Inbound Tourism Market Segmentation of The Andaman Cluster, Thailand

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A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Business Administration in Hospitality and Tourism Management (International Program) Prince of Songkla University 2009

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ชื่อวิทยานิพนธ์ การแบ่งส่วนตลาดนักท่องเที่ยวเข้าประเทศกลุ่มอันดามัน ประเทศไทย
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บทคัดย่อ

การส่งออกการท่องเที่ยวเป็นภาคเศรษฐกิจที่มีความสำคัญและกำลังเติบโตในหลายประเทศสำหรับการหาเงินตราต่างประเทศ นอกจากนี้สิ่งแวดล้อมการแข่งขันในตลาดการท่องเที่ยวโลกมีความสำคัญเพิ่มมากขึ้น ๆ หลายประเทศมีการลงทุนในกลยุทธ์การตลาดเพื่อจูงใจนักท่องเที่ยวอย่างสำคัญ โดยเฉพาะตลาดต่างประเทศ การตลาดจะประสบผลสำเร็จจะต้องมีการวางแผนและวิเคราะห์ข้อมูลจากนักเที่ยวอย่างกว้างขวาง ดังนั้นการแบ่งส่วนตลาดจะเป็นเครื่องมืออย่างมีคุณค่าในการวางแผนกลยุทธ์การตลาดที่เหมาะสม การแบ่งส่วนตลาดจะช่วยแบ่งนักท่องเที่ยวออกเป็นกลุ่มที่มีความจำเป็นและความต้องการต่าง ๆ กัน ดังนั้นการแบ่งส่วนตลาดจึงเป็นฐานการบรรลุความมีประสิทธิภาพในการเสนอผลิตภัณฑ์ให้ตรงกับอุปสงค์ที่ชัดเจนรวมทั้งการเพิ่มความมีประสิทธิผลและต้นทุนในกระบวนการทางการตลาด เพื่อบรรลุความมุ่งหมายการศึกษาวิจัย จึงพิจารณาถึงการบ่งชี้ส่วนการตลาดที่สอดคล้องกับตลาดการท่องเที่ยวนานาชาติของแหล่งท่องเที่ยวกลุ่มอันดามัน ประเทศไทย เป็นจังหวัดที่อยู่ติดกัน (ภูเก็ต กระบี่และพังงา) เป็นหนึ่งแหล่งท่องเที่ยวเดียว

วัตถุประสงค์ประการแรกของการศึกษาเรื่อง ‘‘การแบ่งส่วนตลาดนักท่องเที่ยวเข้าประเทศกลุ่มอันดามัน ประเทศไทย’’ คือเพื่ออธิบายคุณลักษณะประชากรศาสตร์และคุณลักษณะที่สัมพันธ์กับนักท่องเที่ยวนานาชาติที่มาเยี่ยมเยือนกลุ่มอันดามัน ประเทศไทย ประการที่สองเพื่อบ่งชี้ถึงประโยชน์ของส่วนการตลาดของตลาดการท่องเที่ยวเข้าประเทศ ประการที่สามแสดงถึงประโยชน์ของการแบ่งส่วนกับด้านพื้นที่ ด้านประชากรศาสตร์และคุณลักษณะที่สัมพันธ์กับการเดินทางและการพิจารณาถึงความแตกต่างในเชิงสถิติว่ามีนัยสำคัญหรือไม่ระหว่างส่วนการตลาดต่าง ๆ ในรูปของประชากรศาตร์และคุณลักษณะที่สัมพันธ์กับการเดินทาง วัตถุประสงค์ประการสุดท้ายเพื่อประเมินความน่าสนใจของแต่ละส่วนการตลาดที่มีความหมายต่อการตลาด

การเก็บข้อมูลปฐมภูมิจากนักท่องเที่ยวนานาชาติที่มาเยี่ยมกลุ่มอันดามัน ประเทศไทยโดยใช้แบบสอบถามจำนวนห้าร้อยสิบสามชุด แบบสอบถามครอบคลุมข้อมูลประชากรศาสตร์ คุณลักษณะที่สัมพันธ์กับการเดินทาง และผลประโยชน์ต่าง ๆที่นักท่องเที่ยว

แสวงหาในการเดินทางมาท่องเที่ยวของเขา การวิเคราะห์ข้อมูลจากรายละเอียดของแบบสอบถามใช้โปรแกรมสำเร็จรูปทางสังคมศาสตร์ รุ่น 16

การศึกษาครั้งนี้ใช้วิธีการวิเคราะห์กลุ่มปัจจัยเพื่อกำหนดส่วนการตลาดที่แสวงหาผลประโยชน์ที่แตกต่างกัน 3 กลุ่ม (“กลุ่มแสวงหาการพักผ่อน/หลบหนีความวุ่นวาย” “กลุ่มแสวงหาการพักผ่อนหย่อนใจ/ความรักทางเพศในแหล่งท่องเที่ยวต่างประเทศ” “กลุ่มแสวงหาธรรมชาติและสิ่งใหม่ ๆ และกิจกรรมกลางแจ้งแบบครอบครัว”) ทดสอบความแตกต่างระหว่างกลุ่มอย่างมีนัยสำคัญสำหรับอายุ ประเทศพำนัก ฐานะการแต่งงาน วัตถุประสงค์เบื้องต้นการเดินทาง ผู้ร่วมเดินทาง จำนวนผู้เดินทางร่วม ยิ่งไปกว่านั้นการศึกษาได้ใช้เกณฑ์การพิจารณา 4 ประการ (ความมีกำไร ความเสี่ยง ดัชนีความมีกำไรที่ปรับความเสี่ยง และขนาดส่วนการตลาดสัมพัทธ์) เพื่อตัดสินใจเลือกส่วนการตลาดที่ชอบมากที่สุด

จากผลการศึกษา ผู้ศึกษาได้เสนอแนวทางสำหรับเลือกส่วนการตลาด และเสนอแนะกลยุทธ์การตลาดต่อทั้งผู้ให้บริการทางการท่องเที่ยวและรัฐบาลเป็นการเฉพาะเพื่อดำเนินการกับส่วนการตลาดให้ดีขึ้น การศึกษาครั้งนี้ได้เสนอแนะกลยุทธ์การตลาดชนิดต่าง ๆ สำหรับแต่ละส่วนการตลาดจากฐานผลประโยชน์ที่นักท่องเที่ยวแสวงหาและพฤติกรรมในการเดินทาง นอกจากนี้ รัฐบาลมีความจำเป็นต้องแสดงบทบาทเป็นศูนย์กลางการส่งเสริมตลาดกลุ่มอันดามัน ประเทศไทยให้กลุ่มสามจังหวัดใกล้เคียงเป็นหนึ่งแหล่งท่องเที่ยวเดียว

คำสำคัญ ผลประโยชน์ที่แสวงหา การแบ่งส่วนการตลาด การวิเคราะห์กลุ่มปัจจัย กลุ่มอันดามัน ประเทศไทย

Thesis Title Inbound Market Segmentation of The Andaman Cluster, Thailand
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ABSTRACT

Tourism export has become an important economic sector in many countries as a growing source of foreign exchange earnings. In addition, the competitive environment in tourism global market becomes more and more critical everyday. Many countries have significantly invested in national tourism marketing strategy to attract tourists, especially from foreign markets. Successful marketing requires careful planning and comprehensive analysis of data and information obtained from tourists. Hence, market segmentation has become a valuable tool in planning appropriate marketing strategies. This helps to divide tourist market into distinct groups of tourists with differing and specific needs and desires. Therefore, segmentation is justified on the grounds of achieving greater efficiency in the supply of products to meet identified demand as well as increasing cost-effectiveness in the marketing process. To achieve this purpose, the aim of this research is identifying relevant segments of the destinations' international tourism market in The Andaman Cluster, Thailand as the group of three adjoining provinces (Phuket, Krabi and Phang-Nga) into one tourism destination.

The first objective of this research "In-bound tourism market segmentation in The Andaman Cluster, Thailand" is to describe the socio-demographic and trip-related characteristics of international tourists visiting The Andaman Cluster, Thailand. The second is to identify the benefit segments of in-

bound tourism market. Third, to profile the benefit segments with geographic, demographic and trip-related characteristics, and determine if there were statistical differences among the segments in terms of demographic and trip-related characteristics. The Final objective is to assess the attractiveness of each benefit segment, and identify implications for marketing.

The primary data was acquired from surveying via questionnaire five hundred and thirteen international tourists who visited The Andaman Cluster, Thailand. The questionnaire was designed to collect a wide range of information including demographic information, trip-related characteristics, and a list of possible benefits sought by tourists in their trip. After sorting out the information by questionnaires, data was coded, computed and analyzed the Statistical Package by SPSS program version 16.

This study used factor-cluster analysis to define three non-homogeneous benefit-sought segments ("Escape/relaxation seekers", "Leisure/ romance in foreign destination seekers", "Novelty/nature and family/outdoor activities seekers"). Significant differences among the three segments were found for age, country of residence, marital status, primary purpose of visit, travel party, number of people in travel party. Furthermore, the study also used four criteria (profitability, risk, risk-adjusted profitability index, and relative segment size) to reach a decision on the choice of the most favorable target market.

Based on the results of the survey, this researcher has proposed the guideline for choosing the target segment, and suggested marketing strategies to both individual tourism suppliers and the government to better pursue the target segment. This study has given various marketing strategies for each segment based on the benefits that the tourists seek in their

trip and their behavior. In addition, the government needs to play the central part in promoting The Andaman Cluster, Thailand as a group of three adjoining provinces into one tourism destination.

Key words: *benefit-sought, market segmentation, factor-cluster analysis, The Andaman Cluster, Thailand*

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I would also like to express my thanks to all respondents who shared their valuable time to answer my questionnaires. I am sincere thankful for the friendship and cooperation of my colleague, Ms. Nhung. I also want to acknowledge the friendship and support of all my friends in MBA class.

Last but not the least, I am grateful to my family and friends for their fullest support and constant encouragement I received throughout my studying in Thailand. I acknowledge and deeply appreciate the abundant love from my parents, my three sisters Thao Trang, Thien Trang, Thuy Trang, my brother Thanh Tung, my three nephews Minh Duy, Dang Khoa, Tri Tin, and my two nieces Que Tran, Khanh Linh.

Ho Le Thu Trang

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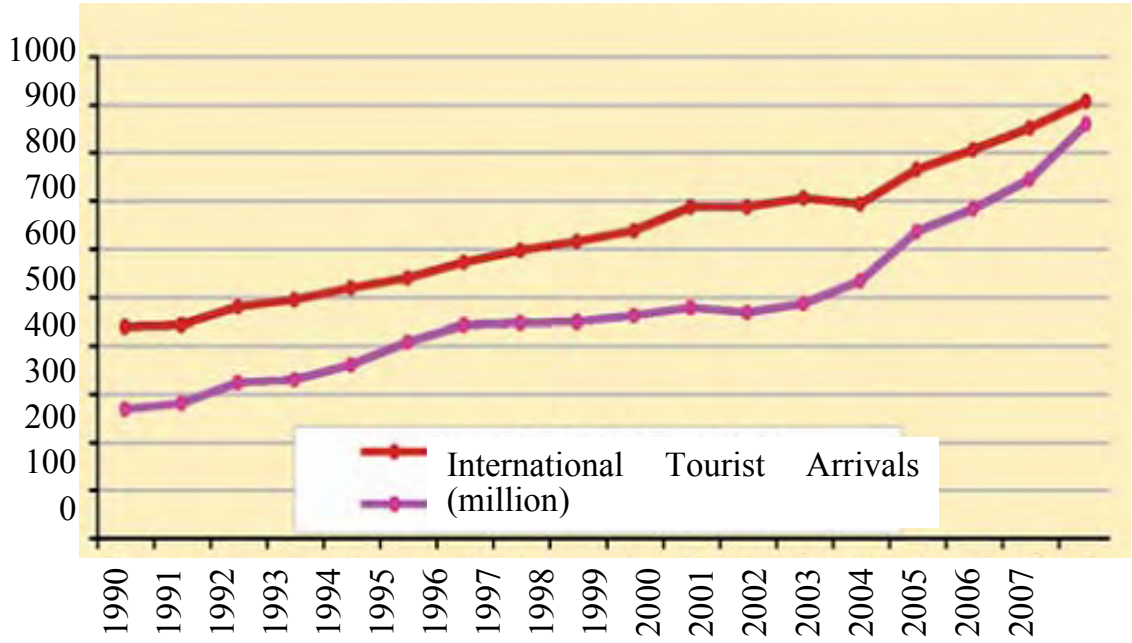
INTRODUCTION

1.1 Statement of the Problem

In the past decades, tourism has experienced continued growth and diversification to become one of the world's largest and fastest-growing industries. Over time, more and more destinations have opened up and invested in tourism development, turning modern tourism into a key driver for socio-economic progress. Tourism has become one of the major international trade categories. The export income generated by international tourism ranks the fourth after fuels, chemicals and automotive products. International tourism receipts grew to US$ 856 billion in 2007, corresponding to an increase in real terms of 5.6% over 2006 (UNWTO, 2008). For many countries, tourism exports have become an important economic sector in many countries as a growing source of foreign exchange earnings.

A. **The World**

Figure 1.1 Inbound Tourism 1990-2007



Source: UNWTO (2008)

Table 1.1 World Tourism Arrivals by Region 2006-2007

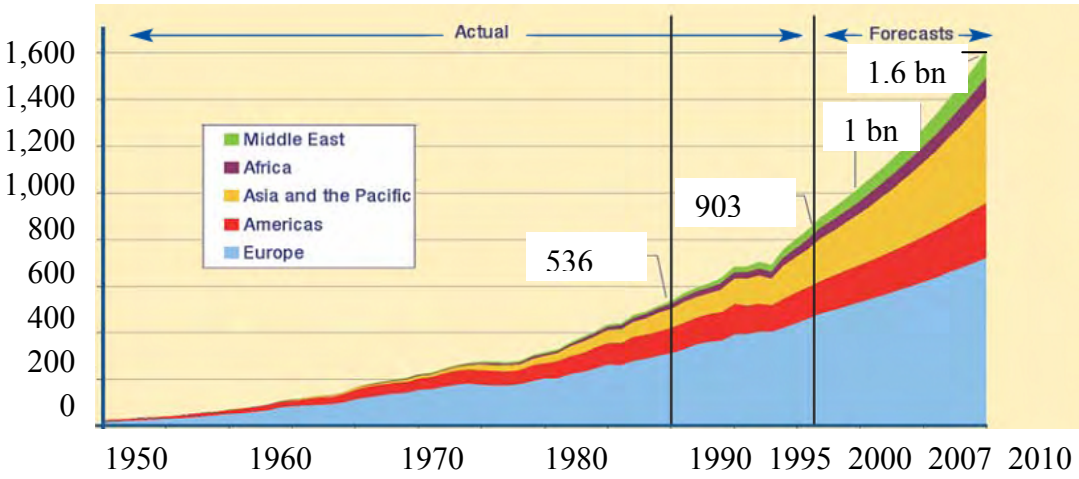
Region	International Tourist Arrivals (million)		Market Share (%)	Change (%)	Average annual growth (%)
	2006	2007	2007	07/06	00-07
World	**847**	**903**	**100**	**6.6**	**4.1**
Europe	**462.2**	**484.4**	**53.6**	**4.8**	**3**
Northern Europe	56.4	57.6	6.4	2.2	4
Western Europe	149.5	154.9	17.1	3.6	1.5
Central/Eastern Europe	91.5	95.6	10.6	4.5	4.7
Southern/Mediter. Europe	164.8	176.2	19.5	7	3.3
Asia and the Pacific	**167**	**184.3**	**20.4**	**10.4**	**7.8**
North-East Asia	94.3	104.2	11.5	10.6	8.6
South-East Asia	53.1	59.6	6.6	12.2	7.6
Oceania	10.5	10.7	1.2	1.7	2.2
South Asia	9.1	9.8	1.1	8.2	7.1
Americas	**135.8**	**142.5**	**15.8**	**4.9**	**1.5**
North America	90.6	95.3	10.6	5.2	0.6
Caribbean	19.4	19.5	2.2	0.1	1.9
Central America	7.1	7.7	0.9	9.6	8.6
South America	18.7	19.9	2.2	6.4	3.9
Africa	**41.4**	**44.4**	**4.9**	**7.4**	**6.9**
North Africa	15.1	16.3	1.8	7.9	6.8
Subsaharan Africa	26.3	28.2	3.1	7.1	6.9

Middle East	**40.9**	**47.6**	**5.3**	**16.4**	**10**

Source: UNWTO (2008)

Worldwide, international tourist arrivals grew from 25 million in 1950 to 903 million in 2007, up 6.6% on 2006. Simultaneously, international tourism receipts grew to US$ 856 billion (625 billion euros) in 2007, corresponding to an increase in real terms of 5.6% over 2006. Receipts from international passenger transport were estimated at US$ 165 billion, bringing the total international tourism receipts including international passenger transport (i.e. visitor exports) to over US$ 1 trillion. Although Europe recorded highest market share, Asia recorded

Figure 1.2 International Tourist Arrivals Forecasts 2007-2020



Source: UNWTO

According to UNWTO, by 2010 international arrivals were expected to reach 1 billion, and 1.6 billion by 2020. This was 2.5 times the volume recorded in the late 1990s. The number of people traveling would continue to boom in the 21st century had been its ongoing surprisingly strong growth. Although the pace of growth would slow down to a forecast average 4 per cent a year which signifies a doubling in 18 years,

there were no signs at all of an end to the rapid expansion of tourism.

B. Thailand

Tourism was one of the industries that were generating considerable income for the country during the pass years. The advantage of Thailand to have many natural resources (such as beaches, islands, tropical forests, coral reefs, farms, and also tropical climate and so on) which supported this industry and also the development of infrastructures could surely be the fuel to drive tourism industry further toward the excellence. Thailand was setting its goal toward being great destination for global tourists. Budget was and would be allocated by government to be use in both developing the tourism products and marketing it to the global market. To be Asian Pacific tourism hub was also another goal the country plan to achieve. Tourism products were classified to 2 categories, product for international market and product for domestic market. Especially, the major products for international market were also divided into four clusters for promotion scheme. Cluster I, Beach and Seaside, focuses on areas include Chonburi (Pattaya), Phuket, Phangnga, Krabi, Ko Samui, Prachuab Khiri Khan (Hua Hin), Phetchaburi (Cha-am). Cluster II, Park, Nature, Forest, and Mountain, includes Chiang Mai, Kanchanaburi, Phetchaburi. Cluster III, History and Culture, locates in Bangkok, ChiangMai, Chiang Rai, Sukhothai, Kanchanaburi, Phra Nakhon Si Ayutthaya. Cluster IV, Special Interest, includes Shopping, Food, MICE, Golf, Wellness and Spa. These facilities were available at most of the major city through out the country (Asian Development Bank, 2007).

Table 1.2 International Tourism Arrivals to Thailand 1998-2007

Unit: thousand

Region	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007

East Asia	4,583	5,196	5,782	6,096	6,565	6,200	7,071	6,712	7,942	7,981
Europe	1,889	1,990	2,191	2,328	2,284	2,284	2,708	2,648	3,322	3,690
The Americas	449	515	598	614	650	586	746	703	825	8,176
South Asia	259	280	340	334	391	391	519	469	605	686
Oceania	348	351	385	431	427	348	505	472	627	731
Middle East	165	175	202	239	275	206	306	293	406	454
Africa	72	73	81	91	89	67	73	83	94	105
Grand Total	**7,765**	**8,580**	**9,579**	**10,133**	**10,873**	**10,082**	**11,567**	**11,737**	**13,822**	**14,464**

Source: TAT (2008a)

As showed in table 1.2, the international tourist arrival showed a definite upward trend during the period 1998 to 2007. The number of tourist increased from 7,764,931 in 1998 to 10,872,976 in 2002 and 14,464,228 in 2007 (TAT, 2008a). This represented growth of more than 86% (or 6699297 visitors) in the last ten years. The average annual growth rate was 8.6%. Thai government has always been trying to promote this industry to generate more income for the country.

Inbound tourism market segmentation

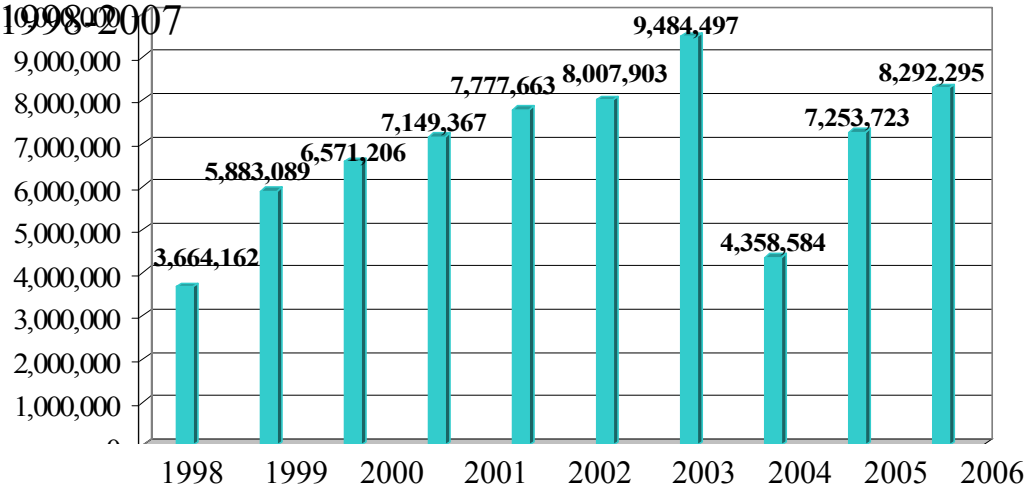
Generally, Tourism Authority of Thailand (TAT) segmented the in-bound tourism market based on geography. In 2008, the 18 main markets which were targeted for intensive promotions were mainly in the Asia-Pacific, East Asia and Europe regions. Among the 20 emerging markets with strong growth potential were Vietnam, Philippines, Indonesia, Russia and the Commonwealth of Independent States (CIS), East Europe, UAE, and Saudi Arabia (TAT, 2008b).

In 2009, TAT targeted the following markets: “Rising stars” such as Russia, India, China, the Middle East and Spain, short-haul markets (Vietnam and Indonesia); Existing

markets in Western Europe and key markets in Asia such as Japan, Singapore, Korea and Hong Kong; Northeast Asia, the ASEAN region, South Asia, South Pacific, Europe and The Americas (includes the United States, Canada and Latin America) as well as regional market clusters (TAT, 2009).

C. The Andaman Cluster, Thailand

Figure 1.3 Internal Tourism in The Andaman Cluster, Thailand 1998-2007



Source: TAT (2008c)

Figure 1.3 indicated the fluctuations of tourist visiting The Andaman Cluster, Thailand due to many reasons in the country i.e. unstable security situation, the tsunami, etc. as well as the global changes occurred in the world situation over the period 1998-2007. This region was seriously affected in 2005 after the devastating tsunami of December 2004 but have rapidly recovered and made a fighting comeback in 2006 and 2007, reporting virtually full occupancies through the Christmas and New Year period.

Actually, TAT targeted the tourism market in The Andaman Cluster based on geography as the whole country. According to the statistic of tourist arrivals of this area, the researcher divided the tourism market into several segments

based on geography, age, and purpose of visit in order to better understand the situation of this market.

Figure 1.4 Share of Tourist by

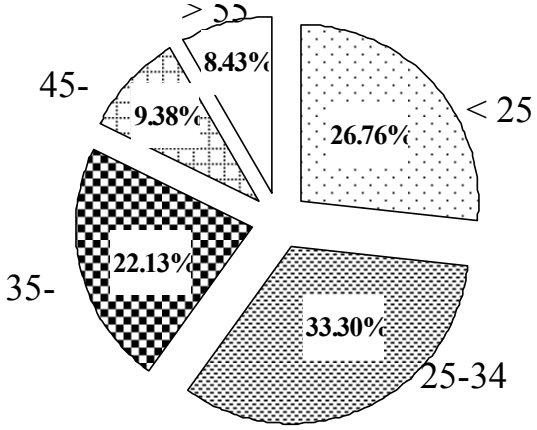


Figure 1.5 Share of Tourist by

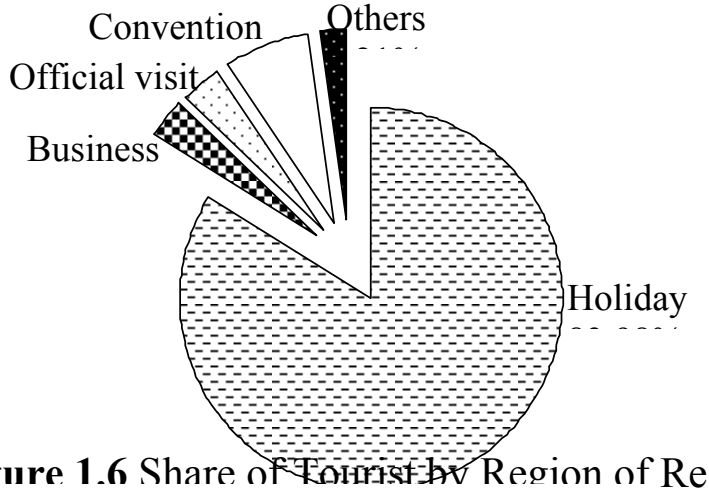
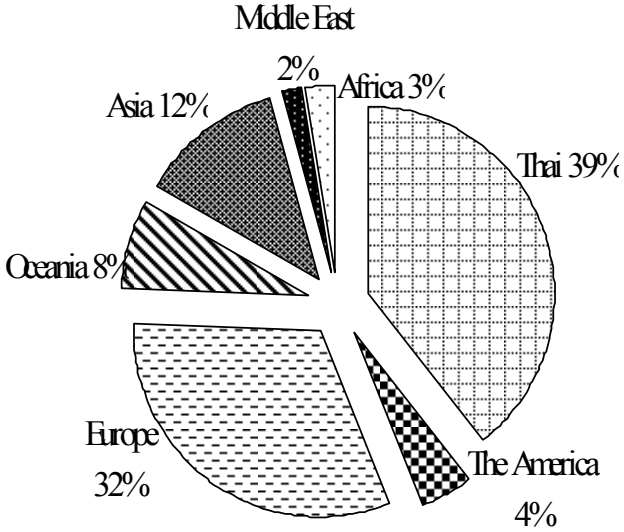


Figure 1.6 Share of Tourist by Region of Residence



Source: TAT (2008c)

In 2007, visitors in the 25-34 year age group generated around 33% of all visitors in The Andaman Cluster, Thailand. Almost 84% of all visitors (a total of 8,292 thousand) to The Andaman Cluster, Thailand were motivated by leisure, recreation and holiday. Convention travel accounted for more than 7%, 3,4% for official visit, 3,1% for business travel and more than 2% represented travel for other purposes. Europe, with a share of 32% of all tourist arrivals including Thai and international visitors was the world's largest foreign region (a share of 52.38% of international tourist arrivals). 12% of tourists came from Asia, 8% came from Oceania. And three small inbound tourism markets were The Americas, Africa and Middle East.

It is clear that tourism exports have become an important economic sector in this country as a growing source of foreign exchange earnings. Moreover, the competitive environment in tourism global market becomes more and more critical. Many countries have significantly invested in national tourism marketing strategy to attract travelers, especially from foreign markets. Hence, every country should significantly invest in a national tourism marketing strategy to attract tourists, especially from foreign markets.

In addition, the marketing concept holds that achieving marketing goals depends on determining the needs and wants of target markets and delivering the desired satisfaction more effectively and efficiently than competitors (Kotler et al., 2006). Moreover, Mykletun, et al. (2001) claims that instead of developing marketing strategy based on what tourism marketers believe the destination has to offer, the starting point is to identify what exists in the minds of visitors and reinforce these key features in their minds. Thus, market

segmentation has become a valuable tool in planning appropriate marketing strategies. Market segmentation makes it possible to find homogeneous smaller markets thereby helping marketers to identify marketing opportunities and to develop products and services in a more tailor-made manner (Jang, Morrison & O'Leary, 2000). In other words, segmentation is justified on the grounds of achieving greater efficiency in the supply of products to meet identified demand and increase cost-effectiveness in the marketing process.

The Tourism Authority of Thailand (TAT) markets Thailand to the world successfully, but it is seen to be focusing on the country as a whole rather than on individual destinations (Asian Development Bank, 2007). As discussed above, market segmentation is very useful for the understanding of variations among customer groups and as such represents a powerful tool for successful better targeted marketing strategies. Therefore, the aim of this research is identifying relevant segments of the destinations' international tourism market in The Andaman Cluster, Thailand as the group of several provinces into one tourism destination. The Andaman cluster region (including three adjoining provinces Phuket, Krabi and Phang-Nga) is one of the most popular tourism destinations, after the capital-Bangkok.

1.2 Related Literature

1.2.1 Concept of Market Segmentation

Segmentation has been a long-established marketing technique used to simplify, manage and understand business practice in the tourism industry. Smith (1956) introduced the concept of market segmentation as a strategy. He states that "Market segmentation consists of reviewing a heterogeneous market (one characterized by divergent demand) as a number of

smaller homogeneous markets". Another concept is claimed that "Market segmentation is the division of the overall market for into groups of people with common characteristics" (Morrison 2002). Kotler & Keller (2009) say that "A market segment consists of a group of customers who share a similar set of needs and wants". Marketing academics and practitioners have adopted the concept of market segmentation enthusiastically. The benefits have been seen to include more effective use of marketing dollars, clearer understanding of the needs and wants of selected customer groups, more effective positioning, and greater precision in selecting promotional means and techniques.

Segmentation effectiveness depended on arriving at segments which are measurable, accessible, substantial, actionable and differentiable (Kotler, P., Brown, L., Adam, Armstrong, G., 2001). Kotler referred to a measurable segment as one where the size of the segment and the related purchasing power could be quantified. For a segment to be accessible it must be able to be reached and served effectively by the marketing entity. Further, the segment must be substantial in that it was large and profitable enough to warrant the marketing entity to design marketing mix strategies that were differentiated from strategies that target other segments. The segment must also be actionable in that the marketing entity could design effective marketing strategies to attract and serve the segment and for the segments to be differentiable, they must respond differently to different marketing stimuli.

1.2.2 The Two Principle Approaches to Segment the Market

The literature on tourism and hospitality was repleted with studies that had used several segmentation variables with different approaches. These two approaches of tourist

segmentation included a priori segmentation and posteriori segmentation (Mazanec, 1992; Halan, 2006; Dornica, 2007).

1.2.2.1 Priori or Commonsense Segmentation

A-priori segmentation required the researcher to first choose variables of interest and then classified buyers according to that destination (Wind, 1978 as cited in Hanlan, 2006). Typical example of areas in which commonsense segmentation approaches were regularly used to include profiling respondents based on their country of origin, profiling certain kinds of tourists (e.g., culture tourists, ecotourists) and profiling tourists who spent a large amount of money at the destination (big spenders). In fact, geographical segmentation such as grouping tourists by the country of origin were among the first segmentation schemes to be used (Haley, 1968). The author also criticized commonsense segmentation as being simply descriptive rather than being based on the actual cause of difference between individuals and instead proposed to use information about benefits consumers seek to form market segment.

For example, consumers with similar demographic characteristics may respond in a similar way to a change in pricing strategy but may have very different reactions to a promotional theme. Further, the selection of variables in an a-priori study, to some degree, reflected underlying assumptions concerning the market and about which variables were most likely to respond to marketing stimuli. Such assumptions were likely to influence the findings and marketing strategies that ensued (Hanlan, 2006).

1.2.2.2 Posteriori or Post-hoc or Data-driven Segmentation

The second approach was to segment market on post-hoc basic where the researcher chose a range of interrelated variables and then clustered buyers into group whose average within-group similarity was high and whose between group similarity was low (Wind, 1978). Haley (1968) said that data-driven segmentation required groups of customers to be formed on the bases of more than one characteristic (like commonsense segmentation) and consequently requiring different statistical techniques to be used. The researcher could identify groups with similar attitudes or usage habits, members often possess different demographic characteristics making marketing decisions (Spencer & Holecek 2006, Hu & Yu 2006, Mok & Iverson 1999). Post-hoc segmentation studies did not have a long history as commonsense segmentation studies did. This approach, however, represented a combination of commonsense and data-driven segmentation. In addition, Wedel & Kamakura (2002) declared that data-driven segmentation was powerful and frequently used tools for market segmentation. Therefore, this research was applied this approach to segment the in-bound tourism market in The Andaman Cluster, Thailand.

1.2.3 Market Segmentation Process

Dornicar & Leisch (2004) reviewed that the general trend in tourism marketing research had constantly been developing toward data-driven approaches. Dornicar (2007) illustrated the additional steps needed for data-driven segmentation as follows:

Step 1: Selection of the segmentation bases

Step 2: Grouping of respondents

Step 2a: Selection of segmentation algorithm

Step 2b: Stability analysis
Step 2c: Computation of final segmentation solution

Step 3: Profiling (external validation) of segments by identifying in which personal characteristics segments differ significantly

Step 4: Managerial assessment of the usefulness of the market segments (and formulation of targeted marketing activities)

1.2.3.1 Segmentation Bases (step 1)

a) Individual Segmentation Basis

In today's tourism literature, a very large number of studies used different descriptors and discriminating variables to segment a market, including motivations (Park & Yoon, 2006; Chang, 2005), benefits sought by travelers (Yannopoulos & Rotenberg, 1999; Jang, Morrison & O'Leary, 2000; Frochot, 2003; Molera & Alabaladejo, 2005); behavioral characteristics (Hu & Yu, 2006; Mok & Iverson 1999); and so on.

Koek, Gendall and Esslemont (1996) had argued that despite sophisticated approaches to market segmentation, one of the key difficulties in undertaking such studies was that the selection of variables involving in significant subjective judgments. A review of the literature indicated that there was no one correct way to segment a market (Kotler et.at., 2006; Morrison, 2002; Tkaczynski et.al., 2007). Many different techniques had been employed by tourism researchers to segment customers with some bases such as geographic, demographic and so on. A snap-shot of tourism segmentation studies was summarized as follows:

Table 1.3 Bases for Segmenting Markets

Basic	Description	Author/s
Geograph	Dividing a market on	Kotler et. al.,

ic	geographic variables such as nation, states, regions, cities or types of environment (e.g. urban, rural).	2006 Burke & Resnick, 2000 Morrison, 2002 Jonathan, 2004 Michael, 2006 Minkyung et. al.,2000
Demographic	Dividing a market based on demographic variables such as age, gender, family size, family life-cycle, income, occupation, education, religion or nationality.	Kotler et. al., 2006 Morrison, 2002 Jonathan, 2004 Michael, 2006 Minkyung et. al.,2000
Psychographic/lifestyle	Dividing markets based on consumer values, attitudes, interests, opinions.	Kotler et. al., 2006 Morrison, 2002 Michael, 2006 Minkyung et. al.,2000 Dillon et al., 1994
Benefits	Dividing the market into groups according to the different benefits that consumers seek from the product or service.	Haley, 1968 Frochot, 2003 Molera & Albaladejo, 2005 Morrison, 2002 Michael, 2006 Dillon et al., 1994
Usage	Dividing markets based on usage patterns such as non-user, ex-user, potential user, first-time user, regular user, high volume user.	Morrison, 2002 Michael, 2006

Loyalty	Dividing markets based on brand loyalty to a particular hotel chain or destination.	Kotler et. al., 2006 Schiffman et. al., 2005

Table 1.3 (Continued)

Basic	Description	Author/s
Image	Dividing markets based on the affective associations relating to brand image.	Janet,H., 2006 Lin & Huang, 2007
Behavioral	Dividing markets based on consumer's knowledge of, attitude toward, uses for and responses to a product or service.	Kotler et.al., 2006 Morrison, 2002 Jonathan, 2004 Bo & Hong, 2006 Mok & Iverson, 1998

Source: the author

b) Combination of Segmentation Bases

Tkaczynski et. al. 2007 reviewed that tourism researchers had used one or a combination of segmentation bases to segment market. Only a small proportion of tourism researchers had used one base to segment a market. The majority had used more than one segmentation base. They termed this a combine approach to segmentation. The author suggested that the use of combined segmentation variables to develop tourism profiles was warranted and that a "one size fits all" approach was not suitable because different tourism stakeholders within a single destination attracted different tourists. Morrison, A.M., (2002) claimed that when the researcher used more than one segmentation bases, a primary base was chosen first after that two or more other bases were used to profile respondents.

- Choosing a Primary Segmentation Basis

Wind (1978, as cited in Hanlan 2006) argued that the selection of variables to form the basis of a segmentation model needed to relate to specific management objectives and be informed by the current state of knowledge concerning the relevance of marketing and consumer behavior variables as bases for and description of market segments. However, Wind's framework demonstrated a preference for what had known as "the benefit sought approach". Hsieh et al. (1988) stated that the travel benefit sought related to reasons people might want to go on a vacation and experiences they might be looking for. The benefit segmentation approach was based upon the belief that it was possible to measure consumer value systems in detail, together with consumer thoughts about various brands in the product category of interest (Haley, 1968).

According to Haley (1968), the rationale behind this segmentation approach was that benefit sought by customers was fundamental reasons for the existence of true market segments and they determined the consumers' behavior much more accurately than did other descriptive variables such as demographic and geographic characteristics. Some tourism researchers also claimed that benefit segmentation was a more appropriate approach for defining destination segments and developing marketing strategies because it identified travelers' motivations and the satisfaction of what they needed and wanted from their travel trip (Ahmed, Barber & Astous, 1998).

Moreover, Morison (2002) reviewed benefit segmentation studies in tourism. It grouped customers according to similarities in the benefits that they looked for in specific products or services. The author concluded that benefit segmentation led to valuable insights in tourism research in the past. Because people did not just buy services, they bought a

package of benefits they would get when they bought the service. And, the essence of a marketing orientation was to provide customers with that they needed and wanted. It was said that benefits motivated purchases, and that other segmentation bases were only descriptive. In the other words, benefits should always be the primary segmentation base, with other criteria such as purpose of trip, geographic location, and other demographics being used to focus more precisely on the best target.

Halan (2006) reviewed that the primary advantage of the benefit-sought approach was the cause rather than descriptive nature of the data, making this approach a more effective tool for developing marketing strategy. The author also noted that benefit segmentation was seen as the first stage in the segmentation process. Characteristics such as age, income, lifestyle and media habits were then included in the process to enable marketers to develop strategies to reach and communicate effectively with each segment. Therefore, this study was segmented the tourism market in the Andaman Cluster, Thailand based on benefit sought by tourists. The range of benefits was compiled from the identification of the most common one in previous studies and survey. A snap-shot of benefits sought by traveler was summarized in the table 1.4.

Table 1.4 Benefit Sought by Traveler

Author/s	**Research**	**Benefits sought by traveler**
Hsieh, O'Leary, Morrison, & Chang (1988)	Modeling The Travel Mode Choice of Australian	Seeing & experiencing a foreign destination, Experiencing new & different lifestyles, Learning new things/increase knowledge, Trying new foods, Traveling to places historically important, Seeing as much as possible, Roughing it, Experiencing simpler lifestyle, Being daring & adventuresome, Finding thrills/exciting, Rediscovering

	Outbound Travelers	myself, Escaping from the ordinary, Talking about trip after return home, Going places friends haven't been, Safe/secure travel, Having fun/being entertained, Feeling at home away from home, Indulging in luxury, Meeting people with similar interests, Visit friends/relatives, Visit places family came from, Family is together, Reliving past good times, Sports participation, Sports spectating, Physical activity, Get away from demands of home, Change from busy job, Doing nothing at all.
Jang, Morrison, O'Leary (2000)	Benefit Segmentation of Japanese Pleasure travelers to the USA and Canada: Selecting Target Markets Based on The Profitability and Risk of Individual Market Segments	Environment quality, air, water and soil, Standards of hygiene and cleanliness, Personal safety, Nice weather and Interesting rural countryside, Visiting a place I can talk about when get home, Going to places I have not visited before, Opportunities to increase one's knowledge, Going places my friends have not been, and Having fun, being entertained, Historical, archaeological, and military places and Arts and cultural attractions, Outdoor activities, Roughing it, Visits to appreciate natural ecological sites, and Unique and different native groups, Being together as a family, Doing nothing at all, Activities for the whole family, Shopping, and Just relaxing, Escaping from the ordinary, Getting away from the demands of home, and Getting a change from a busy job, The best deal I could get and Destination that provides value for holiday money, Availability pre-trip and In-country tourist information, Experiencing new and different lifestyles, Experiencing a simpler lifestyle, and Trying

		new foods.

Table 1.4 (Continued)

Author/s	Research	Benefits sought by traveler
Frochot (2003)	A benefit Segmentation of Tourists in Rural Areas: a Scottish Perspective (2003)	For adventure, To get away, To experience a different culture, To experience something unspoiled, For fitness/sport activity, To learn about nature/wildlife, To meet local peoples, To experience open countryside, To be outdoors/in nature, To relax, For physical rest, To experience rural life, To observe scenic beauty.
Molera, L. & Alabaladejo (2005)	Profiling Segments of Tourists in Rural Areas of South-Eastern Spain	Calm atmosphere, Environmental quality and nature, Attractive landscapes, Relaxation, Non crowded place, Independence and flexibility, Visiting monuments and typical constructions, Cultural attractions, Outdoor activities, Having a good time with family, Opportunities for children, Good price, Short travel distance, Rural life activities, Traditional food, Relationship with local residents.
Hendricks, Schneider, Budruk (2004)	Extending Importance-Performance Analysis with Benefit-Based	To be in mountains, To experience an undeveloped lake shoreline, To experience Mt. Hood, To experience natural surroundings, To experience scenic views, To be outdoors, For rest and relaxation, To get away from daily routines, To experience peace and quiet, To escape crowds, To be with friends, To party with my friends, For excitement, To experience

	Segment ation	new and different things, For exercise.

Source: the author

After collect all of benefits sought by tourists in previous researches, each were accessed the suitability and appropriateness based on the characteristics of The Andaman Cluster, Thailand. The results indicated that a set of 42 attributes were used to apply in this research such as just relaxing; having fun, being entertained; shopping; get recharged; seeking personal rewards; escaping from daily routines; getting away from pressures and responsibilities; be able to do nothing; going to places I have not visited before; going places my friends have not been; seeing and experiencing a foreign destination; pure nature; standards of hygiene and cleanliness of destination; destination that provides value for holiday money; nice and interesting weather; opportunities to increase one's knowledge; attractive landscapes; unique architectures; outdoor activities; physical activities/sport activities; visits to appreciate natural ecological sites; having a good time with family; activities for the whole family; spending time with someone special; having time for romance; experiencing new cultures; to know about culture events; visit festival and or special events; experiencing new lifestyle; enjoying new foods/ traditional foods of destination; being daring and adventurous; finding thrills/ exciting; visiting friends/ relatives; reliving past good times; learning about wildlife; have privacy; non-crowded place; opportunities for children; relationship with local residents; being in a mountain; being in a beach; visiting Sea-Sun-Sand destination.

- ***Other Segmentation Bases*** were geographic segmentation; demographic segmentation; psychographic segmentation; behavioral segmentation to make the profile for each segment. Haley (1968) gave example to argue that true

market segments were based on the relationship between the benefits sought from consumption and future purchasing behavior. Forms of segmentation including geographic, demographic and psychographic and behavioral tools provided only descriptive data based on "after the fact" characteristics of consumers. In this way, a reasonably deep understanding of the people who made up each segment could be obtained. And, by capitalizing on this understanding, it was possible to reach them, to talk to them in their own terms, and to present a product in the most favorable light possible.

1.2.3.2 Grouping of Respondents (step 2)

a) Selection of Segmentation Algorithm

In this step, the data analyst selected one or more segmentation algorithm. The predominant algorithms used in tourism research were hierarchical clustering and nonhierarchical clustering (Dornicar, 2007). Hierarchical clustering methods started with single-subject clusters, and linked clusters in successive stages. Two consumers who were placed in the same group at an early stage of the process would remain in the same segment up to the final clustering solution. In contrast, non hierarchical methods started from a (random) initial division of the subjects into a predetermined number of clusters, and reassign subjects to clusters until a certain criterion was optimized. Two consumers who were placed in the same group at an early stage may end up in different segment (Wedel & Kamakura 2002).

According to Aaker, Kumar & Day (2001) both of hierarchical and nonhierarchical clustering methods had their own advantages. Hierarchical clustering was relatively easy to relatively easy to read and interpret. The output had the logical structure that theoretically always should exist. On the other hand, the advantage of nonhierarchical clustering was that it

tended to be more reliable. However, the major disadvantage of non hierarchical clustering was that the series of clusters was usually a mess and very difficult to interpret. Moreover, non-hierarchical methods typically started by diving all the cases into a pre-specified number of clusters. Hence, the analyst had to choose the number of clusters a priori, which could be a difficult task.

Moreover, Aaker, Kumar & Day (2001) stated that both approaches should be used in progression. First, a hierarchical approach could be used to identify the number of clusters and any outliers, and to obtain cluster centers. The outliers (if any) were moved and a nonhierarchical approach was used with the input on the number of clusters and the cluster centers obtained from the hierarchical approach. The merits of both approaches were combined, and hence the results would be better.

Both hierarchical approach and nonhierarchical approach had several different methods. So, each should be chosen the most suitable and efficient method applying for this research. In hierarchical approach, the commonly used methods were single linkage, complete linkage, average linkage, Ward's method, and the centroid method (Aaker, Kumar & Day, 2001). Dolnicar (2007) also concluded that the predominant algorithms used in tourism research were Ward's clustering because this algorithm was proved its advantage. Hence, the researcher decided to use Ward's method in this stage. Besides, a large number of nonhierarchical methods were available; K-means was the best known and most widely used of this research (Wedel & Kamakura 2002).

In addition, Dornicar (2007) suggested that while discussing the selection of a suitable clustering algorithm was the term "factor-cluster segmentation" which appeared to have

developed in tourism research. Researchers should use this approach typically: selecting a large number of items, conducting factor analysis to reduce a large number of items to a smaller number of factors and subsequently using factor cores as the basic for segmentation. Besides, if the cluster analysis was performed using factor analysis components, the analyst must go back to the raw scores for the original variables and compute average profiles using the data (Aaker et. al., 2001).

b) Stability Analysis

According to Aaker et. al., (2001), it was difficult to evaluate the quality of the clustering. There were no standard statistical tests to ensure that the output was not purely random. The value of the criterion measure, the reasonableness of the output, the appearance of a natural hierarchy (when a non-hierarchical method was used), and the split-sample reliability tested all provide useful information. However, it was still difficult to know exactly which clusters were very similar and which objects were difficult to assign. The authors also suggested that the variables that significantly differentiated between clusters should be identified via discriminant analysis. Moreover, Park & Yoon (2006) commented that discriminant analysis should be used to provide information as to which of the travel benefit items were driving the differences and to assess the accuracy level of classification of segment membership.

c) Computation of Final Segmentation Solution

As discussed above, this research were conducted in three stages such as factor analysis, the combination of hierarchical cluster analysis (Wards' method) and non-hierarchical analysis (K-mean method), and discriminant analysis.

1.2.3.3 Profiling of Segments (step 3)

According to Dillon, Madden, Firtle (1994), once the segments had been defined and respondents sorted into categories, the research focused on profiling each segment in term of its distinctive features. These profiles were called cluster profiles. Cross tabulation was perhaps the simplest approach to profiling segments. Besides, some tests were used in this step such as: analyses of variance, Chi-square tests to test whether respondents were significantly different from others. The kind of test used depends on the number of characteristics that are tested and the scale of the variables (Dornicar, 2007).

1.2.3.4 Managerial Assessment (step 4)

In this step, destination management had to evaluate whether or not the data-driven segment of interest does represent an attractive market segment. This evaluation was made using the criteria outlines above. If the segment was attractive, destination management could proceed to customize the service to best suit the segment needs and develop targeted marketing activities which would enable most effective communication with the segment (Dornicar, 2007).

Kotler and Armstrong (2003) suggested that market segments should meet five selection criteria to be viable. They needed to be: measurable, accessible, sustainable, differentiable, and actionable. In addition to Kotler and Armstrong's list, Morrison (2002) added five more criteria for effective segmentation; homogeneity, defensibility, competitiveness, durability, and compatibility. These theoretically fundamental criteria provided marketers with useful guidelines for targeting markets; however, they lacked measurability by not clearly operationalizing quantifiable and objective measures for each criterion. An additional disadvantage was they did not incorporate the most important quality of a segment as a target

market, namely profitability (Lee, Morrison and O'Leary, 2005).

McQueen and Miller (1985) recommended the assessment of market attractiveness based upon profitability, variability, and accessibility. They used the relative weighted population size and expenditures of each group to assess profitability. Loker and Perdue (1992) proposed a systematic approach to evaluating segments using a ranking procedure. They assessed segment attractiveness in term of profitability, accessibility, and reach ability by ranking each segment on its relative performance on the three evaluation criteria. The overall ranks were determined by summing the scores for each segment across the three criteria. Profitability was measured by the percentages of total expenditure related to percentage of respondents, the percentage of person-nights, and average expenditures per person-night.

Kastenholz, Davis, and Paul (1999) conducted a very similar type of segment assessment for rural tourism in Portugal. A composite index of segment attractiveness from a revenue-generating perspective was conducted. The index consisted of three criteria: the size of the segment as measured by the percentage of study respondents in the segment, the number of persons in the travel party, and the average expenditures per person per day of cluster members. The clusters were ranked on their relative performance on each of there three criteria, then a composite score was calculated by simply adding the rankings on each criterion across each segment.

Jang, Morrison, O'Leary (2000) commented that the weakness of many studies with respect to target market selection was their lack of a comprehensive understanding about the profitability of the resulting market segments. Specifically, the studies only used the relative size of the market segments for

target market selection. Additionally, the studies disregarded the probability or risk associated with each segment's potential profitability. Hence, this study attempted to analyze not only segment profitability but also risk, in evaluating segment attractiveness.

According to Jang, Morrison, O'Leary (2000), the researcher could evaluate segment attractiveness based on four respects such as (1) profitability, (2) profitability risk (coefficient of Variance), (3) risk-adjusted profitability index, and (4) relative segment size.

(1) Profitability

For a destination, segment attractiveness was evaluated by using the new measures of profitability. Profitability usually refers to the difference between revenues and expense. The total revenue earned by a destination is the sum expenditures of all travelers. The total expenses include the costs of destination development, infrastructure environmental preservation, product development, marketing, etc. Although the profitability measure is quite simple, it is difficult to get exact expense data for a destination. Revenue side data are directly computed from tourist expenditures. But expense side data are often very limited or complicated to apply directly. Thus, it may be reasonable to use expenditure data as a substitute for profitability. In this situation, it is considered that expenditure levels are closely related to potential profits. Under the same levels of marginal costs and marginal revenues, the higher the expenditures, the higher are the total revenues and the greater the profit (Maurice & Thomas, 1999, as cited in Jang, Morrison & O'Leary, 2000). Therefore, expenditure per party, expenditure per tourist and expenditure per tourist per night were used as profitability substitutes in this research.

(2) Profitability Risk

Risk is another difficult aspect to evaluating the segment attractiveness. Farese, Kimbrell & Woloszyk (2007) defined that "risk is the possibility of financial loss". In the other word, it might actually experience a loss after the business had paid all the expenses. In this research, risk was assumed to be the possibility of getting less profit potential than the mean potential of the market segment. The greater the profitability of low profit potential, the riskier the segment. In finance field, one common way to measure the risk is to employ standard deviation (Farese, Kimbrell & Woloszyk, 2007). The smaller standard deviation, the lower the total risk of the market segment. Thus, the risk related to segment profitability in this research can be measured by looking at the standard deviation of expenditures' mean. A small standard deviation will increase the chance that the profitability (or expenditure mean) will actually be obtained. In contrary, if the standard deviation is very large, this will show greater uncertainty about the expected profitability.

According to Brigham & Gapenski (1988, as cited in Jang, Morrison & O'Leary, 2000), another useful measure of risk was the coefficient of variance (CV), which was the standard deviation divided by the expected value (the mean expenditure). The CV indicates the relative risk per unit of expenditure, and it provided a more meaningful basis for comparison when the mean expenditures of market segments were not the same. The authors also stated that where differences in expected profitability exist among market segments, the CV was a better risk measure than the standard deviation. Therefore, this research used the CV as the way to measure profitability risk.

(3) Risk-Adjusted Profitability Index (RPI)

One method that reflected profitability and risk at the same time was the RPI, which was the mean expenditure divided by the standard deviation time one hundred. The RPI showed the relative profitability after risk, and it provided a method to compare market segment and selected the most potentially profitable segment when the risk of each segment were not the same (Jang, Morrison & O'Leary, 2000).

(4) Relative Segment Size (RSS)

The last evaluation technique was the RSS, which was calculated as the mean expenditure multiplied by the probability of the occurrence of a specific segment. RSS refered to the probability-added mean expenditure of a specific segment and represents the relative economic size of the market segment. Thus, the higher the RSS, the better chance marketers have. RSS and RPI were used for the overall evaluation of the market segments and for target selection in this research (Jang, Morrison & O'Leary, 2000).

1.2.4 Benefit Segmentation Studies in Travel and Tourism

Yannopoulos and Rotenberg (1999) conducted a benefit segmentation study on the near-home tourism market. Using data collected from residents of Upper New York State, these researchers segmented the market into five clusters, which were named "intangible amenities", "active materialists", "entertainment and comfort", "cultured materialists", and "entertainment and shopping". This research study indicated that age and household income were significant but gender, education, and composition of household were not significantly different across the five clusters.

Jang, Morrison & O'leary (2000) researched on the evaluation of travel market segments in terms of profitability

and risk. This study made a unique contribution to the tourism research literature by identifying benefit segments of Japanese travelers to the USA and Canada. Using factor analysis, they identified eight benefit groups: “nature and environment”, “knowledge and entertainment”, “history and culture”, “out door activities”, “family and relaxation”, “escape”, “value”, and “lifestyle”. After that, a cluster analysis was prepared to segment the tourism market into three non-homogeneous benefit-sought segments (“novelty/nature seekers”, “escape/relaxation seekers” and “family/out-door activities seekers”). The Chi-square analyses and one-way ANOVAs were used to identify whether significant differences existed among the clusters. Among the socio-demographic variables, significant differences were found for age, marital status, and occupation. Among the trip-related characteristics, significant differences were found among the three clusters for travel companion, number of people in travel party, season of trip, region, and type of trip. And then the authors also evaluated the resulting segments using the profitability and risk concepts.

Lee et al. (2005) studied about benefit sought segmentation of French long-haul pleasure travelers to Canada. Eight benefit sought factors were derived using a principal components method for initial factor extraction; a varimax rotation was applied. They were named “convenience and deal seeking”, “novelty seeking”, “seeking escape”, “seeking environmental quality and safety”, “seeking differences”, “roughing it and coping”, “shopping and art/culture”, “seeking activities for the entire family”. Based on these eight factors, the respondents clustered into five distinctive groups when analyzed by Ward’s and K-means cluster analyses. They were termed “family oriented”, “environment & safety conscious”, “culture & luxury indulgent”, and “roughing it & coping”. There were statistically significant differences across clusters in terms of age, occupation, education, and marital status. Among

behavior characteristics, there was a significant difference across the four clusters in terms of travel arrangements.

Some benefit segmentation studies were researched in rural tourism. Frochot (2003) compiled a list of thirteen benefits sought in rural tourism and grouped them into four factors. The first factor was named “Out doors” as it included items relating to the desire to experience something unspoiled in the outdoors and in open countryside. The second factor, “Rurality”, grouped three items directly related to the aspiration to experience a different culture and rural life along with the desire to meet local people. The third factor, “Relaxation”, translated the ultimate need to simply relax, to get away and to have a physical rest while the last factor, “Sport”, related directly to sports participation and the experience of a spirit of adventure. The author segmented rural tourism market in two Scottish locations and provided deeper insight into the profiles of rural tourists. The author identified that these four segments (which was named “Actives”, “Relaxers”, “Gazers”, and “Rurals”) could be distinguished which display different activities’ preferences, holiday behavior (accommodation choice, length of holiday, group composition, recurrence of holidays in countryside) and socio-demographic profiles (age, occupation, country of origin).

A more recent study in South-Eastern Spain (Molera & Alabaladejo, 2005) was also researched on benefit segmentation in rural area. The study’s findings showed five segments of tourists named “Family rural tourists”, “Relax rural tourists”, “Active rural tourists”, “Rural life tourists”, and “Tourists of rural accommodation”. These segments were identified in relation to the benefits sought and they present different socio-demographic profiles (gender, place of residence, age, education, occupation, income) and travel behavior profiles (renting of accommodation, knowledge of destination, traveling

party, daily expense per person, chosen area, travel to rural areas).

1.3 Objectives

Aim

Identify inbound tourism market segmentations of The Andaman Cluster, Thailand (including three adjoining provinces such as Phuket, Krabi, Phang-Nga).

Objectives

(1) Describe the socio-demographic and trip-related characteristics of international tourists visited The Andaman Cluster, Thailand.

(2) Identify the benefit segments of in-bound tourism market of The Andaman Cluster, Thailand.

(3) Profile the benefit segments with socio-demographic and trip-related characteristics; and determine if there were statistical differences among the segments in terms of demographic and trip-related characteristics.

(4) Assess the attractiveness of each benefit segment, and propose marketing implications for various market segments of the Andaman Cluster, Thailand.

1.4 Significance of the Study

(1) Describe the whole picture of in-bound tourism market in The Andaman Cluster, Thailand. This is expected to make a database for marketing professionals in this area.

(2) The international tourists' holiday benefits are determined to better understand and meet the need of in-bound

tourism market, and ultimately help communities effectively design and market the products lines and experience.

(3) Tourism market is divided into segments based on holiday benefits sought by tourists. And the result gives specific information about socio-demographic and trip-related characteristics of tourists in each market segment. Moreover, the assessment of each benefit segment is conducted in both profitability and risk viewpoints. These research aims to contribute to academic and applied understanding of tourists' needs through their travel benefits and the decision guideline for selecting the optimum target market.

(4) Marketing implications are proposed for each segment. And then, we can understand The Andaman Cluster's attributes with ability to attract and make visitors more satisfied. Ultimately, it is hoped that these information will help tourism planners and marketing professionals to develop offers better adapted to the needs of their target market.

1.5 Limitation of the Study

1.5.1 Limitation of Time

This study was conducted during period from August 2008 to July 2009. Primary data was collected during December 2008.

1.5.2 Limitation of Geography

The questionnaires were distributed at tourism destinations in three adjoining provinces of The Andaman Cluster, Thailand including Phuket, Krabi, Phang-Nga.

1.5.3 Limitation of Research

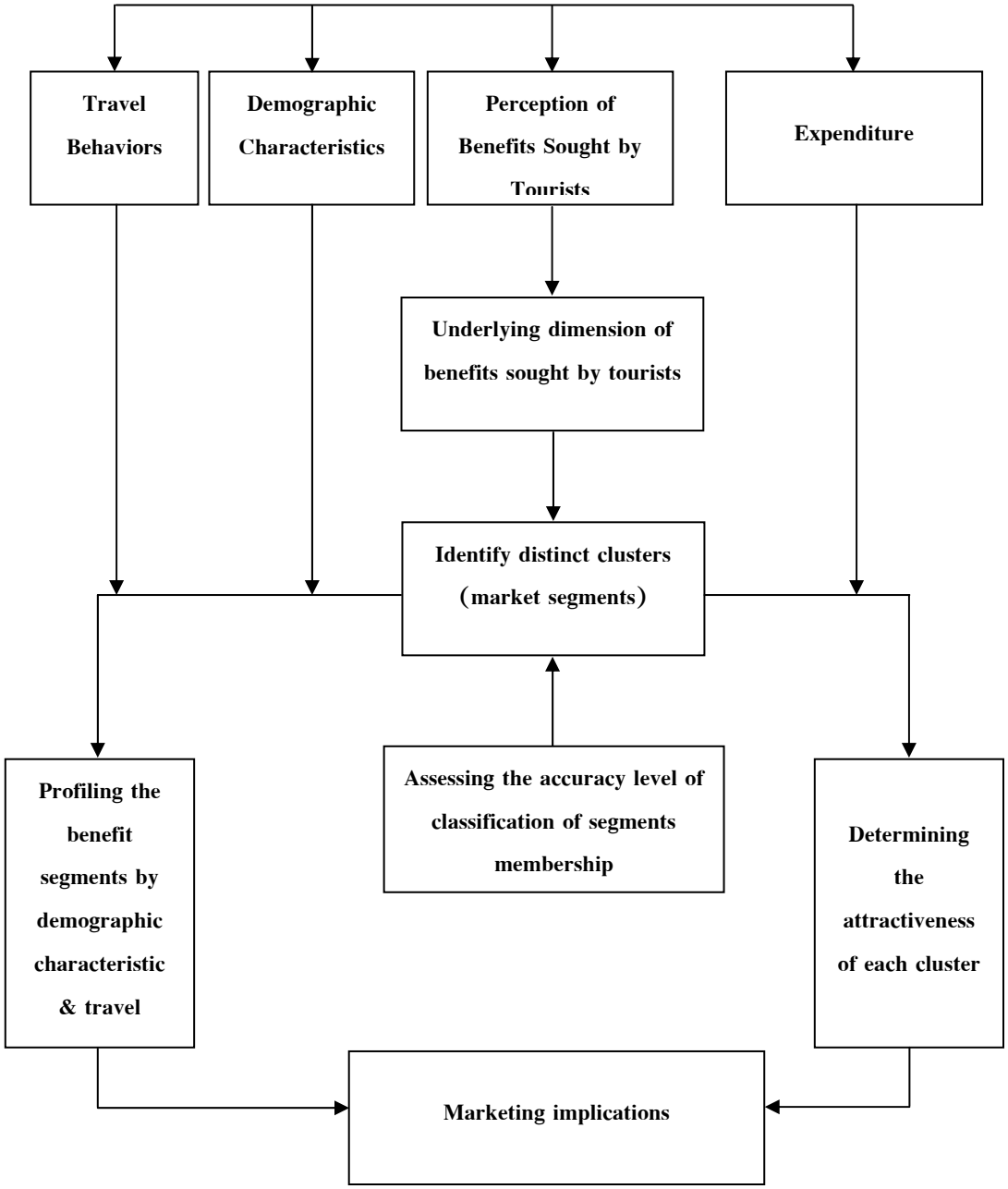
The research focused on in-bound tourism market segmentation in The Andaman Cluster, Thailand.

1.5.4 Limitation of Demography

International tourists who were visiting in The Andaman Cluster became subjects of this research.

1.6 Conceptual Framework

Figure 1.7 Conceptual Framework



CHAPTER 2
METHODOLOGY

2.1 Population, Sampling Group and Sampling Method

2.1.1 Population

In this study, the target population focused on international tourists in three adjoining provinces of The Andaman Cluster, Thailand. Sample size of this research was determined by Taro Yamane's theory (1967). This theory was used to specific target sample size which a confidence interval of 95%.

According to the formula: $n = N / (1 + N * e^2)$

For total sample size for The Andaman Cluster Thailand,

Confidence interval at 95%

→ Accuracy/ Error $e = 0.05$

Number of population $N = 5,021,250$

Sample size $n = 5,021,250 / [1 + 5,021,250 \times (0.05)^2]$

$n \approx 400$

Therefore, the sample size is 400.

2.1.2 Sampling Group

The number of international tourist visited three provinces in The Andaman Cluster; Thailand in 2007 is showed in the following table:

Table 2.1 International Tourists in The Andaman Cluster, Thailand 2007

Area	International tourists	%
The Andaman	**5,021,250**	**100**

Cluster, Thailand		
Phuket	3,283,410	65.4
Krabi	1,189,325	23.7
Phang-Nga	548,515	10.9

Source: (TAT, 2007c)

Therefore, a total of 400 questionnaires were distributed according to three provinces Phuket, PhangNga and Krabi:

Phuket : $n_1 = 65.4\% \times 400 = 260$
Krabi : $n2 = 23.7\% \times 400 = 95$
Phang-Nga : $n3 = 10.9\% \times 400 = 45$

In order to ensure the quality of the study, the researcher increased 10% of the sample size. However, there were some missing questionnaires and unexpected questionnaires, so this survey collected five hundred and thirteen samples including 267 samples in Phuket, 143 samples in Krabi, 103 samples in PhangNga. This sample size was still larger than initial sample size. Therefore, the researcher used all these five hundred and thirteen samples in this research.

2.1.3 Sampling Method

Stratified random sampling method was used to obtain data by interviewing international tourists in three provinces (Phuket, Krabi, PhangNga) based on questionnaire.

2.2 Research Instrument

The questionnaire was principal instrument of data collection for the survey. It was designed to collect a wide range of information including three main sets of questions:

(1) The first set was designed to generate descriptive information about the respondents. The international tourist was requested to provide information on their nationality, gender,

age, level of education, occupation, marital status, annual household income.

(2) The second set of questions was focus on trip-related characteristics such as primary purpose of the trip, the number of visits, length of stay, type of transportation, local transportation, expenditure per person, travel group (travel party), information source, post-purchase behavioral intention, and satisfaction level.

(3) The travel benefit sought that was identified based on the importance ratings for 42 items relating to reasons that people might want to go on a vacation and experiences they might be looking for was asked in the last set. This list of benefits were compiled from the identification of the most common ones identified in previous studies and surveys (Hsieh, O'Leary, Morrison & Chang, 1988; Jang et. al., 2000; Frochot, I., 2003; Molera, L. & Alabaladejo, I.P., 2005; Hendricks, W.W., Schneider,I.E., Budruk, M., 2004). After collect all of benefits sought by tourists in previous researches, each was accessed the suitability and appropriateness based on the characteristics of The Andaman Cluster, Thailand. The results indicated that 42 attributes were used to apply in this research such as just relaxing; having fun, being entertained; shopping; get recharged; seeking personal rewards; escaping from daily routines; getting away from pressures and responsibilities; be able to do nothing; going to places I have not visited before; going places my friends have not been; seeing and experiencing a foreign destination; clean and pure environment; standards of hygiene and cleanliness of destination; destination that provides value for holiday money; nice and interesting weather; opportunities to increase one's knowledge; attractive landscapes; unique architectures; outdoor activities; physical activities/sport activities; visits to appreciate natural ecological sites; having a good time with family; activities for the whole family; spending time with someone special; having time for romance; experiencing new cultures; to know about culture

events; visit festival and or special events; experiencing new lifestyle; enjoying new foods/ traditional foods of destination; being daring and adventurous; finding thrills/ exciting; visiting friends/ relatives; reliving past good times; learning about wildlife; have privacy; non-crowded place; opportunities for children; relationship with local residents; being in a mountain; being in a beach; visiting Sea-Sun-Sand destination. They had been measured on a five-point Likert scale (from 1 equal strongly disagree and 5 equal strongly agree).

2.3 Data Collection

2.3.1 Secondary Data

It was used the data from the following source to estimate tourism industry situation on over the world, in Thailand and in The Andaman Cluster of Thailand; and to determine the sample sizes as well.

(1) Reports and statistics of tourism industry in Thailand, especially in The Andaman Cluster of Thailand.

(2) Additionally, this research made use of publications in tourism journals, and professional organizations_UNWTO.

2.3.2 Primary Data

The related primary data of the study were collected during the month of December, 2008 from international tourists visited The Andaman Cluster, Thailand. Prior to the survey, a pilot study were done through questionnaire to make the reliability of the data.

2.4 Data Analysis-statistics used to Analyze the Data

After sorting out the information by questionnaires, data was coded, computed and analyzed the Statistical Package by SPSS program version 16.

The data was analyzed in six stages:

(1) First, descriptive-statistics analysis was applied to the collected data to explore the overall sample profile in demographic and trip-related characteristics.

(2) Second, benefit statements was grouped by using factor analysis to find the underlying constructs associated with the travel benefits sought.

(3) Third, hierarchical cluster analysis (Wards' method) and non-hierarchical cluster analysis (K-mean method) was prepared to segment the market into homogeneous groups based upon the identified benefit factors. A combination of two cluster techniques-hierarchical and non-hierarchical analyses will be applied to classify the respondents based on similarities of their benefit scores. A hierarchical cluster analysis using Ward's method was performed to determine the number of clusters. And then, the K-means cluster analysis, a non-hierarchical analysis technique, was carried out with the cluster centers from hierarchical results as the initial seed points.

(4) Fourth, discriminant analysis was used to provide information as to which of the benefit factors were driving the differences and to assess the accuracy level of classification of segment membership.

(5) Fifth, cross-tabulation was performed to provide demographic and trip-related profiles of each cluster. Specifically, the differences among clusters in demographic and trip-related characteristics are assessed by using Pearson Chi-square test and one way ANOVA.

(6) Finally, the measure of profitability was developed and used to determine the attractiveness of each cluster. One way ANOVA was employed to provide the basis for the profitable market segments.

Remark:

Five point Likert scale was used to assess tourists' opinion on related issues and the meaning of each assessed level ranged on interval level at 0.80 with five levels from the most satisfied/strongly agree to not satisfied/strongly disagree.

The analysis of mean was based on the interval that is calculated:

The interval level = (Maximum - Minimum)/n

= (5-1)/5 = 0.80

Then, it as ranged the level of each assessment as follows:

Assessed level by scores	**Score of Answer**	**Meaning determined**
5	4.21 - 5.00	Most Satisfied/Strongly Agree
4	3.41 - 4.20	More Satisfied/Agree
3	2.61 - 3.40	Satisfied/Not Sure
2	1.81 - 2.60	Less Satisfied/Disagree
1	1.00 - 1.80	Not Satisfied/ Strongly Disagree

CHAPTER 3
RESULTS

This chapter discusses the results obtained from the quantitative data derived from the questionnaire for international tourists who traveled to the Andaman Cluster, Thailand. This questionnaire was designed to study their perception about travel benefits in order to segment and profile the tourists. The proportion of questionnaires collected was spread between 52% in Phuket (267 respondents), 27.9% in Krabi (143 respondents), and 20.1% in PhangNga (103 respondents).

In this chapter, the researcher presents the results as follows:

3.1 Demographic Characteristics of Tourists
3.2 Tourist Behavior
3.3 Identification of Benefit Segment
    3.3.1 Underlying Dimension of Benefits Sought by Tourists
    3.3.2 Identification of the Benefit Segments
        3.3.2.1 Hierarchical Cluster Analysis
        3.3.2.2 K-mean Cluster Analysis
    3.3.3 Assessing the Accuracy Level of Classification of Segment
3.4 Profiling the Segments
    3.4.1 Cluster 1-Escape/Relaxation Seekers
    3.4.2 Cluster 2-Romance in Foreign Destination Seekers
    3.4.3 Cluster 3-Novelty/Nature and Family/Outdoor Activities Seekers
3.5. Evaluation of Market Segments
    3.5.1. Profitability
    3.5.2. Risk
    3.5.3. Risk-adjusted Profitability Index (RPI)
    3.5.4. Relative Segment Size (RSS)

3.1 Demographic Characteristics of Tourists

Table 3.1 shows the demographic information of the respondents. Most of the sample respondents were European at 63.5%, whereas Asian 19.1%, Oceanian 9.4%, American 5.8%. 2.2% of the respondents were from Africa and Middle East. More than 60% respondents were between the age of 21 and 40. An additional 20.5% were between the age of 41 and 50; 11% were upper 21 years of age and about 5% were over 50 years of age. There were 319 (62.2%) male respondents and 194 (37.8%) female respondents. 66.3% of the all respondents are married or living with partner, 30.2% are single and 3.5% are divorced or widowed. In term of education background of respondents, 63.5% of respondents had bachelor degree or higher, 31.4% had high school or lower, and 5.1% of respondents had vocational education. There are 32.6% of the all respondents do their own business; 45.6% of respondents are currently employed as a government officer or a professional (such as doctor, lawyer, etc.), while 19.7% are the unemployed who were retired, student and house wife. The most frequent level of annual income reported was between USD 25,001-75,000 by 215 respondents (41.9%), while the least frequent level of annual income was reported 43 respondents (8.4%) with under USD 10,001. The highest annual income was reported by 111 respondents (21.6%) with over USD 100,000, the second highest was reported by 76 respondents (14.8%) with between USD 75,001-100,000 and 13.3% earned of between USD 10,001-25,000.

Table 3.1 Demographic Characteristics of Tourists

Variables	Frequency	%
Region of residence		
America	30	5.8
Europe	326	63.5
Oceania	48	9.4
Asia	98	19.1
Middle East	5	1.0
Africa	6	1.2

Total	**513**	**100**
Age		
Under 21 years	58	11.3
21-30 years	169	32.9
31-40 years	155	30.2
41-50 years	105	20.5
51-60 years	15	2.9
Over 60 years	11	2.1
Total	**513**	**100**

Table 3.1 (Continued)

Variables	**Frequency**	**%**
Gender		
Male	319	62.2
Female	194	37.8
Total	**513**	**100**
Marital Status		
Single	155	30.2
Married/living with partner	340	66.3
Divorced	14	2.7
Widowed	4	0.8
Total	**513**	**100**
Education		
Elementary school	17	3.3
High school	144	28.1
Vocational school	26	5.1
Bachelor degree	189	36.8
Master degree	122	23.8
Doctorate degree	15	2.9
Total	**513**	**100**
Occupation		
Student	79	15.4
Government officer	55	10.7

Businessman/Businesswoman	167	32.6
House wife	15	2.9
Retired	7	1.4
Professional	179	34.9
Others	11	2.1
Total	**513**	**100**

Table 3.1 (Continued)

Variables	Frequency	%
Household income/year		
10,000 USD or less than	43	8.4
10,001 - 25,000 USD	68	13.3
25,001 - 50,000 USD	106	20.7
50,001 - 75,000 USD	109	21.2
75,001 - 100,000 USD	76	14.8
Over 100,000 USD	111	21.6
Total	**513**	**100**

3.2 Tourist Behavior

Table 3.2 presents the result of the analysis of the respondents' post-purchase behavioral intention. Most of the respondents (77.8%) reported that their major purpose for their trip was vacation. While approximately 6% went to The Andaman Cluster of Thailand for visiting relatives or friends, with another 5% going to The Andaman Cluster for Honeymoon trip. For the type of group travel of international tourists, travel with family and with their spouse has the highest proportion, which is 33.7% and 29.2%, respectively. Followed by tourists who traveled with friends (18.7%) while tourists who traveled alone have 11.5%. More than half of international tourists visited The Andaman as a full independent tourist (56.9%); they

prefer to choose tourist destination, activity, restaurant, and accommodation by themselves. For traveling experience of international tourists who visited The Andaman Cluster, the proportion of tourists who visited this area for the first time is higher than tourists who visited frequently or second time visitors, that is 64:36. Nearly a half of visitors (47%) stayed for 1-7 days, while approximately 40% of them stayed for 7-14 days, 10% of them stayed for 15-21 days. Only 2.4% stay more than 21 days in this area. The average length of stay was nearly 10 days. There are 65.2% of tourists stayed at hotels, 25.5% of tourists stayed at resorts, 6.4% of tourists stayed bed & breakfast, 3.7% of tourists stayed at home of friends/relative, 3.5% of tourists stayed at guest houses and 3.7% of tourists stayed at other accommodation such as home-stay, bungalows, ect. The vast majority of visitors traveled to The Andaman Cluster by plan (95.3%). For local transportation, 68.6% of the all respondents used taxi, 35.7% of them used tour buses. Other forms of transportation used were tuk tuk (25.5%), public transportation (23%), rental motorcycle (15.8%), rental car (10.9%) and some others such as motorbike taxi, hotel shuttle, speed boat, ferry, etc. When the sources of information used were reviewed, the most popular source of information was internet (68.8%), followed by word of mouth (65.5%), guide book (20.3%), brochures and tour guide (having the same percentage in 13.3%), newspaper (9%).

Table 3.2 Behavior Profile of International Tourists

Behaviors	Frequency	%
Primary purpose of visit		
Education/study trip	10	1.9
Visit relatives/friends	29	5.7
Business	9	1.8
Vacation	399	77.8
Official assignment	4	0.8
Get to know culture/tradition	22	4.3

Health check/surgery	1	0.2
Meeting/Conference/Exhibition	2	0.4
Honeymoon trip	26	5.1
Others	11	2.1
Total	**513**	**100**
Travel party		
With your family & children	173	33.7
With your spouse	150	29.2
By yourself	59	11.5
With tour group	4	0.8
With business associates	6	1.2
With friends	96	18.7
Relatives	25	4.9
Total	**513**	**100**

Table 3.2 (Continued)

Behaviors	Frequency	%
Inclusive tour/package trip		
Yes	221	43.1
No	292	56.9
Total	**513**	**100**
Number of visits		
First visit	328	63.9
Repeat visit	185	36.1
Total	**513**	**100**
Length of stay		
1-7 day	241	47.0
7-14 days	207	40.3
15-21 days	53	10.3
21-30 days	6	1.2
More than 30 days	6	1.2
Average	**9.87**	
Type of accommodation used		

Hotel	335	65.2
Resort	131	25.5
Guesthouse	18	3.5
Bed & Breakfast	33	6.4
Home of friends/relative	19	3.7
other	19	3.7
Total (*)	**555**	**108**
Type of Transportation		
Land	16	3.1
Sea	8	1.6
Low cost airline	132	25.7
Regular airline	376	73.3
Total (*)	**532**	**103.7**

Table 3.2 (Continued)

Behaviors	Frequency	%
Local transportation		
Taxi	352	68.6
Rental motorcycle	81	15.8
Rental car	56	10.9
Tour bus	183	35.7
Public transportation	118	23.0
Tuk tuk	131	25.5
Others	20	3.9
Total (*)	**941**	**183.4**
Information source		
TV ad	23	4.5
Internet	353	68.8
Newspaper	46	9.0
Tour guide	68	13.3
Radio ad	5	1.0
Word of mouth	336	65.5
Guide book	104	20.3
Brochure	68	13.3
TAT	34	6.6

Others	7	1.4
Total (*)	**1044**	**203.7**

Note: The total of percentage in each part should be 100%. Some (*) exceeded 100% because of multiple choice answer.

According to the results of investigation from table 3.3, it describes the respondents' overall satisfaction levels and their post-trip behaviors. In order to find out the scale for the satisfaction levels and behaviors as per the Likert scale, a mean was calculated for each variables mentioned in the table. The mean of respondents' overall satisfaction was 4.04 out of 5. This shows that the tourists feel more satisfied with their trips in The Andaman Cluster, Thailand.

In term of post-trip behaviors, the result shows that the respondents would not really agree to pay more (with a modest mean score was 2.72 out of 5). However, respondents received that they agreed with statement "willingness to return" (mean score was 3.96 out of 5). Lastly, respondents would recommend the destination to others (mean score was 4.08 out of 5).

Table 3.3 Satisfaction Level and Post-trip Behaviors of Tourists

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Overall satisfaction	513	1	5	4.04	0.650
Willingness to pay more	513	1	5	2.72	0.944
Willingness to return	513	1	5	3.96	0.969
Willingness to introduce	513	1	5	4.08	0.919

Note: The ranges between levels of satisfaction/agreement: 1.00-1.80: Not satisfied/Strongly disagreed; 1.81-2.60:

Less satisfied/Disagree; 2.61-3.40: Satisfied/Not Sure; 3.41-4.20: More satisfied/Agree; 4.21-5.00: Most satisfied/Strongly Agree.

3.3 Identification of Benefit Segments

To identify the benefit segment, there are three stages in analysis such as principal components analysis, cluster analysis and discriminant analysis.

3.3.1 Underlying Dimension of Benefits Sought by Tourists

Factor analysis was applied as a data reduction or structure detection method to obtain two main purposes. The first was to identify underlying constructs in the data. The second role was to reduce the number of variables, but this analysis produces attempted to retain as much of the information as possible and make the remaining variables meaningful and easy to work with (Aaker et al., 2001).

Assessing the Appropriateness of Factor Analysis

In order to check whether Principle Component Analysis is suitable, the researcher implemented some tests. First, checking the data, there were 42 attributes and 513 observations. Following Hair et. al. (2006) rule, this data was sufficient to implement factor analysis.

Kaiser-Meyer-Olkin measure of sampling adequacy equaled 84.2 percent. Furthermore, the Bartlett test of Sphericity was statistically significant at 0.00 percent level. These results supported that the degree of inter-correlations among the variables was good enough to continue the principal component analysis (Hair et al., 2006) (see Table 3.4).

Table 3.4 KMO and Bartlett's Test for Benefit Attributes (42 variables)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.842
Bartlett's Test of Sphericity	Approximate Chi-Square	8.425E3
	df	861
	Significance	.000

Deriving Factors and Assessing Overall Fit

Following Hair et al. (2006), the researcher applied different criteria for extracting the number of factors including Latent root criteria and Scree test in order to derive factors and assess overall fit.

- Latent Root Criteria

The first criteria, the researcher used the eigenvalue. The rationale for the latent root criterion is that any individual factor should account for the variance at least a single variable if it is to be retained for interpretation. With the component analysis, each variable contributes a value of 1 to the total eigenvalue. Thus, the factor having latent roots or eigenvalues greater than 1 is considered significant (Hair et al., 2006). Based on eigenvalue, the researcher decided to extract eleven factors out of 42 variables (see table 3.5).

Table 3.5 Total Variance Explained (42 variables)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.901	21.193	21.193	**8.901**	21.193	21.193
2	3.644	8.676	29.869	**3.644**	8.676	29.869

3	2.240	5.333	35.202	**2.240**	5.333	35.202
4	1.891	4.502	39.703	**1.891**	4.502	39.703
5	1.826	4.348	44.051	**1.826**	4.348	44.051
6	1.669	3.974	48.025	**1.669**	3.974	48.025
7	1.369	3.260	51.285	**1.369**	3.260	51.285
8	1.284	3.057	54.342	**1.284**	3.057	54.342
9	1.248	2.970	57.313	**1.248**	2.970	57.313
10	1.107	2.635	59.948	**1.107**	2.635	59.948
11	1.014	2.415	62.363	**1.014**	2.415	**62.363**
12	.946	2.252	64.615			
…	…	…	…			
41	.190	.453	99.583			
42	.175	.417	100.000			

- Scree Test

Moreover, in order to make robustness decision of the number of factors, the researcher used other criteria. Second, the researcher applied the Scree test. Since with the component factor analysis, the later factors extracted contain both common and unique variance. Although, all factors contained at least some unique variance, the proportion of unique variance was substantially higher in later factors. The Scree test was used identify the optimum number of factors that could be extracted before the amount of unique variance begins to dominate the common variance structure. Based on the shape of resulting curve in Scree test, there are eleven factors which could be extracted (see figure 3.1).

In general, the results in eigenvalue rule, Scree test support for the final decision to extract eleven factors out of 42 variables.

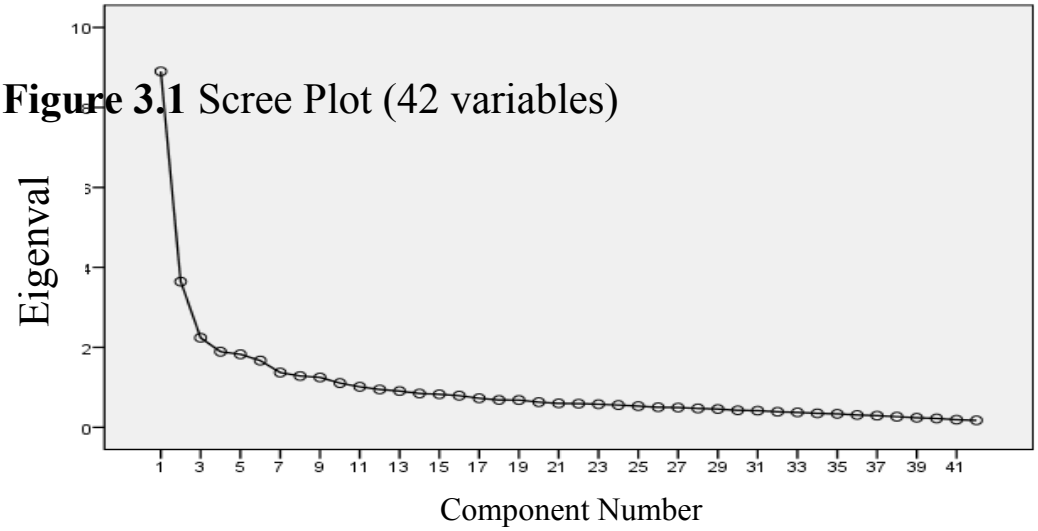


Figure 3.1 Scree Plot (42 variables)

However, the researcher checked communalities representing the amount of variance accounted for by the factor solution for each variable (Hair et al., 2006). Based on the rules in Hair et al. (2006), all variables with communities less than 0.5 are not sufficient explanation. The researcher found that attitude variables 1, 2, 4, 13, 14, 30 had communalities less than 0.5. These variables did not seem important in this case, so the researcher decided to exclude them when using component analysis.

Extracting the Factor

By re-specifying the Principle Component Analysis excluding 6 variables discussed above, the study obtained ten factors (less than 1 factor discussed above). Moreover, the explained total variance increased from 62.36% (with full 42 variables) to 64.7%. This result supported for the exclusion of 6 variables (table 3.5 and 3.6). Moreover, the criteria to determine the smallest number of factors that can be used to best represent

the inter-relatedness among the variables were the size of eigenvalues and the pattern of factor loading. All factors to be retained must have an eigenvalue greater than one. At that time, the study achieved the extracted ten factors which represented the entire set of 36 variables.

Table 3.6 Total Variance Explained (36 variables)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.089	22.470	22.470	**8.089**	22.470	22.470
2	3.084	8.568	31.038	**3.084**	8.568	31.038
3	2.171	6.031	37.069	**2.171**	6.031	37.069
4	1.798	4.995	42.064	**1.798**	4.995	42.064
5	1.749	4.859	46.923	**1.749**	4.859	46.923
6	1.557	4.324	51.246	**1.557**	4.324	51.246
7	1.319	3.663	54.909	**1.319**	3.663	54.909
8	1.230	3.418	58.327	**1.230**	3.418	58.327
9	1.225	3.402	61.729	**1.225**	3.402	61.729
10	1.068	2.968	64.696	**1.068**	2.968	**64.696**
11	.891	2.474	67.170			
...	...	...	...			
36	.191	.531	100.000			

In addition, table 3.7 shows that the Bartlett Test of Sphericity and the Kaiser-Meyer-Olkin Measure of Sampling Adequacy indicate the appropriateness of using an exploratory factor analysis for the set of benefit attributes. The Bartlett Test of Sphericity shows a value of 7,206 at a significant level of 0.00, indicating that a nonzero correlation existed among variables. The Kaiser-Meyer-Olkin measure of Sampling

Adequacy was 0.837, indicating that the data were suitable for factor analysis.

Table 3.7 KMO and Bartlett's Test for Benefit Attributes (36 variables)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.837
Bartlett's Test of Sphericity	Approximate Chi-Square	7.206E3
	df	630
	Significance	.000

Factor Reliability

To test the reliability and internal consistency of each factor, Cronbach's coefficient alpha was obtained and the factors with the alphas of 0.06 were retained for further analysis. The Cronbach's alphas for ten factors were robust, ranging from 0.704 to 0.757, which indicated high internals consistency among the variables within each factor.

Table 3.8 Factor Analysis of Benefit Sought Items (36 variables)

Benefit factors/items	Factor Loading	Eigen-value	Variance Explained (%)	Cronbach's α
Factor 1: New lifestyle		8.09	22.47	0.704
To know about culture events	0.74			
Experiencing new cultures	0.71			
Experiencing new lifestyle	0.70			
Being daring and adventurous	0.67			
Visit festival and or special events	0.64			
Finding thrills/excitements	0.60			
Unique architectures	0.48			
Learning about wildlife	0.45			
Factor 2: Relaxation		3.08	8.57	0.725

Visiting friends/relatives	0.66			
Reliving past good times	0.63			
Going to places my friends have not been	0.59			
Shopping	0.59			
Seeking personal rewards	0.41			
Factor 3: Peacefulness		2.17	6.03	0.716
Have privacy	0.70			
Non-crowded place	0.70			
Relationship with local residents	0.58			
Being on a mountain	0.47			

Table 3.8 (Continued)

Benefit factors/items	Factor Loading	Eigen-value	Variance Explained (%)	Cronbach's α
Factor 4: Learning about nature		1.80	5.00	0.720
Nice and interesting weather	0.72			
Attractive landscapes	0.68			
Opportunities to increase one's knowledge	0.61			
Pure nature	0.48			
Factor 5: Escape		1.75	4.86	0.750
Getting away from pressures and responsibilities	0.83			
Escaping from daily routines	0.80			
Be able to do nothing	0.56			
Factor 6: Family togetherness		1.56	4.32	0.730
Activities for the whole family	0.83			
Having a good time with family	0.79			
Opportunities for children	0.62			

Factor 7: Outdoor activities and natural ecological sites		1.32	3.66	0.728
Physical activities/sport activities	0.76			
Outdoor activities	0.60			
Visits to appreciate natural ecological sites	0.52			
Factor 8: Romance		1.23	3.42	0.754
Having time for romance	0.86			
Spending time with someone special	0.84			
Factor 9: Experiencing a foreign destination		1.23	3.40	0.731
Going to places I have not visited before	0.81			
Seeing and experiencing a foreign destination	0.60			
Factor 10: Visiting Sea-Sun-Sand destination		1.07	2.97	0.757
Visiting Sea-Sun-Sand destination	0.83			
Being on a beach	0.81			
Total variance explained			**64.70**	

Interpreting Factors:

In interpreting factors, a decision must be made regarding the factor loading worth consideration and attention. In light of a factor loading is the correlation of the variable and the factor, the squared loading is the mount of the variable's total variance accounted for by the factor (Hair et al., 2006). The result in table 3.9 of factor loading shows that eight variables are statistically significant for factor 1 since factor loadings are in the range from +0.74 to +0.45. Five variables are statistically significant for factor 2 with factor loadings in the range from +0.66 to +0.41. Four variables are statistically significant for factor 3 with factor loadings in the range from +0.70 to +0.47.

Four variables are statistically significant for factor 4 with factor loadings in the range from +0.72 to +0.48. Three variables are statistically significant for factor 5 with factor loadings in the range from +0.83 to +0.56. Three variables are statistically significant for factor 6 with factor loadings in the range from +0.83 to +0.62. Three variables are statistically significant for factor 7 with factor loadings in the range from +0.76 to +0.52. Two variables are statistically significant for factor 8 with factor loadings in the range from +0.86 to +0.84. Two variables are statistically significant for factor 9 with factor loadings in the range from +0.81 to +0.60. Two variables are statistically significant for factor 10 with factor loadings in the range from +0.81 to +0.83.

Factor 1 “New lifestyle” contained eight items and explained 22.47% of the variance in the data, with an eigenvalue of 8.09. The eight items were “To know about culture events”, “Experiencing new cultures”, “Experiencing new lifestyle”, “Being daring and adventurous”, “Visit festival and or special events”, “Finding thrills/excitements”, “Unique architectures”, “Learning about wildlife”. Alpha was calculated to be 0. , and as it is greater than 0.60, it is considered acceptable.

Factor 2 “Relaxation” contained five items and explained 8.57% of the variance in the data, with an eigenvalue of 3.08. The five items were “Visiting friends/relatives”, “Reliving past good times”, “Going to places my friends have not been”, “Shopping”, “Seeking personal rewards”. Alpha was calculated to be 0. , and as it is greater than 0.60, it is considered acceptable.

Factor 3 “Peacefulness” contained four items and explained 6.03% of the variance in the data, with an eigenvalue of 2.17. The four items were “Have privacy”, “Non-crowded place”, “Relationship with local residents”, “Being on a

mountain". Alpha was calculated to be 0. , and as it is greater than 0.60, it is considered acceptable.

Factor 4 "Learning about nature" contained four items and explained 5.00% of the variance in the data, with an eigenvalue of 1.80. The four items were "Nice and interesting weather", "Attractive landscapes", "Opportunities to increase one's knowledge", "Pure nature". Alpha was calculated to be 0. , and as it is greater than 0.60, it is considered acceptable.

Factor 5 "Escape" contained three items and explained 4.86% of the variance in the data, with an eigenvalue of 1.75. The three items were "Getting away from pressures and responsibilities", "Escaping from daily routines", "Be able to do nothing". Alpha was calculated to be 0. , and as it is greater than 0.60, it is considered acceptable.

Factor 6 "Family togetherness" contained three items and explained 4.32% of the variance in the data, with an eigenvalue of 1.56. The three items were "Activities for the whole family", "Having a good time with family", "Opportunities for children". Alpha was calculated to be 0. , and as it is greater than 0.60, it is considered acceptable.

Factor 7 "Outdoor activities and natural ecological sites" contained three items and explained 3.66% of the variance in the data, with an eigenvalue of 1.32. The three items were "Physical activities/sport activities", "Outdoor activities", "Visits to appreciate natural ecological sites". Alpha was calculated to be 0. , and as it is greater than 0.60, it is considered acceptable.

Factor 8 "Romance" contained two items and explained 3.42% of the variance in the data, with an eigenvalue of 1.23. The two items were "Having time for romance",

“Spending time with someone special”. Alpha was calculated to be 0. , and as it is greater than 0.60, it is considered acceptable.

Factor 9 “Experiencing a foreign destination” contained two items and explained 3.40% of the variance in the data, with an eigenvalue of 1.23. The two items were “Going to places I have not visited before”, “Seeing and experiencing a foreign destination”. Alpha was calculated to be 0. , and as it is greater than 0.60, it is considered acceptable.

Factor 10 “Visiting Sea-Sun-Sand destination” contained two items and explained 2.97% of the variance in the data, with an eigenvalue of 1.07. The two items were “Visiting Sea-Sun-Sand destination”, “Being on a beach”. Alpha was calculated to be 0. , and as it is greater than 0.60, it is considered acceptable.

3.3.2 Identification of the Benefit Segments

Segmenting tourists based on their benefits is a useful tool that helps marketers to identify effective strategies. To obtain this purpose, this research conducted a cluster analysis based on the benefit factors.

Before performing cluster analysis, the researcher went back to the raw scores for the original variables and computed average profiles for each benefit factor (Aaker, Kumar & Day, 2001). After that, two different types of cluster analysis techniques including hierarchical and non-hierarchical cluster analysis were employed to identify groups of travelers based on similarities in benefit sought. The ten benefit factors extracted in the factor analysis were used as clustering variables.

3.3.2.1 Hierarchical Cluster Analysis

A hierarchical cluster analysis was performed. This helped to determine the number of clusters and identify outliers. The ten benefit factors identified above were used as combined variables for the identification of segments of respondents looking for similar benefit sought. Since the a priori number of segments was not known previously, hierarchical cluster analysis was undertaken. The data were analyzed by using a hierarchical clustering procedure (Ward method) with Square Euclidean distance as a similarity measure between cases. Table 3.9 and figure 3.2 shows the results of using Ward's hierarchical clustering method on the data. Five hundred and thirteen individuals were clustered hierarchically, and the results show what objects were grouped together at each step.

Interpreting the Process of Hierarchical Cluster Analysis:

The objective of the analysis in table 3.9 was to identify clusters among the five hundred and thirteen objects. As shown in the table, objects 220 and 513 were combined first to produce a cluster; since those two objects were the closest to each other among other pairs of objects (0.000). However, objects 219 and 512 were also close (in fact, the same distance separately as objects 220 and 513). The distance Square Euclid between those two objects was shown in Coefficients' column. Next Stage's column presented that which stage there were new object entering this cluster and Stage Cluster First Appears' column presented this cluster was composed in which stage. In this case, it was showed that the first cluster added a new object in stage 423. In stage 423, number 1 in Stage Cluster First Appears' column told that the first cluster (including objects 220 and 513 in stage 1) added a new object-168; and the other number (0) in this column identified that object 168 did not get its cluster. Similarly, the last column in stage 423 showed the stage that this cluster added more objects. This process was conducted until all of objects were combined together.

Choosing the Number of Clusters:

In table 3.9, the agglomeration schedule from the top to bottom (stage 1 to 512) indicated the sequence in which objects got combined with others, until all 513 objects were combined together in one cluster at the last stage (stage 512). Hence, at stage 512 all objects were combined together and thus the study obtained a 1-cluster solution. Similarly stage 511 represented a 2-cluster solution; stage 510 represented a 3-cluster solution, and so on, going up from the last row to the first row. The research had to identify how many clusters were there in the data. The researcher used the difference between rows in a measure called coefficient in column 4 to identify the number of clusters in the data. Since the marketing professionals would like to have the lowest possible numbers of clusters for reasons of economy and ease of interpretation, the researcher should look at this coefficient figure from the last row upward. There was a difference of (3422.199 and 2844.685) in the coefficients between the 1-cluster solution (stage 512) and the 2-cluster solution (stage 511). This was a difference of 577.514. The next difference was of (2844.685-2609.937) which was equal to 234.748 (between stage 511, the 2-cluster solution and stage 510, the 3-cluster solution). After this, there was a difference between the 3-cluster and 4-cluster solutions, of (2609.937-2457.963) or 151.974. Thereafter, the differences were smaller between stage 509 and stage 508 (125.226), and between stage 508 and stage 507 (124.182). And then, the differences between following rows of coefficients trended to go down slowly.

Ignoring the first difference of 577.514 which would indicate only 1 cluster in the data, the researcher looked at the next largest differences. 234.748 was the difference between row 2 from the bottom and row 3 from the bottom, indicating a 2-cluster solution. A difference of 151.974 was observed

between the 3-cluster solution (stage 510) and 4-cluster solution (stage 509). Then, the differences were smaller between following rows of coefficients, and the numbers decreased slowly. A large difference in the coefficient values between any two rows indicates a solution identifying the number of clusters which the lower row represents (Nargundkar, 2003). Therefore, in this case a 3-cluster solution was chosen.

In short, the agglomeration coefficient and dendrogram revealed that a 3-cluster solution was most appropriate.

Table 3.9 Agglomeration Coefficient

Stage	Cluster Combined		Coefficients	Stage Cluster First Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
1	**220**	513	**0.000**	0	0	**423**
2	219	512	0.000	0	0	297
3	218	511	0.000	0	0	148
…	…	…	…	…	…	…
423	**168**	**220**	7.562	**0**	**1**	**469**

...	...	...	...	...	...	...
469	30	**168**	1008.185	457	**423**	486
...	...	...	...	...	...	...
507	1	8	2208.555	492	504	509
508	3	54	2332.737	505	483	511
509	1	6	2457.963	507	506	511
510	2	12	2609.937	502	503	512
511	1	3	2844.685	509	508	512
512	1	2	3422.199	511	510	0

3.3.2.2 K-mean Cluster Analysis

The non-hierarchical method gives more stable clusters, since it is an iterative procedure compared with the single pass hierarchical method. Therefore, it is best used in combination of these methods (Nargundkar, 2003). A non-hierarchical method, the K-mean clustering technique, was applied with the number of clusters from the hierarchical results as the initial seed points because non-hierarchical methods typically start by diving all the cases into a pre-specified number of clusters (Fieller, 2008).

According to Williams (2008), this method could be thought as analysis of variance (ANOVA) “in reverse”. The SPSS program started with the three clusters that were concluded in hierarchical clustering method, and then moved objects between those clusters. This was similar to “ANOVA in reverse” in the sense that the significant test in ANOVA evaluated the between group changeability against the within-group changeability when computing the significance test for the hypothesis that the means in the groups were different from each other. The importance of the F values from ANOVA test performed on each dimension in another indication of how well the respective dimension discriminates between clusters.

The results of ANOVA test revealed that all ten benefit factors contributed to differentiating the three benefit clusters ($p = 0.000$). These results showed that statistically significant differences between clusters, thus supporting the fact that distinct clusters had really been identified (see table 3.10).

In addition, table 3.11 showed that there were 125 objects (24.37%) in cluster 1, 153 objects (29.82%) in cluster 2, and 235 objects (45.81%) in cluster 3 out of the remaining 513 observations.

Table 3.10 Analysis of Variance

Benefit factor	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
New lifestyle	53.363	2	.316	510	168.831	.000

Relaxation	44.851	2	.446	510	100.671	.000
Peacefulness	62.638	2	.442	510	141.750	.000
Learning about nature	19.436	2	.337	510	57.695	.000
Escape	7.720	2	.631	510	12.235	.000
Family togetherness	52.090	2	.636	510	81.851	.000
Outdoor activities	29.373	2	.415	510	70.820	.000
Romance	177.455	2	.420	510	422.835	.000
Experiencing a foreign destination	21.959	2	.603	510	36.418	.000
Visiting Sea-Sun-Sand destination	5.249	2	.606	510	8.666	.000

Table 3.11 Number of Cases in Each Cluster

Cluster	**1**	125.000	24.37%
	2	153.000	29.82%
	3	235.000	45.81%
Valid		513.000	100%

Most established writers seem to feel that these tests (ANOVA) are not valid. Hence, it was left to the researchers' judgment whether they would like to use these in determining which variables were significant. If the tests were used, then the interpretation of clusters and differences across clusters should be only the basis of those variables which were statistically

significant different across clusters at 0.000 level (Nargundkar, 2003).

3.3.3 Assessing the Accuracy Level of Classification of Segment

It is difficult to evaluate the quality of the clustering. There are no standard statistical tests to ensure that the output is not purely random. It is still difficult to know exactly which clusters are very similar and which objects are difficult to assign (Aaker et. al., 2001). To overcome this limitation of K-mean cluster method, a discriminant analysis was used to test whether significant differences exist between the three clusters, based on ten benefit factors (Park & Yoon, 2006).

Tests of Equality of Group Means

In the ANOVA table 3.12, Wilks' lambdas were used to test which independents contribute significantly to the discriminant function. The smaller the Wilks's lambda for an independent variable, the more that variable contributes to the discriminant function. Lambda varies from 0 to 1, with 0 meaning group means differ, and 1 meaning all group mean are the same. Wilks's lambda is significant by the F test for all variables (Williams, 2008). The result showed that all variables' contributions were significant (p=0.000).

Table 3.12 Tests of Equality of Group Means

Benefit factor	Wilks' Lambda	F	df1	df2	Sig.
New lifestyle	.602	168.831	2	510	.000
Relaxation	.717	100.671	2	510	.000

Peacefulness	.643	141.750	2	510	.000
Learning about nature	.815	57.695	2	510	.000
Escape	.954	12.235	2	510	.000
Family togetherness	.757	81.851	2	510	.000
Outdoor activities	.783	70.820	2	510	.000
Romance	.376	422.835	2	510	.000
Experiencing a foreign destination	.875	36.418	2	510	.000
Visiting Sea-Sun-Sand destination	.967	8.666	2	510	.000

Test Results

Box's M test tested the assumption of homogeneity of covariance matrices. In this test, null hypothesis was the variance/covariance matrices of the three groups were the same in the population. For the data below, the test was significant (p=0.000), the null hypothesis with respect to the homogeneity of variance/covariance matrices in the population was rejected. So, we concluded the groups do differ in their covariance matrices (see table 3.13).

Table 3.13 Test Results

Box's M		337.295
F	Approximate	2.975
	df1	110
	df2	4.680E5
	Significance	0.000

Tests null hypothesis of equal population covariance matrices.

Summary of Canonical Discriminant Functions

One discriminant function was computed the lesser of g - 1 (number of dependent groups minus 1). Since the dependent had three groups, the number of discriminant functions computed was two. The eigenvalues show how much of the variance in the dependent is accounted for by each of the functions (Williams, 2008).

Two canonical discriminant functions were calculated by using discriminant analysis on all ten benefit factors. A wilks's lambda test and a univariate F test were conducted to determine the significance of each of the ten benefit factors. Table 3.14 shows that Wilks' Lambdas were 0.162 and 0.690 and were significant at the 0.000 level. These results showed that all of the ten factors made a statistically significant contribution to the discriminant functions.

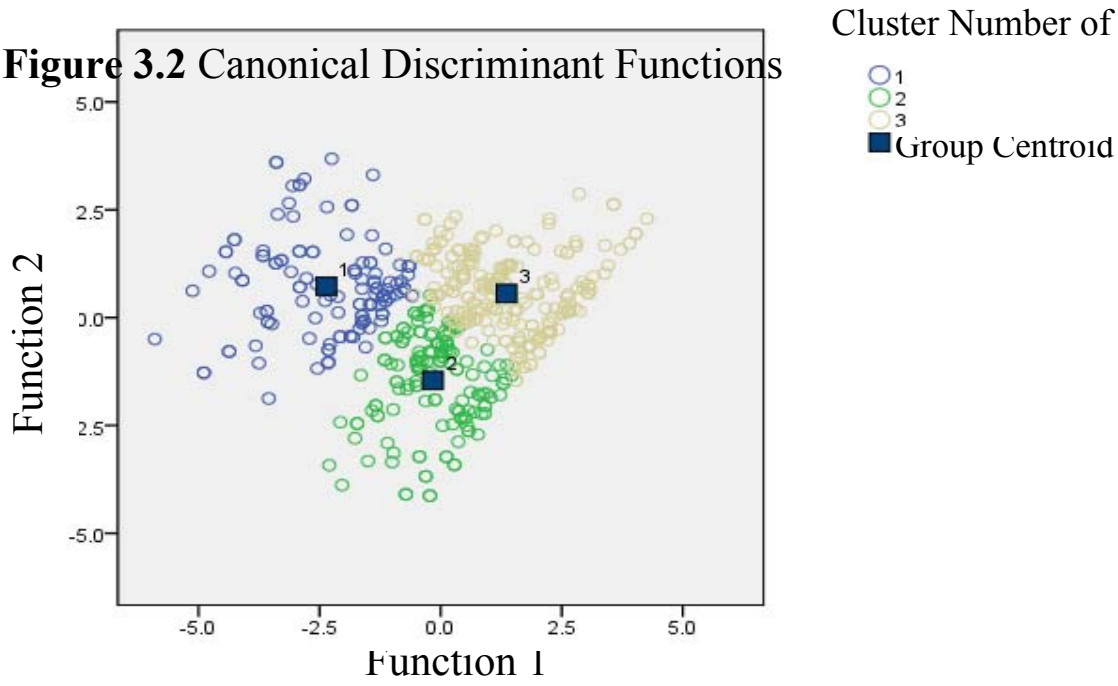
Table 3.14 Summary of Discriminant Analysis Results

Function	Eigen value	% of variance explained by function	Canonical correlation	Wilks' lambda	Chi-square	df	Sig.
1	2.225	71	0.831	0.162	919.209	20	0.000
2	0.911	29	0.690	0.523	327.264	9	0.000

Remark: Sig. = level of statistical significance

Figure 3.2 results from checking "Combined-groups" under "Plots" in the "Classify" options of discriminant analysis. Since there were two discriminant functions, the charts were scatter plots showing the discriminant scores of the cases on the two discriminant functions.

Figure 3.2 Canonical Discriminant Functions



Classification Results

Table 3.15 was used to assess how well the discriminant function works, and if it worked equally well for each group of the dependent variable. Here the overall hit ratio was 95.7%, it meant that it correctly classifies about 95.7% of the cases. Discriminant analysis got almost all three clusters correctly classified. Hence, this was a satisfactory discriminant analysis.

Table 3.15 Classification Results

Cluster Number of Case	Predicted Group Membership			Total
	1	2	3	

Original	**Count**	1	122	1	2	125
		2	0	136	17	153
		3	0	2	233	235
	%	1	97.6	.8	1.6	100.0
		2	.0	88.9	11.1	100.0
		3	.0	.9	99.1	100.0

95.7% of original grouped cases correctly classified.

Interpreting and Labeling the Clusters

To explain the three clusters and to label them, the mean importance scores for each benefit factor were computed and these are presented in table 3.16.

In Cluster 1, the mean importance scores of ten benefit factors ranged from 2.30 to 4.11. Moreover, compared with the other two groups, this cluster had the highest importance ratings for two benefit factors including "R*elaxation"* (mean score was 3.02 out of 5) and "*Escape"* (mean score was 4.04). An examination of the mean importance scores for each benefit factor and individual items suggested the label of cluster 1 as *"Escape/Relaxation seekers".*

In cluster 2, the mean importance scores of ten benefit factors ranged from 2.51 to 4.26. In addition, this cluster had the highest importance ratings for two benefit factors including "*Romance"* (mean score was 4.26 out of 5) and *"Experiencing a foreign destination"* (mean score was 4.21). This cluster reflected the need experiencing leisure and romantic time in foreign destination and is best described as *"Romance in foreign destination seekers".*

In cluster 3, the mean importance scores of ten benefit factors ranged from 2.93 to 4.39. Further more, this cluster had the highest importance ratings for six benefit factors

including "*New lifestyle"* (mean score was 3.90 out of 5), *"Peacefulness"* (mean score was 3.58), "*Learning about nature"* (mean score was 4.25), *"Family togetherness"* (mean score was 4.02), *"Outdoor activities"* (mean score was 3.79) and "*Visiting Sea-Sun-Sand destination"* (mean score was 4.39). Hence, this cluster is appropriately named "Novelty/ nature and family/outdoor activities seekers".

Table 3.16 Mean Importance Score of Benefit Sought Among the Three Clusters

Benefit factors/items	Cluster 1	Cluster 2	Cluster 3	Mean
Factor 1: New lifestyle	3.01	2.97	**3.90**	3.40
To know about culture events	3.18	2.97	3.98	3.49
Experiencing new cultures	3.56	3.59	4.37	3.94
Experiencing new lifestyle	3.08	3.03	3.95	3.46
Being daring and adventurous	2.90	3.08	3.86	3.39
Visit festival and or special events	2.54	2.56	3.70	3.08
Finding thrills/excitements	2.94	2.88	3.84	3.34
Unique architectures	3.06	2.91	3.84	3.37
Learning about nature/wildlife	2.80	2.71	3.66	3.17
Factor 2: Relaxation	**3.02**	2.55	2.93	2.83
Visiting friends/relatives	2.95	1.90	3.05	2.63
Reliving past good times	2.42	2.39	2.85	2.55
Going to places my friends have not been	3.09	2.48	2.90	2.82
Shopping	3.35	3.46	2.97	3.26
Seeking personal rewards	3.28	2.52	2.87	2.89
Factor 3: Peacefulness	2.69	2.51	**3.58**	3.04
Have privacy	2.94	3.08	3.94	3.44
Non-crowded place	2.89	2.61	3.54	3.11
Relationship with local residents	2.51	2.29	3.52	2.91

Being on a mountain	2.41	2.08	3.29	2.72

Remark: The "**bold**" numbers showed the indicator with the highest mean score.

Table 3.16 (Continued)

Benefit factors/items	Cluster1	Cluster 2	Cluster 3	Mean
Factor 4: Learning about nature	3.73	3.67	**4.25**	3.95
Nice and interesting weather	4.25	4.14	4.42	4.30
Attractive landscapes	3.64	3.81	4.35	4.02
Opportunities to increase one's knowledge	3.55	3.30	4.04	3.70
Clean and pure environment	3.47	3.43	4.18	3.78
Factor 5: Escape	**4.04**	3.82	3.95	3.94
Getting away from pressures and responsibilities	4.17	3.80	3.87	3.95
Escaping from daily routines	3.96	3.93	3.95	3.95
Be able to do nothing	3.98	3.73	4.03	3.91
Factor 6: Family togetherness	3.08	3.15	**4.02**	3.53
Activities for the whole family	3.14	3.37	4.13	3.66
Having a good time with family	3.53	3.72	4.38	3.98
Opportunities for children	2.58	2.37	3.56	2.96
Factor 7: Outdoor activities	3.13	3.09	**3.79**	3.42
For fitness/physical activities/sport activities	2.92	2.80	3.51	3.16
Outdoor activities	3.50	3.62	4.12	3.82
Visits to appreciate natural ecological sites	2.98	2.86	3.74	3.29
Factor 8: Romance	2.30	**4.26**	4.22	3.77
Having time for romance	2.24	4.11	4.09	3.65
Spending time with someone special	2.36	4.41	4.35	3.88

Factor 9: Experiencing a foreign destination	3.66	**4.21**	4.18	4.02
Going to places I have not visited before	3.70	4.27	4.03	4.00
Seeing and experiencing a foreign destination	3.63	4.15	4.32	4.03
Factor 10: Visiting Sea-Sun-Sand destination	**4.11**	4.09	4.39	4.23
Visiting Sea-Sun-Sand destination	3.98	4.01	4.34	4.15
Being on a beach	4.25	4.18	4.43	4.31

Remark: The "**bold**" numbers showed the indicator with the highest mean score.

3.4 Profiling the Segments

Cross-tabulations were performed to provide socio-demographic and trip-related profiles of the three clusters. The profile of each cluster can be summarized as follows (see table 3.17).

3.4.1 Cluster 1-Escape/Relaxation Seekers

Travelers belonging to this segment were excited in getting away from their ordinary lives and busy jobs. They were mainly seeking relaxation. This group had higher males (66.4%), and the majority of them were European (72.8%). There were more married travelers (50.4%) than single travelers (41.6%). The same rate (about 25%) was found in three groups of age (21-30 years, 31-40 years, 41-50 years). A large proportion of them had bachelor or master degree (more than 30% each). They tended to be businessmen/businesswomen, professionals (such as doctors, lawyers, etc.), students or government officers. More than 65% of them had very high annual income from 50,000 to 100,000 USD.

3.4.2 Cluster 2-Romance in Foreign Destination Seekers

Mostly, these visitors are interested in leisure and romantic time and they would like to experience their travel trip in foreign destination. They are a somewhat younger than the other two groups of visitors (nearly 70% between the age of 21-40). This group also had higher male (62.7%). Most of them were married or living with partner (75.2%), and came from Europe (66.7%). Their education background was almost the same with the first group. Occupation indicated that 39.2% of them were professionals, 30.1%were businessmen or businesswomen, 14.4% were students. The same rate (about 20%) was found in three levels of annual income (25,000-50,000 USD, 50,000-75,000 USD and Over 100,000 USD).

3.4.3 Cluster 3-Novelty/ Nature and Family/Outdoor Activities Seekers

This segment consisted of travelers with a cultural appreciation, who are seeking new knowledge, are concerned with environment in a Sea-Sun-Sand destination, and want to experience new lifestyles. They are interested in outdoor activities for family. The two popular were groups were 21-30 years of age (32.8%) and 31-40 years of age (33.2%). This group also had higher males (59.6%), and married travelers (68.9%). The most proportion of them came from Europe (55.3%), followed by Asia and Ocean (17%, 13.1%). Their education background is almost the same with the other two groups. The same proportion of them (about 33%) tended to be businessmen or businesswomen and professionals. The annual income of these travelers was nearly the same with other two groups.

Table 3.17 Socio-demographic and Trip-related Profile of Three Clusters

Variables	Cluster 1 n=125	Cluster 2 n=153	Cluster 3 n=235	X^2	F	Sig.
Age				18.114		0.053*
Under 21 years	16.0	6.5	11.9			
21-30 years	26.4	**38.6**	32.7			
31-40 years	24.0	30.7	**33.2**			
41-50 years	**27.2**	18.3	18.3			
51-60 years	3.2	2.6	3.0			
Over 60 years	3.2	3.3	0.9			
Gender				1.646		0.439
Male	66.4	62.7	59.6			
Female	33.6	37.3	40.4			
Region of residence				31.188		0.002*
America	2.4	2.6	9.8			
Europe	**72.8**	66.7	55.3			
Oceania	6.4	**13.1**	8.5			
Asia	16.0	17.0	**22.1**			
Middle East	1.6	0.0	1.3			
Africa	0.0	0.0	2.6			

Table 3.17 (Continued)

Variables	Cluster 1 n=125	Cluster 2 n=153	Cluster 3 n=235	X^2	F	Sig.
Marital status				25.652		0.000*
Single	**41.6**	22.9	28.9			
Married/Living with partner	50.4	**75.2**	68.9			
Divorced	6.4	2.0	1.3			
Widowed	1.6	0.0	0.9			
Education				12.668		0.243
Elementary school	4.0	3.9	2.6			
High school	23.2	29.3	29.8			
Vocational school	4.8	7.9	3.4			

Bachelor degree	34.4	31.4	41.7			
Master degree	30.4	24.2	20.0			
Doctorate degree	3.2	3.3	2.6			
Occupation				17.044		0.254
Student	18.4	14.4	14.5			
Government	12.0	7.2	12.3			
Businessman/Businesswoman	33.6	30.1	33.2			
House wife	0.0	4.6	3.4			
Retired	1.6	1.2	1.7			
Professional	31.2	39.2	34.0			
Other	3.2	3.3	0.9			
Household income/year				13.853		0.180
Under 10,000 US$	6.4	10.5	8.1			
10,000 - 25,000 US$	13.6	13.7	12.8			
25,000 - 50,000 US$	14.4	23.5	22.1			
50,000 - 75,000 US$	27.2	20.3	18.7			
75,000 - 100,000 US$	20.8	11.8	13.6			
Over 100,000 US$	17.6	20.2	24.7			
Package trip				0.971		0.615
Yes	46.4	40.5	43.0			
No	53.6	59.5	57.0			

Table 3.17 (Continued)

Variables	**Cluster 1 n=125**	**Cluster 2 n=153**	**Cluster 3 n=235**	X^2	**F**	**Sig.**
Primary purpose of visit				33.217		0.016*
Education/study trip	2.4	1.3	2.1			
Visit relatives/friends	3.2	2.0	9.4			
Business	1.6	1.3	2.1			
Vacation	84.0	81.0	72.3			
Official assignment	0.0	0.6	1.3			

Get to know culture/tradition	4.8	2.0	5.5			
Health check/surgery	0.8	0.0	0.0			
Meeting/Conference/Exhibition	0.0	0.0	0.9			
Honeymoon trip	0.8	8.5	5.1			
Other	2.4	3.3	1.3			
Travel party				49.287		0.000*
Family & children	40.0	24.7	36.2			
Spouse	14.4	47.7	25.1			
Traveled alone	15.2	5.9	13.2			
Tour group	1.6	0.7	0.4			
Business associates	1.6	0.7	1.3			
Friends	21.6	19.0	17.0			
Relatives	5.6	1.3	6.8			
Number of travel party	(a) 2.88	(b) 2.56	(a) 2.92		3.336	0.036*
Number of nights	10.59	9.11	9.98		1.957	0.142
Willingness to pay more	(ab) 2.70	(b) 2.52	(a) 2.86		6.114	0.002*
Willingness to return	(b) 3.70	(b) 3.75	(a) **4.24**		18.832	0.000*
Willingness to introduce	(b) 3.82	(b) 3.91	(a) **4.33**		17.382	0.000*
Overall satisfaction	(b) 3.85	(b) 3.89	(a) **4.24**		22.840	0.000*

* Indicates statistically significant differences between groups at $p \leq 0.05$

Remarks: 1: F = One-Way ANOVA (computed) value.

2: X^2 = Chi-square test (computed) value.

3: Sig. = Level of Statistically significant.

4: The "**bold**" numbers showed the indicator with the highest mean score.

5: Letter (a), (b) shows the multiple comparisons between benefit segments in various variables. The same letters are not significantly differences (at the 5% level) according to the LSD test in ANOVA. Letter (a) showed the higher mean score than letter (b).

The Chi-square and one-way ANOVA were used to identify whether statistically significant differences existed among the three clusters (see table 3.17). Among the socio-demographic variables, significant differences were found for age, country of residence of travelers and marital status at level 0.05 by Chi-square test. In term of the age, cluster 1 had the largest share in the age between 41-50 years (27.2%), and was the oldest segment. Meanwhile, cluster 2 was the youngest group with the highest rate in the age between of 21-30 years (38.6%). Cluster 3 ranked in the middle. Additionally, the significant differences were presented in the various proportion of tourists' country of residence. Although European tourist represented the highest share in all three clusters, each had their own proportions. Most of tourists in cluster 1 came from Europe (72.8%), while this number in cluster 2 was 66.7% and cluster 3 was 55% only. Furthermore, cluster 2 had the highest rate in Oceania market and cluster 3 led in Asia and America market. For marital status, half of tourists in cluster 1 were married (or living with partner), compared to 75.2% in cluster 2 and 68.9% in cluster 3.

Chi-Square and one way ANOVA test was performed to determine whether there is statistically significant difference between the trip-related characteristics of international tourists on the three clusters. Interpretation of the results was done at 5% level of significance; where the value of $p \leq 0.05$ was considered significant. Statistically significant differences were found among the three clusters for primary purpose of visit, travel party, number of people in travel party. In generally, most of tourists' primary purpose was vacation in all of the three clusters. But there was different share of travel purpose in each. Cluster 1 had the largest rate of travelers who came to The Andaman Cluster in order to enjoy their vacation (84%). In cluster 2, honeymoon trip was the second important purpose (8.5%) besides the first, vacation (81%). The smallest rate (72.3%) of primary purpose (vacation) of cluster 3 represented that these visitors also looked for other purposes in their trip such as visit relatives/friends (9.4%), get to know culture, tradition (5.5%) and honeymoon trip (5.1%). Moreover, the highest percentage of respondents in Cluster 1 (40%) and cluster 3 (36.2%) were traveling with family & children. Spouse represented the largest proportion in cluster 2 (47.7%). Besides, there were more respondents traveling with spouse in cluster 3 (25.1%) than cluster 1 (14.4%). Furthermore, cluster 2 had the least of travelers who enjoyed their trip alone. The Least Square Difference (LSD) test in ANOVA indicated that the number of people included in the travel party was the lowest in cluster 2 (2.56).

In term of post-trip behavior and satisfaction level of the international tourists, statistically significant differences among the three clusters were found for willingness to pay more, willingness to return, willingness to introduce, and overall satisfaction at level 0.01. The LSD test in ANOVA showed that The tourists in cluster 3 gave the highest scores in two post-purchase behavioral intentions (4.24 for willingness to return,

and 4.33 for willingness to introduce) and satisfaction level as well (4.24 out of 5). The tourists in cluster 2 and cluster 1 did not show the significant differences in four variables: willingness to pay more, willingness to return, willingness to introduce and overall satisfaction as well.

3.5 Evaluation of Market Segments

According to Jang, Morrison, O'Leary (2000), the researcher evaluated segment attractiveness based on four respects such as (1) profitability, (2) profitability risk (coefficient of Variance), (3) risk-adjusted profitability index, and (4) relative segment size.

3.5.1 Profitability

To identify the most profitable market segment, the three clusters were evaluated based upon their mean expenditures. Mean expenditures were measured in terms of mean expenditure per travel party, mean expenditure per person, and mean expenditure per person per night. It was expected that the most profitable segment would have the highest expenditure in the all three spending categories. The analysis in the table 3.18 describes the comparisons of mean score among clusters by three kinds of expenditure. The test result of One-way ANOVA was used to indicate that statistically significant differences were found for all the expenditure categories across the three clusters.

The LSD test in ANOVA showed that cluster 3 primarily appeared to be the most profitable segment with the highest mean expenditures in two categories (mean expenditure per travel party, mean expenditure per person). Cluster 1's expenditure per person per night was lower than cluster 2.

Table 3.18 Comparison of Segment Profitability (unit: US$)

Expenditure category	Cluster 1 (n=125)	Cluster 2 (n=153)	Cluster 3 (n=235)	F	Sig.
Mean expenditure/travel party	(b) 3,370	(b) 3,382	(a) **4,398**	4.386	0.013*
Mean expenditure/person	(b) 1,156	(b) 1,246	(a) **1,322**	3.734	0.025*
Mean expenditure/person/night	(b) 124	(a) 157	(a) 167	7.195	0.001*

* Indicates statistically significant differences between groups at $p \leq 0.05$.

Remarks:

1: F = One-Way ANOVA (computed) value.

2: Sig. = Level of Statistically significant.

3: The "**bold**" numbers showed the indicator with the highest mean score.

4: Letter (a), (b) shows the multiple comparisons between benefit segments in various variables. The same letters are not significantly differences (at the 5% level) according to the LSD test in ANOVA. Letter (a) showed the higher mean score than letter (b).

3.5.2 Risk

The risk or uncertainty was measured through the coefficient of variance (CV), which was the standard deviation divided by the expected value (the mean expenditure) (see table 3.19). Cluster 1 appeared the least risky taking segment in terms of the expenditure per travel party, expenditure per person and expenditure per person per night. Cluster 2 had lower CV for expenditure per travel party but higher CV for expenditure per person than cluster 3. However, cluster 2 and 3 have the same CV for expenditure per person per night.

Table 3.19 Comparison of Coefficient of Variance (CV) for Segment Profitability Risk

Expenditure category	Cluster 1 (n=125)	Cluster 2 (n=153)	Cluster 3 (n=235)
Mean expenditure/travel party	**0.87**	0.89	0.93
Mean expenditure/person	**0.66**	0.83	0.80
Mean expenditure/person/night	**0.55**	0.60	0.60

Remark: The "**bold**" numbers showed the indicator with the lowest mean score.

3.5.3 Risk-adjusted Profitability Index (RPI)

The risk-adjusted profitability index (RPI) which was the mean expenditure divided by the standard deviation time one hundred was created and applied to assist in making the final decision on segment choice. As shown in table 3.20, cluster 1 had the highest RPI in all three expenditure categories. Cluster 2 had higher RPI in two expenditure categories, while cluster 3 had higher RPI in expenditure per person.

Table 3.20 Comparison of Risk-adjusted Profitability Index (RPI)

Expenditure category	Cluster 1 (n=125)	Cluster 2 (n=153)	Cluster 3 (n=235)
Mean expenditure/travel party	**114.61**	112.31	107.95
Mean expenditure/person	**152.65**	120.08	124.50
Mean expenditure/person/night	**182.40**	166.63	165.59

Remark: The "**bold**" numbers showed the indicator with the highest mean score.

3.5.4 Relative Segment Size (RSS)

Another important consideration in segment evaluation was the relative market size. RSS which was calculated as the mean expenditure multiplied by the probability of the occurrence of a specific segment was used to compare the three segments. Table 3.21 showed that cluster 3 consistently had the highest RSS in all three expenditure categories. This implied that the expected total market size of cluster 3 was greatest and this group's profitability was also ranked the highest. The RSS figures in table 3.21 were obtained by multiplying the mean expenditures in table 3.18 for each cluster by the probability of occurrence.

Table 3.21 Comparison of Relative Segment Size (RSS) (unit: US$)

Expenditure category	**Cluster 1** **n=125; 24.4%**	**Cluster 2** **n=153; 29.8%**	**Cluster 3** **n=235; 45.8%**	**Sum** **n=513**
Mean expenditure/travel party	821	1,009	**2,015**	3,844
Mean expenditure/person	282	372	**606**	1,259
Mean expenditure/person/night	30	50	**77**	156

Remark: The "**bold**" numbers showed the indicator with the highest mean score.

CHAPTER 4
SUMMARY

This chapter concludes the thesis, discusses the results, and describes the marketing implications based on research findings. The discussion section follows the four objectives of this research.

4.1 Conclusion

The aim of this research is to identify relevant market segments of the international tourism market in the Andaman Cluster, Thailand - a group of several provinces envisioned as one tourism destination. The primary data was acquired from surveying via questionnaire five hundred and thirteen international tourists who visited the Andaman Cluster, Thailand. The questionnaire was designed to collect a wide range of information including demographic information, trip-related characteristics, and a list of possible benefits sought by tourists on their trip. The study had four objectives: first, to describe the socio-demographic and trip-related characteristics of international tourists visiting the three provinces (Phuket, Krabi and PhangNga) of the Andaman Cluster, Thailand, second, to identify the benefit segments of the in-bound tourism market, third, to profile the benefit segments with geographic, demographic and trip-related characteristics, and determine if there were statistical differences among the segments in terms of demographic and trip-related characteristics, and finally, to assess the attractiveness of each benefit segment, and identify marketing implications.

The researcher applied the SPSS program to analyze data by using Frequency, Mean, Standard Deviation, Factor analysis, the two methods of Cluster analysis including Hierarchical cluster analysis and Non-hierarchical cluster

analysis, Discriminant analysis, Cross Tabulation, One-way ANOVA, Pearson Chi-square. A five-point Likert scale was used to assess tourists' opinions.

The results could be concluded as follows:

4.1.1 The Socio-demographic and Trip-related Characteristics of International Tourists

4.1.1.1 The Socio-demographic Characteristics of International Tourists

The socio-demographic characteristics of the respondents revealed who the customers of the Andaman Cluster, Thailand were. The Europeans (63%) were the most demanding market segment followed by the Asians (19.1%). The two main age groups were: 1) 21-30 year old group at 32.9% and 2) 31-40 year old group accounted for more than 30% of the visitors. An additional 41-50 year old group was 20.5%. The gender of respondents was composed of more male tourists than female tourists 62.2% and 37.8% respectively. More than a half of the respondents were married or living with partner, 30.2% of respondents were single. 63% of the respondents were highly educated with Bachelor, Master or PhD degree holders and the majority was professionals (34.9%), businessmen or businesswomen (32.4%), students (15.4%), and government officers (10.7%). More than 40% of them came from households who earned USD 25,001-75,000. The highest annual income was reported by 21.6% with over USD 100,000.

4.1.1.2 The Trip-related Characteristics of International Tourists

During a trip to the Andaman Cluster, the highest proportion of respondents traveled with their family and children (33.7%), followed by those who traveled with their spouses (29.2%), and with their friends (18.7%) while 11.5% traveled alone. The respondents' purposes for visiting indicated that the majority (77.8%) came for vacation. More than half of the respondents visited this region as a full independent tourist (56.9%). The proportion of respondents who visited this area for the first time is higher than repeat visit, which is 64:36. Nearly half of the visitors (47%) stayed for 1-7 days, while 40% of them stayed for 7-14 days. The average length of stay was nearly 10 days. The vast majority of visitors traveled to The Andaman Cluster by air (95.3%). For local transportation, 68.6% of all respondents used taxis, while 35.7% used tour buses. When the sources of information used were reviewed, the most popular source of information was Internet (68.8%), followed by word of mouth (65.5%).

In general, the respondents feel satisfied with their trips in The Andaman Cluster, Thailand (mean score was 4.04 out of 5). In terms of post-trip behaviors, the result showed that the respondents would not really agree to pay more (with a modest mean score was 2.72 out of 5). However, respondents reported that they agreed with the statement "willingness to return" (mean score was 3.96 out of 5). Overall, respondents would recommend the destination to others (mean score was 4.08 out of 5).

4.1.2 The Benefit Segments of Inbound Tourism Market

To identify the benefit segment, the analysis had to be conducted in three stages. They were principal components analysis, cluster analysis, and discriminant analysis.

Factor analysis was applied and extracted ten factors which represent the entire set of 36 variables (6 variables were

excluded because they had commonalities less than 0.5). These ten benefit factors were found with Eigenvalues > 1, and they accounted for 64.696% of the total variance. Moreover, Cronbach's alpha test ranged from 0.704 to 0.757. These results showed that the ten benefit dimensions of benefits sought among international tourists included: New lifestyle, Relaxation, Peacefulness, Learning about nature, Escape, Family togetherness, Outdoor activities and natural, Romance, Experiencing a foreign destination, Visiting Sea-Sun-Sand destination.

The ten benefit factors identified above were used as combined variables for the identification of segments of respondents looking for similar benefits. Since an a priori number of segments was not known previously, hierarchical cluster analysis was undertaken in the first stage. The data were analyzed by using a hierarchical clustering procedure (Ward method) with Square Euclidean distance as a similarity measure between cases. The agglomeration coefficient and dendgrogram revealed that a three-cluster solution was most appropriate. In the second stage, non-hierarchical method, the K-means clustering technique was applied with the cluster centers from the hierarchical results as the initial seed points after the outliers were deleted. The results of ANOVA test in K-mean cluster revealed that all ten benefit factors contributed to differentiating the three benefit clusters. These results show that there are statistically significant differences between clusters, thus supporting the fact that distinct clusters had really been identified.

To overcome the limitation of cluster analysis and to ensure the quality of the research, a discriminant analysis was conducted to test whether significant differences exist between the three clusters based on ten benefit factors. At the beginning, the ANOVA test was used to test which independent variables contribute significantly to the discriminant function, and Box's

M test tested the assumption of homogeneity of covariance matrices. The results concluded that all variables distributions were significant, and the groups did differ in their covariance matrices. After that, two canonical discriminant functions were calculated by using discriminant analysis on all ten benefit factors. The resulting discriminant functions were subjected to a Chi-square test to determine the significance of the functions. The functions are statistically significant, as measured by the Chi-square statistic. In addition, a Wilk's lambda test and univariate F test were conducted to determine the significance of each of the ten benefit factors. The findings indicated that all of the ten benefit factors made a statistically significant contribution to the discriminant function. Finally, the classification matrix of respondents was used to determine how the discriminant function could work. Almost all (95.7%) of the 513 respondents were correctly classified, representing a very high accuracy rate. Specifically, cluster 1 (97.6%), cluster 2 (88.9%), and cluster 3 (99.1%) were correctly classified into their respective groups.

The finding suggested that the tourism market in The Andaman Cluster, Thailand could be divided into three segments based on benefits sought. To explain the three clusters and to label them, the mean importance scores for each benefit factor were computed. These three segments were named as Escape/Relaxation seekers, Romance in foreign destination seekers, and Novelty/ nature and family/outdoor activities seekers. There were 125 objects (24.37%) in cluster 1, 153 objects (29.82%) in cluster 2, and 235 objects (45.81%) in cluster 3 out of the remaining 513 observations.

4.1.3 Socio-demographic and Trip-related Characteristics for Various Segments

In order to further identify the profile of the three clusters, each cluster was cross-tabulated with external variables such as the tourists' socio-demographic characteristics, trip-related characteristics, post-trip behavior and satisfaction level.

In cluster 1-"Escape/Relaxation seekers", travelers belonging to this segment were excited in getting away from their ordinary lives and busy jobs. They tend to escape from their own environment by seeking some stimuli, and relaxation from traveling. This group had higher numbers of males (66.4%), and the majority of them were European (72.8%). There were more married travelers (50.4%) than single travelers (41.6%). The same rate (about 25%) was found in three groups of age (21-30 years, 31-40 years, 41-50 years). A large proportion of them had bachelor or master degrees (more than 30% each). They tended to be businessmen/businesswomen, professionals (such as doctors, lawyers, etc), students or government officers. Nearly half of them had very high annual incomes, ranging from 50,000 to 100,000 USD.

In cluster 2 - "Romance in foreign destination seekers", these visitors were interested in romantic experiences and wanted to experience travel in a foreign destination. They were a somewhat younger than the other two groups of visitors (nearly 70% between the age of 21-40). This group also had higher numbers of males (62.7%). Most of them were married or living with partner (75.2%), and came from Europe (66.7%). Their education background was almost the same with the first group. 39.2% of them were professionals, 30.1% were businessmen or businesswomen, 14.4% were students. The same rate (about 20%) was found in three levels of annual income (25,000-50,000 USD, 50,000-75,000 USD and Over 100,000 USD).

Cluster 3 - Novelty/ nature and family/outdoor activities seekers consisted of travelers with a cultural

appreciation, who were seeking new knowledge, were concerned with environment in a Sea-Sun-Sand destination, and wanted to experience new lifestyles. They were interested in outdoor activities for their family. The two popular groups were 21-30 years of age (32.8%) and 31-40 years of age (33.2%). This group also had higher numbers of males (59.6%), and married travelers (68.9%). Most came from Europe (55.3%), followed by Asia (17%) and Oceania (13.1%). Their education background was almost the same with the other two groups. The same proportion of them (about 33%) tended to be businessmen or businesswomen and professionals. This segment had the largest proportion in terms of highest annual income of travelers (24%).

In comparison of social-demographic characteristics, cluster 1 had the largest share in the age between 41-50 years (27.2%), and was the oldest segment. Meanwhile, cluster 2 was the youngest group with the highest rate in the age between of 21-30 years (38.6%). Cluster 3 ranked in the middle. Moreover, European tourists represented the highest share in all three clusters but each had their own proportions. Most of the tourists in cluster 1 came from Europe (72.8%), while this number in cluster 2 was 66.7% and cluster 3 was 55% only. Furthermore, cluster 2 had the highest rate in the Oceania market and cluster 3 led in the Asia and America markets. For marital status, half of the tourists in cluster 1 were married (or living with partner), compared to 75.2% in cluster 2 and 68.9% in cluster 3.

Among the trip-related characteristics, most tourists' primary purpose was vacation in all of the three clusters. But there were different shares of travel purpose in each. Cluster 1 had the largest rate of travelers who came to The Andaman Cluster in order to enjoy their vacation (84%). In cluster 2, honeymoon trip was the second important purpose (8.5%) while the first, was vacation (81%). The smallest proportion (72.3%)

of primary purpose (vacation) of cluster 3 represented that these visitors also looked for other purposes in their trip such as visit relatives/friends (9.4%), get to know culture/traditions (5.5%), and honeymoon trip (5.1%). Moreover, the highest percentage of respondents in cluster 1 (40%) and in cluster 3 (36.2%) were traveling with family and children. Traveling with spouse represented the largest proportion in cluster 2 (47.7%). In addition, there were more respondents traveling with spouse in cluster 3 (25.1%) than cluster 1 (14.4%). Furthermore, cluster 2 had the least number of travelers who enjoyed their trip alone. The number of people included in the travel party was the lowest in cluster 2 (2.56)

For post-trip behavior and satisfaction level of the international tourists, the study found statistically significant differences among the three clusters for willingness to pay more, willingness to return, willingness to introduce, and the overall satisfaction was at level 0.01. The tourists in cluster 3 gave the highest scores for two post-purchase behavioral intentions (willingness to return, and willingness to introduce) and satisfaction level as well.

4.1.4 Assess the Attractiveness of Each Benefit Segment

The researcher evaluated segment attractiveness based on four respects such as: (1) profitability, (2) profitability risk (coefficient of Variance), (3) risk-adjusted profitability index, and (4) relative segment size.

To identify the most profitable market segment, the three clusters were evaluated based upon their mean expenditures. Mean expenditures were measured in terms of mean expenditure per travel party, mean expenditure per person, and mean expenditure per person per night. It was expected that

the most profitable segment would have the highest expenditure in all three spending categories. With the highest mean expenditures in two categories (mean expenditure per travel party, mean expenditure per person), cluster 3 primarily appeared to be the most profitable segment. Cluster 1's expenditure per person per night was lower than cluster 2's.

In terms of risk, cluster 1 appeared the least risk taking segment in terms of the expenditure per travel party, expenditure per person and expenditure per person per night. The risk or uncertainty was measured through the coefficient of variance (CV), which is the standard deviation divided by the expected value (the mean expenditure). Cluster 2 had a lower CV for expenditure per travel party but a higher CV for expenditure per person than cluster 3. However, cluster 2 and 3 have the same CV for expenditure per person per night.

For the risk-adjusted profitability index (RPI) which is the mean expenditure divided by the standard deviation times one hundred, cluster 1 had the highest in all three expenditure categories. Cluster 2 had a higher RPI in two expenditure categories, while cluster 3 had a higher RPI in expenditure per person.

In terms of relative market size (RSS), which is calculated as the mean expenditure multiplied by the probability of the occurrence of a specific segment, cluster 3 consistently had the highest RSS in all three expenditure categories. This implied that the expected total market size of cluster 3 was greatest and this group's profitability was also ranked the highest.

4.2 Discussion

4.2.1 **Objective 1:** The Socio-Demographic and Trip-Related Characteristics of

International Tourists

4.2.1.1 Socio-demographic Profile of International Tourists

From the viewpoint of residence in country, the result of this study was quite similar with the tourism statistics developed by the Tourism Authority of Thailand for a number of consecutive years. Europeans followed by the Asians have been the largest markets for the Andaman Cluster, Thailand. Hence, Europeans should be pursued and served sufficiently because of their large proportion. This indicated that the population of this study could be representation of overall international travelers in the Andaman Cluster of Thailand. Nevertheless, this market has been the traditional market of this area for a long time, so tourism industry of The Andaman should also pursue and enlarge other new potential markets in order to enhance world market share. On the other hand, the statistic of TAT did not classify the number of other demographic characteristics of international tourists. Therefore, it was impossible to compare the findings of this result with TAT statistic.

In consideration for the in-bound tourism market in The Andaman Cluster of Thailand, most international tourists should be regarded as European and Asian, age between 21-40 years old, married or living with partner, with education at the bachelor degree and high school level, professional and businessman or businesswoman, with a high household income (over 50,000 USD per year).

4.2.1.2 Trip-related Profile of International Tourists

Vacation was the primary purpose of international tourists' trips. Furthermore, a vast proportion of tourists traveled with their family and children or their spouse. These implied that suppliers should pay more attention in developing travel products and services for whole family experiences together in tourism destinations. For transportation, even though many low cost airlines have operated more and more efficiently in both Thailand and the Andaman region, the proportion of tourists who used regular airlines was still larger. In terms of local transportation, taxi was a very necessary transport for international tourists because of dangerous traffic in this area due to the government does not limit the speed of vehicles.

According to the findings, the Internet was the most important media channel for international tourists to search for necessary information. It is easy to understand this behavior because the Internet was the most useful and sufficient tool that supplied information quickly for tourists who would like to travel abroad. In addition, word of mouth was the most trustworthy information source for tourists.

Many tourists who would like to revisit and recommend The Andaman Cluster to other people, did so because they found out that there are many beaches in this area, it is enjoyable, the people are hospitality and friendly, and there is the opportunity for relaxation.

4.2.2 Objective 2: The Benefit Segments of Inbound Tourism Market

This objective attempts to contribute to the knowledge concerning benefits sought by international tourists for their holiday in The Andaman Cluster, Thailand. Unlike the previous studies that found that "Nature and environment" (Jang, Morrison & O'Leary, 2000) or "Nature and Peacefulness"

(Molera & Albaladejo, 2005) was the most important benefit factor sought by tourists, the results in this study showed that New lifestyle had the largest proportion of the total variance among benefit factors, at 22.47%. This is simple to explain because the main market was Europeans who have a different culture from Thai, and they would like to explore new lifestyles in this area. In other words, most international tourists were strongly interested in new lifestyles which can be served by designing new products and services to attract more tourists and to better satisfy tourists here. However, mean values indicated that the primary benefit for international tourists was visiting a Sea-Sun-Sand destination, which included two attributes such as visiting a Sea-Sun-Sand destination and being on a beach. This may come from the specific features of The Andaman Cluster, Thailand.

To successfully attract visitors, a host community needs to study and understand the market, develop products that are suitable for the market, pay attention to the trends and preferences of the market (Morrison, 2002). Knowledge about benefits which were sought in travel trips would enable tourism marketers to more deeply understand tourists. And, by capitalizing on this understanding, it is possible to reach them, to talk to them in their own terms, and to present a product in the most favorable manner (Haley, 1968). This study revealed that important benefit factors sought by international tourists were: New lifestyle and Visiting a Sea-Sun-Sand destination. Hence, the destination marketers can meet the desired needs of travelers by emphasizing these benefits in their products and services.

In the other hand, the findings of cluster analysis suggested that the in-bound tourism market in The Andaman Cluster, Thailand could be divided into three segments based on benefits sought by tourists (Escape/Relaxation seekers, Romance in foreign destination seekers, Novelty/ nature and

family/outdoor activities seekers). The results also confirmed that tourist consumers were heterogeneous. This is consistent with previous studies (Yannopoulos and Rotenberg, 1999; Jang, Morrison & O'leary, 2000; Lee et al., 2005; Frochot, 2003; Molera & Alabaladejo, 2005). Moreover, two in three segments (Escape/Relaxation seekers and Novelty/ nature and family/outdoor activities seekers), that were identified in this study, are fairly similar to the results in the previous study about benefit segmentation in the USA market (Jang et al., 2000).

However, this study obtained the diverse segments with many researches. According to the findings of these research efforts, each had their own segments. Yannopoulos and Rotenberg (1999) conducted a benefit segmentation study on the near-home tourism market. These researchers segmented the market into five clusters ("intangible amenities", "active materialists", "entertainment and comfort", "cultured materialists", and "entertainment and shopping"). Lee et al. (2005) divided French long-haul pleasure travelers to Canada into five distinctive groups ("family oriented", "environment & safety conscious", "culture & luxury indulgent", and "roughing it & coping"). While Frochot (2003) determined that the four segments ("Actives", "Relaxers", "Gazers" and "Rurals") could be distinguished. A more recent study in South-Eastern Spain (Molera & Alabaladejo, 2005) also focused on benefit segmentation in a rural area. The study's findings showed five segments of tourists ("Family rural tourists", "Relax rural tourists", "Active rural tourists", and "Rural life tourists"). All of the previous studies had their own results with different characteristics.

It is not possible to compare results obtained in different studies because many diverse features were found in each. Although all of the studies aimed to segment the tourism

market based on benefits sought, they varied in terms of the following characteristics:

(1) There were the differences in the periods when the surveys were conducted.

(2) These studies were conducted in different tourist destinations such as New York, Canada, Scottish, South-Eastern Spain and this study is in The Andaman Cluster of Thailand. Because of traveling in different destinations and their features, the tourists sought distinctly different benefits. The travel benefits were shown as associated with distinct environmental features of the destinations visited.

(3) Different specific tourism markets were studied in these projects, such as: near-home tourism market, rural market, and the tourism market in general.

(4) Different populations were considered in each study. Tourists in different destination environments responded somewhat differently in their interest for travel, such that tourists came from different residences sought different benefits from their trip. The populations sampled in these studies also differed from each other (e.g. Japanese tourists, French tourists, international tourists).

4.2.3 Objective 3: Socio-demographic, Trip-related and Post-purchase Behavioral Intention Profile of Each Benefit Segment

The identification of differences in the socio-demographic, trip-related and post-purchase behavioral intention profile of each of three segments demonstrated even further the differences among those clusters. The results showed that three segments could be distinguished which display different socio-demography (age, region of residence, marital status), trip-related characteristics (primary purpose of visit, travel party, number of travel party) and post-purchase behavioral intention

(willingness to pay more, willingness to return, willingness to introduce) and satisfaction level.

From a socio-demographic viewpoint, differences existed among the three segments with respect to three variables: age, region of residence, and marital status. According to the previous studies on benefit based segmentation, the results of this study were compatible with Yannopoulos & Rotenberg (1999), Jang, Morrison & O'leary (2000), Frochot (2003), Lee et al. (2005) and Molera & Alabaladejo (2005) in the variable - age, with Frochot (2003) and Molera & Alabaladejo (2005) in the variable - region of residence; with Jang, Morrison & O'leary (2000), Frochot (2003) and Molera & Alabaladejo (2005) in the variable - marital status. Thereby, these studies further supported the appropriateness of utilizing different socio-demographic scales. However, some other variables (e.g occupation, household income, education) were found to be different among segments in some previous studies, but not in this study.

In terms of trip-related characteristics, the findings indicated there were in fact differences among the three segments: primary purpose of visit, travel party, and number of travel party. The studies of Jang et. al (2000), Frochot (2003) and Molera & Alabaladejo (2005) also identified differences among the segments of travel party and number of travel party. Nevertheless, they did not find a significant difference among segments in terms of primary purpose of visit.

Even though the studies listed above did not examine the differences among segments in post-purchase behavior intention and satisfaction viewpoint, Jang, Morrison & O'leary (2000) suggested that the research on market segmentation should incorporate these variables. Therefore, this study tried to identify the differences among segments using these two scales. And the tourists in three segments of this study showed diverse

responses in willingness to pay more, willingness to return, willingness to introduce, and satisfaction level.

The results implied that, at the time of the study and based on the items used in the study, three distinct segments visited The Andaman Cluster, Thailand. Each required various strategies to pursue because of their differences of socio-demographic profile, trip-related characteristics, post-purchase behavioral intention, and satisfaction level. These results have important implications for governments and private suppliers who engage in tourism marketing and development. The profile of different benefit segments provides detailed information on the niche markets for in-bound tourism market in this region.

4.2.4 Objective 4: Assess the Attractiveness of Each Benefit Segment

Although segment 3 - Novelty/ nature and family/outdoor activities seekers consistently showed superiority in all three categories of expenditures (mean expenditure per travel party, mean expenditure per person, and mean expenditure per person per night), these results were not sufficient in deciding if it was the best segment from a profitability standpoint. This situation needs to be supported by some other criteria. In order to choose the target segment, marketing professionals need to consider profitability (mean expenditures), profitability risk (coefficient of Variance), risk-adjusted profitability index (RPI) and relative segment size (RSS) at the same time (Jang et al., 2000).

Based on the results of the comparisons of profitability and risk, segment 3 was the most profitable segment but had the highest risk. While segment 1- Escape/Relaxation seekers was the least risky segment; it had the lowest profitability in two expenditure categories. Segment

2- Romance in foreign destination seekers did not lead in either profitability or risk. In other words, segment 3 was the segment generating the greatest expenditures for a destination. But after considering the risk, this segment confirmed to be the highest risk segment. The lowest CV and highest RPI scores in all three expenditure categories indicates that segment 1 was the best segment. However, with the highest RSS in all three expenditure categories, the expected total market size of segment 3 was the greatest, and this group's profitability was also ranked the highest.

At that time, the RPI and RSS results identified potentially high profit generating segments from different viewpoints that could be interpreted in different ways according to who is doing the marketing. The organization or destination could get more profits if they incurred higher risk. Overall, given the competitive situation in tourism today, segment 3 seemed to be the most practical choice of segments for most marketers.

Even though the results of this study suggested profitability, profitability risk, risk-adjusted profitability index, and relative segment size as the key segment selection criteria, the measures were weak with respect to objectiveness. These criteria were applied rather subjectively because the objective and resource of specific organization had not been considered yet. Lee et al. (2005) have suggested objective and quantitative criteria for the segments with the most economic value to tourism destinations. Moreover, in evaluating different market segments, the firm must look at the segment's overall attractiveness and company's objectives and resources (Kottler & Keller, 2009). Therefore, more effective tools to select the most profitable target segments are demanded by the markets. With these tools, marketers could produce the highest return on

dollars invested, and thus focus on key marketing strategies with respect to reaching and communicating with target markets.

This study thus attempted to establish quantifiable profitability, risk evaluation criteria, and objectives and resources as well to determine segment attractiveness and to assist with target market selection. The results revealed that if the organization or destination had strong competitive advantages, the largest market segment (segment 3) would be the one to pursue. Marketers in smaller organizations or destinations pursuing niche-marketing strategies would be prefer to target segment 1 with the least risk but the lowest profitability also. Thus, tourism retailers targeting this niche market would use the findings of differentiated characteristics as a guide when they prepare and promote their product to this consumer group. In addition, segment 2 ranked in the middle of profitability and risk.

4.3 Suggestions

In an extremely competitive market environment with increasing pressure for return on marketing dollars, adopting segmentation strategy for high efficiency in generating revenue is a critical task for all destination marketers. This study indicates that benefit-based segmentation is a viable and useful tool for segmenting the in-bound tourism market of The Andaman Cluster, Thailand. The findings themselves have some useful information in order to help tourism marketers in planning and developing effective marketing strategies to approach their target market. However, developing a marketing mix for destinations depends on each destination, the types of target markets and a whole range issues on the external environment (Buhalis, 2000). This study did not analyze enough information, so this part only mentions about marketing implications which are essential for a successful development of

tourism destination marketing in stead of a completed marketing plan. In somewhat, the findings implied some suggestions for both the suppliers and the local government in The Andaman Cluster of Thailand within the tourism industry in term of effectively targeting the different market segments.

4.3.1 Tourism Suppliers

4.3.1.1 Guideline for Choosing the Target Market

Targeting segments generally provides greater opportunities for initial success than launching a program designed to appeal to the broad market. Established companies typically dominate the mass market by making it difficult for new entrants that lack the financial and strategic resources to offer an effective challenge. Nevertheless, the limited size of one segment or more also means that it is possible that a reduction in the number of potential new customers will occur at some point. Actually, all three segments of the in-bound tourism market of the Andaman Cluster are viable as targets to some travel suppliers. If the organizations or destinations are large with a mass marketing strategy, they would pursue all three segments. Each segment should be served in different strategies. Marketers in smaller organizations or destinations pursuing niche-marketing strategies may prefer to target specific segments depending on their objectives and resources.

In specific, segment 3 (Novelty/ nature and family/outdoor activities seekers) is the largest market segment with the greatest profitability but highest risk. The organizations that want to get high profit should pursue this segment. Certainly, these organizations have to incur the high risk as well. The organizations which want to avoid the risk in their business should target segment 1 (Escape/Relaxation seekers) with the lowest profitability. Segment 2 (Romance in foreign destination

seekers) which ranked in the middle of both profitability and risk is also a viable group for some organizations that have competitive advantages in important benefits sought by these tourists.

4.3.1.2 Marketing Implications for Various Segments

<u>Segment 1</u>: Escape/Relaxation Seekers

The attractiveness of this segment revealed that the small organizations who would like to avoid the profitability risk should target this group. Certainly, these organizations can get the low profitability.

In addition, this segment demonstrated the least mean scores in willingness to return, willingness to introduce, and satisfaction level as well. Besides, Baker & Crompton (2000) emphasized the higher satisfaction increased post-purchase behavioral intention. The more satisfied the tourists, the more favorable their post-purchase behavioral intentions. In the other words, if the suppliers can enhance tourist satisfaction levels, their post-purchase behavioral intentions will be more favorable. In order to achieve this goal, marketing efforts should improve the tourist satisfaction level by meeting their needs and desires.

The study found that these travelers are from the oldest-age group, so they are normally loyal customers and believe in word of mouth from their friends and relatives. Based on the results of benefit sought identified in this study, tourism marketers should try to develop the products and services that can satisfy the needs of getting away from pressures and responsibilities of their work, escaping from daily routines,

seeking relaxation and personal rewards through shopping and traveling. This solution can enhance the satisfaction level of the tourists and these satisfied tourists will recommend and introduce this tourism destination to their friends and relatives. The message of advertising should emphasize “emotion benefits” rather than “functional benefits” due to the psychology of these elderly tourists.

As was mentioned, tourism marketers may tie the benefit drives with features that the destination can offer and then package them to better satisfy the target’s needs. This approach may be suitable for the escape/relaxation seekers segment. To satisfy these tourists, the providers may focus on health tourism and offer related products and services such as Thai spa and rejuvenation packages, wellness programs as well as other leisure activities. Since the profile of the respondents in this segment had the highest proportion in old age, another suggestion for these travelers who have more time for holidays in this area is to offer a long-stay program. Moreover, due to the longest average stay of tourists in this area, it should be suggested that this group can be approached as a target market for long-stay programs.

Segment 2: Romance in Foreign Destination Seekers

The travelers in this segment routinely travel with their spouse and like experiencing their trip in a romantic destination. Therefore, these tourists are suitable for the honeymoon market. As the result, the suppliers who have competitive advantages on targeting honeymoon tourists should pursue this segment.

Moreover, most of these tourists have a special dream of foreign countries, and they want to have different experiences from ordinary tours. These people wish to

experience living in a foreign country not just sightseeing. Indeed, these tourists had the highest importance ratings for two benefit factors including "*Romance"* and *"Experiencing a foreign destination"*. This segment reflected the need experiencing leisure and romantic time in foreign destination and is best described as *"Romance in foreign destination seekers"*. Hence, it might be helpful to develop new souvenir items that promote the historical and cultural programs of the country to these tourists, such as traditional Thai wedding ceremonies, or introduce the honeymooners to the local traditional culture. Providing these programs can meet the market need to experience the exotic culture instead of the inevitable feeling of boredom that comes with a beautiful beach or tropical scenery with nothing else to do except sit in the sun.

These potential honeymooners were the youngest group with ages between 21-40 years old. Suppliers may need to provide information via the Internet, which is very popular with young people, and promote the country by providing sponsorships to various events in which university students can participate. Suppliers should design attractive websites that appeal to customer interaction by providing discussion forum, chat room, and online "contact us" form. Yearly, marketing professionals should organize various fascinating games for the couple in the website, and the winning couple can get the trip to this area in the low season. These games not only enhance customer communications but also promote the brand of the suppliers. Additionally, an effective method of promotion should be to advertise it as a honeymoon spot in university newspapers or job recruiting magazines. The suppliers should reveal and promote their strengths on the following attributes: good weather, good scenery, and romantic place. These promotion campaigns should be targeted in Europe, the most important market and Oceania as well.

<u>Segment 3</u>: Novelty/ Nature and Family/Outdoor Activities Seekers

The organizations or destinations that have strong competitive advantages and a mass marketing strategy; this largest market size and highest profitability segment will be the suitable one to target.

This segment has the highest mean scores among the six benefit factors. This implies that this group was the most important segment for The Andaman Cluster, Thailand. The study indicated that these tourists would like to experience new lifestyle in events and cultures, travel in excited and adventurous trips; peaceful and non-crowded places where they can have their own privacy; learn and experience nature and environment; enjoy the trip with family members; play outdoor activities; and visit Sea-Sun-Sand destinations. These benefits should be served in advance for this segment in order to satisfy their needs. In particular, the tourism suppliers need to serve these tourists a variety of sports and adventure opportunities such as mountain biking, rock climbing, diving, snorkeling excursion, windsurfing, kite-boarding, surfing, canoeing, golfing, and fishing. The suppliers should design entertainment area with new products and services related to the beach for family with little children. These are also very important information for marketers to design advertised message and promote their products to appeal these travelers. Moreover, the promotion campaigns should be targeted to Europe, Asia, and America as well.

In addition, the quality of the product and service should be enhanced to the luxury level to increase satisfaction levels of these highest expenditure tourists. The three behavioral loyalty attributes and satisfaction levels had high scores; this implies that these travelers will have the most favorable perceptions and be the most loyal customers. Therefore,

marketers should pay more attention to word of mouth when promoting the product. Particularly, the supplier should design and give to the tourist special and original souvenirs having the organization's symbol and logo. These presents can remind the tourist about their luxury products and the organization's brand as well. These can become mementos of the trip to show and introduce to their friends and relatives. In other words, these gifts can make the tourist more satisfied and become a very effective means of promotion.

Although each segment demonstrated their own features, all of them also have some common characteristics from a marketing perspective. They are:

(1) More than half of international tourists visited this area as a full independent tourist. Therefore, the suppliers should supply various services besides package tours such as professional advice for tourists, booking services, information giving services, etc. These will make tourists feel more comfortable when they arrange trips by themselves.

(2) In light of the large quantity of independent tourists, tourism providers should pay more attention to designing information contained on their websites. Furthermore, marketers should make available convenient tools for booking online in order to take advantage of the Internet channel for these international tourists.

(3) Pricing should be reasonable, but that does not mean cheap. Tourism suppliers need to develop more quality-based than price-leadership products because annual household incomes of the international tourists were quite high. It means when the suppliers design new product and serve the tourist, they should try to meet tourist desire rather than care about the cost of the product that affects the price. In the other word, the price shows the suitable value of money that tourists pay for the product quality and brings about the highest level of tourist satisfaction.

(4) The data regarding tourist behavior indicated that many tourists found information about their trip from the Internet, and worth of mouth. Therefore, individual providers should take their own initiative to create websites in order to market the products and services that they offer to the international market. The website should be fast, accurate, have a good search facility and provide enough information about products and services. Marketing professionals should focus on the Internet as a very important channel to sell the product directly. Moreover, tourist suppliers should emphasize maintaining their good reputation, creating customer loyalty with visible advertising or branding. On the other hand, this researcher would like to suggest that providers should concentrate more on public relations which can be very effective and economical. It can also reach many prospects who avoid salespeople and advertisements.

4.3.2 The Government

4.3.2.1 Transportation

The government should check and manage both quantity and quality of transportation services.

- For quantity, the transportation capability needs to be ensured for the tourists. Taxis should serve nearly 70% of all transportation services due to the proportion of this transport that the respondents used in their trips. Tuk tuk and public bus were also useful transports for international tourists. Furthermore, it is important to increase the public transportation capability to these areas in order to connect a network linking all the tourist attractions within the region and develop direction signs.

- Moreover, the government should manage the quality of transportation services in terms of four dimensions such as: ease of use, efficiency, safety, and good parking (Thompson & Schofied, 2007). In addition, it is very important and necessary

to popularize specific information of these transports such as: ways to contact (e.g phone number, address), price, operation time, stations, etc. This information needs to be in both Thai and English because of the language problem of international tourists.

4.3.2.2 Promotion Means

The local government should enhance promotion and marketing information by employing various persuasive means. Advertisement and public relations campaigns should be available on well known and central websites, both local and international television channels, in-flight magazines, tourism newspapers and magazines. Other information materials on the tourism industry such as brochures, booklets, guidebooks, and destination maps for tourists, articles, newsletter, magazines, press releases, video clips should be created and distributed in the airports, bus terminals, information centers, major tourist destinations, etc. In addition, the local government should reach the target audience and generate the demand for vacation to The Andaman by creating the events in relation to help generate the desire of traveling to this area: special event (trade fair, Thai Food Fair, Thai Traditional Festival, etc.). Moreover, it is very important to create the deeper awareness of traveling and its products by preparing a mailing list and writing a new release to the target media, sending the newsletters and other press materials. Furthermore, the local government also needs to connect with TAT offices in foreign countries in order to ask their help in creating new partnership with international travel agency by sending brochures, pamphlets, and newsletters. Travel agents are important opinion-leaders for potential travelers.

4.3.2.3 Online Marketing

According to the results of this study, tourists heavily relied on the Internet. Hence, local governments should take full advantage of the Internet in order to market the Andaman Cluster around the world. In some cases, individual providers limit resources and lack knowledge for Internet marketing. So, local governments should set up a central website of the Andaman Cluster, Thailand which includes all the information and direct links to the websites of suppliers to promote the tourism industry across this area as a whole. This website needs to be central to provide all available tourism information.

To ensure the efficiency, the website needs to achieve three requirements:

(1) The architecture of the website should be user-friendly so that tourists can easily search for information and click between web pages. Each of the surveyed websites should have this design in order to meet the needs of various kinds of online visitors and thus optimize the effect of their marketing strategy.

(2) The government websites needs to be updated monthly and make their content more credible and accurate than private websites. The updating of the website content is of crucial importance, because online tourists will want to obtain the latest (i.e. current correct) travel information.

(3) This website should recommend the best quality products and features of each destination.

4.3.2.4 Building up the Image of The Andaman Cluster, Thailand

The local government should build up the image of The Andaman Cluster, Thailand. The promotional message needs to emphasize important benefits that tourists seek when they travel to this area. From a marketing perspective, since the study discovered that New lifestyle and Visiting Sea-Sun-Sand

destination were the two most important benefit factors, the positioning of The Andaman Cluster of Thailand for the in-bound tourism market will be more effective if the TAT and tourism marketers can reflect these benefits of the target, and link them with destination attributes that appeal to international tourists to better satisfy customer needs. However, Phuket and The Andaman were known very well as a Sun-Sea-Sand destination, so it needs to be promoted in more attractive way. In addition, TAT markets successfully Thailand to the world under the slogan “Amazing Thailand”. Hence, The Andaman should be expressed how amazing this Sun-Sea-Sand destination is in order to agree with national slogan. So, the local government needs to promote various amazing products and services of this area that can meet the market demand. As mentioned above, health and wellness products; products for honeymoon trip; and products for Thai lifestyle, culture, nature, environment, outdoor activities, and adventurous trip were proposed to pursue the three segments of this area. In short, the suggested benefit theme can be “Visit the Andaman, discover and experience amazing Thai lifestyles, culture, nature, outdoor and adventurous activities, health and wellness tourism, and honeymoon trip in a Sun-Sea-Sand destination” in order to promote “Amazing The Andaman” to the world. This theme may stimulate the needs of tourists and attract them to this area to travel.

In the other hand, the government should establish a clear understanding of the situation of Thailand in general and The Andaman Cluster in specific to give more confidence to international tourists who would like to visit this area.

4.4 Limitations and Suggestions for Further Study

4.4.1 Limitation of the study

The segmentations proposed in this paper can be helpful in understanding what tourists seek on their trip to The Andaman Cluster, Thailand. The results of this study also provide information (e.g. demographic profile, trip behaviors, post-purchase behavioral intentions, and satisfaction level) which can be used to develop niche marketing strategies. Understanding the benefits sought by tourists can ultimately help communities effectively design and market their product lines and experience.

Of course, like other research, the present research has some limitations:

(1) Although the benefit segmentation applied in this study was effective and provided useful information for marketing, it was just one of many alternate segmentation methods for differentiating travelers.

(2) This study did do market segmentation for the whole tourism industry, so marketing implications were not sufficient and appropriate for other specific markets (e.g. ecotourism, health tourism, etc) or specific fields (e.g. hotel, restaurant, shopping, etc).

(3) Although this study may help suppliers and the local government in the Andaman Cluster of Thailand within the tourism industry in terms of effectively targeting different market segments, it did not analyze enough information in order to develop a complete marketing plan.

(4) This study did not exam the differences of tourism market segmentation among the three provinces in The Andaman Cluster, Thailand (Phuket, Krabi, PhangNga).

4.4.2 Suggestions for Further Study

Future research on market segmentation is recommended as follows:

(1) Future research should incorporate other variables such as: preferences, attitudes, psychographic profiles, etc. This can help to further test the segment evaluation criteria proposed in this study.

(2) Future research should focus on specific markets such as ecotourism and health tourism.

(3) Future research should focus on specific fields such as hotel, restaurant, and shopping.

(4) Since Europeans had the largest proportion of the international market, this segment should be pursued and analyzed intensely. Therefore, future research on market segmentation should focus on European travelers, the most important of the international market for the Andaman Cluster in order to deeply understand and efficiently serve these travelers.

(5) Future research in market segmentation should conduct in each province of The Andaman Cluster, Thailand (Phuket, Krabi, PhangNga).

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APPENDIX

APPENDIX

Date...../...../
2008
Interviewer.....N

Questionnaire for International Tourists
Inbound Tourism Market Segmentation of The Andaman Cluster, Thailand

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My name is Ho Le Thu Trang. I am studying MBA in Hospitality and Tourism Management at Prince of Songkla University, Phuket Campus, Thailand. I am researching in "Inbound Tourism Market Segmentation of The Andaman Cluster, Thailand". This questionnaire will be used only for academic purposes and your information is kept strictly confidential. Your kind cooperation is this regard is highly appreciated.

Thank you very much for your participation.

Ho Le Thu Trang

.....

Please write down answer or tick ✓ in ☐ which corresponds to your answer.

<u>Part I</u>: Personal information

1. Gender: 1. ☐ Male 2. ☐ Female

2. Marital status:

1. ☐ Single 2. ☐ Married/living with partner
3. ☐ Divorced 4. ☐ Widowed

3. Age: 1. ☐ < 20 2. ☐21-30

3. ☐31-40 4. ☐ 41-50
5. ☐ 51-60 6. ☐ > 60

4. Nationality: .....

5. Highest education completed:

1. ☐ Element school (grade 1-8) 2. ☐ High school
3. ☐ Vocational school 4. ☐ Bachelor degree
5. ☐ Master degree 6. ☐ Doctor degree

6. Main occupation (***one answer only***):

1. ☐ Student 2. ☐ Government
3. ☐ Businessman/Businesswoman 4. ☐ House wife
5. ☐ Retired 6. ☐ Professional (pls. specific) .....
7. ☐ Others (pls. specific) .....

7. Annual household Income

1. ☐ Under 10,000 USD 2. ☐ 10,000-25,000 USD
3. ☐ 25,001-50,000 USD 4. ☐ 50,001-75,000 USD
5. ☐ 75,001-100,000 USD 6. ☐ Over 100,000 USD

(.....*In your currency*)

<u>Part II</u>: Tourist behavior

A. Trip related-characteristics

1. **Are you on an inclusive tour or package trip to Phuket?**
   1. ☐ Yes 2. ☐ No
2. **How did you travel to Phuket?** (more than a one answer is possible)
   1. ☐ Land 2. ☐ Sea
   3. ☐ Air and, if so, by
      3a. ☐ Low cost airline
      3b. ☐ Regular airline

3. **What was the local transportation mode you used to get around Phuket?** (More than one answer)
   1. ☐ Taxi 2. ☐ Rental motorcycle
   3. ☐ Rental car 4. ☐ Tour bus
   5. ☐ Public transportation 6. ☐ Tuk Tuk
   7. ☐ Other (pls. specific).....

4. **What is the main purpose of this trip?** (choose one answer only)
   1. ☐ Vacation 2. ☐ Honey moon
   3. ☐ Visit family/friend(s) 4. ☐ Business
   5. ☐ Study trip/education 6. ☐ Meeting/conference/exhibition
   7. ☐ Official assignment 8. ☐ Health check/surgery
   9. ☐ Other (please specify) .....

5. **Is this your first time to Phuket?**
   1. ☐ Yes 2. ☐ No How many times? .....

6. **How long did you stay in Phuket?** .....nights

7. **Where did you stay during your trip to Phuket?** (more than one answer)
   1.☐ Hotel 2.☐ Resort
   3.☐ Guesthouse 4.☐ Bed and Breakfast
   5.☐ Home of friends/relatives 6.☐ Other (pls. specify) .....

8. **Which of the following best describes your travel party?**
   1. ☐ With your family & children 2. ☐ With your spouse
   3. ☐ By yourself 4. ☐ With tour group
   5. ☐ With business associates 6. ☐ With friends

7. ☐ Relatives 8. ☐ Other (pls. specify).....

9. **Approximately, average total spending per person visiting to Phuket? ..... / person / trip.**

10. **Where did you find information about Phuket? (check all that apply)**

1. ☐ TV advertisement 2. ☐ Internet
3. ☐ Newspaper 4. ☐ Tour guide
5. ☐ Radio advertisement 6. ☐ Word of mouth
7. ☐ Guide books 8. ☐ Brochure
9. ☐ Tourism Authority of Thailand website 10. ☐ Other(pls. specify) .....

B. Overall Satisfaction and Intention to revisit

1. Overall, how satisfied are you with your visit to Phuket? (Please circle the number that best describes your opinion)

Strongly dissatisfied 1 2 3 4 5 Strongly satisfied

2. Tourist's post-purchase behaviour (Please circle the number that best describes your opinion)

	Very likely				unlikely
(1) How likely would you pay more for these services?	1	2	3		
(2) How likely would you return to Phuket?	1	2	3	4	5
(3) How likely would you introduce Phuket to fiends, relatives?	1				

PART III: The following set of statement relates to your benefit in the trip to Phuket, Thailand. For each statement, please show the extent to which you agree with these 42 statements. (Please circle the number which corresponds to your answer)

Benefit sought by	Strongly disagree	Disagree	Neutral	Agree	Strongly agree

1. Just relaxing	1	2	3	4	5
2. Having fun, being entertained	1	2	3	4	5
3. Shopping	1	2	3	4	5
4. Get recharged	1	2	3	4	5
5. Seeking personal rewards	1	2	3	4	5
6. Escaping from daily routines	1	2	3	4	5
7. Getting away from pressures and responsibilities	1	2	3	4	5
8. Be able to do nothing	1	2	3	4	5
9. Going to places I have not visited before	1	2	3	4	5
10. Going places my friends have not been	1	2	3	4	5

11. Seeing and experiencing a foreign destination	1	2	3	4	5
12. Clean and pure environment	1	2	3	4	5

Please show the extent to which you agree with these statements. (Continued)

Benefit sought by tourist	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
13. Standards of hygiene and cleanliness of destination	1	2	3	4	5
14. Destination that provides value for holiday money	1	2	3	4	5
15. Nice and interesting weather	1	2	3	4	5
16. Opportunities to	1	2	3	4	5

increase one's knowledge					
17. Attractive landscapes	1	2	3	4	5
18. Unique architectures	1	2	3	4	5
19. Outdoor activities	1	2	3	4	5
20. For fitness/ physical activities/ sport activities	1	2	3	4	5
21. Visits to appreciate natural ecological sites	1	2	3	4	5
22. Having a good time with family	1	2	3	4	5
23. Activities for the whole family	1	2	3	4	5
24. Spending time with	1	2	3	4	5

someone special					
25. Having time for romance	1	2	3	4	5
26. Experiencing new cultures	1	2	3	4	5
27. To know about culture events	1	2	3	4	5
28. Visit festival and or special events	1	2	3	4	5
29. Experiencing new lifestyle	1	2	3	4	5

Please show the extent to which you agree with these statements. (Continued)

Benefit sought by tourist	**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
30. Enjoying new foods/ traditional foods of destinatio	1	2	3	4	5

n					
31. Being daring and adventurous	1	2	3	4	5
32. Finding thrills/ exciting	1	2	3	4	5
33. Visiting friends/ relatives	1	2	3	4	5
34. Reliving past good times	1	2	3	4	5
35. Learning about nature/ wildlife	1	2	3	4	5
36. Have privacy	1	2	3	4	5
37. Non-crowded place	1	2	3	4	5
38. Opportunities for children	1	2	3	4	5
39. Relationship with local residents	1	2	3	4	5

40. Being in a mountain	1	2	3	4	5
41. Being in a beach	1	2	3	4	5
42. Visiting Sun-Sea-Sand destination	1	2	3	4	5

Thank you very much for your cooperation in answering this questionnaire.

VITAE

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