There were several perceptions on the quality of local products that had relatively strong correlations with benefit for Balinese, namely local furniture ( $r = 0.8$ ), local vegetables ( $r = 0.7$ ), and local building style ( $r = 0.5$ ). These results indicate that the higher the perception on quality of local products and services, the higher benefits for Balinese people. This finding supports the study by Goodrich (1978), Solomon (1999), and Andriotis (2005) who found that tourist behavior in choosing a destination has a significant relationship to the perception of tourists on a destination.

Based on the statistical results, it can be concluded that most of tourists who visit Bali are willing to spend their money to the local people and to be a part of the system of Bali tourism in term of maintaining sustainable tourism in Bali. Most of tourists are also willing to spend their money and would love to stay in the village and prefer authenticity of the local products. The other concern of foreign tourists are staying in the locally decorated Balinese style and are willing to give more money to be used as the assurance of environmental protection to minimize negative impacts of tourism development in Bali as long as the mechanism of being involved is well organized. They would also love to live with the harmonious interaction with local Balinese people and willing to maintain cultural heritage of Bali as one of the famous attractive destination in the world. Their opinion, expectation and expression of satisfaction of the whole trip to Bali show that they found what they expected during their visit to Bali and

there is no doubt for them to be responsible for the long term development of tourism in Bali.

Based on the above analysis between variables which support the willingness of foreign tourists to spend their expenditure during their visit in Bali for the benefits of Balinese people, strategy may be developed related to fulfill tourists' needs in order to gain tourists' satisfaction during their visit in Bali. Therefore, it hopes that foreign tourists keep re-visiting Bali, and Bali become one of prime tourist destination in the world through word-of-mouth marketing strategy by those foreign tourists and other marketing strategies.

Future emerging trends need to be focussed on the improvement of quality of products and services of tourism in Bali in order to improve the level of satisfaction of foreign tourist in visiting Bali. This could lead to an increase in the willingness of foreign tourists to spend money for local Balinese. The role of stakeholders of Bali tourism are very important through integrated coordination in all aspects of tourism development, so that development of tourism brings about improvement of the life quality of Balinese. Community empowerment should become the basis of tourism development in Bali, therefore tourism in Bali will bring maximum benefits for local community.

#### **6.6 Points of View of Hotel Managers and Willingness in Reducing Tourism Leakage**

Tourism leakage could not be avoided because hotel managers have their own points of view regarding the use of imported products. Most of hotel managers from star-rated chain hotels said that in order to fulfill the chain hotel's requirements, the products that are presented to guests should be high quality

products. They firmly stated that imported meat, dairy products and alcoholic beverages have better quality than local products. They also firmly explained that star-rated chain hotels need high quality of imported food, alcoholic beverages, utensils and other equipment in order to fulfill the quality standard of chain hotels. Managers of other types of hotels also had similar points of view regarding the imported products. But, a slight different point of view was given by non-star rated hotels, because non-star rated hotels used very little imported products. Details on this matter are outlined in Sub-Chapter 5.5.2.

Different points of view from hotel managers were found regarding the cause and impact of tourism leakage. Some hotel managers of star-rated hotels understood that the use of imported products, services and foreign employees are the causes of tourism leakage. They also realized that tourism leakage brought about the loss of local economy because some portions of the revenue from tourism go to outside of destination region or country. However, their mindset had been in how to serve guests with high quality products. On the other hand, some hotel managers did not care about tourism leakage caused by imported products and services, as long as they got good quality products to serve the guests. Moreover, most of hotel managers of Non-Star-rated hotels did not understand about tourism leakage. In fact, they have already used mostly local products, except imported wine and alcoholic beverages. Details on this matter are outlined in Sub-Chapter 5.5.4.

Regarding point of views of hotel managers in reducing tourism leakage, most of hotel managers are willing to reduce the use of imported products and

give the priority to local products as long as there are local products and/or substitute for imported products that can fulfill the quality standard requirements. However, recent situation in Bali showed that supply of most local foods did not fulfill the quality standard requirement in terms of quality, quantity and continuity of the products. Details on this matter are outlined in Sub-Chapter 5.5.5.

Although tourism leakage could not be avoided, however it could be reduced or minimized. There is opportunity in reducing tourism leakage through reducing the use of imported products because the survey results showed that some local products that are usually presented for foreign tourists have significant positive relationship with the foreign tourist preferences. Foreign tourists also significantly looked for local of Balinese products. These local products were namely fisheries products, fruits, vegetables, room decoration, furniture, building style, and Balinese architecture.

The above survey results told us that the perception of most of hotel managers on tourist's needs was different to foreign tourist's perception on the local products. Regarding different perception between hotel managers and foreign tourist who visited Bali, there is a need to encourage hotel managers to change their perception and attitude in order to change their behavior, especially for them who work in the Star-rated chain hotels. Perception and attitude influence people's behavior (Chen and Liu, 1992; Chilya and Lombard, 2009 and Clemons, 2008). As stated by Lin, *et. al.* (2012) and Vinson, *et. al.* (2007) perception as a psychological construct is associated with other constructs such as attitude and emotion that will influence decision making process and behavior of

human being. Furthermore, the reasons for the tourism leakage in surrounding tourism destinations are multifaceted. Some of the main reasons are the lack of local ownership, local employment, and local capital, as well as inability to link tourism to the local economy. Local ownership is crucial to be developed as the owners of major tourism businesses. This will keep a majority of the profits in the destination region. In addition, tourism leakage can be reduced by employing more locals and buying more locally produced goods as well as creating strong linkages to local industries (Chirenje, *et. al.*, 2013; Kontogeorgopoulos, 1998 and Milne, 1987). Unfortunately, local entrepreneurs frequently lack of capital, education and experience (Ashraful, *et. al.*, 2012). As a result, foreign investors will dominate the owner of large tourism firms, therefore profits are kept by the outsiders who own the firms. Management and marketing may also be a major problem for local ownership as local entrepreneurs typically do not have the experience or education to market products to foreigners, and their ability to educate themselves is often limited (Blake, *et. al.*, 2008).

Local employment will also have a strong effect on reducing tourism leakage as wages are generally not leaked (Hemmati and Koehler 2000). However, local residents are often not ideally suited for the jobs as they lack of proper education, experiences and language skills. Therefore, large chain firms frequently import more skilled labour from urban areas to fill these positions (Goodwin (2008); Hemmati and Koehler 2000; Mbiawa 2005). Many studies found that the majority of locals worked as unskilled labour and earned fewer

wage, while expatriates were employed in management positions and earned very high wages (Kontogeorgopoulos,1998).

Tourist destinations that do not promote high multipliers and high level of linkages will not produce substantial economic development. So that, linkages between tourism industry and local economy are very important which lead to increase the multiplier effect (Hampton, 1998; Scheyvens and Russel, 2012; Smith, *et. al.*, 1992). It is crucial to increase the amount of locally produced goods which can increase multiplier effect. To maximize the economic impact of tourism, it is suggested that region should attempt to increase the amount of connections between tourism and local businesses rather than depend on imported goods and services (UNWTO, 2010).

Bagus Sudibya as one of the stakeholders in tourism industry in Bali supported the finding of this research. He revealed that synergy between tourism and agriculture is crucially needed to keep tourism in Bali sustained. He said that:

*“ ... Tourism and agriculture cannot be separated. It relates each other. Tourism without agriculture will be paralyzed, whereas agriculture without tourism will die ..”* (Personal Communication, 12<sup>th</sup> May 2013)

Another professional in tourism industry, Made Suryawan said that:

*“ ... Integrated communication and coordination between government, industry and communities are urgently needed. They must understand in depth about leakage, must see that we can get more income by reducing leakage ...”*

He also said that there is a crucial need to improve the quality of human resources through better education. He also emphasized that hotel association need to improve the Human Resource Development (HRD) division at each hotel by working together to enhance quality of human resources. Moreover, hoteliers and

government need to work together to create and improve the quality of tourism products, especially food and beverage. This requires such improvement the quality of agricultural products and livestock, as well as increasing the supply of local wines and liquors. There is also a need to create substitute products for imported products in order to fulfill tourist's demand. He firmly said that government should support farmers to produce agricultural products that meet the tourists' need (Personal Communication, 30<sup>th</sup> April 2013).

Government should play an important role in minimizing tourism leakage. However, Head of Bali Government Tourism Office, Ida Bagus Kade Subhiksu, said that there is no regulation regarding import restrictions of goods, such as food, beverages, furniture and other items. Government of Bali Province has only appealed to hoteliers to optimize the use of local products such as fruits and vegetables. Problem has emerged, that the availability of tropical fruits cannot fulfill the demand due to seasonal in nature. He said that:

*“ ...We lose the opportunity to supply foods and beverages to tourists due to inappropriate quality of the local products. Efforts have been done, however, many things need to be addressed ...”.*

Demand for local fruits has increased not only to fulfill demand for tourists, but also for making offering by Balinese community. In other hand, there was insufficient supply to fulfill the demand. So that, imported fruits cannot be avoided. He realized that to minimize leakage, cooperation between government, industry and farmer is crucially needed (Personal Communication, 4<sup>th</sup> April 2013).

Several efforts have been undertaken by government of Bali province to protect and develop local products especially local fruits. Empowerment of local

products has been undertaken by Bali government through “Regulation of Bali Government No. 3/2012 regarding Empowerment, Protection and Development of Small-scale Industry”. Ketut Wija, one of Bali Government’s official said that this regulation requires involvement of tourism industry and other related industry to give chance for local products to be promoted to and served for tourists. It was realised that the quality of local products was lower than imported products. So that, some efforts have been undertaken to improve the quantity, quality and continuity of local products. He also revealed that local community should participate in developing fruit farms in Bali that can produce fruits similar to imported fruits (Bali Post, June 2013).

The tourism sector could also be enhanced through stronger linkages with regional handicraft producers and artisans. Building synergies with such producers could enable them to become significant suppliers of interior design elements, such as handicrafts, paintings, and other furniture. This will be able to reduce leakage significantly (Scheyvens and Russel, 2012 and Synman, 2012).

#### **6.7 Strategy of Minimization of Tourism Leakage at Accommodation Sector**

Strategy of minimization of tourism leakage at accommodation sector in Bali is developed based upon the results of Interpretative Structural Modeling (ISM) in Sub-Chapter 5.6. There are six groups of strategy is proposed according to six elements of minimization program for tourism leakage in accommodation sector that were used in this ISM, namely: (i) program goals, (ii) program needs, (iii) affected sectors, (iv) program constraints, (v) possible changes in the

program, and (vi) involvement of agencies in the policy. Each above element consisted of some sub-elements. Those sub-elements in every element were assessed by ISM. Based on the results of this ISM, several sub-elements were considered as sub-key elements for each element. These sub-key elements are elaborated further and written as strategy. The proposed strategies are as follow:

(1) Strategy related to program goals

- (i) To optimize the potential of local products.
- (ii) To develop agriculture, livestock, fisheries and handicraft industry.
- (iii) To empower community.
- (iv) To reduce the use of imported products for tourists.
- (v) To increase export of local products.

(2) Strategy related to program needs

- (vi) To improve government's role in every strategy related to minimize tourism leakage.

(3) Strategy related to affected sectors

- (vii) To involve community leaders in community empowerment.
- (viii) To empower community organization in developing agriculture, livestock, fisheries and handicraft industry.
- (ix) To urge government to develop and implement supporting policies in order to minimize leakage.

(4) Strategy related to program constraints

- (x) To establish International Trade Policy that gives priority to reduce import and to increase export of local products.
- (xi) To stabilize the foreign currencies fluctuation by Indonesian Government.

(5) Strategy related to possible changes

(xii) To establish policy on restriction of foreign investment on accommodation sector in Bali.

(xiii) To facilitate public-private partnership on investment in tourism.

(6) Strategy related to involvement of agencies

(xiv) To improve the role of the Ministry of Tourism and Creative Economy and the Ministry of Foreign Affairs in promoting Bali tourism worldwide and to encourage tourists to consume local products in priority.

Model for minimization of tourism leakage on accommodation sector can be seen in Figure 6.2.

As can be seen from the model for minimization of tourism leakage on accommodation sector, leakage can be reduced through optimizing the use of local products and reduction in using imported products and foreign employees. In terms of institutional, suggested effort will be demonstrated. The results of ISM analysis suggest that the role of provincial and local government, community organization, community leaders, and the central government such as The Ministry of Tourism and Creative Economy and Ministry of Foreign Affairs as well as are really important. Community leaders and community organization have crucial role in encouraging the development of agriculture and handicraft industries through empowerment of local community.



Indonesian Embassy at every country. This can minimize tourism promotion cost overcome by the government of Indonesia.

Considering the results of this study that foreign tourists significantly looked for local products, therefore the use of local products can be encouraged in accommodation sector through hotel managers who in charge in the operational of the accommodation. In this point, “push marketing strategy” is needed, which mean that optimizing to offer local foods in the hotel’s and restaurant’s menu is very important. According to Kotler and Lane (2006), push marketing strategy is a marketing strategy which focused on using advertising and promotion to persuade consumers to ask for the products. So that, as push marketing strategy focuses on offering of local products, then hotel managers must put more local menu made from fisheries products as Bali has abundant fresh fisheries products. In addition, the results shows that the highest percentage of source of leakage was imported beverages. This indicated that foreign tourists prefer imported beverages. In this point, “pull marketing strategy” is crucial to be implemented by offering substitute products. Kotler and Lane (2006) revealed that pull marketing is a promotion strategy that which was built up based on consumer demand. Regarding results of this study that foreign tourists looked for imported beverages, so that, availability of substitute products are really important. In fact, Bali has some beverage products which can be used as substitute products, particularly wines and alcoholic drinks such as Hatten Wines, Indigo Wine, and Balimoon which are locally produced in Bali. Other types of products need to be developed in order to fulfill tourists’ need.

International trade policy regarding protection of local products is crucial. Government needs to give subsidies to the local industries as well as to the farmer, cattlemen, fisheries and craftsmen to improve competitiveness and quality of local products. Subsidies are also needed in term of improvement of quality of local employees through a better education and training. This policy is supported by the last agreement of WTO (“Bali Package”) which allows all of WTO’s member to give subsidies (<http://www.dw.de/wto-bali-agreement-expected-to-boost-growth/a-17278088>). However, another agreement, such as reduction of import tax may lead to a new problem for developing countries, because this agreement gives a better chance to developed countries to export their products to developing countries such as Indonesia, even though this agreement also gives a similar chance to Indonesia to export the products to overseas. With the quality of some products are still below the standard of international products, there is a need to develop strategies regarding improving the quality of local products to be able to compete with imported products. It is also crucial to improve quality of local human resource in order to support a better local product quality. Central government of Indonesia also needs to stabilize foreign currency fluctuation. This can influence export performance and reduce imported products.

The results of this study also show that payment of foreign employees was one of main sources of tourism leakage. As one of the member of World Trade Organization (WTO) and the impact of globalization, Indonesia is obligated to open the opportunity for foreign employees to work in Indonesia. To anticipate the increasing number of foreign employees who intend to work in Indonesia, the

government of Indonesia should protect the local employees by having complete regulations in managing foreign employees in Indonesia. The use of foreign employees needs to be undertaken selectively through strict mechanism and procedures, and by giving the priority for local employees. It is regulated based on the regulation of Ministry of Labour Force, No. PER.02/MEN/III/2008 regarding procedure for using foreign workers, and Presidential Decree No. 75/1995 regarding the use of foreign workers. Other regulation is the law of Republic of Indonesia No. 13/2003 regarding the labour force. It is clearly mentioned in the article 42 up to 49 in this law regarding the procedures of applying work, planning related to the use of foreign workers as well as the period of using foreign workers.

Other law regarding the use of foreign employees in Indonesia is the law of Republic of Indonesia No. 10/2009 in the article 56 regarding foreign employment. It says that “employers can hire foreign employees to work in Indonesia as long as fulfil the rules required by the government of Indonesia”. From this regulation, it is expected that the future workforce of Indonesia capable to adopt the skills of foreign employees in order to empower the Indonesian labour force optimally. This means that foreign employees should give training regularly to the local employees in order to improve skill and knowledge of local employees. So that, it gradually reduces the use of foreign employees in the operational of accommodation in Bali. This efforts can also minimize the tourism leakage.

Enormous challenges faced by the developing countries such as Indonesia since the implementation of free trade area in which each country compete freely in gaining success in the international market. Implementation of GATS (General Agreement on Trade and Services) in the world trade means that competition is explored in term of the quality of human resource. So that, it cannot be denied that improvement of human resource is crucial in order to improve competitiveness especially for country which is doing business in services, such as tourism.

#### **6.8 Marketing Strategy to Minimize Tourism Leakage in Bali**

As can be seen from the model of minimization of tourism leakage in Bali, leakage can be reduced by optimizing the use of local products and to reduce the use of imported products and foreign employees. It is supported by the results of statistical analysis of foreign tourists' preference in consuming local and imported products, is that foreign tourists significantly look for local products. However, in fact, the results also show that the local products are really weak in terms of availability, quality and continuity to fulfill the demand of foreign tourists. To overcome this gap, development of marketing mix is crucially needed as one of the most critical challenging task for the stakeholder in Bali tourism.

To develop marketing strategy to minimize tourism leakage in Bali, seven Ps of the marketing mix is accommodated which is the expansion of the marketing mix of products developed by Kotler (1991) which consists of 4 (four) Ps namely product, price, promotion and distribution. Three additional elements of Ps proposed by Reid, et al. (2010) was added which consists of people, process and

physical evidence as the marketing mix of service and hospitality (Reid, *et al.*, 2010), see Figure 6.3.

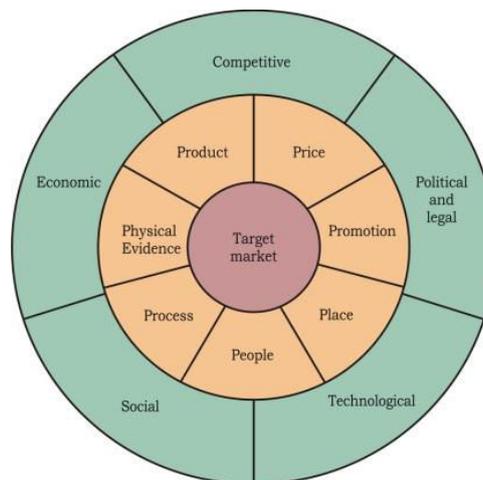


Figure 6.3. Seven Ps of Marketing Mix in Services and Hospitality ( Modified from Reid, *et al.*, 2010)

In the Figure 6.3, the first layer around the target market represents marketing mix which are the variables controlled by the managers to formulate strategies in a combined of marketing program. This program is the basis in which the firm's products and services compete with other firms in the competitive environment. The outside layer of the diagram represents external environments that influence the marketing process which are consist of economic condition, trend in society, competitive pressures, political and legal development as well as advanced in technology will affect the performance of a product or service. Firm must continually monitor the environments and make changes in their marketing program (Kotler, 1991 and Reid, *et al.*, 2010).

Regarding this research, the target of sustainable tourism in Bali is to minimize tourism leakage of Bali in order to increase economic benefit of tourism to the local Balinese. It is depicted in the centre of the diagram of 7 Ps in Figure 6.3. To achieve this target, 7 Ps of marketing mix on service and hospitality are generated namely product, price, place, promotion, people, process and physical evidence.

### **1. Product**

Product in tourism industry refers to unique combination of goods and services offered by tourism industries to consumers which includes both tangible and intangible elements of the services offering (Reid, et al., 2010). The tangible elements include the tourist attractions, accommodations, restaurants, transportation and shopping facilities. Meanwhile, the intangible element is the image of the destination. The visitors' perception of competing destinations is based on the number and quality of tangible attributes. The complexity of destination marketing is that tourists usually select among destination based on the total set of destination attributes. Therefore, the increasingly competitive marketplace can create economies of scale for the destination. It is necessary to determine the importance of these attributes when positioning the destination using product development and marketing communications approach as a part of marketing mix of services and hospitality.

### **Tourism Products Development to Minimize Tourism Leakage in Bali**

According to Wiranatha (Personal Communication, 22<sup>th</sup> March 2015), tourism involves four types of activities, namely:

- a. Something **to see** (scenery, culture performances, heritage sites, etc.)
- b. Something **to do** (tourists activities). A wide range of different activities for tourists is being offered, such as an observation of wildlife, fauna and flora at national parks, trekking, rafting, cycling, enjoy white sand at the beaches, jet ski, surfing, diving, and snorkeling. Ecotourism trips could also be possible which are mainly based on nature experience. Religious/spiritual, spa & wellness are other attractive activities as Bali has been known as inspiring island which serves natural healing, reduce stress and emotional cooling down. Night life could also be gorgeous activities for young people. However, challenges have been faced regarding the social impact for the local Balinese. Night life is identical with consumption of alcoholic beverages. In fact, the results show that alcoholic beverages were the highest source of tourism leakage in Bali. Create, develop and increase varieties of local beverages are urgently needed as substitute products to replace the imported beverages.
- c. Something **to buy** (to buy local foods, local fruits and vegetables, local beverages as well as authentic Balinese handicrafts). Doing shopping is also favourite activity for many target markets. Increasing varieties of local culinary and handicrafts is really important. To create and develop varieties of the local culinary and handicrafts will support and strengthen the local economy.
- d. Something **to learn** (workshops or courses about Bali). Balinese can set up a whole range of workshops or courses that could be offered to prospective tourists, such as: Balinese and Indonesia language, Balinese cooking, Balinese Hinduism, making of offerings, making of monster's doll (*ogoh-ogoh*), jewelry

making (silversmithing and goldsmithing), traditional irrigation system (*Subak*), painting, Balinese dance, wood carving, basket weaving, shadow puppet making, weaving (*tenun ikat*), batik printing and gamelan playing. Creating and developing varieties of courses about Bali for foreign tourists will support and strengthen the local economies.

Destination product development to minimize tourism leakage in Bali could be focused in the above activities through offering foreign tourist to: (1) to stay in accommodations (hotels, homestays or villas) owned by Balinese; (2) to eat in restaurants owned by Balinese by choosing the authentic local foods that are using local meat, seafood and vegetables, exotic local fruits and beverages; and (3) to buy products that are produced by the Balinese. By promoting vacation on the real Balinese atmosphere such as stay in accommodations owned by the Balinese supported by the authenticity of local Balinese foods, fruits and beverages, these will strengthen the local economy, so the benefit of tourism development can be more beneficial to the local Balinese.

Other destination products development are: (1) to educate tourists who visit Bali in order to reduce complain regarding the availability of the local products, services and hospitality offered by tourism industry in Bali; (2) to educate local Balinese community to improve their ability and capability to give better service and hospitality to support the tourism industry; and (3) Quality improvement in all aspects supported by government and tourism industry of Bali regarding availability, quantity and quality of local products in order to give better services and hospitality to the tourists who visit Bali.

### **Branding Strategy for Tourism Products of Bali to Minimize Tourism Leakage**

In creating a new brand, Country of Origin and Geographical Origin are also important factors in affecting competitive market. These factors can be used as indicators of quality and respect the country and geographical image, and they have been identified as the important cue that might be used by global marketers to influence consumers' evaluation of the brand which affects on consumer' perceptions and purchase intention. Country of Origin (COO), which refers to the country that manufactures, designs or assembles the product or brand, meanwhile Geographical Origin (GO) expresses overall perception of consumers about the product from a particular consumer group, industry representative, or island representative (Lee, *et. al.*, 2009). The consumer groups, industry representatives, and trade representatives have increasingly considered the potential role of Geographical Origin labels as consumer information and marketing tools.

Regarding creating new brand to minimize tourism leakage of Bali, the word of "**Bali**" is used based on the context of Geographical Origin due to Bali has already had a strong image in the global tourism market. Bali has been known as one of popular tourist destination in the world due to its unique cultural activity and beautiful natural scenery. Bali culture is unique and famous especially for its rich and vibrant arts. Hinduism as the main religion is the major influence behind its culture. Traditional ritual of Balinese can almost be seen daily, celebrating the cycle of birth, death and reborn. Annual art festivals support Bali as an attractive

destination to be visited. Music, drama, dance and costumes become a feast for the senses during temple festivities. Various forms of dance and music have made Bali's arts and culture scene one of the most diverse in the world (<http://www.symbiosis-travel.com/indonesia/music-dance/219/bali-art-and-culture/>)

In addition, the image of Bali as a small island surrounded by beaches has been positioned as having three “S” of destination, namely: “Sun, Sea and Sand” which strengthen its image based on the market segment by age group. Bali is really famous as having some of the best beaches and sea for doing surfing and diving activities by young people. With the varieties of distinct elements of Bali will support generating the brand image of Bali. The goal of destination branding is to capture the distinct elements of the destination and communicating them through its components such as identity, personality and image. This could be undertaken through combining all of the attributes associated to form an identity that is unique and differentiate the destination from the competition.

Based on the types of activities undertaken by tourist namely: something **to see**, something **to do**, something **to buy** and something **to learn**, destination branding strategy of Bali to minimize tourism leakage can be generated as “**BALITRULY**” which express: (1) to stay in accommodations owned by Balinese, (2) to eat in restaurants owned by Balinese, (3) to buy products that are produced by the Balinese, and (4) to pay a fair price. The word “**TRULY**” expresses the real activities that could be felt and undertaken by foreign tourists during their vacation time in Bali. This is an imagination of being involved in the

natural Balinese activities and situation which can be offered to visitors. Benefits from tourism in Bali can be used to maintain the Balinese culture and to preserve the environment. These will sustain Balinese culture and keep Bali as world famous tourist destination alive forever.

Considering the results that foreign tourists significantly looked for local products, therefore the use of local products need to be encouraged in accommodation sector through the responsibility of hotel managers who are in charge in the operational of accommodation. In this point, “push marketing strategy” is crucial to be implemented as push marketing strategy is a promotion strategy that focused on using the sales force and trade promotion to push the products to consumers (Kotler and Armstrong, 2004). This means that hotel managers need to optimize in offering and creating menu in hotels and restaurants based on authenticity of local products such as fisheries products as Bali has abundant fresh fisheries products due to geographically Bali is surrounded by the coast. In addition, local authentic fruits and vegetables are also potential local Balinese agricultural products which need to be offered and promoted to the foreign tourists. However, the results show that foreign tourists prefer imported meat, beverages and dairy products. In this point, “pull marketing strategy” is crucial to be implemented by offering substitute products as pull strategy is a promotion strategy which focused on build up consumer demand (Kotler and Armstrong, 2004; Kotler and Lane, 2006). The availability of substitute products to replace imported products is really important. In fact, Bali has some beverage products which can be used as substitute products, particularly wines and

alcoholic drinks which are locally produced in Bali. In fact, there has already been the use of country of origin in Balinese beverages such as “Bali Moon” which has been one of the famous alcoholic products consumed by foreign tourists during their visit in Bali. Another famous beverages product is “Hatten Wine”. Improvement quality and variety of local wines and alcoholic drinks are also crucial to be focused on. However, import of meet cannot be avoided as local meet doesn’t meet foreign tourists’ need.

In terms of products development, country of origin and labelling strategy are important factors affecting the competitive market, although there are many parameters considered by consumers when decide to buy the products, such as brand, colour, design, etc. As Ghazali, *et. al.* (2008); Lin & Chen (2006) and Roth & Diamantopoulos (2009) state that country of origin is closely linked to the country’s image which is created by variables such as representative products, national characteristics, traditions and overall perception of consumers form of the products based on their prior perceptions of the country’s production and marketing strengths and weaknesses. In addition, Akerlof (1990) supports the use of food labeling as a critical mechanism to help ensure consumers to correctly match with products, enable producers to adapt production of the products to meet consumer’s demands and expectations. Regarding this research, creating more country of origin of Balinese products and labels are crucial to be developed to strengthen Balinese products positioning on fresh fisheries and authenticity of fruits and vegetables products. Efforts and more integrated researches in marketing need to be focused in this topic. Variety of alternatives food labels of

Balinese agricultural and food products need to be developed. For fisheries products, alternative food labels could be as follows: (i) “Bali Bagus” which the meaning of “Bali with good quality of products”. This label would be possible for fashion design products, (ii) “Bali fresh from the sea” could be more interesting for fisheries products of Bali. Furthermore, labels could also be possible regarding the original production of products in a district or village in a region of Bali, such as “Lovina Fresh Grape” for Balinese original grape products and “Bedugul fresh farm” for the labels of vegetables, (iii), “Bali coconut” is another possibility as abundant coconut trees are available in Bali to strengthen the labels of Balinese products. In this terms label “Bali Coconut”, it is also possible to use this label not only for Balinese coconut but also for Bali as a destination as Bali typically famous with beautiful beaches covered by white sand. Coconut trees typically are planted at surrounding the beaches. As an example of the use of the label “coconut” can be seen in the advertisement on some of France’s television channel, such as BRTV, Gulli, etc. It can be seen that the label “coconut” used by one of the famous destinations in the world, namely „Tahiti” which used label “Tahiti Coconut” for labelling their coconut to promote coconut product and beaches destination of Tahiti. Another example is how France use the concept of country of origin approach for labelling and promote their destination, such as “vin de Bordeaux” which means “wine from Bordeaux” as a label of one of the original wine productions produced by one of the regions in France. So that, domestic and trade representatives have increasingly considered as the potential role of geographical origin labels as Loureiro and

McCluskey (2000) say that the quality trade representatives have increasingly considered the potential role of geographical origin labels as consumer information and marketing tools.

Lastly, there is also a crucial need to improve the quality of human resources through better education. Moreover, hoteliers and government need to work together to create and improve the quality of tourism products, especially food and beverage. This requires such improvement the quality of agricultural products and livestock, as well as increasing the supply of local wines and liquors. There is also a need to create substitute products for replacing imported products in order to fulfill tourist's demand. As Zheng (2011) says that leakage can be minimized by developing stronger links between tourism and other sectors in the local economy.

## **2. Price**

Price is a critical and important factor of marketing mix and plays an important role to influence demand in the competitive market. The role of price in tourism marketing is to reflect products as services which are the costs allocated to the responsible service and should be considered at short-term and long-term strategic including costs for environmental conservation and corporate social responsibility. As Gossling, *et al.* (2009) reveal that price offered to the customers should include the full costs of the product's or service's negative externalities.

Zamrozy (2007) suggests a shift in the tourism marketing paradigm away from economic profit priorities toward sustainability. The sustainability approach adopts a holistic, integrated view of marketing, considering social equity, environmental protection, and economic viability. The paradigm shift naturally occurs by tracing the evolution of marketing approaches from production, sales, and a consumer orientation toward marketing alternatives such as societal, green, responsible, and relationship marketing. Sustainable tourism marketing model integrates tourism into a larger holistic context and focuses on marketing a quality of life for all stakeholders in the system. He considers the triple bottom line as more sustainable objectives in tourism marketing and adopts an integrated view on tourism marketing, i.e. an extension of the production, selling, and consumer orientation, considering not only consumer satisfaction but also expanding it towards society's wellbeing.

Regarding this study, if the owners of the tourism accommodation such as hotels, homestays and villas are the local Balinese, then coordination to implement the concept of sustainable tourism is easier as they are part of the Balinese community who have a social responsibility and environmental concern in the implementation of tourism development in Bali. In addition, Balinese perspective on every development in Bali is based on the Balinese philosophy called "*Tri Hita Karana*" that is the point of view to keep harmonious and balanced relationship between human to the God (Almighty), human-to-human and human to environment. This concept has long been recognized and practiced among the Balinese as a local knowledge which has been adopted in

preserving and protecting the environment and maintaining harmonious relationship between community (Wiranatha and Dalem, 2005).

Pricing strategy in marketing mix of tourism industry is to put the premium price or setting up the price higher than similar products or services in order to represent exceptional quality and distinction service provided by tourism industry. The implication for marketing is that consumers are willing to pay more for certain goods and services as long as it could create a brand equity or value for which the consumer is willing to pay extra. Tourism marketers view luxury and comfortable vacation as the main factor differentiating a vacation brand in a product category as this can encourage favorable perceptions among visitors. Tourists who visit Bali should find what they are expected to have during their vacation in Bali, including environmentally friendly of destination supported by the hospitality of the Balinese community. Appropriate pricing strategy will support sustainable marketing mix principles which emphasizes in the long-term integration of environmental, social and economic management to reinforce resource-based corporate strategy in order to reduce risk and simultaneously to open up an innovative and productive activity. Corporate strategy and marketing should employ a combination of economic, political, social and ecological norms.

Regarding effort to minimize tourism leakage in Bali based on the price determination, it is suggested that determination of the premium price through putting higher price of foods and beverages in the price list of menus served by hotels and restaurants in Bali which use imported products. High difference of price between dishes using imported products and local products will influence

tourist's point of view and decision making process in choosing the type of dishes. So that, serve varieties of dishes based on the local products and served in the international taste help to reduce the tourism leakage. However, educate the local chefs is crucial by giving training in term of creating dishes by using local products and served in the international way is really important to improve competitive of the local products. The role of government is also really important by giving subsidies to the small scale of hotels and restaurants through better education and improve their employees' skill by undertaken training in order to improve local human resources.

### **3. Promotion**

Promotion in tourism industry is effort to inform, persuade, and communicate products or services to the consumers. The function of promotion is also as a marketing communications that represent the brand's voice and allow it to build relationships with customers and to communicate sustainability solutions provided by the company through its products and services and other stakeholders as a whole (Kotler & Keller, 2006; Belz and Peattie, 2009). All of the promotional mix is equally important including advertising, personal selling through words-of-mouth promotion, public relations and interactive promotion by using medias, such as online communications and social media.

Effective promotion related to the potential target market regarding Bali tourism has been undertaken by individual or companies by using varieties of promotional tools. Promotion is also a powerful tool to educate visitors related to the

strengths and weaknesses of tourism products of Bali in order to avoid complain regarding the quality of local products and services. A suitable communication strategy should support destination authorities to convey their message and promote environmentally friendly practices locally, development of local economic by empowerment of local knowledge, local community, local organization to keep maintaining local genius in order to reduce social impact of tourism and environmental damage in destination.

Advertising and promotion are part of marketing mix that need to be maintained as it can establish awareness and positive value in the minds of consumers, so that results in repeat buyers (revisit) as well as improve brand loyalty among consumers. Advertising must be planned, implemented and evaluated with care to increase sales, including: (i) to present information to the customer about new products, new service, new decoration and other items of interest; (ii) to reinforce consumer behaviour by communicating with individual who have patronized a particular hotel or restaurant in the past and expose these consumers to a continuous flow of advertising to do revisit by reinforcing their positive experience and rewarded with a pleasant experience; and (iii) advertising enhances the image of hospitality in tourism operations as words and phrases often contribute the image building in the mind of consumers (Reid, *et al.*, 2010).

Regarding this study, effort to promote the new created brand called “BALITRULY” as creating tourism product development of Bali to minimize tourism leakage can be undertaken by using all of the above promotional models, such as advertising, personal selling through words-of-mouth promotion, and

interactive promotion by using the medias such as online communication and other social medias. An example of the interactive promotion that was undertaken in Bali regarding the implementation of marketing strategy to minimize tourism leakage in Bali was undertaken in Gianyar Bali by the Government of Gianyar Regency of Bali Province on 12<sup>th</sup> April 2015 through a talk show about “Delicious Farm to Table” and was promoted through interactive promotion covered by TV Channel, Newspaper and other social medias. The purpose of this event was to promote Balinese culinary through empowerment of the local products. The theme was “Localicious Farm to Table” means that delicious of Balinese culinary by using local products. The speakers were the famous master of Chef of Indonesia, namely Hendry Alexie Bloem, Deddy Soekartin and Haryo Pramoe, Kelana and Nadja Azzura. In this event, there was a commitment of the Indonesia Chef Association (ICA) to use local meat in every cuisine cooked by the member of ICA. It was a great effort to minimize imported meat by optimize the use of local meat (Bali Post, 13<sup>th</sup> April 2015). This means that effort to minimize leakage has been undertaken. By promoting this event, we can see that the role of promotion as one of the marketing mix in tourism is really important to minimize tourism leakage in Bali.

#### **4. Place**

Place or marketing channels, is a wide range of independent organizations involved in the process of making a product or service available for used or consumed (Kotler & Keller, 2006). Place is also described as distribution channels and determine where is the service of product going to be located. The

choice of such channels is important as the variety of channels used. In the tourism industry, Reid, et al. (2010) reveal that place in tourism provide a guideline about different tourist spots. It also provide the appropriate tour time and distance from various spots, give ideas different travel routes, selecting attractions and support facilities along different travel routes, and informing potential tourists about alternative travel routes.

Tourism industries add value along the value chain from origin to destination and include the firms and organizations that make the tourism industry as a part of tourism system, such as destination marketing organizations, retail travel agencies, tour wholesalers, transportation providers, accommodation providers and attractions. Encouraging alternative model of transportation to access or move within a destination might reduce tourists' overall ecological negative impact. Lower-impact forms of transport, such as walking, cycling and local public transport, might also help to sustain local communities and their economies. Lower-impact transportation to a resort destination could be an important consideration (Reid, *et al.*, 2010).

Regarding this study, availability of local transportation owned by the local Balinese has emerged, such as local taxis which are owned and managed by the association of local people, such as in some destinations, namely Nusa Dua Taxi and Canggu Taxi, etc. Traditional boats and rowboats which are owned and managed by local Balinese have been found at the destination of Lake Batur. Visitors who want to go to Trunyan must use water transportation (boats or rowboats) across the Batur lake to get the destination. Moreover, visitors who

want to go to Lembongan, Penida and Ceningan islands also need boats to get the destinations. These type of transportations are really good business to the local people in these destinations. It shows that effort to empowerment of local community has been undertaken which means that the economic impact of tourism development can be more beneficial for local economy.

Regarding reduce-impact of tourism to the environment such as carbon emission, there is a program created in destination called Gili Trawangan, at Lombok island. There is no motorizing vehicle in this spot destination as the local transportation. This destination used local transportation called „andong”, traditional chariot drawn by horses. Bali should adopt this type of transportation system to minimize negative impact of tourism on the environment and it will be more economic benefits for the local economy.

## **5. People**

People/participants include all of human actors who involve in the delivery of products or service which can influence the visitor perceptions. The role of human resource management is really important in managing service performance outcomes which has the main purpose to satisfy consumers as different consumers have varieties of needs and wants (Langeard, *et al.*, 1981).

As can be seen from the model for minimization of tourism leakage, that stakeholders play an important role in reducing tourism leakage in Bali. The stakeholders are the provincial and local government, community organization, community leaders, and local community. Community leaders and community organization have crucial role in encouraging the development of agriculture and

handicraft industries through empowerment of local community. According to Aref et al. (2010), community refers to a group of individuals who live or work within the same geographic area which have the same culture or common interests. The involvement of local communities in tourism development cannot be overlooked due to their crucial roles in bridging up the gap between government and the use of resources in a tourist destination. The local community can create an effective environmental utilization based on indigenous, local knowledge, economic and social empowerment to protect cultural heritage and nature-based experiences and undertake cross-culture appreciation to visitor (Jamal and Stronza, 2009). Local community is usually willing to participate in tourism development and regarded as legitimate stakeholders in tourism development because their interests affect the decision process of policy makers. Based on one of the philosophy of Balinese that to keep harmonious and balanced relationship between community, there is no doubt to implement the involvement of local Balinese in marketing process in order to minimize tourism leakage in Bali by promoting local product to the customers.

## **6. Process**

Process describes how the service is assembled and delivered to visitor. In the tourism context, process might describe such activities as follows: a move away from paper-based to digital booking and account management systems; production of alternative energy forms, such as solar or wind; management of the supply chain for food and beverages, and labour; the use of low-carbon emission transportation modes, such as hybrid or electric-engine vehicles, for moving

visitors to or within a destination; and having effective use-minimization and recycling systems in place, particularly in environmentally sensitive locations such as islands, national parks and protected areas (Zeithaml et al., 2006). Key-activated lighting systems for accommodation and sensor-activated public-area lighting systems can force energy reduction processes, while signs to encourage consumers to reduce their environmental footprint by reusing bathroom linen or minimizing water usage apply a social marketing approach that encourages behaviour change for a positive societal benefit (Bohdanowicz, *et al.*, 2011).

To achieve sustainable tourism development, local communities need to participate in decision making process. They can take part in identifying and promoting tourist resources and attractions that form the basis of community tourism development. In fact, however, there has been lack of community participation in tourism planning and development especially from the grassroots on how communities would like to participate in tourism development. As Mayers (2005) says that stakeholder is divided into two categories: the first category is the stakeholder who affect decisions and the second category is the stakeholder who are affected by decisions. The degree of involvement of local communities in various decision making and policy issues is determined by the extent to which they affect or are affected by these decisions and policies. Stakeholder need to be involved in the planning process as well as in the implementation of policies and action plans. This ensures that development meet the perceived needs of the local community. This argument supported by Niezgodna and Czernek (2008) who say that if the local communities do not

involve in decision making process of tourism development in a region, it will be impossible for the local communities to be involved during implementation. Consideration of the origin of the tangible inputs that make up the tourism experience for the consumer can go a long way to foster ecological, sociocultural and long-term economic sustainability. Collaboration between tourism industry and local community are really important. Local community can take responsibility as suppliers in delivering foods, beverages and other merchandise, such as souvenirs. It will not only reduce transportation costs and negative externalities but also build collaborative social capital and economic capacity with suppliers in the local community. Supplying local produce and merchandise might also enhance the authenticity of the tourist's experience, adding value and satisfaction. In addition, visitors can learn how the tourism product is produced and delivered to the customers. Feedbacks from customers are really important for the quality improvement.

## **7. Physical Evidence**

Physical evidence means the situation in which the service is delivered in the nice and warm interaction between the firm and customers that facilitate performance or communication of the service (Bright, 2000). Physical evidence in the tourism industry is important at both the individual firm level and at the broader destination level (Zeithaml et al., 2006). Managing destination become more important to satisfy tourist without damaging the environment. The implementation of tourism system model which emphasize on the interaction and interdependency among its parts proposed by Mill and Morison (2009) is one of

the solutions, which is based on the interaction between destination planning, developing and controlling of tourism, interaction from demand side which is focused on the factors influencing the market as well as from the marketing side such as strategy, planning, promotion and distribution. At the destination, there is also a mix interdependent elements which need attention in order to produce a satisfaction vacation experience, which is composed by attractions, facilities, infrastructure, transportation and hospitality (Mill and Morison, 2009). So that, sustainability of local resources becomes one of the most important elements of destination image as destination choice is influenced by an individual's perception of alternative possibilities.

Regarding minimizing tourism leakage in Bali, type of tourism products which give more benefit to the local Balinese community are really important to be offered to the tourist such as cultural tourism, rural-based tourism, agrotourism, mountain tourism and marine tourism. For example, offering tourist activities such as attractive experience and learning about art and culture of Bali in the area of Ubud which will give them unforgettable memories. This place is really famous as the centre of art and culture of Bali such as Balinese dance, painting and wood carving. Tourist can also enjoy nice view and scenery based on typically traditional Balinese life as well as enjoy exotic traditional food in many traditional restaurants. In addition, rural-based tourism can also be seen in the "Penglipuran" which is a place of traditional Balinese life in a typically Balinese traditional village.

Moreover, agrotourism has been found in the area of Bangli which has the tourism product namely "Agrotourism of Balinese Coffee Plantation and Processing". Other destinations called Munduk and Sidemen which are really famous destination to be visited. Tourist can stay with the Balinese family at their homestay and enjoy rural life of Balinese daily life in a wonderful view of mount Agung and marvelous rice field plantation. Bali is also really famous with the white sand of beaches for sun bathing, coral reefs for diving and snorkeling, big waves for surfing, etc. Other attractive destinations in Bali are small islands namely Lembongan, Ceningan and Nusa Penida which have typically marine tourism activities and the plantation of seaweededs.

Destination cannot easily change their physical attributes like the landscape or climate, so they must build their images around unique attributes that provide them sustainable competitive advantage. The destination including its attraction should be designed to meet the needs of the target market. Therefore, the diagnosis of the destination's strengths and weaknesses is helpful in designing the tourism offerings and marketing programs as destination image refers to an impression a person holds about a destination. Therefore, it is important for a destination to increase visitation to promote a coherent image (Langeard, et.al., 1981). Images can be formed through advertising and promotion, news accounts, discussions with friends or relatives, travel agents, and past experiences.

Destination management related to improvement of service and hospitality are really important through improvement of human resource by giving training to their employees, educate consumers, and manage consumer expectations.

Service firms can add „value“ to the product through their employees, who are part of the service experience. Also, consumers are more likely to be satisfied if they have reasonable expectations, i.e., if the firm can meet, or exceed, their expectations (Reid, et al. 2010). Physical evidence can be easily associated with the product by the customer. As the tourism product is highly intangible, the place, the decor, the people, and everything else in the tourism office may be related to the experience. For example, restaurants decorate their dining rooms in an attempt to promote a „theme“ and they use this theme in their marketing materials, such as romantic restaurant for the target market are teenager by creating themes based on the physical surroundings. This includes the atmosphere of the service operation and any tangible evidence used to market the product. When tourists visit a historic place for the first time, they carry home not only the memories of beautiful structure, but they also remember all other factors like transport facilities available, the surrounding markets, the people's behavior, etc. as one whole experience.

Finally can be said that in the process of delivering products and services to the consumers and participation of people/participants are really important to support the marketing mix in order to minimize tourism leakage of Bali tourism. The marketing mix includes participation of people in developing tourism products, supported by reasonable price, appropriate promotion tools, availability of local transportations in the spots destination which have lower impact on the environment and physical evidence of the products and service offered to the appropriate target market. The final purpose is to achieve sustainable tourism

through ensure the quality, continuity and balance between the needs of tourism, protection of the environment and prosperity for the local community, which means that the economic benefit of tourism should not only for the companies concerned but also for the local communities as the host.

## **6.9 Novelty**

The holistic and integrated analysis of tourism leakage from the accommodation in this dissertation is something new, which has never been found in any similar research so far. Moreover, this dissertation also makes use of Interpretative Structural Modeling (ISM), which has never been found in tourism research by other researchers.

## **6.10 Conclusion**

This chapter discusses the calculation of tourism leakage from the accommodation sector in Bali at micro (industrial) level and macro (regional) level. This chapter also discusses the causes of leakage and the ways in which simulated scenarios of government subsidies and reduction in imports by the accommodation sector would impact on leakage, job opportunity and income distribution. The average leakage estimated by micro analysis was 18.8%, while that based on macro analysis was 19.5%. An analysis of foreign tourists' perceptions of and preference for imported and local products was also discussed in some depth. The results show that their perceptions of both local and imported products were positive, with local items scoring slightly higher (5.59) than imported ones (5.24) on average. It was also found from statistical analysis that

foreign tourists were interested in the local products available in Bali. It was also found that hotel managers would be willing to use local products as long as the quality, quantity and continuity of local products met the quality standard required by hotels.

A strategy for minimizing tourism leakage was developed based upon the results of Interpretative Structural Modeling (ISM). The proposed strategy included: (i) to reduce the use of imported products for tourists; (ii) to optimize the potential of local products; (iii) to develop agriculture, livestock, fisheries and handicraft industry; (iv) to empower the community in developing agriculture, livestock, fisheries and handicraft industry; (v) to establish policies on restricting the development of new accommodation in Bali; and (vi) to improve the roles of provincial and local government.

This holistic and integrated analysis of tourism leakage from the accommodation sector in this dissertation is something new, which has never been found in any similar research so far. Moreover, this dissertation also makes use of Interpretative Structural Modeling (ISM). The implementation of ISM has not been found in previous tourism research. Efforts to minimize tourism leakage was also demonstrated based on the 7 Ps of marketing mix of service and hospitality approach namely product, price, place, promotion, people, process and physical evidence in order to support sustainable tourism in Bali.

## **PART III**

### **CONCLUSION AND SUGGESTION**

## CHAPTER VII

### CONCLUSION AND SUGGESTIONS

#### 7.1 Conclusion

Based on the results of this study, it can be concluded that:

1. Based on micro analysis, the figures for tourism leakage from the accommodation sector in Bali in year 2012 were as follow:
  - (i) Leakage from Non-star rated hotels was 8.8%,
  - (ii) Leakage from 1,2&3 Star-rated hotels was 12.0%,
  - (iii) Leakage from 4&5 Star-rated non-chain hotels was 22.7%,
  - (iv) Leakage from 4&5 Star-rated chain hotels was 51.0%, and
  - (v) Average leakage from all types of hotels was 18.8%.
2. Based on macro analysis, the figures for tourism leakage from the accommodation sector in Bali in year 2012 were as follow:
  - (i) Leakage from Non-star rated hotels was 2.0%,
  - (ii) Leakage from 1,2&3 Star-rated hotels was 15.7%,
  - (iii) Leakage from 4&5 Star-rated non-chain hotels was 7.1%,
  - (iv) Leakage from 4&5 Star-rated chain hotels was 55.3%, and
  - (v) Average leakage from all types of hotels was 19.5%.
3. Both of the analysis either macro or micro analysis in calculating tourism leakage in Bali are really important. Micro analysis supports the macro analysis basically on gaining data from all type of hotels. However, the result from the macro analysis give more accurate results because this analysis

demonstrates transactions between sectors in detail, including transactions between factors of production, production sectors, institutions, commodities, capital account, as well as transactions between domestic and foreign activities including imported of capital goods, raw materials as well as the use of foreign employments. Meanwhile, the micro analysis, is the calculation of tourism leakage which was only undertaken within the tourism industry of Bali especially on the accommodation.

4. The highest percentage of tourism leakage was found in 4&5 Star-rated chain hotels, i.e. 51.0% (micro analysis) and 55.3% (macro analysis). Regarding the macro analysis that was based on the total population of the accommodation sector in Bali, it can be concluded that the highest percentage of tourism leakage was 55.3% in 4&5 Star-rated chain hotels.
5. Central, provincial and local government play an important role in minimizing tourism leakage, increasing job opportunity and increasing income distribution through policies on giving subsidies. The involvement of the accommodation sector was also found to be crucial through minimizing its use of imported products and services, and foreign employees. The optimum result was found through a simulation using a scenario (simulation-5) in which the government gives subsidies of 40% to Non-star rated hotels and 18.5% to 1,2&3 Star-rated hotels. At the same time, the accommodation sector also reduces imports by 25% for 1,2&3 Star-rated hotels and by 30% for 4&5 Star-rated chain hotels. This simulation-5 resulted in: (i) Decreasing the average leakage by 12.0 % (from 19.5 % to 7.5 %); (ii) Increasing job

opportunity by 14.8%; and (iii) Increasing the income of low class households in urban areas by 0.26%.

6. The average score for foreign tourists' perceived quality of products was higher for local than for imported products; the average score for local products was 5.59 on a 7-point scale and that for imported products was 5.24. Most of the foreign tourists (76.8%) preferred local products. Regarding the relationship between foreign tourists' preferences and their perceptions on the quality of local products, the statistical results show perfect positive relationships between the tourists' preferences and the perceived quality of local products. These findings demonstrate that foreign tourists have a positive attitude towards local products that are available in Bali. However, contradictory results were found regarding foreign tourists' perception of and preference for meat. Even though they expressed a preference for local meat, the results show that on average their perception of local meat was that it was inferior to imported meat.
7. Most of tourists who visit Bali are willing to spend their money to the local people and to be a part of the system of Bali tourism in term of maintaining sustainable tourism in Bali. They are also willing to spend their money and would love to stay in the village and prefer authenticity of the local products. The other concern of foreign tourists are staying in the locally decorated Balinese style and are willing to give more money to be used as the assurance of environmental protection to minimize negative impacts of tourism development in Bali as long as the mechanism of being involved is

well organized. They would also love to live with the harmonious interaction with local Balinese people and willing to maintain cultural heritage of Bali as one of the famous attractive destination in the world. Their opinion, expectation and expression of satisfaction of the whole trip to Bali show that they found what they expected during their visit to Bali and there is no doubt for them to be responsible for the long term development of tourism in Bali.

8. Differences were found between the points of view expressed by foreign tourists and hotel managers regarding local products. Hotel managers thought that foreign tourists generally preferred imported products. Meanwhile statistical results indicated that foreign tourists actually had a more positive attitude towards local products. There is therefore a need to encourage hotel managers to change their perceptions and attitudes towards local and imported products. As a result, fewer imported products will be consumed by foreign tourists, and tourism leakage will also decrease.

Moreover, the results show that most of the hotel managers surveyed are willing to reduce the use of imported products and give priority to local products as long as the quality and continuity of local products can be guaranteed.

7. Strategy to minimize tourism leakage from the accommodation sector in Bali is developed based upon the results of Interpretative Structural Modeling (ISM). Six groups of strategy were proposed according to the six elements of the program. Each strategy is composed from the key elements resulting from the ISM. Some of the important strategies are: (i) to optimize the potential of

local products; (ii) to develop agriculture, livestock, fisheries and handicraft industry; (iii) to empower the community; (iv) to reduce the use of imported products for tourists; (v) to urge government to develop and implement supporting policies in order to minimize leakage; (vi) to establish International Trade Policy that reduces import and increases export of local products; (vii) to facilitate public-private partnership on investment in tourism; (viii) to establish policy on restricting the development of new accommodations in Bali; and (ix) to improve the role of the Central Government of Indonesia through the Ministry of Tourism and Creative Economics, and the Ministry of Foreign Affairs, and through encouraging a better quality of foreign tourists to visit Bali by improving the role of the Economic Attache of the Indonesian Embassy in every country in order to minimize tourism promotion costs.

8. Marketing strategy to minimize tourism leakage in Bali can be undertaken based on the 7 Ps of marketing mix on service and hospitality approach namely product, price, place, promotion, people, process and physical evidence in order to support sustainable tourism in Bali. Process of delivering products and services to the consumers and participation of people/participants are really important in order to minimize tourism leakage of Bali tourism, including participation of people in developing tourism products, supported by reasonable price, appropriate promotion tools, availability of local transportations in the spots destination which have lower impact on the environment and physical evidence of the products and service

offered to the appropriate target market. The final purpose is to achieve sustainable tourism through ensure the quality, continuity and balance between the needs of tourism, protection of the environment and prosperity for the local community, which means that the economic benefit of tourism should not only for the companies concerned but also for the local communities as the host.

## **7.2 Suggestions for Future Research**

1. The results of this study show that even though most of the foreign tourists preferred local meat, nevertheless their perception was that local meat was inferior to imported meat. This inconsistency was possibly due to the use of the general word “meat” in the questionnaire. Future research should therefore use a more detailed classification of “meat”, such as beef, chicken, pork, lamb, duck or other meat.
2. Regarding research on preferences for local and imported foods and beverages, more valid results will be gained if respondents (tourists) are given samples of local and imported food or beverage to be tasted. However, this type of research will lead to a higher cost and be more time consuming.
3. In further research, the 1,2&3 star-rated hotels need to be classified into chain hotels and non-chain hotels in order to obtain a more valid calculation of tourism leakage.
4. The calculation of tourism leakage was only undertaken based on registered accommodations that were listed by the Bali Government Tourism Office.

Unregistered accommodations were not included in this study. Therefore, further research needs to be undertaken to involve all types of accommodations including unregistered accommodations.

5. Further research on developing a program and action plan to minimize tourism leakage in the accommodation sector could be undertaken in order to implement the strategy that was developed in this study.
6. Further research on marketing also need to be undertaken to strengthen and improve competitiveness of the local products as well as substitute products.

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## Appendix 2.1 The Basic Social Accounting Matrix

		Expenditures							Totals				
		1	2a	2b	3	4	5	6					
		Factors of production	Institutions				Combined capital account	Production activities		Rest of the world combined account			
			Current accounts										
		Households	Companies	Government									
Receipts	1	Factors of production							Value added payments to factors	Net factor income received from abroad	Incomes of the domestic factors of production		
	2a	Institutions	Current accounts	Households	Allocation of labour income to household	Current transfers between households	Profits distributed to domestic households	Current transfers to domestic households			Net non-factor incomes received from abroad	Incomes of the domestic institutions after transfers	
	2b			Companies	Allocation of operating surplus to companies			Current transfers to domestic companies					
	3			Government		Direct taxes on income and indirect taxes on current expenditures	Direct taxes on companies plus operating surplus of state enterprises			Indirect taxes on capital goods	Indirect taxes on inputs		Net non-factor incomes received plus indirect taxes on exportd
	4			Combined capital account		Household savings	Undistributed profits after tax	Gov't current account surplus					Net capital rec'd from abroad
	5	Production activities			Household consumption expend. on dom. goods			Government current expenditure	Investment expenditures on domestic goods	Raw material purchases of domestic goods	Exports	Aggregate demand — gross outputs	
	6	Rest of the world combined account			Household consumption expend. on imp. goods				Imports of capital goods	Imports of raw materials		Imports	
Totals				Incomes of the domestic factors of production	Total outlay of households	Total outlay of companies	Total outlay of government	Aggregate Investment	Total costs	Total foreign exchange receipts			

Source : Thorbecke (2000)

**Appendix 2.2. Social Accounting Matrix (Matrix\_11x11) of Bali 2010**

		I. Factors of Production		II. Institution			III.	IV.	V.	VI.	VII.	VIII.	TOTAL
		Labour	Non Labour	Household	Companies	Government	Production Sectors	Trade & Transportation Margin	Commodities	Capital Account	Indirect Tax	Rest of The World	
		1	2	3	4	5	6	7	8	9	10	11	
I. Factors of Production	Labour	1					32.691.942,42					364.334,44	33.056.276,86
	Non Labour	2					30.313.314,86					1.046.125,93	31.359.440,79
II. Institution	Household	3	32.301.120,21	8.654.421,46	2.055.831,00	4.089.285,00	6.425.089,06					998.000,00	54.523.746,73
	Companies	4		20.547.331,00	243.656,00	1.057.800,00	21.435,00					1.190.361,81	23.060.583,81
	Government	5			1.087.131,93	9.507.446,26	1.825.690,03				1.561.747,57	2.145.116,00	16.127.131,79
III. Production Sectors		6							121.733.343,98				121.733.343,98
IV. Trade & Transportation Margin		7							15.704.829,15				15.704.829,15
V. Commodities		8			41.415.711,66		4.834.654,49	58.728.086,70	15.704.829,15		16.871.846,66	63.784.243,42	201.339.372,08
VI. Capital Account		9			9.661.738,14	5.559.327,55	2.530.520,21						17.751.585,91
VII. Indirect Tax		10							1.561.747,57				1.561.747,57
VIII. Rest of The World		11	755.156,64	2.157.688,33	59.678,00	2.846.725,00	489.743,00		62.339.451,38	879.739,25			69.528.181,60
TOTAL			33.056.276,86	31.359.440,79	54.523.746,73	23.060.583,81	16.127.131,79	121.733.343,98	15.704.829,15	201.339.372,08	17.751.585,91	1.561.747,57	69.528.181,60

### Account of SAM of Bali Province (63 accounts)

Account			Code	
Factors of Production	Labour	Agriculture	Receivers of wages/salaries	1
			Non Receivers of wages/salaries	2
		Production, transportation official and lower class of labour	Receivers of wages/salaries	3
			Non Receivers of wages/salaries	4
		Administration official, and other services official	Receivers of wages/salaries	5
			Non Receivers of wages/salaries	6
		Leadership and military professional and other officials	Receivers of wages/salaries	7
			Non Receivers of wages/salaries	8
	Non Labour		9	
Institution	Household	Agriculture	Labour in rural area	10
			Businessman who have land in rural areas	11
			Labour in urban area	12
			Businessman who have land in urban area	13
		Non Agriculture	Lower class in rural area	14
			Other Labour in urban area	15
			Middle class in rural area	16
			Lower class in rural urban area	17
			Labour in urban area	18
		Upper clas in urban area	19	
		Companies		20
		Government		21
	Production Sectors	Holticulture		22
		Crops and other agricultural		23
		Livestock		24
		Forestry		25
		Fisheries		26
		Mining		27
		Food processing industries		28
Wooden and hancdicratft industries		29		
Chothing and related industries		30		
Other industries		31		
Electricity, gas and water		32		
Construction		33		
Trade, transportation and communication		34		
Restaurant		35		
Accommodation		36		
Transportation		37		
Bank and insurance		38		
Real Estate & services industries		39		
Government, military and other services		40		
Trade and transportation margin			41	

Commodities	Horticulture	42
	Crops and other agricultural	43
	Livestock	44
	Forestry	45
	Fisheries	46
	Mining	47
	Food processing industries	48
	Wooden and handicraft industries	49
	Clothing industry	50
	Other industries	51
	Electricity, gas and water	52
	Construction	53
	Trade, transportation and communication	54
	Restaurant	55
	Accommodation	56
	Transportation	57
	Bank and insurance	58
	Real Estate & services industries	59
	Government, military and other services	60
	Capital account	61
Indirect tax	62	
Rest of the World	63	

### Appendix 3.1. Research Locations



**Appendix 4.1. Questionnaire Related to Imported Products used in the  
Hotels and Point of Views of Hotel Managers**

**QUESTIONNAIRE  
CALCULATION OF LEAKAGE IN BALI TOURISM 2011  
(HOTEL LEAKAGE)**

1) Identification of the interviewer

- a) Name of interviewer (Interviewer): .....
- b) Date / Day Interview: .....
- c) Signature of Interviewer: .....

2) Identification of the respondent

- a) Hotel Name: .....
- b) Hotel Classification (choose: 1, 2, 3, 4, 5 star)
- c) Type of hotel (choose → chain hotel, non chain)
- d) Owner's name:
- i) Personal: ..... Nationality : .....
- ii) Limited Company: ..... Origin : .....
- iii) Consortium: .....
- iv) Management: ..... Origin : .....
- e) Number of rooms : ..... rooms
- f) Number of employees: ..... person
- i) Indonesia: ..... persons
- ii) Foreign: ..... persons
- g) The average room occupancy rate in the past year: ..... %
- h) The number of room occupancy in the past year : ..... room  
nights
- i) The number of guests in the Lat year : ..... guest nights
- j) The average room rent per day: ..... \$ U.S.
- k) The average length of guest stay: ..... day

## 3) Type and Large imports (purchases from abroad)

No	Type of import product	Amount	Unit	Price per unit	Value (US \$)	Preferences (reason, choosing imported products)
1	Food Import					
	a) Meat:					
	• Beef					
	• Lamb					
	• Chicken					
	• Pork					
	• Others .....					
	b) Fisheries Imports					
	• Fish (fish)					
	• Shrimp (prawn)					
	• Lobster					
	• The cuttlefish (squid)					
	• Octopus (octopus)					
	• Others .....					
	c) Import of processed foods					
	• Cheese (cheese)					
	• Macaroni					
	• Olive oil					
	• Butter					
	• Sauce					
	• Mayonnaise					
	• Spaghetti					
	• Pasta					
	• Jam					
	• Tomato paste					
	• Salad oil					
	• Mozzarella					
	• Sundried tomato					
	• Salami					
	• Tabasco					
	• Origano					
	• Asparagus					
	• frozen Spinach					
	• Fettucini					
	• Sunflower seeds					
	• Tempura					
	• Ice cream					
	• Samosa Curry					
	• Others: .....					

No	Product Type Import	Amount	Unit	Price per unit	Value (US \$)	Preferences (Reason, choosing imported products)
2	Imported Drinks (Beverages):					
	a) Beverage Import (Dairy Products):					
	• Fresh milk					
	• Youghurt					
	• Juice					
	• Other: .....					
	b) Imported Alcoholic Drinks:					
	• Wine					
	• Beer					
	• Alcoholic drinks (liquors)					
	• Other: .....					
	c) Imported Drinks Other:					
3	Imported Fruit and Vegetables					
	a) Imported Fruits:					
	• Fruit .....					
	• Fruit .....					
	• Fruit .....					
	b) Imported Vegetables:					
	• Vegetable .....					
	• Vegetable .....					
	• Vegetables.....					
4	Imported Tools Kitchen (Utensils):					
	Household Utensils					
	• Stove					
	• Pan					
	• Frying pan					
	• Mixer					
	• Blender					
	• Cooker					
	• Microwave					
	• Oven					
	• Other: .....					
	b) Imported China and Silver wear					
	• Plates					
	• Glass					
	• Cups					
	• Cutleries					
	• Mugs					
	• Others: .....					

No	Product Type Import	Amount	Unit	Price per unit	Value (US \$)	Preferences (Reason, choosing imported products)
5	Import Goods and Materials					
	a) Imported Furniture:					
	• Tables (tables, desks)					
	• Chairs (chairs)					
	• Wardrobe (shelves, wardrobes)					
	• Other: .....					
	b) Imported Building Accessory (interior):					
	• Wall decoration (paintings, photographs, figural, etc...)					
	• Carpet (carpet)					
	• Ornaments (sculpture, carvings, etc)					
	• Others: .....					
6	Overseas Activity Services (Abroad Services):					
	a) Marketing and Promotion (Marketing and Promotion):					
	• Promotion (Exhibition, Sales Mission, Road show, overseas visits)					
	• Advertising on overseas					
	• Others: .....					
	b) Public relations and publicity abroad					
	c) Paying foreign people to be agents of companies abroad					
	d) Others: .....					
7	Payment for Foreign Productions					
	a) Transfer Payment of commission to travel agents and tour operators					
	b) Import payment					
	c) Cost of goods import tax					

	d) Payment of Benefits Transfer Investment to Investors					
	e) Payment of the relationship of foreign loans					
	f) Others: .....					
8	Payment of Foreign Employment					
	a) The number of foreign workers					
	b) Total foreign labor payments					
	c) Payment of transfer of foreign labor					
	d) Others: .....					
9	Savings by Foreign Workers					
10	Education and Training abroad					
	a) The amount of labor education and training abroad					
	b) Payment of the cost of education and training abroad					
11	Other oversea Purchase:					

Note: If the amount (kg or ton) and prices are not available, and only value exists, just fill the value.

Ask for the reasons why choosing imported products, and why not the domestic ones

#### **D. Perception and general preference of hotel management**

- 1) Why do you come to the decision to choose imported products? → ask for a reason!
- 2) How do you think of the local products?
- 3) Do you recognize that the more import products used the more leakage of revenues from Bali tourism?
- 4) Will you be ready to reduce imports products by emphasizing local ones (Indonesia and Bali)?
- 5) If you are willing, how will you conduct it?

- 6) If you are not willing to, why? Give explanations
- 1) Do you realize that import products would urge local products? →give an explanation
  - 2) Are you aware that imported products make local products less attractive? Give an explanation
- 9). Imported fruits and vegetables makes farmers become lack of spirit and less productive? What is your comment?
- 10). Imported products may reduce demand for local products? What is your comment and give the reason
- 11) What do you think about the quality of our local products? Give an explanation
- 12) Do you realize that the increasing use of local products could reduce government revenues and industry profits?
- 13) What is your suggestion on the efforts that must be made in improving the quality of local products especially fruits and vegetables?
- 14) Do you intend to optimize the potential of local products in the hotel that you manage?  
If you choose to, how will it be carried out?
- 15) In your opinion, would it need support from the government in reducing the use of imported products?  
If necessary, what steps should be taken?

## Appendix 4.2. Questionnaire for Foreign Tourists

Please answer the questions below by filling the answers on a blank line  
or giving X sign on the sheet

1.	Citizenship	:	.....
2.	Country of Residence (Domicile )	:	.....
3.	Date of Arrival in Bali	:	.....
4.	Place to stay in Bali	:	Hotel / Villa .....
5.	Sex	:	a. Male <span style="float:right">b. Female</span>
6.	Age	:	a. ≤ 15 years <span style="float:right">c. 26 years – 55 years</span> b. 16 years – 25 Years <span style="float:right">d. ≥ 56 years</span>
7.	Main Occupation	:	a. Student / University student <span style="float:right">f. Entrepreneur</span> b. Government employee / UN Official <span style="float:right">g. Retired</span> c. Police / Army <span style="float:right">h. Housewife</span> d. Professional / Manager / Executive <span style="float:right">i. Other : .....</span> e. Private Employees (Clerical / Technical / Sales)
8.	Periodicity of visits to Bali	:	a. First time visit <span style="float:right">d. Fourth times visit</span> b. Second times visit <span style="float:right">e. Fifth times visit</span> c. Third times visit <span style="float:right">f. Visits &gt; 5 times</span>
9.	The main purpose visiting Bali	:	a. Vacation / recreation <span style="float:right">f. Religious / Pilgrimage</span> b. Visiting Friends / Relatives <span style="float:right">g. Education / Research</span> c. Office Task <span style="float:right">h. Health / Beauty</span> d. Meeting, Incentive, Conference, Exhibition. (MICE) <span style="float:right">i. Sport</span> e. Business <span style="float:right">j. Other : .....</span>
10.	What are your main reasons to come to Bali ( maximum 3 choices )	:	a. Culture <span style="float:right">e. Price / cost is relatively inexpensive.</span> b. Nature <span style="float:right">f. Diversity of tourist attractions</span> c. The hospitality of the society <span style="float:right">g. Other : .....</span> d. Tourism facilities
11.	Types of activities / attractions that you did in Bali (could be more than one option)	:	a. Sight seeing <span style="float:right">e. Religius / Spiritual</span> b. Adventure (trekking, rafting, jet ski, surfing, cycling, etc) <span style="float:right">f. Spa &amp; Wellness</span> c. Shopping <span style="float:right">g. Night life</span> d. Diving / Snorkeling <span style="float:right">h. other : .....</span>
12.	Length of Stay in Bali	:	a. 1 night <span style="float:right">f. 6 nights</span> b. 2 nights <span style="float:right">g. 7 nights</span> c. 3 nights <span style="float:right">h. 8 nights</span> d. 4 nights <span style="float:right">i. 9 nights</span> e. 5 nights <span style="float:right">j. &gt; 9 nights :..... nights</span>
13.	Did you visit Bali by a package tour?	:	a. Yes <span style="float:right">b. No</span>
	If YES, the package tour includes: (could be more than one option)		a) Airlines b) Ground transportation c) Accommodation d) Meals e) Tour (visiting attractions) f) Others: ..... How much the cost of the package tour: ..... (Please specify the Currency)
14.	Total expenses during your stay in Bali	:	..... (Please Specify the Currency)

15. What is your opinion about hotel / accommodation services in Bali?
- 
- 1 2 3 4 5 6 7  
Extremely poor Very poor Poor Fair Good Very Good Extremely Good
16. What is your opinion about restaurant services in Bali?
- 
- 1 2 3 4 5 6 7  
Extremely poor Very poor Poor Fair Good Very Good Extremely Good
17. Do you satisfy staying in Bali?
- 
- 1 2 3 4 5 6 7  
Extremely dissatisfied Dissatisfied Slightly dissatisfied Mixed dissatisfied and satisfied Slightly Satisfied Satisfied Extremely satisfied
18. This visit to Bali was exactly like you expected it to be.
- 
- 1 2 3 4 5 6 7  
Extremely disagree Disagree Slightly disagree Mixed (disagree and agree) Slightly agree Agree Extremely agree
19. What is your level of satisfaction regarding the whole trip, from your arrival up to the departure?
- 
- 1 2 3 4 5 6 7  
Extremely dissatisfied Dissatisfied Slightly dissatisfied Mixed (dissatisfied and satisfied) Slightly satisfied Satisfied Extremely satisfied
20. When you are thinking about this visit, you experiment an emotion
- 
- 1 2 3 4 5 6 7  
Very displeased Displeased Slightly displeased Mixed (displeased and pleased) Slightly pleased Pleased Very pleased
21. Do you agree that the money you spent in Bali is for Balinese people in priority?
- 
- 1 2 3 4 5 6 7  
Extremely disagree Disagree Slightly disagree Mixed (disagree and agree) Slightly agree Agree Extremely agree
22. What is your perception about imported meat products that were served at hotel and restaurant in Bali?
- 
- 1 2 3 4 5 6 7  
Extremely poor Very poor Poor Fair Good Very Good Extremely good
23. What is your perception about local meat products that were served at hotel and restaurant in Bali?
- 
- 1 2 3 4 5 6 7  
Extremely poor Very poor Poor Fair Good Very Good Extremely good

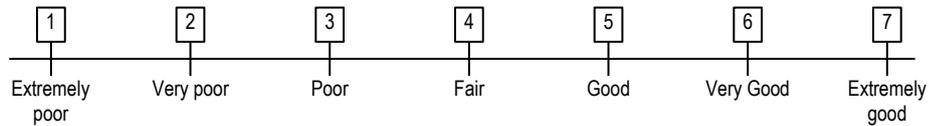


36. What kind of vegetables do you prefer?

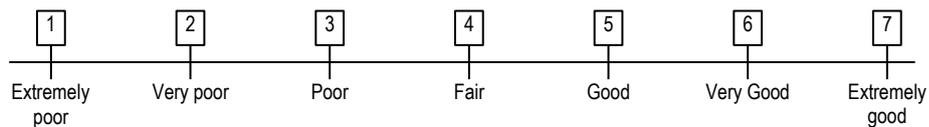
a. Imported vegetables

b. Local vegetables

37. What is your perception about imported beverages (wines and liquors) that were served at hotel and restaurant in Bali?



38. What is your perception about local beverages (wines and liquors) that were served at hotel and restaurant in Bali?

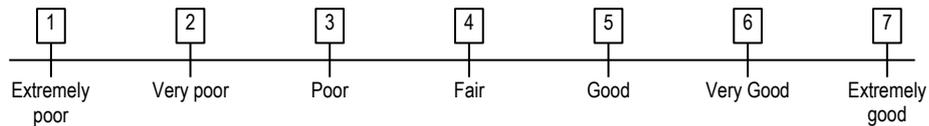


39. What kind of beverages (wines and liquors) do you prefer?

a. Imported wines and liquors

b. Local wines and liquors

40. What is your perception about building style of the hotel / accommodation that you stay in?

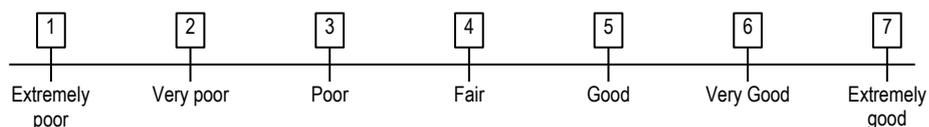


41. What kind of building style of the hotel / accommodation do you prefer?

a. Foreign building style

b. Local building style

42. What is your perception about furniture in your hotel?

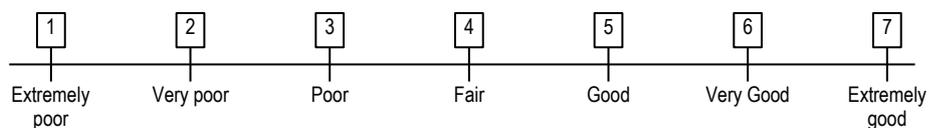


43. What kind of furniture do you prefer?

a. Imported furnitures

b. Local furnitures

44. What is your perception about room decoration in your hotel?

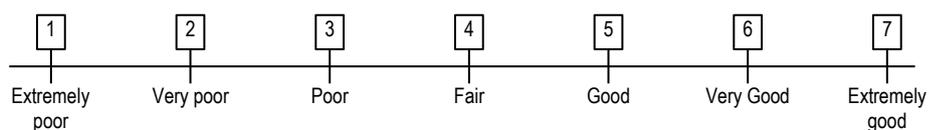


45. What kind of room decoration do you prefer?

a. Imported room decoration

b. Local room decoration

46. What is your perception about Balinese architecture used in the hotel / accommodation that you stay in?



47. What kind of architecture style do you prefer?

a. Foreign architecture style

b. Local Balinese architecture



**Appendix 4.4. ISM Questionnaire****MINIMIZATION PROGRAM for TOURISM LEAKAGE in  
ACCOMMODATION SECTOR in BALI****Questionnaire***Expert Survey***IDENTITY of RESPONDENT**

1. **Name** : \_\_\_\_\_
2. **Profession** : \_\_\_\_\_
3. **Level of Education** :  **Undergraduate**  
 **(Postgraduate) : Master Degree**  
 **(Postgraduate) : Doctoral Degree**
4. **Institution** : \_\_\_\_\_
5. **Date of Filling the Questionnaire** : \_\_\_\_\_

## A. Background

### 1. Definition of Tourism Leakage

Leakage is defined as “*losses from the national income flow which have been generated during the transition from the national consumption income cycle to the spending chain*” (Lundberg et al., 1991: 235). Tourism leakage is one of the negative impacts of tourism which occurred when tourists’ expenditure flow out of destination for payments of expenses outside the country, i.e. payment for fees, profit, wages as well as payment for imported products and services for development of tourism, as revealed by Bull (1991) in Unluonen et al. (2011) as:

“ ... *Leakage is one of the negative impacts of tourism which is occur when money spent by tourists leaves a destination in the form of fees, profits, and wages. Leakage in tourism industry occurs when the industry imports both products and services from other countries to support the growth of industry...* ” (Bull, 1991: 36).

More details causes of leakage are outlined below:

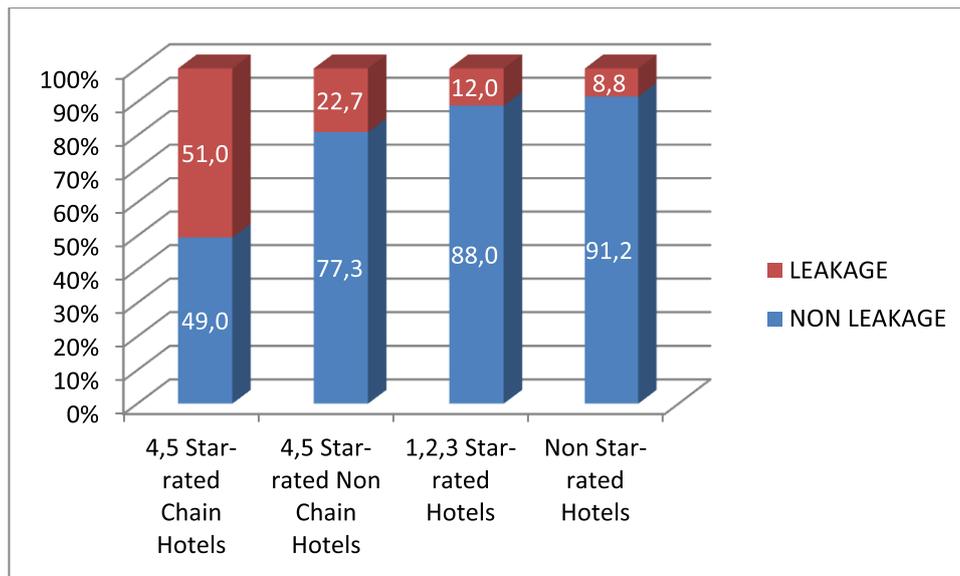
- (i) Payment for booking-fees to travel agents outside of the country,
- (ii) Payment for profit-transfer to the owners outside of the country,
- (iii) Payment for imported products and wages for foreign employees,
- (iv) Payment for management fees to international-link hotel system, and
- (v) Payment for capital ownership to overseas.

According to Platullo (1996), high level of tourism leakage caused by the emergence of tour packages involving many sectors such as accommodation, foods and beverages as well as transportation managed by international agencies. So that, accommodation sector becomes one of the sources of tourism leakage. High-level of leakage depends upon percentage of imported components used by the hotels.

### 2. Actual Condition of Tourism Leakage in Bali

Tourism has now become a driving force in the economic development of Bali Province and has become the leading economic sector in Bali’s economy. Even though tourism brings about development for Bali’s economy for many years, however, the economic impacts of tourism development has not been convinced to be fully beneficial for Balinese community. There is a phenomenon that tourist’s expenditure has not been totally beneficial for Balinese community and leakage is convinced as one of the causes. Previous research undertaken by Rodenburg (1980) estimated tourism leakage from accommodation sector was 40% for international hotels standard and 20% for domestic hotels. However, earlier research undertaken on tourism leakage on four types of accommodation in four main destinations in Bali (which was calculated as percentage of hotels’ income) found that tourism leakage were as follow:

- (i) Leakage of 4,5 Star-rated chain hotels was 51.0 %,
- (ii) Leakage of 4,5 Star-rated non-chain hotels 22.7 %,
- (iii) Leakage of 1,2,3 Star-rated hotels was 12.0 %, and
- (iv) Leakage of Non Star-rated hotels was 8.8 %, see Figure 1 below:



**Figure 1. Average of Tourism Leakage on Accommodation Sectors in Bali**  
(Source: Results of research by Suryawardani, 2013)

Result of the above research indicated that (i) the higher is the level of hotel classifications, the more leakage will be; and (ii) the accommodations which were owned by foreigners and/or managed by international chain hotel systems have more leakage than other types of accommodations. The more leakage, therefore the less revenue from tourism will be received by the host country and community. In another word, more profit from tourism industry will go to outside of the country. Therefore, tourism leakage must be minimized to give more benefit to Balinese community.

Experts revealed that leakage can be minimized through some efforts; one of them is increase in *linkage*, either *backwards linkages* or *forwards linkage*, so that it brings about increase in multiplier effects from tourists' expenditure (Belisle, 1983; Lejarraga and Walkenhorst, 2010; Telfer and Geoffrey, 2000). Tourist destination must increase *backwards linkage* through optimize linkage between tourism and agriculture and other related sectors. However, all of the above experts argued that the main constraint in development of *backward linkages* was inability of agriculture and related sectors in fulfilling requirement standard of products needed by tourists, as a results import cannot be avoided which lead to increase in tourism leakage.

## B. Minimization Program for Tourism Leakage in Accommodation Sector in Bali

Based on the above information, strategy in minimization tourism leakage needs to be developed. Ideas from experts of Bali tourism and related industries need to be collected in generating the strategy. Role of government, stakeholders and participation of Balinese community are crucial in reaching sustainable tourism.

Minimization Program for Tourism Leakage in Accommodation Sector in Bali consists of six elements:

1. Program goals (G)
2. Program needs (N)
3. Affected sectors (T)
4. Program constraints (C)
5. Possible changes in the program (M)
6. Involvement of agencies in the policy (A)

Each element consists of sub-element which has contextual relationship each other in accordance with Minimization Program for Tourism Leakage in Accommodation Sector in Bali, i.e.:

Elements	Contextual Relationship
1. Program goals ( $G_i$ )	$G_i$ contribute in achieving $G_j$
2. Program needs ( $N_i$ )	$N_i$ supports $N_j$
3. Affected sectors ( $T_i$ )	$T_i$ its role influences $T_j$
4. Program constraints ( $C_i$ )	$C_i$ causes $C_j$
5. Possible changes in the program ( $M_i$ )	$M_i$ results in $M_j$
6. Involvement of agencies in policy ( $A_i$ )	$A_i$ supports $A_j$

$ij = 1,2,3 \dots (i,j \leq 10)$

Information used in this method is gained from respondents' opinion. Respondents in this research are tourism experts who understand the contextual relationship between variables related to minimization program of tourism leakage on accommodation sector in Bali tourism including government, stakeholders and community.

Therefore, it would be grateful if you could share your knowledge and experience by filling this questionnaire which can be very useful as a source of information for this study.

## 1. PROGRAM GOALS

Contextual relationship → **contribute in achieving**

There were 10 sub-elements of “Program Goals ” on minimization of tourism leakage on accommodation sector in Bali tourism. Would you please give your opinion regarding the level of contextual relationship between sub-elements “Program Goals” by filling matrix of the contextual relationship with the alphabet as follow: V, A, X or O. Each alphabet has meaning as outlined below:

- V : if regarding your opinion, sub-element-i of the element “Program Goals” **contribute in achieving** sub-element-j of the element “Program Goals”.
- A : if regarding your opinion, sub-element-j of the element “Program Goals” **contribute in achieving** sub-element-i of the element “Program Goals”.
- X : if regarding your opinion, sub-element-i and sub-element-j of the element “Program Goals” **contribute each other in achieving** “Program Goals”.
- O : if regarding your opinion, sub-element-i and sub-element-j of the element “Program Goals” **does not contribute each other in achieving** “Program Goals”.

Ten of the elements were:

1. Increase community welfare
2. Optimization the potential of local products
3. Development of agriculture, livestock, fisheries and handicraft industry
4. Increase regional income
5. Increase job opportunity
6. Conservation of environment and preservation of culture
7. Community empowerment
8. Reducing the use of imported products for tourists
9. Increase export of local products
10. Sustainable tourism

Table 1. Linkages between Sub-elements of “Program Goals”

Sub-Elements “PROGRAM GOALS”-i	Sub-Elements “PROGRAM GOALS”-j									
	1. Increase community welfare	2. Optimization the potential of local products	3. Development of agriculture, livestock, fisheries and handicraft industry	4. Increase regional income	5. Increase job opportunity	6. Conservation of environment and preservation of culture	7. Community empowerment	8. Reducing the use of imported products for tourists	9. Increase export of local products	10. Sustainable tourism
1. Increase community welfare										
2. Optimization the potential of local products										
3. Development of agriculture, livestock, fisheries and handicraft industry										
4. Increase regional income										
5. Increase job opportunity										
6. Conservation of environment and preservation of culture										
7. Community empowerment										
8. Reducing the use of imported products for tourists										
9. Increase export of local products										
10. Sustainable tourism										

## 2. PROGRAM NEEDS

Contextual relationship → **support**

There were 10 sub-elements of “Program Needs” on minimization program of tourism leakage on accommodation sector in Bali tourism. Would you please give your opinion regarding the level of contextual relationship between sub-elements “Program Needs” by filling matrix of the contextual relationship with the alphabet as follow: V, A, X or O. Each alphabet has meaning as outlined below:

- V : if regarding your opinion, sub-element-i of the element “Program Needs” **supports** sub-element-j of the element “Program Needs”.
- A : if regarding your opinion, sub-element-j of the element “Program Needs” **supports** sub-element-i of the element “Program Needs”.
- X : if regarding your opinion, sub-element-i and sub-element-j of the element “Program Needs” **supports each other in achieving** “Program Needs”.
- O : if regarding your opinion, sub-element-i and sub-element-j of the element “Program Needs” **does not support each other in achieving** “Program Needs”.

Ten of the elements were:

1. Qualified human resources
2. Good management in agribusiness, livestock, fisheries and handicraft industry
3. Participation of farmers, cattlemen, fishermen and craftsmen
4. Quality, quantity, continuity of local products
5. Substitute products
6. Good quality of seed, livestock and raw materials
7. Funding for investment
8. Business Partnership
9. Government’s role
10. Coordination between stakeholders

Table 2. Linkages between Sub-elements “Program Needs”

Sub-elements “Program Needs”-i	Sub-elements “Program Needs”-j									
	1. Qualified human resource	2. Good management in agribusiness, livestock, fisheries and handicraft industry	3. Participation of farmers, cattlemen, fishermen and craftsmen	4. Quality, quantity, continuity of local products	5. Substitute products	6. Good quality of seed, livestock and raw materials	7. Funding for investment	8. Business Partnership	9. Role of government	10. Coordination between stakeholders
1. Qualified human resource										
2. Good management in agribusiness, livestock, fisheries and handicraft industry										
3. Participation of farmers, cattlemen, fishermen and craftsmen										
4. Quality, quantity, continuity of local products										
5. Substitute products										
6. Good quality of seed, livestock and raw materials										
7. Funding for investment										
8. Business partnership										
9. Role of government										
10. Coordination between stakeholders										

### 3. AFFECTED SECTORS

Contextual relationship → **its role influence**

There were 8 sub-elements of “Affected Sector” on minimization program of tourism leakage on accommodation sector in Bali tourism. Would you please give your opinion regarding the level of contextual relationship between sub-elements “Affected Sectors” by filling matrix of the contextual relationship with the alphabet as follow: V, A, X or O. Each alphabet has meaning as outlined below:

- V : if regarding your opinion, sub-element-i of the element “Affected Sectors” **its role influence** sub-element-j of the element “Affected Sectors”.
- A : if regarding your opinion, sub-element-j of the element “Affected Sectors” **its role influence** sub-element-i of the element “Affected Sectors”.
- X : if regarding your opinion, sub-element-i and sub-element-j of the element “Affected Sectors” **its role influence** “Affected Sectors”.
- O : if regarding your opinion, sub-element-i and sub-element-j of the element “Affected Sectors” **does not influence** “Affected Sectors”

Eight of the elements were:

1. Local community
2. Community leaders
3. Community organization
4. Tourism industry
5. Agricultural, livestock and fisheries industries
6. Handicraft industry
7. Local employees
8. Government



#### 4. PROGRAM CONSTRAINTS

##### Contextual Relationship → cause

There were 8 sub-elements of “Program Constraints” on minimization program of tourism leakage on accommodation sector in Bali tourism. Would you please give your opinion regarding the level of contextual relationship between sub-elements “Program Constraints” by filling matrix of the contextual relationship with the alphabet as follow: V, A, X or O. Each alphabet has meaning as outlined below:

- V : if regarding your opinion, sub-element-i of the element “Program Constraints” **causes** sub-element-j of the element “Program Constraints”.
- A : if regarding your opinion, sub-element-j of the element “Program Constraints” **causes** sub-element-i of the element “Program Constraints”.
- X : if regarding your opinion, sub-element-i and sub-element-j of the element “Program Constraints” **cause** “Program Constraints”.
- O : if regarding your opinion, sub-element-i and sub-element-j of the element “Program Constraints” **does not cause** “Program Constraints”

Eight of the elements were:

1. Lack of capability and skill of local human resources
2. Lack of availability and quality of local products
3. Lack of capability of local management
4. Lack of local infrastructure
5. Lack of capital investment
6. Lack of information and communication technology
7. National Investment Policy
8. International Trade Policy
9. Foreign Currencies Fluctuation



## 5. POSSIBLE CHANGES in the PROGRAM

Contextual Relationship → **results in**

There were 10 sub-elements of “Possible Changes in the Program” on minimization program of tourism leakage on accommodation sector in Bali tourism. Would you please give your opinion regarding the level of contextual relationship between sub-elements “Possible Changes in the Program” by filling matrix of the contextual relationship with the alphabet as follow: V, A, X or O. Each alphabet has meaning as outlined below:

- V : if regarding your opinion, sub-element-i of the element “Possible Changes in the Program” **results in** sub-element-j of the element “Possible Changes in the Program”.
- A : if regarding your opinion, sub-element-j of the element “Possible Changes in the Program” **results in** sub-element-i of the element “Possible Changes in the Program”.
- X : if regarding your opinion, sub-element-i and sub-element-j of the element “Possible Changes in the Program” **results in** “Possible Changes in the Program”.
- O : if regarding your opinion, sub-element-i and sub-element-j of the element “Program Constrains” **does not result in** “Program Constrains”

Ten of the elements were:

1. Decrease in import and increase in added-value
2. Increase and equalize income distribution
3. Change in point of views of hotel managers from “import oriented”
4. Increase quantity, quality and continuity of local products
5. Development of capability of local human resources
6. Improve business management
7. Empowerment of agricultural, livestock, fisheries and craft industries
8. Policy on restriction of foreign investment
9. Strengthen forward and backward linkages
10. Public-private partnership on investment

Table 5. Linkages between Sub-elements “Possible Changes in the Program”

Sub-elements “Possible Changes in the Program”-i	Sub-elements “Possible Changes in the Program” in the Program-j									
	1. Decrease in import and increase in added-value	2. Increase and equalize income distribution	3. Change in point of views of hotel managers from “import oriented”	4. Increase quantity, quality and continuity of local products	5. Development of capability of local human resources	6. Improve business management	7. Empowerment of agricultural, livestock, fisheries and craft industries	8. Policy on restriction of foreign investment	9. Strengthen forward and backward linkages	10. Public-private partnership and investment
1. Decrease in import and increase in added-value										
2. Increase and equalize income distribution										
3. Change in point of views of hotel managers from “import oriented”										
4. Increase quantity, quality and continuity of local products										
5. Development of capability of local human resources										
6. Improve business management										
7. Empowerment of agricultural, livestock, fisheries and craft industries.										
8. Policy on restriction of foreign investment										
9. Strengthen forward and backward linkages										
10. Public-private partnership on investment										

## 6. INVOLVEMENT of AGENCIES in POLICY

Contextual relationship → **its role support**

There were 10 sub-elements of “Involvement of Agencies in policy” on minimization program of tourism leakage on accommodation sector in Bali tourism. Would you please give your opinion regarding the level of contextual relationship between sub-elements “Involvement of Agencies in policy” by filling matrix of the contextual relationship with the alphabet as follow: V, A, X or O. Each alphabet has meaning as outlined below:

- V : if regarding your opinion, sub-element-i of the element “Involvement of Agencies in policy” **supports** sub-element-j of the element “Involvement of Agencies in policy”.
- A : if regarding your opinion, sub-element-j of the element “Involvement of Agencies in policy” **supports** sub-element-i of the element “Involvement of Agencies in policy”.
- X : if regarding your opinion, sub-element-i and sub-element-j of the element “Involvement of Agencies in policy” **supports** “Involvement of Agencies in policy”.
- O : if regarding your opinion, sub-element-i and sub-element-j of the element “Involvement of Agencies in policy” **does not supporting each other** “Involvement of Agencies in policy”.

Ten of the elements were:

1. Government Tourism Office
2. Government Office of Trade and Industry
3. Government Office of Agriculture, Animal Husbandry and Fisheries
4. Government Office of Plantation and Forestry
5. Government Office of Manpower and Transmigration
6. The Ministry of Tourism & Ministry of Foreign Affairs
7. The Ministry of Finance
8. Regional and City Government
9. Association of tourism organizations
10. Research Centres and NGOs

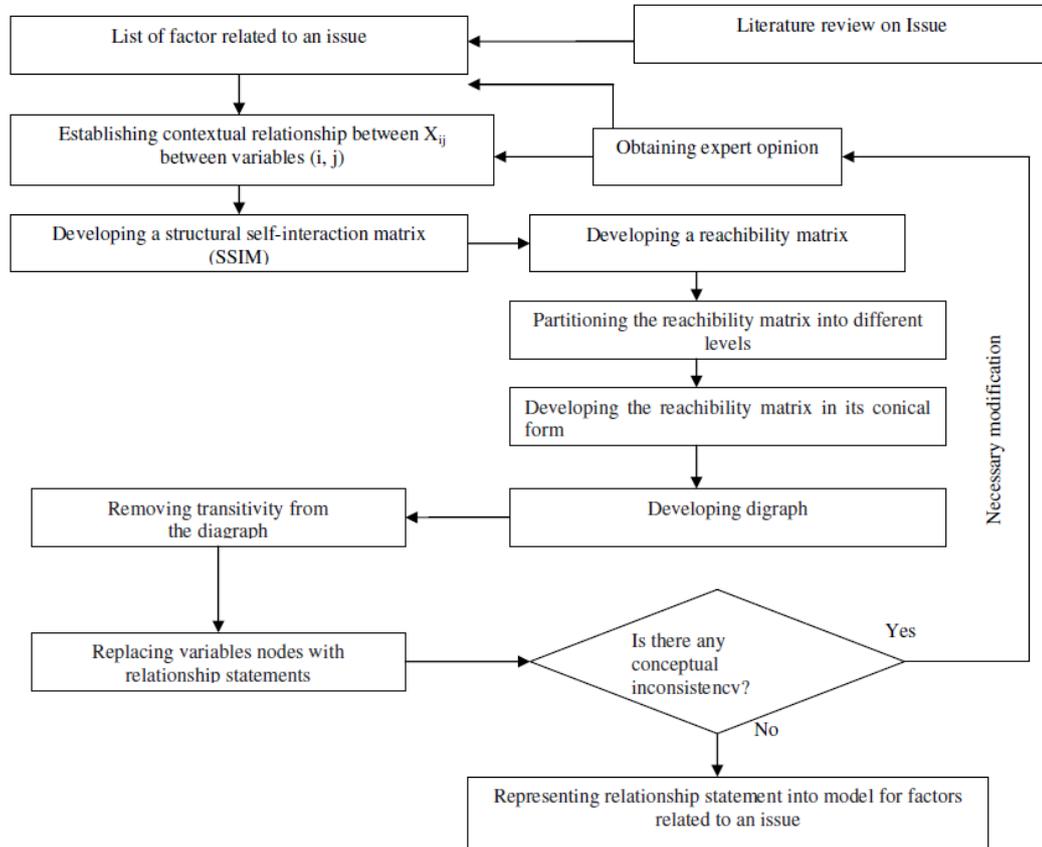
Table 6. Linkages between Sub-elements “Involvement of Agencies in the Policy”

Sub-elements “Involvement of Agencies in the Policy”-i	Sub-elements “Involvement of Agencies in the Policy”-j									
	1. Government Tourism Office	2. Government Office of Trade and Industry	3. Government Office of Agriculture, Animal Husbandry and Fisheries	4. Government Office of Plantation and Forestry	5. Government Office of Manpower and Transmigration	6. The Ministry of Tourism & Ministry of Foreign Affairs	7. The Ministry of Finance	8. Research Centres and NGOs	9. Association of tourism organizations	10. Research Centre and Social Agencies
1. Government Tourism Office										
2. Government Office of Trade and Industry										
3. Government Office of Agriculture, Animal Husbandry and Fisheries										
4. Government Office of Plantation and Forestry										
5. Government Office of Manpower and Transmigration										
6. The Ministry of Tourism & Ministry of Foreign Affairs										
7. The Ministry of Finance										
8. Regional and City Government										
9. Association of tourism organizations										
10. Research Centres and NGOs										

**Appendix 4.5. List of Respondents for Interpretative Structural Modeling (ISM)**

<b>No</b>	<b>Name</b>	<b>Occupation/Position</b>	<b>Education</b>
1	Ida Bagus Kade Subhiksu	Head of Bali Government Tourism Office	Postgraduate Degree
2	Gede Nurjaya	Community Representative (Majelis Utama Desa Pakraman), Former Head of Bali Government Tourism Office	Postgraduate Degree
3	A.A. Gede Rai	Former President Director of Bali Tourism Development Corporation (BTDC)	Postgraduate Degree
4	Made Suryawan	Professional/Hotel Consultant	Postgraduate Degree
5	Ketut Rai Arya	Tourism Industry (Hotel's Owner)	Postgraduate Degree
6	Eriyatno	Lecturer (Former Deputy Bappenas)	Postgraduate Degree (Professor)
7	Myra P. Gunawan	Lecturer (Former Deputy Minister of Culture and Tourism)	Postgraduate Degree
8	Gusti Kade Sutawa	Tourism Industry (General Manager Hotel)	Postgraduate Degree
9	I Gede Wiwin Suyasa	Tourism Industry (General Manager Hotel)	Undergraduate Degree

### Appendix 4.6. Flow Diagram for Preparing ISM Model



Source: Attri, et.al. (2013)

### Appendix 5.1. Recapitulation of Calculation of Leakage of Non Star-rated Hotels

No Hotel	Location	Number of Rooms	Occupancy (%)	Hari Setahun	Room night	Local Employees	Foreigner Employees	Price (Rph/Night)	Y Hotel	Y TOTAL	Leakage
1	Ubud	16	74	365	4,380	16	0	537,190	2,352,892,200.00	3,361,274,571.43	5.5
2	Kuta	41	79	365	11,822	49	0	355,829	4,206,734,978.15	6,009,621,397.36	6
3	Ubud	8	60	365	1,898	8	0	548,000	1,040,104,000.00	1,485,862,857.14	7.5
4	Sanur	8	80	365	2,336	8	0	366,680	856,564,480.00	1,223,663,542.86	6
5	Sanur	16	74	365	3,796	15	0	450,000	1,708,200,000.00	2,440,285,714.29	6.8
6	Sanur	18	80	365	5,256	7	0	300,000	1,576,800,000.00	2,252,571,428.57	6.4
7	Denpasar	44	74	365	10,439	27	0	413,223	4,313,634,897.00	6,162,335,567.14	7.6
8	Sanur	38	40	365	5,548	20	0	521,075	2,890,921,326.00	4,129,887,608.57	9.9
9	Kuta	77	50	365	18,268	115	0	577,020	10,541,145,615.00	15,058,779,450.00	9.6
10	Sanur	16	40	365	2,336	22	0	475,000	1,109,600,000.00	1,585,142,857.14	9.9
11	Sanur	30	70	365	7,665	44	0	352,000	2,698,080,000.00	3,854,400,000.00	9.6
12	Kuta	47	65	365	11,151	49	0	483,477	5,391,131,157.75	7,701,615,939.64	5.7
13	Kuta	35	40	365	5,110	35	0	596,254	3,046,857,940.00	4,352,654,200.00	10.1
14	Sanur	18	30	365	1,971	18	0	339,500	669,154,500.00	955,935,000.00	9.7
15	Kuta	27	40	365	3,942	20	0	504,000	1,986,768,000.00	2,838,240,000.00	8
16	Kuta	47	45	365	7,720	50	0	772,371	5,962,507,167.38	8,517,867,381.96	8
17	Kuta	23	40	365	3,358	30	0	903,500	3,033,953,000.00	4,334,218,571.43	8.4
18	Kuta	46	23	365	3,862	50	0	638,500	2,465,695,450.00	3,522,422,071.43	10.3
19	Kuta	32	50	365	5,840	25	0	275,000	1,606,000,000.00	2,294,285,714.29	9.9
20	Sanur	30	50	365	7,118	28	0	350,000	2,491,125,000.00	3,558,750,000.00	6.4
21	Sanur	106	45	365	17,411	56	0	480,000	8,357,040,000.00	11,938,628,571.43	9.5
22	Sanur	35	60	365	8,304	4	0	150,000	1,245,562,500.00	1,779,375,000.00	11.5
23	Kuta	14	65	365	3,322	40	0	625,000	2,075,937,500.00	2,965,625,000.00	10.4
24	Denpasar	70	65	365	16,608	70	0	551,240	9,154,709,996.25	13,078,157,137.50	11.1
25	Kuta	86	66	365	20,717	75	0	288,510	5,977,177,074.00	8,538,824,391.43	9.5
26	Ubud	18	70	365	4,599	10	0	649,138	2,985,383,362.50	4,264,833,375.00	7.5
27	Sanur	47	75	365	12,866	20	0	200,000	2,573,250,000.00	3,676,071,428.57	8.7
28	Sanur	29	55	365	5,822	27	0	514,000	2,992,379,500.00	4,274,827,857.14	7.5
29	Sanur	43	85	365	13,341	123	0	450,000	4,985,851,838.25	7,122,645,483.21	9.5
30	Kuta	50	85	365	15,513	46	0	375,000	4,653,750,000.00	6,648,214,285.71	9.2
31	Kuta	50	80	365	14,600	43	0	350,000	5,475,000,000.00	7,821,428,571.43	5.2
32	Sanur	12	80	365	3,504	10	0	425,000	1,051,200,000.00	1,501,714,285.71	6.9



**Appendix 5.2. Recapitulation of Calculation of Leakage of 1,2,3 Star-rated Hotels**

No Hotel	Location	Number of Rooms	Occupancy (%)	Hari Setahun	Room night	Local Employees	Foreigner Employees	Price (Rph/night)	Y Hotel	Y Total	Leakage
1	Sanur	115	79	365	33160.25	160	0	450,332	14,933,121,703	21,333,031,004	10.5
2	Sanur	100	40	365	28835.00	78	0	294,196	8,483,141,660	12,118,773,800	9.7
3	Kuta	84	80	365	24221.40	82	0	460,417	11,151,944,324	15,931,349,034	10.7
4	Kuta	146	70	365	42099.10	98	0	510,246	21,480,897,379	30,686,996,255	8.8
5	Kuta	60	70	365	17301.00	40	0	336,595	5,823,430,095	8,319,185,850	10.3
6	Sanur	79	68	365	22779.65	89	0	373,821	8,515,511,543	12,165,016,490	9.9
7	Kuta	90	80	365	25951.50	116	0	429,886	11,156,186,529	15,937,409,327	9.7
8	Sanur	38	76	365	10957.30	47	1	513,203	5,623,313,753	8,033,305,362	11.8
9	Sanur	98	90	365	28258.30	220	0	1,131,808	31,982,955,877	45,689,936,968	11.9
10	Sanur	28	69	365	8073.80	82	0	1,428,250	11,531,404,850	16,473,435,500	12
11	Sanur	61	84	365	17589.35	77	0	387,923	6,823,313,420	9,747,590,600	12
12	Kuta	173	80	365	49884.55	200	0	1,016,529	50,709,091,727	72,441,559,610	13.5
13	Kuta	96	65	365	27681.60	130	0	726,240	20,103,471,343	28,719,244,776	9.5
14	Kuta	122	61	365	35178.70	138	1	502,361	17,672,389,321	25,246,270,459	12.9
15	Ubud	80	70	365	23068.00	85	0	725,207	16,729,063,542	23,898,662,203	11.3
16	Kuta	44	50	365	12687.40	9	0	336,595	4,270,515,403	6,100,736,290	10.9
17	Sanur	18	75	365	5190.30	25	0	480,850	2,495,755,755	3,565,365,364	10.1
18	Sanur	40	65	365	11534.00	30	0	422,500	4,873,115,000	6,961,592,857	9.3
19	Kuta	18	48	365	5190.30	47	1	785,455	4,076,744,491	5,823,920,702	12.2
20	Kuta	22	80	365	6343.70	22	0	521,075	3,305,540,306	4,722,200,437	12.9
21	Kuta	95	85	365	27393.25	104	0	550,000	15,066,287,500	21,523,267,857	13.3

**Appendix 5.3. Recapitulation of Calculation of Leakage of 4,5 Star-rated Non-chain Hotels**

No Hotel	Location	Number of Rooms	Occupancy (%)	Hari Setahun	Room Night	Local Employees	Foreigner Employees	Price (Rph/night)	Y Hotel	Y TOTAL	Leakage
1	Nusa Dua	541	66	365	130,327	588	4	1,706,384	222,387,736,930	317,696,767,042	22.2
2	Kuta	57	80	365	16,644	100	0	1,704,143	28,363,747,770	40,519,639,671	18
3	Nusa Dua	150	77	365	42,158	235	0	1,079,802	45,521,752,815	65,031,075,450	19.9
4	Ubud	67	65	365	15,896	157	0	762,423	12,119,285,402	17,313,264,860	18
5	Ubud	27	75	365	7,391	20	0	905,042	6,689,391,683	9,556,273,832	19
6	Kuta	318	80	365	92,856	483	3	1,510,967	140,302,305,324	200,431,864,749	21.9
7	Kuta	101	79	365	29,123	110	0	831,405	24,213,298,807	34,590,426,867	12.6
8	Ubud	108	66	365	26,017	295	2	1,482,432	38,568,716,822	55,098,166,888	18.6
9	Sanur	182	87	365	57,794	350	0	946,662	54,711,449,397	78,159,213,425	18.1
10	Ubud	34	12	365	1,489	113	0	1,165,294	1,735,355,825	2,479,079,750	19.4
11	Sanur	120	75	365	32,850	180	0	1,672,344	54,936,483,975	78,480,691,393	19.3
12	Ubud	52	64	365	12,147	339	1	2,561,129	31,110,540,115	44,443,628,736	20.3
14	Sanur	23	60	365	5,037	126	0	1,816,488	9,149,647,538	13,070,925,054	20.6
15	Nusa Dua	173	70	365	44,202	75	0	1,395,732	61,693,432,697	88,133,475,282	18.7

**Appendix 5.4. Recapitulation of Calculation of Leakage of 4,5 Star-rated Chain Hotels**

No Hotel	Location	Number of Rooms	Occupancy (%)	Hari setahun	Room night	Local Employees	Foreigner Employees	Price (Rph/night)	Y Hotel	Y TOTAL	Leakage
1	Nusa Dua	35	15	365	1,916	157	4	11,040,316	21,156,005,535	30,222,865,050	66.7
2	Kuta	187	70	365	47,779	261	2	1,043,976	49,879,583,427	71,256,547,753	43
3	Sanur	390	78	365	111,033	350	4	1,926,928	213,952,596,624	305,646,566,606	47.6
4	Jimbaran	147	85	365	45,607	646	20	3,953,700	180,315,407,475	225,394,259,344	54.2
6	Nusa Dua	500	81	365	147,825	726	4	1,388,287	205,223,451,863	293,176,359,804	43
7	Nusa Dua	120	80	365	35,040	231	2	1,203,305	42,163,818,880	60,234,026,971	46
8	Kuta	130	70	365	33,215	103	1	764,000	25,376,260,000	36,251,800,000	41
9	Nusa Dua	186	77	365	52,275	177	2	1,291,884	67,533,606,240	96,476,580,343	41
10	Nusa Dua	175	70	365	44,713	160	2	1,150,517	51,442,469,006	73,489,241,438	46.8
11	Nusa Dua	276	67	365	67,496	460	8	1,654,124	111,646,422,679	159,494,889,542	49.1
12	Nusa Dua	122	75	365	33,398	358	11	9,642,097	322,021,934,558	460,031,335,082	51
13	Nusa Dua	334	76	365	92,652	631	11	1,735,869	160,830,993,915	229,758,562,735	49.9

### Appendix 5.6.

#### Result of Validity Test of 600 Foreign Tourists

Variables	r-value	r-table	Remarks
Quality_lodging (X <sub>1</sub> )	0.555	0.080	Valid
Quality_restaurant (X <sub>2</sub> )	0.579	0.080	Valid
Satisfy_stayingbali (X <sub>3</sub> )	0.593	0.080	Valid
Fit_expectancies (X <sub>4</sub> )	0.577	0.080	Valid
Level_wholestay_bali (X <sub>5</sub> )	0.613	0.080	Valid
Emotion_stayingbali (X <sub>6</sub> )	0.517	0.080	Valid
Money_to_community (X <sub>7</sub> )	0.416	0.080	Valid
Quality_meat_Imp (X <sub>8</sub> )	0.077	0.080	Valid
Quality_meat_local (X <sub>9</sub> )	0.605	0.080	Valid
Preference_meat (X <sub>10</sub> )	0.166	0.080	Valid
Quality_fish_Imp (X <sub>11</sub> )	0.475	0.080	Valid
Quality_fish_local (X <sub>12</sub> )	0.506	0.080	Valid
Preference_fish (X <sub>13</sub> )	0.101	0.080	Valid
Quality_dairy_Imp (X <sub>14</sub> )	0.533	0.080	Valid
Quality_dairy_local (X <sub>15</sub> )	0.490	0.080	Valid
Preference_dairy (X <sub>16</sub> )	0.139	0.080	Valid
Quality_fruit_Imp (X <sub>17</sub> )	0.463	0.080	Valid
Quality_fruit_local (X <sub>18</sub> )	0.551	0.080	Valid
Preference_fruit (X <sub>19</sub> )	0.122	0.080	Valid
Quality_vegetables_Imp (X <sub>20</sub> )	0.524	0.080	Valid
Quality_vegetables_loc (X <sub>21</sub> )	0.560	0.080	Valid
Preference_vegetables (X <sub>22</sub> )	0.116	0.080	Valid
Quality_beverage_Imp (X <sub>23</sub> )	0.125	0.080	Valid
Quality_beverage_loc (X <sub>24</sub> )	0.503	0.080	Valid
Preference_beverage (X <sub>25</sub> )	0.162	0.080	Valid
Quality_buildingstyle_loc (X <sub>26</sub> )	0.374	0.080	Valid
Preference_buildingstyle (X <sub>27</sub> )	0.160	0.080	Valid
Quality_furnitures_loc (X <sub>28</sub> )	0.498	0.080	Valid
Preference_furnitures (X <sub>29</sub> )	0.133	0.080	Valid
Quality_roomdecoration_loc (X <sub>30</sub> )	0.557	0.080	Valid
Preference_roomdecoration (X <sub>31</sub> )	0.154	0.080	Valid
Quality_baliarchitectures_loc (X <sub>32</sub> )	0.259	0.080	Valid
Preference_baliarchitecture (X <sub>33</sub> )	0.178	0.080	Valid

Remarks:

r-table (critical)  $\alpha=5\%$  and  $n=600$  respondents was 0.080

## Appendix 6. Coaching for Fieldworkers



**Appendix 7. Interview with Head of Bali Government Tourism Office  
(Ida Bagus Kade Subhiksu)**



**Appendix 8. Survey for Foreign Tourists at Four Main Destinations Area in Bali: Sanur, Kuta, Nusa Dua, Ubud**

