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From the Desk of the Chief Editor.....

I am convinced that economic and management sciences have knowledge and techniques not only for administrating organizations, but also providing insights aimed at social problems. The seven contributions of this issue of Optimization are particularly rich in administration, economic, political, social and international debates. They cover tourism, drug rehabilitation, digital commerce in developing countries, free trade, investment and commodity branding.

The tourism sector is highly important in (developing) countries because it contributes to three economic priorities: generation of income, creation of employments and formation of foreign-exchange earnings. In addition, it spills all over. That is why governments fiercely compete to make brands out of their countries and attract tourists (“World Travel and Tourism Council”, www.wttc.org). If tourism is a product and tourists are clients, then countries, as brands, need to find out the travelling motivations for better targeting and attracting visitors.

This is what inspires Dr. Daniel L. Spears, associate professor in *Hospitality & Tourism Management* from *University of North Texas, USA*, in his contribution, “*Malaysian Tourists’ Motivation, Involvement of Southeast Asia Tourism: A Case Study of Singapore and Bangkok*”. He does not study what attract visitors in some target countries, but what motivate them for going out of their native countries. He considers the Malaysians tourists travelling to Singapore and Bangkok. This perspective will help governments to sell better their touristic attractions to their country fellows.

Researches might focus not only on the material benefits of the tourism, but also on the costs of deteriorated infrastructure and inconvenience due to the large numbers of tourists. This is not only the material costs of destructed infrastructures, but also the subjective cost of probable xenophobia. Hundred years ago, this was not the problem. Traveling to Paris, for example, was expensive, and few ordinary people had the money and the leisure time to go there on vacation. Matters are different today.

Drug war in many countries aims at busting the cycle of drug gang, drug dealer and drug user. No definite victory yet. The cycle repeats itself again and again and again. Decades of warfare has obviously not achieved the objective of stopping people from consuming, possessing and selling drugs. Should we be fatalist and defeatist? Certainly not. Economic and management sciences can contribute to the solution. Considering the drug cycle as an extended exchange process, the question is then what can be done so that there is no interest any more in dealing for the supply and the demand of drugs. Legalizing drugs might likely slash attractive high prices on the supply side and corollary eradicate drug gangs and cartels. Cultural and conventional policies almost discard this option in most countries. Education and rehabilitation can change the demand orientation.

In their contribution “*Management of Drugs Rehabilitation Strategies in Kachin State*”, Jen Lomethong, *School of Management, Shinawatra University, Thailand* and John Walsh, *Lecturer, International Business, RMIT Vietnam, Hanoi campus*, consider the option of rehabilitation of drug offenders in Kachin State in northern Myanmar where the traditional use of opium has reached unprecedented levels for supporting the armed struggle for autonomy. The authors find that rehabilitation programs, mainly administered by religious church-based networks, are largely successful, but unpleasant.

There is no more any doubt about the Internet-based networked economy. Digital businesses more than brick-and-mortar establishments and digital products more than traditional products drive the economic wheels not only in developed countries, but also in developing countries. Accordingly, centralized managerial hierarchies fall obsolete and give way to decentralized horizontal peer-to-peer interactions in the border less cyberspace. How do the established economic and managerial concepts separate the realities from

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the fallacies and make scientific sense of the networked economy trends in the developing countries where the digital infrastructure is still perfectible?

Two contributions show the example of application of scientific concepts to the emerging digital economy in the emerging economies. Dr. Abdurezak Mohammed Kuhil, assistant professor of *Business Leadership, Addis Ababa University, College of Business and Economics, School of Commerce* and Rodda Temesgen, MA, at *Ethiopian Airlines*, consider in “*Factors Affecting the Use of Online Flight Booking in Ethiopian Airlines*” the adoption of e-ticketing which is grabbing due to slow development of E-Commerce and E-payment in Ethiopia. The results they find through a survey of 399 respondents on Ethiopian Airlines flights confirm the established “*Technology Acceptance Model*”, introduced by Davis (1989). Consequently, they suggest to Ethiopian Airlines to aggressively promote the E-Ticketing even at the current stage of digital infrastructure development in Ethiopia.

Mobile app-based shopping is supposedly a convenient solution to the working women who have the dual responsibility of taking care of office and home. Dr. A nil Kumar, *assistant professor at Faculty of Management, VNS Group of Institutions Bhopal MP India*, considers the theory of “*planned behavior*” in his contribution “*A study of mobile app-based household purchasing by working women in a developing country: an empirical validation of theory of planned behavior*” to determine the attitude, subjective norm and behavior control of working above 18 women in major cities of Madhya Pradesh toward purchasing by mobile apps. He finds that purchase intention positively influences online shopping behavior.

The system that has supported free trade for decades is currently under threat. Old trade partners are facing serious opposition. In the worst-case scenario, there is the danger of an all-out protectionism and trade war. However, experience shows that free trade increases access to higher-quality, lower-priced goods, lower production costs and thus overall economic growth and welfare for nationals.

If need be, Mohammad Kashif, *assistant professor, Department of Management Studies, North India Institute of Technology, Najibabad, India*, in his econometric analysis, “*Impact of Economic Growth and Trade Openness on Foreign Exchange Reserves in Indian Economy*”, proves one more the evidence. He explores the impact of trade openness on international reserves in India over the period of 1996 to 2016. The cointegration test results of his investigation indicate that economic growth and trade openness have significant effect on international reserves with all consequent benefits they might bring to the national economy.

An economy grows when actors find new or better resources, as with the discovery of oil wells in the 1850s, and/or improve or invent technologies, as with the advent of the internet. In addition, I should also remark entrepreneurial ideas and effective organizational modes. In all cases, there is need for capital investment for securing capital goods. Capital investment entails both profit and risk. Diversification is the most important for reaching long-range financial goals while minimizing risk. Portfolio construction is a diversification strategy which refers to the process of blending together diverse securities to obtain return with minimum risk.

In this perspective, Simranjeet Kaur Sandhar, *assistant professor at Symbiosis University of Applied Sciences, Indore (M.P.)* attempts, in his contribution “*Optimal Portfolio Construction: A Case Study of NSE*”, to construct an optimal portfolio by using the *single-index model* that William Sharpe developed in 1963 for measuring both the risk and the return of a stock. For this purpose, Dr. Sandhar considers the monthly closing prices of companies for a period of seven years and ultimately finds that among the sample companies all the stocks are undervalued except three.

Every business knows about the importance of brands. However, according to the conventional business wisdom commodities cannot be branded because commodities, alike brands, are price driven and emotion-free.

Dr. Gautam Srivastava, *assistant professor at Accurate Institute of Advanced Management, Greater Noida (UP) India*, endeavors to swim in the countercurrent in his contribution, “*Factors for successful Lubricant Brand: A Study of Positioning strategies in Indian Lubricant Market*”. He explores the effect of brand positioning on consumer perception for the commodity of automotive lubricant in Delhi region. Factor analysis has helped to identify the most important factors for brand positioning of automotive lubricant for four-wheeler segments.

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Further Research: Back to Basics

Should economic development continue to prosper on the Internet along with the connected conventional sectors, and should even guilty individuals be rehabilitated, as the contributions of this issue of Optimization advocate, then a convenient “laissez-faire” policy and a prominent discourse on it are arguably inevitable. The discourses and policies of freedom are even more important when the policies and discourses of protectionism and withdrawal from free exchanges have been on the offensive for some years now.

Three major (basic) thinkers can inspire us for thinking and researching on liberty and thriving in the digital age. They are three Viennese exiles who championed in freedom and liberty.

Joseph Schumpeter wrote “*Capitalism, Socialism and Democracy*” in 1942 to display how disentangled entrepreneurship starts up economic development.

Friedrich Hayek wrote “*The Road to Serfdom*” in 1944 to explain how diffusing power brings in a safe and free society.

Karl Popper wrote “*The Open Society and its Enemies*” in 1945 to teach how thinking freely creates knowledge.

Their thoughts are still unparalleled for understanding and countering the totalitarianism that might develop with cyberspace and the authoritarianism that might stop the free exchanges of products and people across borders.

In “*Capitalism, Socialism and Democracy*”, Schumpeter suggests his dazzling idea of the entrepreneur role, not that of bureaucrats or planners, in dynamic economic development. It is conventional to speak about entrepreneurship as being incentivized solely by the profit. However, as many examples of digital startups show the entrepreneurship has a broader view and contains the desire to discover and to serve. The vast amount of digital entrepreneurship is pursued without the promise of profits and payouts. Many networks endeavor daily with motivations that transcend the pure “profit motive.”

Schumpeter’s “*innovation cycle*” refers to entrepreneurs who simultaneously create new products and destruct the obsolete antecedents. Innovators enjoy only limited period of monopoly because other innovations are at the ford to succeed. Some digital elites might seem deeply rooted now. However, as Schumpeter correctly assumed monopolies in the market-based economy are not but temporary due to the unstoppable waves of new competitors’ creative destructions. The market is an ongoing process of continual change. No snapshot at a given moment justifies institutional norms for creating an idealized model of competition or a just market power. Because change is the market’s very life, especially in our digital era when technology is literally changing hour by hour. Examples abound. The dominant web browser Internet Explorer is replaced by Chrome, Firefox, Opera, Safari, etc. Microsoft’s monopoly in operating systems recedes as Linux and Mac OS rise. The once-powerful Yahoo and Alta Vista, but also AOL, Ask and Infoseek eventually sink relative to Google. More cases exist and will exist to show how emerging competitors with more innovative ideas dethrone old monopolies based on outdated concepts. In market-based economy, competition is not a question of size, but of ideas.

Competition is only one side of the coin whose other side is cooperation. The free market is both a competitive and cooperative process. This cooperation takes place not only between buyers and sellers but also between workers in the social network of the division of labor. The more the division of labor expands to include individuals, the more it grounds cooperation. The digital world has considerably enhanced cooperation which transcends not only political and geographic boundaries but even some linguistic ones (as translation software becomes ever more sophisticated). The term “social networking” reminds the essence of this associative behavior, whether based on commerce (eBay, Craigslist, Overstock.com) or pure friendship and sharing (Facebook, Google+, LinkedIn). Cooperation in the cyberspace even relates to any individual level. Millions of individuals are making a living for themselves with digital devices without factories, workforces, or even (large) expenditure. Such a thing would have been unimaginable in a predigital age.

For most of modern history since the 15th century, nation states have been the decisive organizational units of the global community. The great struggles between states have led to trade wars, hot wars, and cold wars. Matters are different in the cyberspace: Amazon, Apple, Facebook, Google, Microsoft and

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other major players in the digital world seek cross-border consumers and contracting partners. Through global networking, individuals from all places have more in common with each other than they do with their own states. Geography is increasingly an afterthought or curiosity relative to the skill and initiative that are exchanged.

In “The Road to Serfdom”, Hayek advocates the individual freedom and suggests that the longing for a society with an overarching common purpose is inherently dangerous to liberty. The complexity of the social life makes it impossible for any man to survey more than a limited field. Consequently, a centrally planned economy who aims at appeasing millions of individual preferences is innately coercive. On the contrary, a decentralized competitive economy avoids the power exercised by man over man.

Hayek argued that the market prices are the only possible decentralized information provider and that bureaucratic or technocratic methods of allocation lack methods to rationally allocate resources. The digital economy has emphasized this point ever more, as the price system has become globalized, instantaneous, and constantly subject to change. In this environment, statist means, inherited from the old production models organized along national lines, seem simply unworkable.

Hayek’s “spontaneous order” is a corollary point that arises from the billions of individual judgments. Hayek would have been intrigued to learn that many cyber-companies are often unable to perfectly anticipate the uses of their own innovations. For example, Group on began as a software platform for funding donations for specific projects. Later, it added the idea of group discounts as an afterthought. But the afterthought was the successful one and it became the profitable sector.

In this perspective, individual creativity is at a premium as never before. The more complex the technology is, the more it is possible for any individual to live and work anywhere as long s/he is digitally connected.

In “The Open Society”, Popper intellectualize the importance of entrepreneurship in two ways. As an attack on “historicism” which makes prophecies about the world and future instead of highlighting individual imaginativeness and inventiveness. The second is a support for advancing hypotheses for being falsified by critical comments and competing propositions. A kind of creative destruction.

The digital age has improved the potential of “open society” -as for the “Big Brother”. In the 18th and 19th centuries, innovations were mainly the initiative of single inventors with breakthrough ideas. In the digital era, innovations take place as a continual process of watching, emulating, and learning from the successes and failures of others. Every digital code depends on the coding of others. Every development in the digital world is an attempt to replicate and improve on the experience and the behavior of others. The (big) data constantly created by digital technologies potentially reveal success, failure, and technique from which we learn are “free goods”. A free decentralized society of big data could allow “understanding” individuals and co-ordinate interactions between them it far more efficiently than Soviet bureaucrats ever could allocated resources better than planners who could only guess as the knowledge is dispersed among millions of individuals. The “open society” is mandatory for innovation in the digital era.

The three Austrians are as relevant as ever in the current time of rising autocratic protectionism, hardening populism and retreating democratic free trade. Together the trio shine a light on the tension between liberty and economic progress, now intensified by technology.

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Malaysian Tourists' Motivation, Involvement of Southeast Asia Tourist: A Case Study of Singapore and Bangkok

Daniel L. Spears*, Bharath M. Josiam**, Pitchayapa Virojphan*** & Amanda Ooi****

ABSTRACT

Tourism in Southeast Asia is a very popular past time activity with strong government support for tourism within Association of Southeast Asian Nations (ASEAN) countries. These destinations consist of Singapore and Bangkok, Thailand, as well as others by Malaysian tourists. Therefore, it is of interest to examine the travel behavior of Malaysian tourists who visit these destinations for tourism. The impetus this research is to better understand how a select group of tourists from Malaysia perceive their experiences factors influencing motivation. The purpose of this study is to explore the involvement of Malaysian tourists towards a select part of Southeast Asia: Singapore and Bangkok, Thailand. A total of 394 usable surveys were collected from a sample of Malaysian tourists in the city of Kuala Lumpur. The study identified that Malaysian tourists are mostly young well-educated adult females with a high level of involvement in tourism and tend to travel alone or with families. Involvement to travel and the selection of the travel destination were multi-faceted. Malaysian tourists indicated high motivation to revisit and recommend Singapore and Bangkok to friends and relatives.

Keywords: *Tourism, Malaysian Tourists, Southeast Asian Countries, Singapore, Bangkok, Involvement.*

INTRODUCTION

The tourism industry has become the world's largest service industry. The tourism industry creates employment across the world's economic spectrum, and helps other industries to develop economically, such as retail, banking, transportation and construction (Hui et al., 2007). Certain tourist areas such as sites in Southeast Asia are among the leaders in attracting a significant number of the traveling public. As one of the most popular tourist attractions in the world, Asia and the Pacific Rim have advanced as trendy destinations for travel, and have developed into a rapidly advancing travel segment for tourism, second only to several popular European countries (McDowell, 2010).

A thorough understanding of consumer involvement toward traveling provides a competitive edge to the destination visited. Thus, it has been posited that involvement toward tourism enables tourists to determine why they travel, and whether a destination fulfills their needs (Bansal & Eiselt, 2004; Damijanac & Sergio, 2013; Hsu et al., 2010; Kim & Lee, 2008; McCabe, 2000; Pearce & Lee, 2005; Ritchie et al., 2010; Wong et al., 2013). A major consideration by Pearce and Lee (2005) was that it is important

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to make a distinction between those that are experienced travelers, compared to those that are less experienced with traveling, as the purposes for travel for each group tend to vary. In other words, travelers tend to visit a destination based on motivation and whether a desired destination fills a void related to their perceived needs (Ritchie et al., 2010).

One important determinant of understanding consumer behavior for travel is the construct of involvement in making decisions about a travel destination (Gursoy & Gavcar, 2003). Examining the interactions between the involvement construct and push/pull factors have in the past been the subject of attention (Josiam et al., 1999). Involvement can be considered as the basis for recreation and leisure that underlies the fundamental basis of tourism (Gursoy & Gavcar, 2003). Since there are three major clusters of tourist in relation to involvement, it is important to note that consideration should be given to the image of the destination as perceived by the traveling public (Ruiz et al., 2011).

LITERATURE REVIEW

Motivations to travel

Scholars have defined the motivation of tourist to travel in numerous ways. Several investigators have emphasized that the motivation of tourists is one of the most important topics within leisure and tourism studies. Several studies have posited that it is not difficult to explain the “who”, “when”, “where”, and “how” of travel, but face difficulty in determining the reason “why”. Thus, motivations for travel have been considered as the first priority of all travel actions, thus, it serves as an essential concept to be considered in order to observe the behavior of tourist, and understand the several facets of tourism procedures (Pearce & Lee, 2005). Motivations can vary across cultures, i.e., individuals from different cultural backgrounds tend to display a variety of motivations that can be challenging for researchers in current tourism research areas (Kim & Lee, 2008). “Push” and “pull” factors were also introduced to the travel industry to be employed by researchers in order to discover different alternatives which influence tourists’ selection of their destinations (Meng, 2008). Push motivations are socio-psychological needs that motivate a person to travel. However, factors such as a need for personal escape, and psychological or physical health can be viewed as internal desires that have

an effect on push motivations. These internal forces are the impetus for the desire of travelers to fulfill their need to travel. Given a choice of many appealing destination which offer similar attraction, pull factors reflect unique attributes of a given destination that motivate the tourist to visit a place to the exclusion of other factors (Josiam et al., 2005). Pull factors are defined as the decision-making mechanisms pertaining to the destination, which is influenced by external resources such as natural or artificial attractions. However, push-pull motivation and escape seeking have been considered as major important concepts among tourist motivation actions. Thus, past research has provided key information to support the notion of the usefulness of these two frameworks to provide a clearer explanation of each term (Josiam et al. 2005).

Destination attributes such as weather, attractions, accessibility, accommodation, marketing and promotion can be viewed as external forces. Some studies have shown that the combination of expectation (E), motivation (M), and attitude (A) constitute the EMA model. This model assists researchers and destination planners to predict tourist behavioral development by assimilating the three variables. Since the 1960s, travel motivation has received a higher concentration of attention due to the benefits of providing a better understanding of tourism decision-making. Wong et al.(2013) stated that motivation might be analyzed as “a state of need, a condition that serves as a driving force to display different kinds of behavior toward certain types of activities in order to derive expected satisfactory outcomes.” Furthermore, tourist motivation can be categorized into two types; the “process model” which purports to forecast the pattern of behavior of organism after the stimulation, and the “content model” that is involved with a diverse concept of need (Hsu et al., 2010).

INVOLVEMENT AND TOURISM

Within the last decade, involvement has become increasingly popular among the leisure, recreational, and tourism industry. Even earlier, since 1962, the concept of involvement has been a useful tool to express behavioral and decision-making processes. The level of perceived personal involvement underlying certain travel decisions proved to be of importance to the destination (Cai et al., 2004). Involvement is defined as the perceived personal importance and/or interest consumers will attach to the character of goods,

purchasing of those goods, and the consumption of the goods (Gross & Brown, 2008). Most research on involvement has probed for the relationship between causality of involvement and related variables. Behavioral research on leisure activity should add involvement, i.e., a psychological variable, to explain fully the behavior of leisure travel (Hwang et al., 2003). The degree of involvement of travelers in the past has been associated with leisure choices, including travel destinations, and with the satisfaction obtained from the travel activity. In fact, of importance has been a consideration for segmenting involvement into high and low states of involvement (Josiam et al., 2005). High and low involvement has been previously defined for the former as very important or personally relevant to the consumer, while the latter is concerned with concepts of low importance that provides no importance or relevant information to the consumer (Josiam et al., 2005).

Gursoy & Gavcar (2003) stated that involvement can be approached from three major orientations. These consist of product-centered, subject-centered, and response-centered approaches. These orientations are important for a better understanding of consumer behavior toward travel. While all three perspectives are important, the subject-centered perspective is often used as a framework for understanding the motivation for individual tourist's involvement in decision-making about international leisure destinations. Vacation trips appear to be the leader in hospitality and tourism products that are purchased, consumed and evaluated. Production, consumption, and evaluation differ in fundamental ways from the purchase of tangible goods. The differences can be thought of as being mostly intangible, heterogeneous, inseparable, and perishable.

REVISITING A DESTINATION

The measurement of tourist satisfaction is of major importance and can determine if tourists will return to a destination, as well as spread positive word-of-mouth to others. Moreover, tourist satisfaction is a very important concept to be considered when determining if consumer expectations meet the requirements/perceptions as to whether to re-visit. Past research has shown that before a purchase is made, consumers have their own expectation as to the value of the product. They evaluate the product with their expectation after using the product (perception), and if the actual product is better than

expectation, it is more likely that they are satisfied with their experience and are willing repurchase repeatedly (Neal & Gursoy, 2008). In order to maintain loyal customers, customer expectations need to meet or go beyond the norm customer loyalty is, therefore, greatly influenced by customer satisfaction (Hui et al., 2007). Thus, many studies have shown that there is a significant relationship between customer satisfactions, re-visit to the destination, and positive word-of-mouth recommendations (Kozak & Rimmington, 2000; Hui et al., 2007). Within the tourism industry; it is complex to measure and retain loyal customers. For example, tourists may not want to revisit the same destination even if the destination meets all their requirements because tourist, at times, wish to search for new experiences at different destinations (Kozak & Rimmington, 2000; McDowell, 2010; Siri et al., 2009).

The general trends of tourism from all countries to Singapore and Thailand as related to tourism arrivals, and the percent change from 1990 to 2014 increased, except from 1995 to 2000, where there was an 8% decrease of tourists traveling when compared to the previous period. The number (and percent-change) of all general visitors was as follows; 1990: 5.32M, 1995: 7.12M (26%↑), 2000: 7.69M (8%↓), 2005: 8.94M (14%↑), 2010: 11.7M (24%↑), and 2013: 15.57 (25%↑). Thus, the percent increase from 1990 – 2013 was 66%.

Overall visitors to Thailand consisted of: 2004: 11.65M, 2006: 13.82M (16%↑), 2008: 14.58M (5%↓), 2010: 15.94M (8%↑), and 2012: 22.35 (29%↑). The percent increase or decrease was variable from year-to-year when compared over a two-year basis, from 2004 - 2012. It can be seen that a comparison of general visitors to Thailand from 2004 – 2012 saw an increase of 48%. It is of interest to make a comparison of Malaysian visitors to Thailand. The numbers consisted of 2006: 1.59M, 2008: 1.81M (13%↑), 2010: 2.06M (13%↔), and 2012: 2.56M (20%↑). Malaysian visitors to Singapore consisted of 2004: 0.537M, 2006: 0.634M (16%↑), 2008: 0.647M (3%↓), 2010: 1.04M (38%↑), 2012: 1.23M (16%↓) (Tourism Authority of Thailand, 2014).

OBJECTIVES OF STUDY

The objectives of this study were to:

- (1) Identify Malaysians' tourists' travel and pattern demographics
- (2) Examine the level of Involvement of Malaysian Tourists in Southeast Asia
- (3) Identify the key factors of the 'pull' motivators between Singapore and Bangkok
- (4) Compare Malaysian tourist's perceptions of Singapore and Bangkok
- (5) Determine the intention to revisit, and the willingness to recommend to others to visit Singapore, Bangkok, and Thailand areas.

METHODOLOGY

Questionnaire

The study consisted of a convenience sample of 394 Malaysians who had traveled to either Singapore or Bangkok and/or both. The self-administered survey was used to collect data in Kuala Lumpur. Respondents were given incentives after completing the survey. Respondents were also obtained via the Internet utilizing a snowball convenience sample during same period.

TEST INSTRUMENT

The 10-item involvement scale was modified from the bipolar scale adapted by Josiam et al. (2005). The involvement scale was originally developed by Zaichkowsky (1985), which has been used in several studies related to tourism (Clements and Josiam, 1995; Josiam et al., 1999; Josiam et al., 2005). All respondents were asked to indicate their level of interest in Southeast Asia travel for each item on a 5-point Likert scale, ranging from: 1= strongly disagree, to 5=strongly agree. To obtain an individual involvement score, the responses were summed and the mean was calculated. The push factors reflected travel motivation to Southeast Asian countries such as "to enjoy international travel experience" and "to visit historical places" were measured on 5-point Likert scale, ranging from 1=unimportant to 5=extremely important. The 19 push factors were adapted from the studies of Crompton (1979), Kozak & Rimmington, (2000) and Josiam et al. (2005). The pull factors were derived from several previous studies (Jenkins, 1999; Kozak & Rimmington, 2000; Narayan, Rajendran & Sai, 2008). The pull factors have 27 items categorized into six dimensions that consisted of factors such as hotel/lodging, transportation, food and beverage, shopping, service quality, and tourism

experiences. The push factors were measured by asking respondents their opinions of Singapore and Bangkok destination attributes on the 5-point Likert scale, ranging from 1=very poor, to 5=very good.

The outcome variables such as "revisit intention" and "recommendation intention," related to Singapore, Bangkok, and Thailand, were measured using a "Yes/No" dichotomy.

A Categorical scale measured demographic information, while an Interval scale measured income. Information about a respondent's past travel experience included whether they had travelled to Singapore/Bangkok, timing of trips and purposes of the travel.

RESULTS

Objective 1: Identify Malaysian's Tourist Travel and Pattern Demographics

The total number of respondents that completed the survey instrument in this study consisted of 394 individuals. Table 1 depicts the demographic data of gender, marital status, age, employment status, educational level, and monthly income. The majority of survey respondents were female, representing 69.2% (n = 184) of the total, while 30.1% (n = 80) represented the number of male participants. The results showed that most of the participants are single, or 66.2% (n = 176) of the total participants, while 31.6% (n = 84) were married. However, a small and insignificant group of participants representing 1.9% (n = 5) were in a partnership. The age group among these participants was stratified into four different age groups: 18 - 25 years (55%, n = 147), 26- 35 years (26.6%, n = 71), 37-45 years (7.3%, n = 19), and +46 years (7.0%, n = 18). Thus, the findings indicate that the majority group were in the age range between 18 - 25 years, while the least group of participants were from the age group of +/- 46 years. The most frequent monthly income range of the Malaysian travelers was RM 25,000 - 50,000 (48.9%, n = 130).

Table 2 indicates the Malaysians tourists travel patterns to Southeast Asia. The results show that there were a larger number of participants who traveled to both Singapore (86.1%, n = 229) and Bangkok (82%, n = 218) within the past 24 months. It is noted that independent travel arrangement (94%, n = 250) was the most frequent travel type that was selected by most of the respondents.

Table 1: Demographic Characteristic of Malaysian Tourists

	N	(%)
Gender		
Female	184	69.2
Male	80	30.1
Marital status		
Married	84	31.6
Single	176	66.2
Partnership	5	1.9
Age		
18-25 years old	147	55.0
26-35 years old	71	26.6
37-45 years old	19	7.3
46 and older	18	7.0
Employment status		
Employed	48	18.0
Self-employed	17	6.4
Retired	5	1.9
Students	137	51.5
Housewife	36	13.5
Other	18	6.8
Education		
High School	38	14.3
Some College	76	28.6
Associate Degree	25	9.4
Bachelor Degree	91	34.2
Master Degree	20	7.5
Doctorate	2	0.8
Monthly income (RM)		
25,000-50,000	130	48.9
50,001-75,000	38	14.3
75,000-100,000	5	1.9
100,000-125,000	3	1.1

Note: Total differ due to missing data

Table 2: Southeast Asia Travel Pattern

	N	(%)
Travel to Singapore in past 24 months		
Yes	229	86.1
No	37	13.9
Travel to Bangkok in past 24 months		
Yes	218	82.0
No	48	18.0
Travel Type		
Package Tours	12	4.5
Independence Travel	250	94.0

Note: Totals differ due to missing data.

Objective 2: Examine the level of Involvement of Malaysian Tourists in Southeast Asia

Factor analysis (see Table 3) was used in this study to demonstrate the level of Involvement of Malaysian tourists as they traveled to Southeast Asia. Table 3 shows the factor of involvement that examined 10 relevant variables related to tourist travel. The Involvement variables consisted of: (1) Means a lot, (2) Interesting, (3) Important, (4) Appealing, (5) Valuable, (6) Wanted, (7) Beneficial, (8) Essential, (9) Exciting, and (10) Relevant. It should be noted

that the Involvement variables chosen for this study were not hierarchical, i.e., each one did not assume an order of magnitude of being “more” or “less” important within the context of travel involvement. Involvement has two categories of “medium” or “high”. What was indicated was that the 10 variables were highly related, with an overall alpha score = 0.944, values that were very high and indicated that the variables chosen were of importance to involvement. The highest factor loading was 0.857 for the variable of “Means a lot”. The lowest factor loading was obtained for “Relevant” with 0.777 value.

Table 3: The Level of Involvement of Malaysian Tourists in Southeast Asia

Factor Loading	
Factor 1: Involvement	
Alpha = 0.944; explained variance = 66.825	
Means a lot	0.857
Interesting	0.839
Important	0.832
Appealing	0.827
Valuable	0.825
Wanted	0.814
Beneficial	0.802
Essential	0.802
Exciting	0.796
Relevant	0.777

Objective 3: Identify the key factors of the “pull” motivators between Singapore and Bangkok

Factor analysis was used in order to determine the “pull” motivators for Singapore and Bangkok (see Tables 4 & 5). What was created were groups

of factors with different meanings that explained the core concepts of the pull responses of travelers. In interpreting the factors, a loading cut-off of 0.65 was used. Cronbach’s alpha value of “1.0” indicated a perfect reliability, while a score equal to or greater than 0.65 was acceptable. The factors for Singapore are indicated in Table 4.

Table 4: Factor Analysis of Pull Motivators of Singapore

Factor Loading	
Factor 1: Service Appearance	
Alpha = 0.913; explained variance = 17.485	
Honesty in Business Practice	0.871
Efficiency of Service	0.867
Reliability/Consistency of Service	0.861
Timeliness of Service	0.850
Cleanliness of Facilities	0.796
Value for Money service	0.671
Factor 2: Transportation	
Alpha = 0.936; explained variance = 11.891	
Taxi & Buses	0.911
Metro	0.901
Airport	0.861

Factor 3: Attraction	
Alpha = 0.786; explained variance = 10.644	
Bar/Clubs	0.746
Restaurants	0.712
Luxury Branded retailers	0.705
Malls	0.705
Factor 4: Social Background	
Alpha = 0.801; explained variance = 9.995	
Communication Ability of Locals	0.851
Safety and Security	0.790
Overall Trip Experience	0.768
Friendliness of Local People	0.742
Factor 5: Activities	
Alpha = 0.841; explained variance = 7.893	
Cultural and Historical Sites	0.888
Many things to See	0.861
Factor 6: Shopping Attraction	
Alpha = 0.770; explained variance = 7.299	
Night Markets	0.849
Boutique Stores	0.841
Factor 7: Food & Lodging	
Alpha = 0.670; explained variance = 7.270	
Cleanliness in food service	0.610
'Street Hawker' foods	0.595
Luxury hotels	0.555
Standard hotels	0.546
Budget hotels	0.429

The factor analysis statistical technique was used to examine the 26 pull motivators for Malaysian tourists visiting Bangkok (see Table 5). From these

26 pull motivators, researchers analyzed major components by using varimax rotation in order to determine seven factors.

Table 5: Factor Analysis of Pull Motivators of Bangkok

Factor Loading	
Factor 1: Overall services	
Alpha = 0.893; explained variance = 16.244	
Reliability/Consistency of Service	0.864
Efficiency of Service	0.845
Timeliness of Service	0.837
Honesty in Business Practices	0.823
Value for Money	0.680
Cleanliness of Facilities	0.563
Factor 2: Entertainment	
Alpha = 0.796; explained variance = 12.631	
Bar/Clubs	0.819
'Street Hawker' foods	0.681

Restaurants	0.674
Many things to See	0.555
Friendliness of Local People	0.519
Luxury hotels	0.516
Factor 3: Social Background	
Alpha = 0.701; explained variance = 9.577	
Communication Ability of Locals	0.815
Cleanliness in food service	0.678
Safety and Security	0.654
Cultural and Historical Sites	0.479
Factor 4: Transportation	
Alpha = 0.857; explained variance = 9.445	
Metro	0.895
Taxi & Buses	0.890
Airport	0.825
Factor 5: Fun things to do	
Alpha = 0.643; explained variance = 8.169	
Boutique Stores	0.829
Night Markets	0.754
Overall Trip Experience	0.544
Factor 6: Shopping Mall	
Alpha = 0.730; explained variance = 6.547	
Malls	0.874
Luxury Branded Retailers	0.871
Factor 7: Accommodations	
Alpha = 0.616; explained variance = 5.770	
Budget hotels	0.814
Standard hotels	0.667

Objective 4: Compare Malaysian Tourist's Perceptions of Singapore and Bangkok

Participants were asked questions based on a five point Likert Scale, in which "1" indicated "very poor" and "5" indicated "very good." Accordingly, the mean scores of Malaysian tourist's perceptions

of Singapore and Bangkok area's attributes are illustrated in Table 6. The sections were divided into various levels from the lowest to the highest perception levels. Malaysian tourists were rated as to their perception differently among each area attribute and between the two travel areas, Singapore and Bangkok.

Table 6: Mean Scores of Pull Factors of Singapore and Bangkok

Singapore	Mean	s.d.	Bangkok	Mean	s.d.
Hotel/Lodging attributes					
Budget hotels	2.81	0.826	Budget hotels	3.63	0.826
Standard hotels	3.66	0.566	Standard hotels	3.62	0.650
Luxury hotels	4.06	0.500	Luxury hotels	4.05	0.511
Transportation					
Airport	3.64	0.560	Airport	3.52	0.566
Taxi & Buses	3.66	0.550	Taxi & Buses	3.64	0.556
Metro	3.65	0.560	Metro	3.50	0.593

Food & Beverage					
Restaurants	3.66	0.598	Restaurants	3.63	0.591
Bar/Clubs	3.88	0.520	Bar/Clubs	3.81	0.565
'Street Hawker' foods	3.86	0.483	'Street Hawker' foods	3.81	0.565
Cleanliness in food service	3.87	0.498	Cleanliness in food service	3.11	0.707
Shopping					
Malls	3.93	0.441	Malls	3.84	0.484
Luxury Branded Retailers	3.98	0.404	Luxury Branded Retailers	3.75	0.575
Boutique Stores	3.86	0.480	Boutique Stores	3.97	0.527
Night Markets	3.81	0.519	Night Markets	4.01	0.650
Service Quality					
Efficiency of Service	3.84	0.489	Efficiency of Service	3.67	0.594
Reliability/Consistency of Service	3.82	0.499	Reliability/Consistency of Service	3.67	0.589
Timeliness of Service	3.71	0.556	Timeliness of Service	3.67	0.615
Cleanliness of Facilities	3.69	0.583	Cleanliness of Facilities	3.22	0.654
Honesty in Business Practices	3.81	0.514	Honesty in Business Practices	3.53	0.605
Value for Money	3.61	0.641	Value for Money	3.90	0.586
Tourism Experiences					
Many Things to See	3.61	0.596	Many Things to See	3.83	0.542
Cultural and Historical Sites	3.50	0.613	Cultural and Historical Sites	3.76	0.601
Safety and Security	3.85	0.504	Safety and Security	3.46	0.642
Communication Ability of Local	3.85	0.486	Communication Ability of Local	3.23	0.761
Friendliness of Local People	3.91	0.394	Friendliness of Local People	3.73	0.569
Overall Trip Experience	3.95	0.350	Overall Trip Experience	3.95	0.469

Objective 5: Determine the intention to revisit, and the willingness to recommend to others to visit Singapore, Bangkok, and Thailand areas

A majority of Malaysian tourists indicated that they would revisit Singapore, Bangkok and Thailand, as travel destinations. Table 7 illustrates

265 respondents or 99.6% of participants were willing to revisit Singapore, 99.6% of the participants were willing to revisit Bangkok, and 98.9% were willing to revisit Thailand. Moreover, 99.6% of the Malaysian tourists were willing to recommend Singapore, while 98.9% of them were willing to recommend Bangkok, and 98.5% were willing to recommend Thailand.

Table 7: Intention to Revisit and Willingness to Recommend Singapore, Bangkok, and Thailand

<i>Intention and Willingness</i>	Yes/No	N	(%)
Willing to revisit Singapore	Yes	265	99.6
	No	0	0.0
Willing to revisit Bangkok	Yes	264	99.6
	No	1	0.4
Willing to revisit Thailand	Yes	263	98.9
	No	2	0.8
Willing to recommend Singapore	Yes	265	99.6
	No	0	0.0
Willing to recommend Bangkok	Yes	263	98.9
	No	2	0.8
Willing to recommend Thailand	Yes	262	98.5
	No	3	1.1

DISCUSSION

Demographics: Travel Patterns

The majority of tourists from Malaysia involved in Southeast Asia tourism were mostly female students within the age range of 18 – 25 years, with a bachelor's degree, or at least some college background. The majority of the respondents were not married. Male travelers from Malaysia were less likely to travel to Singapore and Bangkok. It is noted that greater than 80% of the respondents visited both Singapore and Bangkok. It is highly likely that this trend will continue in the future for Malaysian travelers to the Southeast Asia area. The majority of the Malaysian tourists traveled independently while ignoring package tours offered by travel agents or other tourist entities. Findings suggest that tourists who want to have an international travel experience with perhaps financial constraints will continue to ignore costly and at times restrictive packaged tours. The selection of travel type is not affected by demographic differences since age, gender, marital status, educational level, employment or income, no did it influence their decision to travel.

Involvement in Southeast Asia Tourism

The 10-item involvement scale used in this study was shown to be reliable and a useful discriminating scale for the factor of involvement (Clements & Josiam, 1995; Josiam et al., 1999; Josiam et al., 2005). The involvement concepts of "medium" and "high" were used to segment the findings. The findings indicated a concentration of personal involvement as Malaysians traveled to Southeast Asia. This suggested that Southeast Asia is a very popular tourist destination and perhaps suggests that marketers have been effectively marking and promoting specific advantages and qualities in order to attract Malaysian tourists to areas in Southeast Asia. Perhaps there is a need for governments and travel entities to put more emphasis on those travelers who tend not to travel to the destinations such as men or others of different educational levels, with advertising campaigns that can targeted and promoted so that those tourist falling into the "medium" involvement level may be converted to "high" involvement level.

Pull Motivators of Singapore and Bangkok

The findings suggested that Malaysian tourists were pulled to Singapore and Bangkok for several

different but equally important reasons. Both Singapore and Bangkok placed an emphasis on what is offered by luxury hotels - a major revenue source. That is, the development of high quality accommodations appears to be a key factor to attract more tourists. Therefore, advertising luxurious travel experiences with affordable pricing could be considered for operators in both countries. Due to rapid economic development, a standard legal system, as well as an English educational system, Singapore tends to welcome tourists with diverse opportunities such as high-end shopping and dining facilities, easy communication, high quality service, and a safe and secure environment. These tourists wish to experience cleanliness, safety, internationalism, modern communications, good transport infrastructure, and overall quality of life. Therefore, Singapore can afford to push efforts in promoting popular traveling activities such as shopping, fine dining, and the casino experience. On the contrary, Bangkok, the city, and Thailand, the country, in general, can emphasize their abundant natural beauty and cultural attractions, with an emphasis on value for money spent. It is noted that Thailand has many beaches to offer as a pleasant tropical experience besides promoting night markets, unique boutique stores, and Thai food. These findings were observed in previous studies (Sangpikul, 2008; Siri et al., 2009; McDowall, 2010b) where it was suggested that a beautiful environment, shows and entertainment, cultural/historical sites and domestic festivals, arts and crafts were primary attractions for international tourists.

Intention to Revisit and Willingness to Recommend

A very large percentage (98%) of Malaysian tourists indicated a positive intention to revisit, as well as recommend to others to visit Singapore, Bangkok, and Thailand. The most important implication of this finding suggests that tourists were satisfied with their travel in Singapore and Bangkok. Tourists' satisfaction will lead to stronger intention to revisit or recommend to their family and friends. These findings confirm previous studies and incite that that tourists' intention to revisit depends on their satisfaction with the destination (Selnes, 1998). Previous research indicated that satisfied customers' positive word-of-mouth testimonials may be a more effective influencer than advertisements for a destination (Danaher and Rust, 1996).

Research findings suggest that Malaysian tourists not only would like to revisit Singapore and Bangkok, but also are willing to recommend to their family and friends. Due to their favorable travel experience in Bangkok, Malaysian tourists are willing to visit other cities in Thailand, such as Chiang Mai, Phuket, etc. Many destinations in Thailand are famous for their beautiful environment, historical significance, street food vendors, and exciting nightlife. Therefore, it is imperative for operators and tourism planners to better understand the importance of tourist satisfaction, especially identifying those elements that have a positive impact on tourist' intention to revisit and recommend. Moreover, it is strongly suggested that tourism marketers and/or governments provide emphasize pleasing and satisfying travel experiences in order to further develop and sustain their tourism markets.

CONCLUSION

In summary, this study has shown that luxury hotels are a major contributor to the attraction of Malaysian tourist visiting Southeast Asia. Malaysian tourists are influenced by several pull motivators (hotel lodging, transportation, food and beverages, shopping, etc.) that influence their decision to travel to Singapore and Thailand. These findings will perhaps motivate both marketers and researchers to better understand the "key" motivators of Malaysian tourists to Singapore, Bangkok, and Thailand. Implications indicated that travelers from Malaysia will continue to be major contributing factor to the travel industry of both Singapore and Thailand. The limitation of this study is that while the objectives concentrated on Singapore and Thailand, the survey could be extended to other Southeast Asian countries as a travel destination for Malaysians in order to be more inclusive.

REFERENCES

- Bansal, H., & Eiselt, H. A. (2004). Exploratory research of tourist motivations and planning. *Tourism Management*, 25(1), 387-396.
- Cai, L. A., Feng, R., & Breiter, D. (2004). Tourist purchase decision involvement and information preferences. *Journal of Vacation Marketing*, 10(2), 138-148.
- Clements, C. & Josiam, B. (1995). Role of Involvement in the Travel Decision. *Journal of Vacation Marketing*, 1(1), 337-348.
- Damijanac, A. T., & Sergio, Z. (2013). Determining travel motivations of wellness tourism. *Ekonomika Praksis*, 22(1), 3-20.
- Danaher, P.J. and Rust, R.T. (1996), Determining the optimal return on investment for an advertising campaign, *European Journal of Operations Research*, 95(1), 511-521.
- Gross, M. J. & Brown, G. (2008). An empirical structural model of tourists and places: Progressing involvement and place attachment into tourism. *Tourism Management*, 29 (1), 1141- 1151.
- Gursoy, D., & Gavcar, E. (2003). International leisure tourists' involvement profile. *Annals of Tourism Research*, 30(4), 906-926.
- Hsu, C. H. C., Cai, L. A., & Li, M. (2010). Expectation, motivation, and attitude: A tourist behavioral model. *Journal of Travel Research*, 49(3), 282-296.
- Hui, T. K., Wan, D., & Ho, A. (2007). Tourists 'satisfaction, recommendation and revisiting Singapore. *Tourism Management*, 28(1), 965-975.
- Hwang, S-N, Lee, C., & Chen, H.J. (2003). The relationship among tourists' involvement, place attachment and interpretation satisfaction in Taiwan's national parks. *Tourism Management*, 26(1), 143-156.
- Josiam, B. M., Kinley, T. R., & Kim, Y-K. (2005). Involvement and the tourist shopper: Using the involvement construct to segment the American tourist shopper at the mall. *Journal of Vacation Marketing*. 11(2).135-154.
- Josiam, B. M., Smeaton, G., & Clements, C. J. (1999). Involvement: Travel motivation and destination selection. *Journal of Vacation Marketing*, 5(2), 167-175.
- Kim, C., & Lee, S. (2008). Understanding the cultural differences in tourist motivation between Anglo-American and Japanese tourists. *Journal of Travel & Tourism Marketing*, 9(1), 153-170.
- Kozak, M., & Rimmington, M. (2000). Tourist satisfaction with Mallorca, Spain, as an off-season holiday destination. *Journal of Travel Research*, 38(1), 260-269.
- McCabe, A. S. (2000). Tourism motivation process. *Annals of Tourism Research*, 27(4), 1049-1052.

- McDowall, S. (2010). International tourist satisfaction and destination loyalty: Bangkok, Thailand. *Asia Pacific Journal of Tourism Research*, 15(1), 21-42.
- Meng, F., Tepanon, Y., & Uysal, M. (2008). Measuring tourist satisfaction by attribute and motivation: The case of a nature-based resort. *Journal of Vacation Marketing*, 14(1), 41-56.
- Narayan, B., Rajendran, C., & Sai, L. P. (2008). Scales to measure and benchmark service quality in tourism industry: A second order factor approach. *Benchmarking: An International Journal*, 15(4), 469 - 493
- Neal, J. D., & Gursoy, D. (2014). A multifaceted analysis of tourism satisfaction. *Journal of Travel Research*, 47(1), 53-62.
- Pearce, P. L., & Lee, Uk-II. (2005). Developing the travel career approach to tourist motivation. *Journal of Travel Research*, 43(1), 226-237.
- Ritchie, B. W., Tkaczynski, A., & Faulks, P. (2010). Understanding the motivation and travel behavior of cycle tourists using involvement profiles. *Journal of Travel & Tourism Marketing*, 27(4), 409-425.
- Selnes, F. (1998). Antecedents and consequences of trust and satisfaction in buyer seller relationships. *European Journal of Marketing*, 32(3), 305 - 322.
- Sangpikul, A. (2008), Travel motivations of Japanese senior travelers to Thailand. *International Journal of Tourism Research*, 10(1), 81-94.
- Singapore Tourism Board. (2014). International visitor arrivals statistics' (online) (cited 13 October 2014). Available from <[https://www.stb.gov.sg/statistics-and-market-insights/marketstatistics/ivastat_jantoaug_2014%20\(as@13oct14\).pdf](https://www.stb.gov.sg/statistics-and-market-insights/marketstatistics/ivastat_jantoaug_2014%20(as@13oct14).pdf)>
- Siri, R., Josiam, B., Kennon, L., & Spears D. (2009). Indian tourists' satisfaction of Bangkok, Thailand. *Journal of Services Research*, 12(1), 26-42.
- The New York Times. (2010). Singapore looks for a softer side of growth. Retrieved September 27, 2014, from the World Wide Web: <http://www.nytimes.com/2010/02/20/business/global/20art.html?pagewanted=all&module=Search&mbReward=relbias%3As%2C%7B%22%22%3A%22RI%3A12%22%7D&r=0>
- Tourism Authority of Thailand. (2014). Thailand welcomed 26.7 million visitor arrivals in 2013, exceeding target. Retrieved October 5, 2014, from the World Wide Web: <http://www.tatnews.org/thailand-welcomed-26-7-million-visitor-arrivals-in-2013-exceeding-target/>
- UNWTO. (2013, January 29). International tourism to continue robust growth in 2013. Retrieved on April 14, 2013 from <http://media.unwto.org/en/press-release/2013-01-28/international-tourism-continue-robust-growth-2013>.
- Wong, M., Cheung, R., & Wan, C. (2013). A study on traveler expectation, motivation and attitude. *Contemporary Management Research*, 9(2), 170-185.

Management of Drugs Rehabilitation Strategies in Kachin State

Jen Lomethong* & John Walsh**

ABSTRACT

This paper reports on a programme of qualitative research and ethnographic observation aiming to discover the nature of the management of rehabilitation of drug offenders in Kachin State in northern Myanmar. Although the growing and use of opium in Kachin State is a tradition of longstanding, it has recently reached unprecedented levels as its sale has become essential in prolonging the armed struggle for autonomy pursued by the Kachin Independence Army and which has considerable support in society. This results in a large number of drugs offenders. Are there opportunities for such people to be rehabilitated and reintegrated into society in a positive way? This is the central question of this study. It is found that currently rehabilitation programmes are largely successful and unpleasant. It is also found that they are mostly administered by religious bodies and it is likely to be through church-based networks that any change might be effected.

Keywords: Kachin State, Myanmar, Narcotics, Opium, Rehabilitation.

INTRODUCTION

Kachin State is located in the north of Myanmar with a border to China to its north. It is a mountainous and forested region with little infrastructure or industry. The principal economic activity is agriculture, mostly subsistence

agriculture with rice paddy farming, supplemented by vegetables, livestock and some seasonal cash labour. Many Kachin people have been fighting for independence from the state of Myanmar (previously Burma) and have supported the Kachin Independence Organization (KIO) and the Kachin Independence Army (KIA) as a result. To fund the armed struggle for autonomy, the KIA have encouraged farmers to become involved in opium production (and facilitated other forms of illegal drugs) which they will collect and pay for in cash – factors which make it almost impossible for other forms of production to be viable. Opium production and use has long been known in Kachin State and neighbouring regions but has now reached unprecedented levels of use such that the presence of drugs is almost ubiquitous. Many people in dangerous and discredited jobs (e.g. in jade and gold mining or long-distance fishing) are paid wages in part in opium, which they take to help deal with the drudgery of their daily lives.

What happens to those people who take drugs or deal in them and are caught by the authorities, since despite its widespread use opium is still an illegal narcotic drug that can do enormous amounts of damage to a society. What are the practices involved in rehabilitation and reintegration of people into society? These are the questions addressed in this paper. The paper reports on a programme of qualitative research and ethnographic observation over the course of

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a number of years to build a triangulated and deep description of the situation, which is not, on the whole, very positive. The paper continues with a literature review that aims to frame the gaps in knowledge which the research aims to fill, followed by a description of the research methods, findings and then the implications of those findings. The research gap that is being addressed in this paper is the nature and effectiveness of the management of drug rehabilitation strategies currently being employed in Kachin State with a view to understanding how this might be improved.

LITERATURE REVIEW

Drug Eradication Strategies

Although new forms of technology have made a difference, it seems to remain true that, globally, the risk that farmers face in growing opium, coca or marijuana are still comparatively low (Farrell, 1998). In 2017, for example, Afghanistan witnessed record high levels of opium production at 9,000 metric tons, which showed an annual increase of 87% (UNODC, 2017a). This took place despite an increase of 111% in land area of opium eradication across the country and intensive scrutiny of agricultural production. Nevertheless, incentives to grow poppies greatly exceeded the risks faced and the number of provinces involved increased. This is not the result of individual farming households or communities, of course, since criminal interests and/or insurgents as part of organized crime are also involved (as is the case in Kachin State):

“It is well established that there are terrorists and non-State armed groups profiting from the drug trade – by some estimates, up to 85% of opium poppy cultivation in Afghanistan is in territory under the influence of the Taliban.

However, evidence on the organized crime-terrorism nexus remains patchy at best. Moreover, these links are not static. Relations between organized crime and terrorist groups are always evolving, much like drugs markets themselves (UNODC, 2017b:4).”

Just as modern technology can assist in tracking down drug growing areas, so too can it also assist in avoiding the security forces, especially when difficult terrain with limited amounts of transportation infrastructure are involved. After all, the so-called Golden Triangle region just north

of Thailand has historically been the home of opium growing in the region:

“Opium production in mainland Southeast Asia has always been concentrated in the tri-border region, in the mountainous borderlands of Burma, Laos, and Thailand, where rugged hills and mountains, heavy monsoon rains, and lack of transport infrastructures have long protected rebel armies from the writ of Central government and anti-drug agencies (Choavy, 2013).”

Even so, official estimates are often contested by on the ground non-governmental organizations (NGOs) and civil society groups and, clearly, no methodology that does not require a thorough and comprehensive census will always be subject to qualification. Further, some of the assumptions made about the decision to grow opium might be challenged:

“... production of a highly labour-intensive crop at anything near these [record-breaking] levels benefits smugglers and impoverishes farmers. My own studies have shown that (among the Akha) it requires a minimum of 387 man-hours to produce 1.6 kilograms of opium (1.6 kilograms = 1 viss or joi, the standard unit of opium). This is about 80 per cent more than the labour input into upland rice. Opium is also a delicate crop: not enough rain or too much rain at the wrong time of year and the entire crop can be wiped out. This accounts for the fact that a single field can show up to 300 per cent variation in yield from year to year. There are strong indications that current returns to the farmer per unit of labour are significantly lower than they were twenty years ago, while the costs of lowland goods deemed essential to village life have risen precipitously in both absolute and relative terms during the same period (Feingold, 2000).”

Nevertheless, opium growing has benefits over rice production in upland areas, both because of the weight-reward equation and because rice does not grow well at altitude while poppies flourish at one kilometre or more above sea level (*ibid.*). It is perhaps not a coincidence that, as Wheatley (1975:251) observed, “... the Sanskrit tongue was stilled to silence at 500 meters.”

After being defeated in the Second Indochina War (1955-75), the USA acted to try to eradicate the

drugs trade that had been stimulated at least in part by US military forces on rest and recreation breaks across East Asia and that spread to include the domestic market. US military and security interests helped in spreading the drugs trade while in pursuit of other goals (Scott, 2010).

American air power was used to access the difficult to find areas but air power alone is not enough to convince people to change their lifestyles, especially when there are powerful incentives to do otherwise. In addition to drug eradication, it is also necessary to encourage people to find alternative means of making a living. This approach is at the heart of the opium substitution strategy. These programmes combine destruction of illegal crops with education and provision of some necessary inputs with respect to growing substitute cash crops.

CURRENT SITUATION IN KACHIN STATE

As part of the movement to a democratically-elected government, albeit one that would still be guided by the military, government agencies sought to make peace treaties (or at least ceasefires) with all the insurgent groups seeking autonomy or independence. This is known as the Nationwide Ceasefire Agreement (NCA) or, informally, the Panglong Conference – named after a first Panglong Conference which took place in the aftermath of WWII in 1947 (Transnational Institute, 2017). The NCA had been created under the leadership of former president Thein Sein and was widely regarded nationally and internationally as a necessary but not sufficient approach to achieving its goals. The principal problems have been identified as follows:

“Amidst urgent concerns: there is a lack of inclusion in the present peace process; Tatmadaw domination still continues; there is an over-reliance on the inconclusive Nationwide Ceasefire Agreement of ex-President Thein Sein; land-grabbing, natural resource exploitation and economic opportunism remain widespread; and military-first solutions are still being pursued in several parts of the country. Meanwhile civilian displacement and humanitarian suffering have not ended, highlighted by continuing emergencies in the Kachin, Rakhine and Shan States (*ibid.*)”

These problems are testament to the limited reach of the state. Across northern Myanmar, instances of cowboy capitalism mix with ungovernable,

semi-autonomous areas. This makes it more difficult to deal with crises such as the confluence of extreme Buddhist nationalism and the apparent genocide of the Muslim Rakhine people, whose legitimacy as genuine citizens of Myanmar has been called regularly into question (cf. Stokess, 2017). The incendiary comments of the Buddhist monk Wirathu have enflamed many bourgeois Myanmar citizens, which indicates how shallow is the settling of peaceful relations in society and how quickly scars can be reopened (Lone, 2017). There are terrible scenes of Rakhine villagers being driven out of their homes and across the border into Bangladesh (UN, 2017). Claims from the Tatmadaw and their allies that the Rakhine people burned down their own houses have been thoroughly discredited (e.g. Head, 2017).

The relationship between what is happening in Rakhine and the situation in Kachin State is not directly comparable but there are, clearly, some parallels. Both situations are of historical longstanding and much of that history is little known by the people of the country or its representatives. Instead, the situation is akin to that described by Marx (1852): “Men make their own history, but they do not make it as they please; they do not make it under self-selected circumstances, but under circumstances existing already, given and transmitted from the past. The tradition of all dead generations weighs like a nightmare on the brains of the living (*ibid.*)” The forces of globalization are continually reducing the ability of nation to enforce control over activities within and beyond the borders. Also, the impact of global climate change is looming over all other forms of change. As Wallenstein (2011) observed, “Capitalist civilization has also been built around a geo-cultural theme which has never previously been dominant: the centrality of the individual as the so-called subject of history (*ibid.*:151). This brings about a double-edged sword of, on the one hand, the Promethean will to win necessary to get ahead in the capitalist system (and thereby strengthening the capitalist system) and the dominant mode of social relations, on the other hand, being all against all ferocity. In both these cases, the ability of the state to enforce and retain control over inter- and intra-state relations is much diminished. This can be seen in the case of Kachin State in that warfare persists and any peaceful halt is very fragile, while numerous internally displaced persons (IDPs) remain in perilous conditions. Since 2013, at least, Tatmadaw forces have been using heavy munitions

to force Kachin people from towns and villages and have been resisted at every step of the way (Myat, 2013). This is taking place in a general issue of lawlessness related to the nature of resource extraction and the use of drugs. For example, people continue to be killed around mining operations (AFP, 2017). Meanwhile, thousands more IDPs are joining camps in the northern part of the State and on the Chinese border (Aung, 2017). Conditions in IDP camps are fraught and many men are required to leave to search for paid work and leave the women and children behind (Paing, 2017). Drug use overlays all of these problems: people use drugs to survive miserable working conditions in mines and may even be paid in drugs, at least in part, while a draconian police effort to incarcerate drugs users has been unhelpful either in rehabilitating criminalised people or enabling affected family members to improve their livelihoods and escape from the drugs industry.

RELIGION AND THE KACHIN

Kachin people traditionally believed in Buddhism with various animist additions, as is common among many people in mainland Southeast Asia or Greater Mekong Subregion (GMS). Kinship and gender relations are complex, sophisticated and govern a great deal of how daily life is managed. In recent years, Buddhism has become strongly associated with nationalism, as leaders of the junta attempted to demonstrate their legitimacy in part by the ardour of their beliefs (Rogers, 2008). Consequently, the adoption of an alternative faith, in a post-colonial context, can have different meanings:

“For many, Christian conversion is not considered a legacy of colonial brain-washing but rather as a liberating force of mind, body and spirit that invigorates their struggle against the overwhelming claims of Burmese state sponsored Theravada Buddhism and thus of Burmanization in the post-colonial state (Sadan, 2013:7).”

That is to say, the normal expectation of a post-colonial state, that its people will demonstrate their desire for emancipation by rejecting an imposed religion, is reversed in the case of the Kachin people (and others). This is because the imposition of religion actually comes from the new political elites and, also, as shown below, the alien religion comes from the USA rather than from the UK. Consequently, as Sadan (*ibid.*:8) goes

on to say, “Christianity has become their [Kachin people] own market of a distinctive Kachin modernity with political as well as spiritual implications.”

Despite the 2008 Constitution formally guaranteeing freedom of religion, there is reason to suspect that there has been some infringement of these rights (Gravers, 2003). This was evident from the Saffron Revolution, where the sacred nature of monks with The ravadin Buddhist tradition caused problems for the military seeking to crack down on them. More recently, the Buddhist-nationalism axis has been brought into sharp focus by the obnoxious, ranting bigot Wirathu, who is a Buddhist monk who has played a prominent role in enabling the apparent ethnic cleansing of the Muslim Rohingya minority people (Head, 2017). There has also been some evidence of direct repression (e.g. Human Rights Watch, 2017).

During the C19th, as European imperialism more fully exerted itself across Southeast Asia, American missionaries began to arrive in Burma and began preaching and proselytizing activities. The first to do this was Adoniram Judson, who spent much of his life in the country before dying in 1850. He intended to translate the entirety of the bible into the majority local language but was unable to achieve this (Pierard, 2006).

In common with many of the other missionaries who reached Burma and, subsequently, Kachin State, Judson was a Baptist. The Baptists are a group of Protestant Christians whose history reaches back to early C17th English-Dutch nonconformity and who are characterised by their antipathy to Catholicism and its forms. There are an estimated 40 million Baptists around the world today.

In subsequent years, American missionaries pushed further north to meet and interact with non-Burman Burmese, achieving success in converting some Karen and Shan people. In Burma, adopting Christianity has been regarded as being related to westernisation and colonialism (Lim & Dengthuama, 2016). It is certainly true that British imperialists preferred to use outsiders as civil servants and needed people who could speak in English, which is why so many Indians were imported to Rangoon on the divide and rule policy that had been so successful (Odaka, 2016). Religious identity in Myanmar has, therefore, become a potentially fraught situation.

WWII was a confused and difficult period in Burma as some Burmese fought for the allied and some fought with the Japanese against the imperial power. When peace was won and the missionaries returned, they found that all they had been building had been destroyed by the fighting and long years of rebuilding were necessary. This has been undertaken and with some success, although it is true now that Kachin Christianity is divided into a number of different denominations and relations between them have not always been cordial.

THE ROLE OF KACHIN CHRISTIANS IN FIGHTING DRUGS

Although representing quite a small part of Myanmar's overall population, Myanmar Christians have been prominent in promoting social development in the country: "... building and running hospitals and schools, providing aid to the displaced, fighting drug addiction, speaking up for the rights of religious and ethnic minorities, and promoting peace ... Christianity is particularly influential among a number of Myanmar's ethnic nationalities, where religion and cultural identity are tightly intertwined (Rogers, 2015)." These efforts have been assisted by the ability to import resources, expertise and ideas from overseas. However, the issue of illegal drugs is a wicked problem: that is, it is a problem (or set of problems) that "... are ill-defined; and they rely upon elusive political judgment for resolution. (Not 'solution.' Social problems are never solved. At best they are only re-solved – over and over again.) (Rittel & Webber, 1973)." Drug usage is wicked in this sense because it is not clear what should be done about them, in a world in which zero tolerance of drug usage does not seem to be a pragmatic response since, according to research, it provides many incentives to hide what is happening (Staff and Agencies, 2013). It can represent a significant deterrence effect (Mekay & Pacula, 1999) but, in complex societies, can become intertwined with discriminatory action against people with minority or marginalised status and makes no meaningful provision for people who, for whatever reason, fall foul of the laws (Skiba, 2010).

Within Christianity, attitudes towards drugs and towards people who use them can vary significantly. There are strands of Christianity, for example, in which drugs are classified along with alcohol and other stimulants and rejected entirely,

for social as well as religious reasons. For example, the influential Southern Baptist Convention declared in 1920:

"Resolved, that in view of the world-wide interest at the present time in the cause of Temperance and the growing volume of public opinion in India against the use of intoxicants and drugs like opium and morphine, the consumption of which is alarmingly growing and thus is a serious menace to the physical health, and moral and spiritual well-being of the three hundred millions of people of India, the Southern Baptist Convention, representing three million white Baptists of America, in its annual session held in Washington, DC, May 12th to 17th, 1920, earnestly requests the Government of India to prohibit the import, manufacture and sale of alcoholic liquors and drugs – particularly prohibition of the cultivation of poppy and manufacture and sale of opium in India for other than medicinal purposes (Southern Baptist Convention, 2017)."

Many people adhere to this resolution or others like it. For example, the Pat Jasarn movement includes members of both the Catholic Church and the local Baptist Church. It claims to have more than 100,000 members who have, it is said, spent most of their time "... raiding drug dens, seizing shipments of methamphetamine and harassing drug users – often flogging addicts until they repent (*Southeast Asia Globe* Editorial, 2016). Pat Jasarn members dress like paramilitaries and organise raids on opium-growing farms, which occasionally leads to armed confrontations (Cousins, 2016). Police and authorities may represent something of a moveable feast on occasions such as this, since they seem to choose sides depending on local factors.

Nevertheless, the persistence of many of their members and their well-resourced nature mean that church-based or faith-based networks can be effective means of transfer of ideas and of resources. The flows can work in both directions, of course:

"The complex channels of communication that were forged to facilitate the flows of arms, money, people, resources and trade also supported flows of a different kind: those of religious ideas and missionary proselytization (Sadan, 2013:361)."

The research reported on in this paper considers the role of traditional religious beliefs and practices in Kachin State and their impact on drug usage and eradication. It is shown that the internationalisation of communications and information have changed the nature of religious practice in a variety of different ways.

METHODOLOGY

Content Analysis

Krippendorff (1988) defined content analysis as "... a research technique for making replicable and valid inferences from data to their contexts." He wrote about it in this way:

"Content analysis ... seeks to analyse data within a specific context in view of the meanings someone – a group or a culture – attributes to them. Communications, messages, and symbols differ from observable events, things, properties, or people in that they inform about something other than themselves: they reveal some properties of their distant producers or carriers, and they have cognitive consequences for their senders, their receivers, and the institutions in which their exchange is embedded (*ibid.*)."

In other words, content analysis goes beyond listening, transcribing and reordering the content available (which is mostly text in the form of discourse) and considers the meaning of the content within its specific context. In this case, this represents the discourse of people from a wide range of different perspectives, including western and western-educated scholars, community leaders and members of drug rehabilitation centres. The languages used varied and some care has been taken to harmonise the different registers employed. To some extent, local colour as centralised in the discourse has been abstracted in the conversion of the original into the attempt at providing an academic level of discourse.

Content analysis can take a variety of forms. For example, it can be employed in conventional, directed or summative aspects. Conventional content analysis begins with observation and employs codes derived from the text and which are defined during the process of analysis. Directed content analysis begins with theory with codes defined by the theory which are modified as required both before and after the analysis takes

place. Summative content analysis, on the other hand, begins with the search for keywords which are identified prior to analysis because of a specific theoretical position or desire to explore a specific situation (Hsieh & Shannon, 2005).

In this research, both conventional and summative forms of content analysis have been used. The former was principally employed to examine the perspectives of various people with respect to the eradication of drugs. However, this approach was supplemented with the summative approach with respect to the examination of rehabilitation. A mixed methods approach of this sort is common in social science research such as management studies. For example, Denscombe (2008) describes the communities of practice approach to a mixed methods study which is "... (a) consistent with the pragmatic underpinnings of the mixed methods approach, (b) accommodates a level of diversity, and (c) has good potential for understanding the methodological choices made by those conducting mixed methods research (*ibid.*)."

It is considered an appropriate approach because of the diversity of viewpoints exposed and types of evidence gathered.

Although there is software available to support content analysis, this paper used a more traditional approach of immersion into the data which are in the form mainly of transcripts, with codes generated both by the process of analysis and, subsequently, through examination of specific concepts. The results are provided in the following chapter.

ETHNOGRAPHIC OBSERVATION

Ethnography is the study of human peoples in the context of their society, culture, historical location and awareness of related concepts. It calls for an immersive experience within a particular society or culture which the researcher is able to identify. The researcher is required to understand the culture in which s/he is immersed but also able to separate the secondary context from the individual personality. This means that an interviewer can be born into and live with the people involved and still be an objective investigator of the ethnographic group involved. However, it is necessary to triangulate observations in order for the researcher to demonstrate that this is true. Triangulation involves the observation of the same phenomenon from a variety of different perspectives to try to determine whether a consistent view of results

can be obtained. This concept has been a part of mixed methods research for some decades. For example, Bouchard (1976:268) observed that the conclusion that results are confirmed by more than one form of observation "... enhances our beliefs that the results are valid and not a methodological artefact (*ibid.*)" Boring (1953:222) argued that: "When the defining operations, because of proven correlations, are many, then it becomes reified."

The term 'reification' can have a number of different meanings but it is used in this case as a naïve (i.e. lacking in ideology) term indicating the process of an idea or understanding (which is unproved and possibly inchoate) becoming acceptable in the mind of the researcher. It is the qualitative research equivalent of rejecting a null hypothesis in quantitative research. It is not, therefore, an act to take lightly. A certain amount of care should be taken, therefore, in taking this step.

The two most important activities in ethnographic research are participant observation and key informant interviewing. The first of these involves spending extended lengths of time with the people observed taking both subjective and objective perspectives of the ways that people behave in parallel. The crucial role for the researcher in this case is the ability to be aware of the need to interact fully in society while also being able to take a step back from everyday life to measure the meanings of what has been observed and try to understand them. Key informant interviewing means identifying those individuals or groups whose opinions or behaviour are considered to be the most likely to be able to provide insights into the meanings of everyday activities, whether or not they themselves are aware of this. A semi-structured research agenda is used to guide discussions, which are recorded or accompanied by extensive note-taking for subsequent transcription. It uses a judgement sampling approach.

DATA COLLECTION IN MYANMAR AND THE KACHIN STATE

Data collection issues in Myanmar and, in particular, Kachin State poses some problems which would be of a much lower level in developed countries. These problems include infrastructure, language, gender issues and general access. These will be dealt with in order.

The first problem is the infrastructure and, in particular, the poor transportation infrastructure which makes it difficult and time-consuming to go from place to place and actually locate people for interviewing. Across the country, there are various areas where access is not permitted by government or military officials. Most of the jade and gold mining areas in the north of the country are interdicted because these are considered to be sensitive areas. In Kachin State, of course, areas where fighting is taking place also exist and these are not possible to access. There are other areas where IDPs are living which also pose challenges to security forces. Even where there are no problems with transportation infrastructure, at least in comparative terms, physically moving from one place to another can be problematic owing to the hilly or mountainous terrain and because of the climate. In some cases, it has been possible to overcome these problems by the use of technology, including mobile telecommunications and the internet, since contact can be made by other means. In addition, many Kachin people live as part of a diaspora as they have found ways of living in other parts of the world for a variety of reasons. Semi-structured interview agendas were sent to people who were unable to be interviewed personally and a number of written responses were obtained in that way.

The second issue relates to language. Interviewing was conducted in English as far as it was possible. However, for many respondents English was not their first language and it may not even have been their second language. Figure 3 below indicates the complexity of the linguistic patterns of Myanmar. In some cases, respondents received assistance from others in giving their opinions and, in other cases, interpretation has also been used. In reporting the actual words spoken or written by respondents in this paper, minor editing has been used where necessary to remove ambivalence or distracting ungrammatical formations. However, in every case where this has been done, care has been taken to ensure that, so far as it is possible to ascertain, the correct meaning has been preserved. For infelicities in language in already published material, any errors employed have been retained. Some footnotes have been added where it has been deemed necessary or helpful to explain some issues related to language use.

In terms of gender, it has become evident from research elsewhere (e.g. Walsh, 2016) that it can be difficult to obtain sufficient numbers of female

respondents especially in rural areas where levels of education are lower and people may feel ashamed of not being able to answer questions. There is also the issue of gender discrimination, which is widespread across Myanmar and a number of different ethnic groups. However, the relationship between gender and willingness to participate in research or any kind of political debate is complex and has results which might be difficult to anticipate. As one expert has written:

“An example of how insecurity is gendered can be seen in the number of female-headed households, or in the way that gendered norms work to position women as the caretakers of families. Being responsible for the survival of near and extended families means that women often lack the time and income to participate in public decision-making processes. In this way we see how gender, material insecurity at the household level, and political marginalisation all combine (True, 2015).”

Efforts have been taken to try to obtain views from respondents exhibiting all kinds of demographic characteristics and this certainly includes gender. However, it cannot be argued that there is a guarantee that every sector of society is fully represented, given the issues relating to access that have already been enumerated. Some people, for example those under rehabilitation in the Pat Jasan centre, could only be interviewed with the assistance of Pat Jasan staff. This is sub-optimal but unavoidable. In other cases, for example Kachin diaspora, it cannot be guaranteed that some circumspection of speech was used because of concern about whether comments made would be made public, notwithstanding efforts taken by the researcher to ensure all respondents of appropriate scholarly levels of confidentiality.

FINDINGS

The Perspective of the Authorities

There are political and state institutions that have responsibility for maintaining law and order in Kachin State at different levels. From the perspectives of these authorities, drug use is not only illegal but poses a perhaps existential threat to the legitimacy of their authority. They understand their role to be one that eliminates drugs use as much as possible, to punish transgressors and to ensure that any threat to

their legitimacy is neutralised. They are also in possession of more facts with respect to the actual nature of the drugs trade and its complexity. For example, one respondent, previously a military officer, contrasted the changing nature of drugs production and consumption in the country over the past twenty five years:

“I first came to experience illegal narcotic drugs in 1995 when I was a junior military officer assigned at one of the military units based in Yangon, the capital of Myanmar at that time. Between 1995 and 2000, I was assigned to be the team leader of the military command Anti-Narcotics Unit (ANU) which included also police personnel from the Yangon-based Anti-Narcotic Task Force (ATTF). During that time, my drugs team seized different types of illegal drugs including raw opium, solid opium, brown opium, opium oil, low-grade opium, heroin and marijuana in the Yangon region. Until 1998, the production and use of amphetamine type stimulants (ATS) was non-existent in Myanmar. It was around 1999 that my drugs team seized ATS 80 pills in Yangon bearing a ‘WY’ logo, which were pink. Later on, precursor chemicals ephedrine and phencidine were also seized by my team in Yangon. Based on the statements given by the apprehended offenders, the precursor chemicals were mostly imported from India and China at that time.”

This officer continues to be active in anti-narcotics activities today and is still involved in seizing the same products. However, the range of drugs involved is continuing to grow and the sources are becoming diversified: “... ATS tablets spreading across the whole country and coming from Bangladesh via Rakhine State), ecstasy pills (imported from Malaysia), diazepam, tramadol, mitragynaspeciosa, methamphetamine ICE (not for domestic consumption), ketamine (not for domestic consumption) cocaine (never seized before in Myanmar), buprenorphine codeine and phencidine”. There are also various precursor drugs found in the country and, also, adulterated caffeine imported from Lao PDR through the Golden Triangle region. The situation is, in other words, becoming much more complex with more advanced forms of production, distribution and consumption and the use of information technology tools to assist in distribution and sales intensifies the problems for the authorities. Perhaps just as important is the fact that drug

consumption has become acknowledged as an acceptable way to behave and users now include: "... young people, high school students, university students, workers in factories, workers in jade mines and gold mines, fishermen along the coast, long-distance truck drivers, some celebrities, actors and actresses, KTV (karaoke television) girls who work at nightclubs across the country have all become regular or occasional users." Both supply and demand factors have become strong and multi-sectorial. Further, Myanmar has become integrated more firmly into an international if not global trade in illegal narcotics. International problems require international solutions, as noted by another respondent, who is a professional person:

"Internationally, supply reduction includes building consensus; bilateral, regional and global accords; coordinated investigations; interdiction; control of precursors; anti-money laundering initiatives; drug crop substitution and eradication; alternative development; strengthening public institutions and foreign assistance."

Various other respondents noted the importance of good governance systems and institutions but noted that this in itself would not be sufficient. It is necessary also to implement some measures of alternative development, including in particular the sharing of natural resources in an equitable manner under conditions of peace. Brave thinking is required to introduce and sustain peace, with one respondent making this claim:

"[to obtain peace] Ethnic armies must be integrated to the Union army under the government budget through granting equal rights and self-determination demanded by the ethnic nationalists."

It is difficult to imagine quite how this would effectively be managed. Nevertheless, some efforts must be made towards the rehabilitation of inter-personal relations within the country if peace is to be established.

REHABILITATION

One respondent, a police officer, reported that there are some government-run rehabilitation centres, which are doing some good work, although they too are facing numerous problems. By contrast, NGOs and Church-based groups find it difficult to accumulate sufficient resources to meet the international norms of proper medical

treatment that they wish to offer. Even quite well-resourced and well-supported international NGOs (INGOs) find it difficult to provide the range of integrated medical services they would feel it necessary to provide. For example, the Geneva-based NGO *Médécins sans Frontières* (Doctors without Borders – MSF) reported of its activities in Kachin and Shan States as follows:

"During the second half of 2016, conflicts in Kachin and northern Shan State intensified, hampering access for staff and patients. In Kachin, MSF continued providing care to 11,020 patients with HIV, TB and MDR-TB [tuberculosis and multi-drug resistant tuberculosis]. Teams also conducted 68 mental health consultations at a camp for internally displaced people. In Shan, MSF provided treatment to 4,628 patients with HIV and MDR-TB, and a mobile team conducted 900 primary healthcare consultations across the north (MSF, 2018)."

The government-led rehabilitation centres include Wet HteeKan centre, May Khae centre in Kaya State and Tee Mar centre in Muse-Lashio. Wet HteeKan centre is located in Pyay township and is organized by the Myanmar Anti-Narcotics Association (MANA). Wet HteeKan centre, unusually, offers services for women, who are not well catered for in most government centres, which are focused on male addicts and staffed primarily by men, which means there can be cultural issues related to women obtaining the services they need. These centres are managed by the Department of Social Welfare. It is becoming understood that cultural forces mean that women cannot benefit fully from most rehabilitation centres like they can from Wet HteeKan, which is community-based and locally embedded, although there is an urgent need for more trained women workers.

The centre benefits from an amendment to a law on drug addiction that means these affected can now take part in social service work and stay away, therefore, from both prisons and judgemental churches (*Myanmar Now*, 2017).

Another respondent, speaking on behalf of a local community centre, admitted that conventional approaches do not work:

"From the religious point of view, when someone is imprisoned, we do make a special effort to evangelise them when we have a chance. And then, some of them change. We

also see that they try to step towards getting a better job when they come out of prison ... [However] ... for most people, they are just the same when they are released even if they have been imprisoned for many years. It is rare to see a person who changes or becomes better after they were imprisoned. We do not see that in more than one in ten persons (respondent).”

In other words, people believe that the standard approach to treating drug addicts does not really work. The same respondent claimed that, in Myitkyina, working with young people on a religious basis has seen some fruit being born from this. However, it is not clear how sustainable this approach might be. Other respondents noted that the ability to find decent work was essential in trying to keep ex-offenders away from returning to drug use. Many addicts had turned to drug use in the first place because of boredom and under-employment or, else, because the work they could find was so difficult that only the use of drugs enabled people to endure it.

One respondent from Pat Jasarn also acknowledged the difficulties involved in expecting individuals to be able to reclaim their lives through individual efforts:

“It is very difficult [for people] to change mentally and spiritually, even though law is conducted properly. [A] former user could relapse again because of [returning to the] old environment (respondent).”

This respondent felt that the best way to treat individuals is to do so on an holistic basis:

“A person is totally free from drugs when he or she gets physical, mental and spiritual treatment. Therefore, religion-based organizations are implementing this method and it is effective (respondent).”

Other respondents were also wedded to the religious approach and felt that the innate spirituality within released ex-addicts would be the most important factor in their re-integration into society. Other respondents still were divided in their opinions about religion-based approaches such as Pat Jasarn. While some placed their faith in it above all else, others took a more sanguine approach:

“... my sense is that they are driven by a desperation to stem the devastating impact that the drug problem is having but that in

many ways they are also embracing the same failed and damaging policies of the war on drugs more broadly – i.e. a militarised response to the destruction of crops (without understanding or caring about the impact this has on poor farmers), the unsustainability of such approaches when the underlying drivers of why people grow drugs are not addressed (respondent).”

In the absence of reliable statistics, it is difficult to know for sure the extent to which it is possible to divide this issue into a dichotomy and, if so, on which side of the line does the truth reside. The most likely response is that complexity outweighs simplicity, since there are various forces acting at different societal levels and different spatial considerations:

“... the different programmes that have been developed over recent years have been disrupted by the breakdown on the KIO ceasefire in 2011. This has made it much more difficult for drug users to attend programmes on a sustainable basis as well as different health agencies to gain access to the needed areas and communities (respondent).”

This observation adds strength to others which have also stressed the difficulty of access and organizations in areas with low levels of infrastructure and suffering from warfare and disruption. The same respondent went on to reinforce the complexity of different scales of action:

“... there are also different regions and peoples involved, including the Kachin State and northern Shan State, where drug use crosses ethnic and territorial lines. It also needs to be stressed that both opium/heroin and methamphetamines are problematical drug issues in this region where different approaches are underway (respondent).”

There are several, if not more, cross-border or trans-border issues within the GMS (and also evident further afield) that similarly must engage with various societal and geographic levels of action. One particular issue is that of water management and the management of the River Mekong (Chintraruck & Walsh, 2015), which require coordination on a wide, diverse and contradictory set of interests. This is reflected on the ground in terms of inter-ethnic group relations. Different groups live in different areas, by and large, where there are different jurisdictions

and different political realities. For example, one respondent spoke about personal experiences with various different groups and their livelihoods:

“We found that the majority of the growers then were the Hmong, Yao, Lahu, Akha and Lisu. The last three were mostly cultivating on both sides of the border while the Hmong and the Yao lived on the hills around the larger communities in the North. We spent a year collecting information and the second year on 1979 we called the tribal meetings for the village chiefs and elders of the Hmong, the Yao and the Lisu in Chiang Mai on three occasions. We purposely did not touch the Akha and the Lahu knowing well they were under the influence of the KMTs [Kuomintang] and the warlords across the border and it would pose more dangers to them had we brought them to the meetings. The Hmong were independent, on their own, hate the Chinese and stay away from them except when selling raw opium. The Yao are traders by nature and do whatever needed to earn money while the Lisu were the new tribe and part of the Kachin main tribe, very Christian, religious and can be approached through the Christian circle where we are strong.”

Although the reach of the state has extended since the period described in this recollection, it is nevertheless true that different tribes attempt to establish separate identities from each other – in a globalizing world, the need to retain cultural markers and practices as a means of retaining a sense of personal and group identity appears to become more important. Understanding the dynamics of these forms of identity and the interactions between them can help organizations and government agencies to be able to provide the kind of support and services necessary in dealing with illegal drugs.

DISCUSSION

If drug eradication is to take place and crop substitution replace it, then how is this to happen? Since there have been no successful attempts to achieve this in Kachin State before, the model proposed here will represent the principal claim for contribution to academic knowledge.

Fundamentally, the successful crop substitution programme will rely on organization, co-ordination and integration.

Organization: the affected farmers will need to be part of a (farmer production group) FPG that will help in providing a sense of solidarity between them and also offer support and advice in growing the new crops. There are likely to be some problems along the way because changing agricultural production patterns during a time of rapid and unpredictable climate change will be inevitably risky. Farmers and their families will need to support each other if they are not to be tempted to return to the old ways.

Co-ordination: farmers will need advice and various forms of inputs in order to grow their crops successfully and to have them taken to market in a timely fashion. Harvest and transportation dates will need to be carefully monitored to ensure that goods are moved when required. Coordination will be required at the local level when roads are not available for convenient transportation. Additional income generation opportunities that occur on a seasonal basis will also need to be managed to obtain economy of scale advantages for land and labour made available.

Integration: the crop substitution programme is much more likely to be sustainable if profitability increases in the future and is seen to increase. This could be achieved through integrating more stages of the value chain into the control of the FPGs involved. There would certainly need to be outside involvement with the process of helping farmers to be capable of undertaking more of the stages of production themselves and, thereby, retain more of the value created.

These activities are difficult to achieve but not impossible so long as there is the basis of powerful relations both within Myanmar (i.e. between Kachin State and the national government) and between Myanmar and its neighbours (especially China and Thailand) which offer the best prospects for being export markets. Without peace, the entire system will rapidly disintegrate and opium production will begin again.

The final element that has to change will be the nature of rehabilitation that is being undertaken in the State. Currently, rehabilitation regimes followed those prescribed by the failed War on Drugs thinking that unhelpfully promotes the moral or ethical component of any decision that has been taken with respect to drugs and undervaluing, therefore, the structural issues that have brought drugs into the everyday experience of all areas of Kachin society. The preferred form

of rehabilitation would emphasise re-education and retraining individuals such that they can understand the value of crop substitution programmes and to be more able to participate in them in a valuable manner. Some changes to the legal system might be required to enable this to happen.

The resources that will be required to make this happen will include financial resources certainly but also, perhaps more importantly, there is a need for the willingness to think about the situation in different ways than in the past and to be creative and flexible in outlook. Mechanisms to overcome distrust and suspicion and enhance social solidarity will also be helpful. Discrimination is unhelpful.

CONCLUSION

This paper has reported on a programme of qualitative research and ethnographic observation to consider the nature in which the rehabilitation of offenders against drugs laws is taking place in Kachin State in northern Myanmar. It found that most current programmes are based on outmoded war on drugs era policies that fail to take into account more recent thinking and the larger context, in which the use and production of drugs has become so endemic in Kachin State that it is part of everyday, mundane reality. Breaking free of old-fashioned thinking will require the assistance of faith-based networks, which are the principal means by which resources may be transported into the State and circulated there.

The research is limited by the factors outlined in the section on methodology above and by the common constraints of time, space and human fallibility. It would be helpful if future research were able to link more closely rehabilitation in other contexts and situations with that provided in this paper.

The implications of this research are that the drug rehabilitation strategies being employed in Kachin State are sub-optimal in nature but are constrained by limitations on resources, knowledge and some measure of empathy with those being treated. For the situation to be improved, greater linkages with external sources of these needed resources may be fostered, although it is unlikely that this can effectively be achieved without the precondition of peace. Continued fighting, no matter how it might be justified, will continue to play a major role in destroying the lives of people all across the State and beyond.

REFERENCES

- In Burma, Female drug addicts searching for help have few options (2017). *Myanmar Now*. Retrieved from www.dvb.mo/news/feature-news/burma-female-drug-addicts-searching-help-options/77478.
- AFP (2017). Threedead in latest clash at Myanmar jade mine, *Daily Mail Online*. Retrieved from <http://www.dailymail.co.uk/wires/afp/article-5061779/Three-dead-latest-clash-Myanmar-jade-mine.html>.
- Aung, T.T. (2017). More than 1,000 new IDPs reported in Kachin State. *The Irrawaddy*. Retrieved from <https://www.irrawaddy.com/news/burma/1000-new-idps-reported-kachin-state.html>.
- Boring, E.G. (1953). The role of theory in experimental psychology. *American Journal of Psychology*, 66, 169-84.
- Bouchard, T.J. (1976). Unobtrusive measures: An inventory of uses. *Sociology in Methodological Research*, 4, 267-300.
- Chintraruck, A. & Walsh, J. (2015). Issues in implementing integrated water resources management in Thailand. *Global Business and Economics Review*, 17(4), 417-29.
- Choavy, P.-A. (2013). Drug trafficking in and out of the Golden Triangle: An atlas of trafficking in Southeast Asia. *The Illegal Trade In Arms, Drugs, People, Counterfeit Goods And Natural Resources In Mainland Southeast Asia*. London: IB Tauris, 1-32.
- Cousins, S. (2016). Burma's grassroots war on drugs, *Foreign Policy*. Retrieved from foreignpolicy.com/2016/10/05/burmese-grassroots-war-on-drugs-pat-jasarn-kachin-heroin/.
- Denscombe, M. (2008). Communities of practice: A research paradigm for the mixed methods approach. *Journal of Mixed Methods Approach*, 2(3), 270-83.
- Farrell, G. (1998). A global empirical review of drug crop eradication and United Nations' crop substitution and alternative development strategies. *Journal of Drug Issues*, 28(2), 395-436.
- Feingold, D.A. (2000). The hell of good intentions: Some preliminary thoughts on opium in the political ecology of the trade in girls and women, in Evans, G., Hutton, C. & Eng, K.K., eds., *Where China meets Southeast*

- Asia: Social and cultural change in the border regions*. Singapore: Institute of Southeast Asian Studies, 183-203.
- Gravers, M. (2017). Spiritual politics, political religion, and religious freedom in Burma. *The Review of Faith and International Affairs*, 11(2), 46-54.
 - Head, J. (2017). Rohingya crisis: Seeing through the official story in Myanmar, *BBC Online*. Retrieved from <http://www.bbc.com/news/world-asia-41222210>.
 - Hsieh, H.-F. & Shannon, S.E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-88.
 - Human Rights Watch. (2017). Burma: Kachin Christians feared 'disappeared'. Retrieved from www.hrw.org/news/2017/01/16/burma-kachin-christians-feared-disappeared.
 - Krippendorff, K. (1989). Content analysis, in Barnnouw, E., Gerbner, G., Schramm, W., Worth, T.L. & Gross, L., eds. *International encyclopaedia of communication*, New York, NY: Oxford University Press, 403-7.
 - Lim, T. & Dengthumana (2016). An overview of Christian missions in Myanmar, *Global Missiology English*, 3(13). Retrieved from ojs.globalmissiology.org/index.php/English/article/view/1884/4197.
 - Lone, W. (2017). Firebrand monk Wirathu travels to Myanmar's troubled Rakhine State, *Reuters*. Retrieved from <https://www.reuters.com/article/uk-myanmar-rohingya-wirathu/firebrand-monk-wirathu-travels-to-myanmars-troubled-rakhine-state-idUSKBN17Z1FY>.
 - Marx, K. (1852). The eighteenth Brumaire of Louis Bonaparte. Retrieved from <https://www.marxists.org/archive/marx/works/1852/18th-brumaire/cho1.htm>.
 - Médecins sans Frontières (MSF) (2018). MSF continued to work with the Ministry of Health to provide care for HIV and TB patients, primary healthcare, and vaccinations. Retrieved from activityreport2016.msf.org/country/Myanmar/.
 - McKay, S.L. & Liccardo Pacula, R. (1999). The effectiveness of workplace drug prevention policies: Does 'zero tolerance' work? *NBER Working Paper*, 7383. Retrieved from www.nber.org/papers/w7783.
 - Myat, M.M. (2013). Kachin army digs in for final assault. *Bangkok Post*, (January 27th), Spectrum, 3-5.
 - Odaka, K. (2016) A new light to shine? Historical legacies and prospects for Myanmar's economy, in Odaka, K., ed. *The Myanmar economy: Its past, present and prospects*. New York, NY: Springer, 1-28.
 - Paing, T.H. (2017). Families unplanned in Kachin IDP camps. *The Irrawaddy*. Retrieved from <https://reliefweb.int/report/myanmar/families-unplanned-kachin-idp-camps>.
 - Pierard, R. (2006). The man who gave the Bible to the Burmese, *Christian History*. Retrieved from www.christianitytoday.com/history/issues/issue-9-/man-who-gave-bible-to-burmese.html.
 - Rittel, H.W.J. & Webber, M.M. (1973). Dilemmas in a general theory of planning, *Policy Sciences*, 4, 155-69.
 - Rogers, B. (2008). The saffron revolution: The role of religion in Burma's movement for peace and democracy. *Totalitarian Movements and Political Religions*, 9(1), 115-8.
 - Rogers, B. (2015). The contribution of Christianity to Myanmar's social and political development. *The Review of Faith and International Affairs*, 13(4), 60-70.
 - Sadan, M. (2013). *Being and becoming Kachin: Histories beyond the state in the borderlands of Burma*. Oxford: Oxford University Press.
 - Sadan, M. (2016). Editor's note, in Sadan, M., ed., *War and peace in the borderlands of Myanmar: The Kachin ceasefire, 1994-2011*. Copenhagen: NIAS Press, xix-xxii.
 - Scott, P.D. (2010). Operation paper: The United States and drugs in Thailand and Burma. *The Asia-Pacific Journal*, 8(44). Retrieved from apjjf.org/-Peter-Dale-Scott/3436/article.html.
 - Skiba, R. (2010). Zero tolerance and alternative discipline strategies. *National Association of School Psychologists Communiqué*, 39(1), 28-30.
 - *Southeast Asia Globe*. (2016), Editorial: Myanmar's militant Christians and their war on drugs, *Southeast Asia Globe*. Retrieved from sea-globe.com/18451-2-myanmar-kachin-state-pat-jasarn-drugs-vigilante/.

- Southern Baptist Convention (2017). Resolution on drugs: Washington, DC – 1920. Retrieved from www.sbc.net/resolutions/447/resolution-on-drugs.
- Stokas, E. (2017). ‘Humanitarian catastrophe’ unfolding as Myanmar takes over aid efforts in Rakhine State. *The Guardian*. Retrieved from <https://www.theguardian.com/global-development/2017/sep/15/humanitarian-catastrophe-unfolding-as-myanmar-takes-over-aid-efforts-in-rakhine-state-rohingya>.
- Transnational Institute. (2017). Beyond Panglong: Myanmar’s national peace and reform dilemma, *Myanmar Policy Briefing*, 21. Retrieved from https://www.tni.org/files/publication-downloads/beyond_panglong.pdf
- True, J. (2015). Gender and Myanmar’s Kachin conflict. Retrieved from profiles.arts.monash.edu.au/Jacqui-true/gender-and-myanmar-kachin-conflict/.
- UN. (2017). UN confirms nearly 125,000 people fleeing Myanmar’s Rakhine for Bangladesh. Retrieved from <http://www.un.org/apps/news/story.asp?NewsID=57459#.WhE-g11wZPY>.
- UNODC. (2017a). Afghan opium production jumps to record level, up 87 per cent: Survey. Retrieved from www.unodc.org/unodc/en/frontpage/2017/November/afghan-opium-production-jumps-to-record-level-up-87-per-cent-survey.html.
- UNODC. (2017b). World drug report 2017: 2, Global overview of drug demand and supply. Retrieved from www.unodc.org/wdr2017/field/Booklet_2_HEALTH.pdf.
- Wallenstein, I. (2011). *Historical capitalism*. London & New York, NY: Verso.

Factors Affecting the Use of Online Flight Booking in Ethiopian Airlines

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ABSTRACT

The rapidly growing Information and Communication technology (ICT) is knocking the front door of every organization in the world. Online shopping has changed the way business is done & it has made international shopping very easy. As one of the e-commerce categories, e-ticketing system nowadays is being actively and widely practiced. Due to the slow grabbing of E-Commerce and E-payment in Ethiopia, the utilization of e-ticketing in Ethiopian Airlines is an important issue that should be addressed to improve the deficiency of the system. This research aims to identify the factors that affect the use of E-Ticketing in EAL based on extended Technology Acceptance Model (TAM) (Davis, 1989). The study was made by collecting data from 399 respondents on Ethiopian Airlines flights. The results obtained from analysis confirmed that Relative Advantage, Perceived Ease of Use, Perceived Trust and awareness and usage of E-ticketing are found to be having a positive significant relationship with adoption of E-Ticketing while perceived risk has shown a negative significant relationship. The research, therefore, suggests to EAL to promote the E-Ticketing services aggressively through appropriate media to increase users awareness and usage on the advantage of E-ticketing services.

Key words: E-Ticketing, information technology, Ethiopian airlines, Technology Acceptance Model

INTRODUCTION

The role of internet & websites has almost changed everything in the business world throughout the past couple of decades. There is a rapid expansion of Electronic Booking & payment systems throughout the developed and the developing world. E-ticketing system and in general E – commerce provides tremendous amount of advantages, such as continuous availability, time saving, global reach, price transparency, time competitive responsiveness and faster supply chain processes (Morganosky and Cude, 2000). E-Ticketing is an alternative marketing strategy implemented by airline to serve their customers via the Internet. It is basically an online flight ticket purchasing system which is an essential application of online shopping (E-commerce). The E-commerce revolution has created a competitive environment that change the way how business is being delivered and designed (Turban & King, 2003).

Ethiopian Airlines (EAL) is one of the leading airlines in Africa and most profitable companies in Ethiopia. Ethiopian Airlines currently operates flights to over 116 destinations and 5 continents in the world namely Africa, Asia, Europe, Middle East & North America. Tewolde Hailemariam EAL CEO (Selamta Magazine, 2018) said Ethiopian airlines has marked its 10 million passengers in the year 2018; it has opened eight new

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international destinations; received the four SKYTRAX customer service certification & introduced 14 brand new aircraft and surpassed its 100th aircraft in service.

EAL is popular for adapting new technologies, training its employees & allowing its customers take advantage of the new technology adapted to benefit the airline in reducing overheads and gaining a much closer access to target consumers.

Ethiopian Airlines dissolved its agreement with SITA at the end of 2006 (ibid) and entered into an agreement with Sabre soft airlines solution and started online flight booking (E-ticketing) system in 2006. As a result, EAL has made available user-friendly Android & IOS E-ticketing mobile application software in addition to their website which is used for online booking, purchase and also check-in process for ease of use by travelers and competitiveness of the Airline itself. This has been developed for the purpose of online booking where passengers can book & purchase their tickets from the comfort of their seat in partnership with different bank online payment methods (E-payment) moreover check in and get their boarding passes without having to queue at the terminal.

Although the benefits of using online flight booking system are obvious, it is a surprise that there are customers who prefer to stick to the traditional method of business transactions (IntanSalwani, 2010). In fact, E-shopping such as online E-ticketing and purchase is on an infant stage for Ethiopian Airlines customers who book their flights in Ethiopia. As per the data found from the marketing department of EAL, only 41% of travelers purchase their tickets using EAL website or Application. Due to this low number, it is a need for EAL to find effective ways of persuading customers to use the E-Ticketing system. Thus, an investigation on factors that influence user's acceptance on online flight booking system could provide useful findings to the EAL.

Various researches have been done in the world and show that E-ticketing adoptions vary based on different factors. Although, airline passengers' buying behavior has been looked at by different authors such as- Diggins (2010), Gupta et al. (2004) and Yu (2008) nonetheless all these stated works primarily focused on Anglo-American and Asian countries with no emphasis on sub-Saharan African consumers.

This study aims at exploring and determining the main factors that affect for the slow adoption of the E-ticketing system in Ethiopian Airlines. The objective of the study is to identify the factors that affect the use of E-ticketing in EAL and recommend the interventions, to enhance the usage of E-Ticketing in EAL.

The study is based on testing hypothesis which were developed based on the literature:

- H1: There is a positive relationship between Relative Advantage and usage of E-ticketing.
- H2: There is a positive relationship between perceived usefulness and usage of E-ticketing
- H3: There is a positive relationship between Perceived Ease of Use and usage of E-ticketing.
- H4: There is a positive relationship between perceived behavioral control and usage of E-ticketing.
- H5: There is positive relationship between Perceived Trust and usage of E-ticketing.
- H6: There is a positive relationship between awareness and usage of E-ticketing.
- H7: There is a negative relationship between Perceived Risk and usage of E-ticketing

LITERATURE REVIEW

Electronic commerce or E-commerce has been defined in several ways. Kalakota and Whinston (1997) broadly define ecommerce as "A modern business methodology that addresses the needs of organizations, merchants and consumers to cut costs while improving the quality of goods and services and increasing the speed of service delivery." They view E-commerce as a production process that converts digital inputs into value-added outputs through a set of intermediaries.

Despite the very high rate of growth in internet usage in Ethiopia, the use and adoption of E-commerce services remain low. The E-commerce development in Ethiopia is at its starting stage.

Currently E-commerce in Ethiopia can be considered as accessing the internet to choose products over the web. Hence, only a customer can see the items and pay in person to actually buy the product. With the advent of new E-payment methods which serve as a catalyst, E-commerce is on the edge to draw thousands of new users with in Ethiopia. Review of the existing literature showed that e-commerce has been widely researched in the developed and emerging

economies; however, there is not much of research for the developing Ethiopian economy. This study is therefore assumed to fill this gap.

E-ticketing can be defined as a new way of purchasing tickets and issuing tickets without papers to clients and the transactions are purely done through electronic devices such as telephone and Internet. E-ticketing was started by United Airlines back in 1994. A decade later, the industry was not able to gain profit from saving costs \$3 billion a year as only 20% of all airlines issued e-tickets. In June 2004, IATA set an industry target of 100% e-ticketing in four years. This announcement had been criticized that it was an unrealistic goal and the return on investment was uncertain. However, on 1 June 2008, the industry has successfully transformed into 100% e-ticketing (IATA, 2010).

As one of the e-commerce categories, e-ticketing system nowadays is being actively and widely practiced by not only airline companies but also other companies in different fields, for example cinemas for entertainment industry; buses, and trains for transportation industry; banking industry; and sports industry (Haneberg, 2008).

The use of the Internet makes buying a ticket more convenient since the service is available at any geographical location, including your home (or even remotely via a laptop and cellular phone) and at any time of the day, any day of the year. Online ticket services have a further advantage by providing relevant information alongside the service. This can aid purchasing decisions and may encourage future usage (Buford, 1998). Therefore, ticket buyers have quite an easy commute to the ticket offices, these days-they only have to get to their home personal computer and onto the internet. It beats standing in lines and transportation to ticket offices.

There are also benefits for those providing the service. New markets are being created and ticket sales are increased. Apart from maintenance and data updates, no manpower is required to provide the service once it has been established. The process of recording the transactions is more automated and overhead is reduced. An important point is that ticket providers are also providing a convenient service to customers and are thereby improving public image and encouraging return customers. (Buford,1998).

Strong argument in favor of a ticketless system is the decrease in time “wasted” by the passenger

at the airport. The real benefit is for business travelers, as found by Reuben Gronau in his study of the monetary value of time for passengers, where he concludes: the price of time will determine the mode of transportation to use and business travelers price their time according to their hourly earnings, along with other factors such as the length of the trip, the time of the day, etc. Given the proven time reduction with a ticketless system, all of these factors contribute to time-value savings for the traveler. (Reuben Gronau, 1970)

Consistently posting record profits for the past seven years, Ethiopian Airlines has been using Sabre’s technology for its core reservations, network planning and e-commerce since 2005. Despite the daunting challenges in African aviation, Ethiopian Airlines has continued with thriving successes and has become the leading aviation group in Africa, nine years ahead of its 15-year strategic growth roadmap, Vision 2025. Addis Ababa Ethiopia and South Lake, Texas (Aug 31,2017).

“Leveraging the latest information technology and travel system solution is one of the pillars of our long-term growth plan, Vision 2025, and consequently we have made significant investments in technology to create a seamless passenger experience,” said Tewelde Gebre Mariam, CEO, Ethiopian Group. “Sabre’s technology partnership and expertise has been invaluable over the years, and that’s a key decision driver in our expanded relationship which includes new cutting-edge technology that will help us create better customer experiences and remain the airline of choice among travelers around the world.”

Several theories are offered in order to identify factors that cause people accept new technologies and information systems and use them (Rao and Troshani 2007).

TAM was first introduced by Fred Davis in 1989 to predict user acceptance of new technologies. According to (Davis 1989), TAM suggests that perceived usefulness (PU) and perceived ease of use (PEOU) are the two most important factors in explaining individual users’ adoption intentions and actual usage. Davis (1989) defines perceived usefulness as the degree to which a person believes that using a particular system will enhance his or her job performance. Perceived Ease of Use refers to the degree to which the person believes that using the system will be free of effort.

A research model by (JiinFui, et al. 2014) on adoption of E-ticketing combines Acceptance Model (TAM) (Davis, 1989), and online trust and purchase intention model for airline E- ticketing in Malaysia (Chen & Barnes, 2007 as cited from Goh, 2008). In the modified model, Internet trust (including perceived security and perceived privacy), personal trust disposition, perceived ease of use and perceived behavioral control are the independent variables whereas purchasing airline e-tickets is identified as the dependent variable. According to the study there are many factors that influence the intention, behavior, and attitudes to shop online or airline e-ticketing adoption. The factors include perceived risk, perceived usefulness, perceived ease of use, perceived enjoyment, perceived privacy, perceived security, subjective norm, trust, personal trust disposition, internet usage, experience, perceived behavioral control, and demographic variables.

PERCEIVED USEFULNESS

Perceived usefulness refers to the degree to which a person believes that using a particular system would enhance his or her job performance (Davis 1989). In the context of online consumer behavior, Chen et al., (2002), Childers et al., (2001), and Heijden et al.,(2001) found that perceived usefulness affects attitude toward online shopping. Similarly, Chen et al., (2002), Gefen and Straub (2000), Heijden et al., (2001), and Pavlou (2001) found perceived usefulness to be a significant factor affecting intention to shop online.

PERCEIVED EASE OF USE

In contrast to PU refers to “the degree to which a person believes that using a particular system would be free of effort” (Davis 1998) Perceived ease of use (PEOU) refers to the degree to which a person believes that using a particular system would be free of effort (Davis, 1989). PEOU has received enormous attention in the IT adoption studies. Chen et al., (2002), Childers et al., (2001) and Heijden et al., (2001) found that PEOU influences attitudes toward online shopping.

PERCEIVED BEHAVIORAL CONTROL

The construct of control reflects beliefs regarding the availability of resources and opportunities for performing the behavior as well as the existence of internal/external factors that may impede the

behavior(Ajzen, 1991). Perceived behavioral control is important in explaining human behavior since an individual who has the intentions of accomplishing a certain action may be unable to do so because his or her environment prevents the act from being performed. In the context of online ticketing in Ethiopia, computer access, Internet access and availability of assistance for passengers who intend to purchase tickets online in Ethiopia are all behavioral control factors that are important in facilitating the E-ticketing behavior.

AWARENESS

According to (Sathye 1999), customers go through “a process of knowledge, persuasion, decision and confirmation” before they are ready to adopt a product or service. The adoption or rejection of an innovation begins when “the customers becomes aware of the product”.

Customers must become aware of the new brand or technology. An important characteristic for any adoption of innovation service or product is creating awareness among the customers about the service or product (Sathye 1999).

PERCEIVED TRUST

Refers to the confidence a person has in his or her favorable expectations of what other people will do, based, in many cases, on previous interactions (Gefen, 2000). A significant number of studies (George 2002, Heijden et al., 2001, Jarvenpaa et al., 2000, Pavlou and Chai 2002) found that trust is a salient determinant of online shopping attitude. Moreover, Lynch et al., (2001) found that trust significantly affects a potential consumers’ intention to shop online. Therefore, adding the concept of trust to our model will improve the predictive ability of the model to investigate the driving factors of E-ticketing adoption in our country.

RELATIVE ADVANTAGE

The notion of relative advantage is concerned with the extent to which an innovation is perceived by potential adopters as being superior from the idea, product or service it supersedes (Rogers, 1983). The construct of relative advantage is highly domain specific, although dimensions that are found to have some generality include reduced costs and greater convenience. A key issue is that it is not the better performance of an innovation

in an objective sense that matters, but rather the superiority of performance as subjectively perceived by the customer (Szymigin and Bourne, 1999).

PERCEIVED RISK

Perceived risk refers to a consumer’s perceptions of uncertainty and adverse consequences of buying from the web (Grazioli and Jarvenpaa 2000). Prior studies (Heijden et al., 2001; Jarvenpaa and Todd 1996) found that perceived risk had a strong impact on attitude. Moreover, Heijden et al., (2001), Pavlou (2001) and Tan and Teo (2000) found that perceived risk affects intention to shop online significantly. Similarly, Miyazaki and Fernandez (2001) found perceived risk had a significant impact on online purchasing behavior. Uncertainty plays a role in adoption

decision in the form of perceived risk (Shimp and Bearden, 1982) and this construct is expected to be of considerable significance in relation to service adoption.

RESEARCH METHODOLOGY

The below research model is the modification and combination of extended Technology Acceptance Model (TAM) (Davis, 1989)

In the modified model, Relative Advantage, perceived Usefulness, Perceived ease of use, perceived Behavioral control, Awareness and Perceived Risk are the independent variables whereas Use of e-tickets in EAL is identified as the dependent variable. The independent variables of security and privacy in the model of Chen and Barnes are merged under Perceived Risk and a schematic of the model is shown in figure 1.

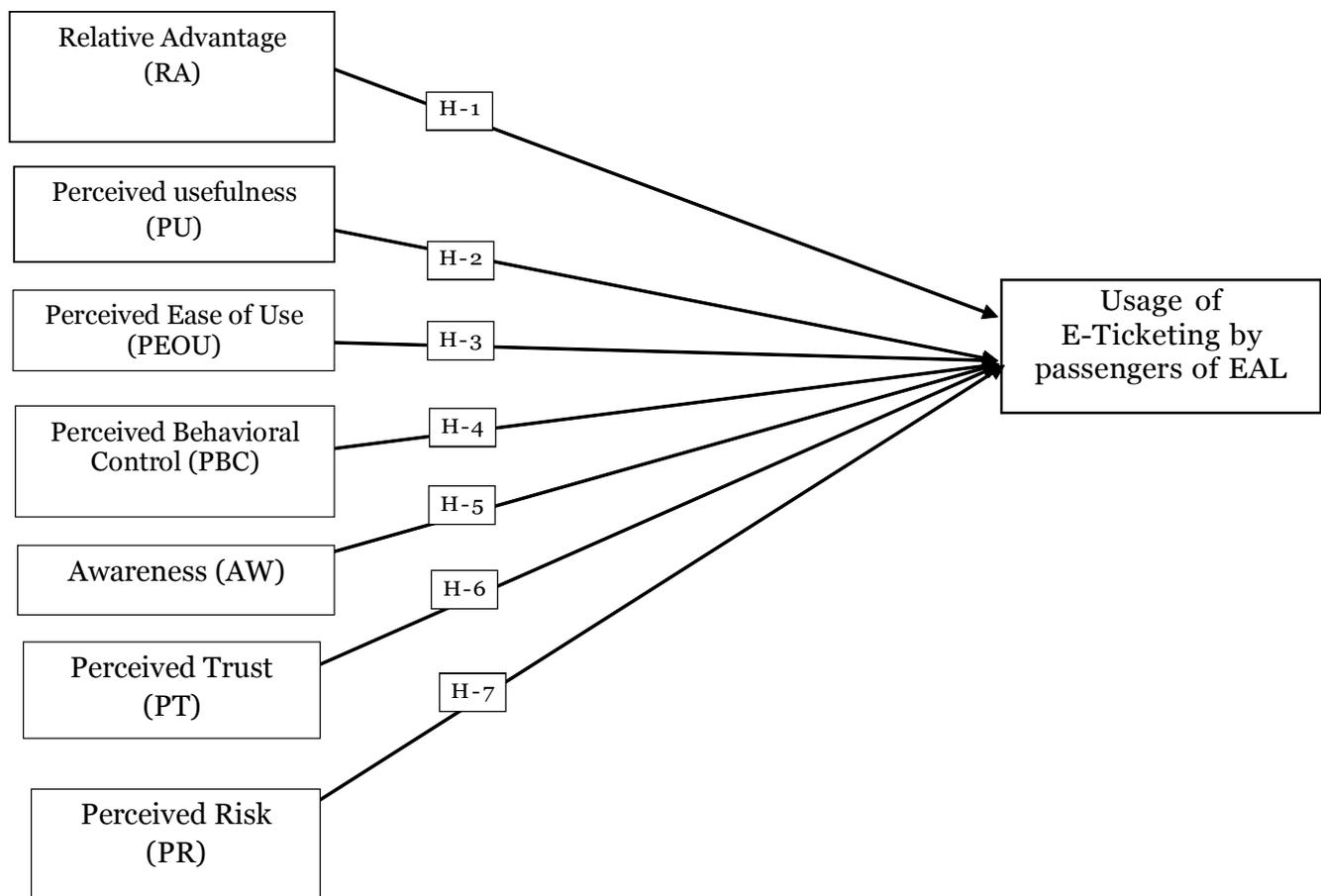


Figure 1: A Modified Conceptual Framework for the Study (Davis, 1989)

In this study, the primary data had been collected through 399 valid questionnaire surveys from target respondents of passengers who travelled using Ethiopian Airlines above the age of 18 years old on international flights. The instrument was structured based on the study variables and survey was carried out from 25th of Oct - 10th Nov 2018. A total of 420 questionnaires were distributed and 21 were found to be invalid and were excluded in the analysis. Statistical Package for social Science (SPSS v20) was used to generate the actual results on frequency tables while descriptive analysis was used to analyze and describe the findings. In addition, logistic regression was used to determine the extent to which identified factors affect usage of online flight booking in Ethiopian Airlines.

A quantitative research approach is appealing for this study because the research problem tends to be explanatory which seeks to explain the relationship between E-Ticketing adoption and its affecting factors, to achieve the objectives of the study and to test the hypothesis.

Jonker and Pennink (2010) contended that the essence of quantitative research is to use a 'theory' to frame and thus understand the problem at hand.

Based on the data obtained from Ethiopian Airlines *Selamta* magazine (Nov/December 2018) EAL has reached its 10,000,000 passengers for the year 2018. Therefore, the target population will be the total number of passengers travelling annually using EAL. As the entire population size is very large, the researcher has used a sampling frame of the total number of passengers who used EAL within two weeks of Oct 25th–Nov 10th 2018. As per the data from Ethiopian Airlines marketing department the number of passengers that travelled with in the 2 weeks is equal to 318,456. Then, a simplified formula by Yamane (1967), was used to calculate sample sizes with a 95% confidence level and precision $P = 0.05$.

$n = N/1 + Ne^2$ Where n = sample size

N = population size

e = Error of 10 %

Sample size $n = 302,040 / 1 + (302,040 * (0.05)^2)$

Sample size $n = 399.52$ passengers.

In this research study, probability and non-probability sampling technique of random and convenience sampling was used in which all the targeted respondents have been reached most

conveniently and the survey questionnaire was distributed on willingness basis.

DESCRIPTIVE ANALYSIS

Descriptive analysis is used to describe and explain the information of sample collected and summarizes a given data set, which can either be a representation of the entire population or a sample. The measures used to describe the data set are measures of central tendency and measures of variability or dispersion.

FREQUENCY DISTRIBUTION

Frequency distribution is used for obtaining a count of the number of responses associated with different values of one variable and to express these count into percentage terms. Frequency distribution is used to analyze respondents demographical profile in part A such as gender, age, Travel experience, occupation, residence and education level as well as general information in part B. In addition, the mean and standard deviation are measures of central tendency which are used to analyze data collected in the Section II of the questionnaire.

SCALE MEASUREMENT

Scale measurement is used mainly to verify quality of the data collected and this can be determined by the reliability level of the data.

LOGISTIC REGRESSION

Logistic Regression attempts to investigate the relationship between two or more independent variables and a dependent variable that is dichotomous while keeping all the other variables constant. For this type of dependent variable there are only two categories to predict. In this study the dependent variable (Usage of E-ticketing) takes one of the two values of usage or non usage. Logistic regression also accommodates independent variables that scaled end of a ratio scale ordinal or nominal.

In this study, whether an individual chooses to adopt E-Ticketing or not adopt E-Ticketing falls into the realm of two choices. Probabilities have to be between zero and one.

In logistic regression, we can write the equation in terms of log odds (logit) which is a linear function of the predictors. The coefficient β_1 is the amount of the logit (log odds) change with a

one unit change in ‘X’. The logistic formulas are stated in terms of the probability that Y=1 which is referred as \hat{p} . The probability that Y is 0 is $1-\hat{p}$

$$\ln (\hat{p} / 1-\hat{p}) = \beta_0 + \beta_1 X$$

The ‘ln’ is a symbol to a natural logarithm and $\beta_0 + \beta_1 X$ is our familiar equation for the regression line. ‘P’ can be computed from the regression equation also. Therefore the regression equation is known then theoretically it’s possible to calculate the expected probability that Y=1 for a given value ‘X’

$$P = \frac{\exp (\beta_0 + \beta_1 X)}{1 + \exp (\beta_0 + \beta_1 X)} = \frac{e^{\beta_0 + \beta_1 X}}{1 + e^{\beta_0 + \beta_1 X}}$$

Pearson’s Correlation Analysis

Pearson’s correlation analysis is used to indicate the strength and direction of relationship between two variables. In this study, this analysis is chosen to measure the co-variation between the seven independent variables and travelers’ usage of e-ticketing for EAL. The correlation coefficient determines how the value of one variable changes when the value of another variable changes.

Multicollinearity Test

Multicollinearity occurs when independent variables are correlated. If two independent variables are correlated then its difficult to keep the other independent variable constant. When

multicollinearity arises, the ability to define any variable’s effect is diminished (Hair et al., 2010). Independent variables should be *independent*. The acceptable level of correlation between each pair of the independent variables should be at 0.80 or less (Bryman & Cramer, 1999).

During multicollinearity test PBC was found to have value above 80 and it was omitted for the rest of the analysis and hypothesis

Cox & Snell R Square & Nagelkerke Analysis

The R Square refers to the percentage of the response variable variation. These variations take a value between 0 & 100%. The higher the R square the better the model fits the data entered.

RESULTS AND DISCUSSIONS

Descriptive Analysis

Usage of EAL E-Ticketing services

Based on results of respondents replies 46.6% of the respondents are using E-Ticketing system and 47.4% started using it regularly after they had the awareness. Only 26.3% of the respondents have the mobile app on their smart devices and 93% of the respondents claimed that they didn’t encounter risk related issue after they started using it. 73.7% believed that attitude has an effect on usage of E-ticketing system. 59.6% of travelers felt that the promotion is appealing enough which leaves the rest of the 40.4% thinking the

Table 1: Response of Respondents on Dependent Variables of E-Ticketing Adoption

		Response	Frequency	Percent
ETU1	Do you use the E-ticketing system?	YES	186	46.6%
		NO	213	53.4%
ETU2	Did you use the E-ticketing system once you were aware of its existence?	YES	189	47.4%
		NO	210	52.6%
ETU3	Do you have the E-ticketing mobile application on your smart device?	YES	105	26.3%
		NO	294	73.7%
ETU4	Did you encounter any risky or security related issue after using the system?	YES	28	7%
		NO	371	93.0%
ETU5	Does your attitude towards change affect your uptake or usage of E-Ticketing system?	YES	105	26.3%
		NO	294	73.7%
ETU6	Do you find the promotion system appealing enough for usage of E-Ticketing system?	YES	161	40.4%
		NO	238	59.6%
ETU7	Does your travel experience influence your usage of E-Ticketing system?	YES	238	59.6%
		NO	161	40.4%

Source: own Survey results (November 2018)

promotion was not good enough. Almost 60% of travelers approved that Travel experience has an effect on usage of the E-Ticketing system.

Understanding the frequency with which certain services provided under E-Ticketing are used by travelers is important and provides useful feedback for management of EAL. This is because it could give an indication whether the service is meeting travelers' needs or not, whether travelers know how to use the service and simply whether it adds value providing it or not.

Factors Affecting E-Ticketing system usage in EAL

It is important for Ethiopian Airlines to understand the factors which affect the usage of E-Ticketing in order to be able to provide services which meet the customers' expectations and needs. Passengers were also requested to rate how important the identified factors were in influencing their decision to purchase their tickets online, ranging from STRONGLY AGREE to STRONGLY DISAGREE on a numerical scale. The results of the responses were as shown in the table 2.

Table 2: Factors Affecting Passengers' Decision to Purchase Tickets Online

Independent variable	N	Mean	Standard deviation
RA	399	1.9474	0.82387
PU	399	2.6249	1.17099
PEOU	399	2.2573	0.85951
PBC	399	2.6249	1.17099
PT	399	2.7076	0.48856
AW	399	1.5848	0.2673
PR	399	3.3816	1.01011

Source: Survey results on SPSS (November, 2018)

Scale: 1 = Strongly Agree, 2= Agree, 3 = Neutral, 4 = Disagree, 5 = Strongly Disagree

From the above table based on the average mean score calculated from the passengers' responses, the respondents agreed that Awareness is the major factor that affects usage of E-Ticketing with a mean of 1.58 where most passengers Strongly Agreed. The second major factor is Relative

Advantage with 1.94. Perceived ease of use on the 3rd place, while Perceived Behavioral Control has the same value with Perceived Usefulness with 2.62 at 4th rank as per the travelers' responses. The 6th and the 7th factors which influences passenger's usage of E-Ticketing for EAL is perceived Trust and perceived risk. Therefore, in this study Perceived Risk is the least factor that affects E-Ticketing Usage.

LOGISTIC REGRESSION ANALYSIS

Table 3: Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	444.410 ^a	.235	.314

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

R square refers to the percentage of variance in the dependent variables that the independent variables explain. The value of R square shows the percentage of the response variable between the value of 0 and 100%. According to Cohen (1992) R-square value .12 or below indicate low, between 0.13 to 0.25 values indicate medium 0.26 or above values indicate high effect sizes. Therefore, the explained variation in the dependent variable based on the model ranges from 23% to 31%. Since Nagelkerke R Square is a modification of Cox & Snell, it is preferable to

report Nagelkerke R value equals 31% which means that 31% of the changeability of in usage of E-Ticketing has been explained by the independent variables taken together.

Accordingly, Relative Advantage was found to have statistically significant and positive relation with E-Ticketing usage. Holding other explanatory variables constant, perceived usefulness in this study has emerged to have statistically insignificant influence on customers usage of E-ticketing as its value of significance is greater than 0.05. Perceived Ease of use & Awareness also are found

Logistic Regression Results

Table 4: Variables in the Equation

		B	S.E.	Wald	Df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1 ^a	RA	.429	.198	4.718	1	.030	1.536	1.043	2.262
	PU	.128	.101	1.616	1	.204	1.137	.933	1.386
	PEOU	.559	.160	12.210	1	.000	1.748	1.278	2.391
	PT	.841	.244	11.924	1	.001	2.319	1.439	3.738
	AW	2.493	.493	25.566	1	.000	12.102	4.604	31.814
	PR	-.444	.154	8.362	1	.004	.641	.475	.867
	Constant	-6.944	1.275	29.644	1	.000	.001		

a. Variable(s) entered on step 1: RA, PU, PEOU, PT, AW, PR.

Scale: 1=Strongly Agree 2=Agree 3=Neutral 4=Disagree 5=Strongly Disagree

to have a high positive significant relationship while a negative significant relationship between perceived risk and E-Ticketing adoption was created

Discussions of Regression Results

The identified factors affecting E-Ticketing Adoption for EAL are Relative Advantage, Perceived usefulness, Perceived ease of use, Perceived Trust, Perceived risk and awareness. Therefore, based on the regression result table above.

H1: The significant value for RA is 0.03 (i.e. $p < 0.05$). Therefore, reject H_0 which indicates that there is a positive significant relationship between RA and E-Ticketing adoption in EAL.

H2: The significant value for PU is 0.204 (i.e. $p > 0.05$). Therefore accept H_0 which indicates a value greater than 0.05 and that there is a positive but statistically insignificant relationship between PU and E-Ticketing adoption in EAL.

H3: The significant value for PEOU is 0.000 (i.e. $p < 0.05$). Therefore, reject H_0 which indicates that there is a positive HIGH significant relationship between PEOU and E-Ticketing adoption in EAL.

H5: The significant value for PT is 0.001 (i.e. $p < 0.05$). Therefore, reject H_0 which indicates that there is a positive significant relationship between PT and E-Ticketing adoption in EAL.

H6: The significant value for Awareness is 0.000 (i.e. $p < 0.05$). Therefore, reject H_0 which indicates that there is a positive HIGH significant relationship between Awareness and E-Ticketing adoption in EAL

H7: The significant value for PR is 0.04 ($p < 0.05$). Therefore, reject H_0 which indicates that there is a negative significant relationship between Perceived Risk and passengers usage of E-Ticketing method in EAL.

CONCLUSION

This research aims to identify the factors that affect the use of E-Ticketing in EAL. In this research, the proposed conceptual model is supported by data collected from 399 respondents on Ethiopian Airlines flights. The results obtained from analysis conducted had put into a conclusion that hypotheses H1, H3, H5, and H6 have a positive significant relationship with adoption of E-Ticketing while H2 has a positive insignificant relationship and H7 has a negative significant relationship.

RECOMMENDATIONS

Recommendation for Action

EAL should continue to promote and advertise the E-Ticketing services in a better way, which allow users to have awareness of the advantage. EAL has to develop a system that will assure travelers the safety of buying flight tickets online and confirmation for transaction mistakes such as refund & compensation.

- The airline should emphasize in designing an application and website that will allow better features of purchase considering the exposures of the passengers from all over the world. Such as lifestyle, culture & language.

- The airline should focus on the non-users especially those who still show up at the travel agent should be given a new & clear view on the importance and advantages of using the E-Ticketing system.
- The airline should provide a means through which passengers can book their tickets online considering limited access to internet, smart device and payment systems they have in different countries.

Recommendation for future Research

This study may not have exhausted all the factors that affect E-Ticketing adoption. It is therefore recommended that:

- Further research should be done to unveil the other factors.
- Further research could also be done to evaluate how E-Ticketing contributes to the newly paperless movement of EAL that has been commenced recently on 2017.
- Further research could be done to assess the impact of E-Ticketing for the competitiveness of Ethiopian Airlines in the big aviation market and also how it can be used for profitability purposes, considering the objective of taking ticket offices out of the market.

This will help the airline to determine whether it is on the right track of utilizing technological innovation to reach the level of other airlines that have a limited number of ticket offices.

REFERENCES

- Ajzen, I. (1991). The theory of planned behavior. *Organization Behavior and Human Decision Processes*, 50 (2), 179-211,
- Burford, D. (1998). Secure electronic ticketing on the internet', Department of Computer Science, UCT.
- Childers, T. L., Carr, C. L., Peck, J., & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of Retailing*, 77(4), 511-535.
- Gefen, D., & Straub, D. W. (2000). The Relative Importance of Perceived Ease of Use in IS Adoption: A Study of E-Commerce Adoption. *Journal of Association for Information Systems*, 1(1), 1-10.
- Diggines, C. (2010). Passenger perceptions and understanding of the low-cost and full-service airline models in South Africa and the implications for service strategy. Retrieved online from https://www.academia.edu/24439611/Airline_Customer_Satisfaction
- Dasgupta, S., R. Paul, & Fuloria, S. (2011). Factors Affecting Behavioral Intentions towards mobile banking usage: empirical evidence from India. *Romanian Journal of Marketing*, 3(1), 6-28.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P.R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management Science*, 35(8), 982-1003.
- Davis, F. D. (1993). (1993). User acceptance of information technology: system characteristics, user perceptions and behavioral impacts, *International Journal of Man Machine Studies*, 38(3), 475 487.
- Intan Salwani, M. (2010). Empirical investigation on factors determining ecommerce usage and business performance in malaysia service industry. *Unpublished PhD dissertation*, Multimedia Universiti Malaysia.
- Kalakota, R., & Whinston, A.B. (1996). *Frontiers of Electronic Commerce* Reading, MA: Addison-Wesley
- Khormm. (2009). E-Commerce –AirAsia. Retrieved online <<http://www.scribd.com/doc/24332975/E-Commerce-AirAsia>>
- M.A., & Cude, B.J. (2000). Consumer response to online grocery shopping. *International Journal of Retail and Distribution Management*, 28(1), 17-26.

A Study of Mobile App Based Household Purchasing by Working Women in a Developing Country: An Empirical Validation of Theory of Planned Behaviour

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ABSTRACT

Mobile app based shopping is growing rapidly nowadays. The working women in developing country particularly India has to play the dual responsibility. At one end they are busy in their jobs while in other end they have to take care about household duties. The mobile app based household purchasing provide the convenient way to the working women in developing country to maintain the responsibilities. The prevalence of app based purchasing has raised the interest of the retailers to focus on this area. Therefore, the theory of planned behaviour applied to determine the relationship between attitude, subjective norm, perceived behaviour control and mobile app based purchasing as well as the purchase intention. The working women in major cities of Madhya Pradesh above 18 years old were selected as the subject of analysis. 325 out of 500 sets of questionnaires distributed were valid for coding, analyzing and testing the hypothesis. Collected data were then analyzed using SPSS version 20.0. The multiple regression analysis used to examine the model fits and hypothesis testing. The conclusion can be depicted that attitude, subjective norm and perceived usefulness significant positively influence online purchase. Finding also revealed that purchase intention positively influence online shopping behavior. In the end the implications, and future research direction for the study was also presented.

Keywords: Theory of Planned Behaviour, Mobile Apps, Online Purchasing, India, Subjective Norms.

INTRODUCTION

Due to the convenient availability of internet, mobile app based purchasing has become an indispensable part of every working women lives in the developing country. India is the rapidly growing market for e-commerce because of young population and increasing internet penetration. 77 per cent of urban users and 92 per cent of rural users consider mobile as the primary device for accessing the internet, largely driven by availability, affordability of smartphones and the smartphone users in India are expected to reach 700 million by 2020 (IBEF, 2018).

Earlier food and grocery were never thought of as items for online trading. However, with the change of working habits, and consumers opting for adaptability and convenience, there are now innumerable small and large E-commerce companies selling provisions and food items. Mobile platforms have emerged as a major gateway for customer purchases as smartphones are increasingly replacing PCs for online shopping. In the present scenario mobile based application (mobile apps) are the most important facility used by Indians to make shopping (Livemint, 2016). As per the report of India brand equity foundation (IBEF, 2018), the country e-commerce revenue is expected to grow from US\$ 39 billion in 2017 to US\$ 200 billion in 2026 and internet users in India are expected to increase from 429.23 million as of September 2017 to 829

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million by 2021 and presently there are 1-1.2 million transactions per day in e-commerce retailing in the country. Government initiatives like Digital India, Make in India, Start-up India, Skill India and Innovation Fund are constantly introducing people to online modes of commerce and lure people through reward schemes i.e. Lucky Grahak Yojana and Digi-Dhan Vyapar Yojana and the number of online shoppers is expected to go up to 175 million by 2020((IBEF, 2018).

Shukla & Sharma (2018), presented that the consumers are adapted the technology in general but for grocery purchasing through mobile app is limited in India. Thus this study is an attempt to conduct the study particularly working women for household purchasing to test empirically the theory of planned behaviour in the context of developing country like India.

The article is organised as in the second section theoretical framework and hypothesis development was presented. In the third section research methodology was presented. In the fourth section the result analysis were presented. In the fifth section the discussion on the finding were presented. In the end the conclusion, recommendations, limitations and future research scope of the study was presented.

OBJECTIVES

The objectives of this study are

1. To determine the mobile apps application in household purchasing by working women

2. To empirically test the theory of planned behaviour with reference to mobile app based household purchasing by working women in India.

THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

With the increasing Internet penetration and flexible payment modes, such as cash on delivery, being used widely nowadays, online shopping is becoming the new way of shopping in India. The online shopping provides 24x7 conveniences in shopping, decreased dependence on store visits, saving travel costs, widening market area, lowering overhead expenses, supporting customer relations and offering broad range of products (services) have made it an even more popular medium of shopping for working women. The theory of planned behaviour was the main theory used for explaining the mobile app based household purchasing in the research work. Theory of planned behaviour was developed on the basis of reasoned action (Fishbein & Ajzen, 1975). This theory argues that attitude, subjective norms and perceived behaviour control affects the behaviour intention which in turn affects the actual behaviour of an individual. The theory of planned behaviour (TPB) has been widely used in literature to explain the online consumer behavior (Lu et al., 2009; Pavlou & Fygenon, 2006, Yeon Kim & Chung, 2011; Yang, 2012). Thus following theoretical model is proposed for the current study.

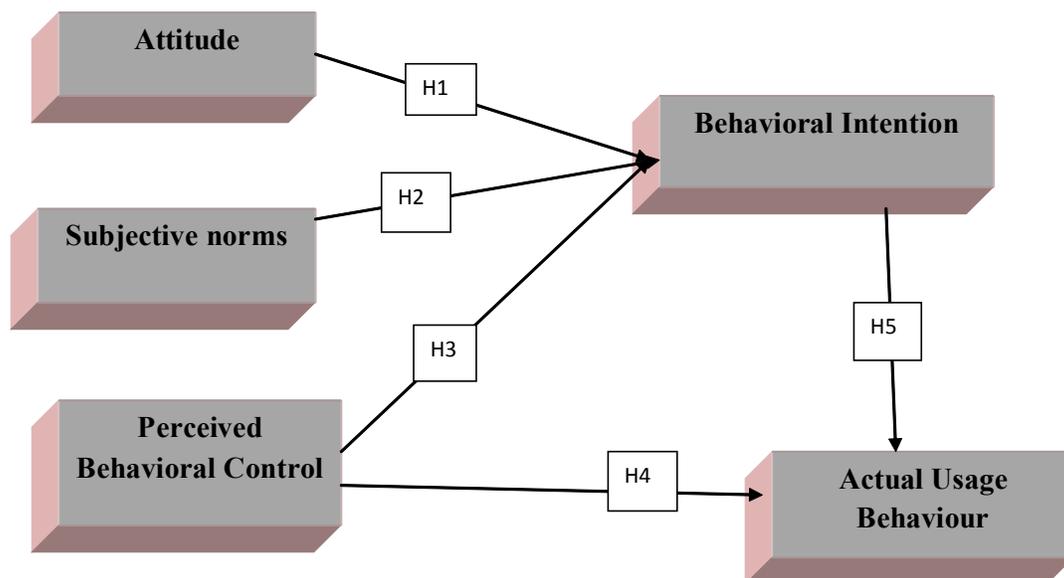


Figure 1: Proposed Theoretical Framework

ATTITUDE AND BEHAVIOUR INTENTION

Attitude is defined as an individual's overall evaluation of performing a behavior. According to the TPB, attitude impacts users' behavioral intention, which in turn influences their actual behavior. When consumers perceive that mobile app based shopping services and functions are useful in facilitating their purchasing, the perception generates a positive feeling toward mobile app based purchasing adoption. The mobile app based purchasing environment which is supported by new technology applications and immediate interactions with service encounters may generate a positive attitude toward its adoption. In addition, numerous studies have supported attitude as a significant predictive variable of behavioral intention (e.g., Dickinger and Kleijnen, 2008; Kang et al., 2006). Fong and Wong (2015) found attitude to be the key factor in determining behaviour of consumer towards use of mobile apps. The previous studies confirm that attitude is significantly associated with behaviour intention in mobile shopping (Yang, 2012, Kim et al., 2011, Moon & Domina, 2015; Shukla & Sharma, 2018). Thus, following hypothesis is proposed-

H1: Working women attitude is positively associated with behaviour intention to make app based household purchasing

Subjective Norms and Behaviour Intention

Subjective norm refers to users' perception of whether other important people perceive they should engage in the behavior. It is the perceived social pressures an individual faces when deciding whether to behave in a certain way. Several studies of information system domain have confirmed the saliency of subjective norms in user decision-making processes in its adoption and use environment (Kim & Han, 2009) and found the strong and significant relationship with behavioural intention (Kim, 2010; Sykes et al., 2009). The users may recommend a service to others when they are satisfied with the service thus, references are credible sources influencing consumer adoption decisions. The others influence on the adoption of mobile shopping impacts consumer intention to adopt mobile shopping because users' adoption of technology is influenced by referent group norms (Kulviwat et al., 2009; Yang, 2012, Kim et al., 2011). Though, the relationship between subjective norms and intentions showed the mixed results in the literature. The study of Mathieson

(1991) found no significant relationship of subjective norm and intention, whereas Taylor and Todd (1995) did find a significant relationship. Hence, the following hypothesis is proposed-

H2: Subjective norm is positively related to behavioural intention to use mobile app for household shopping

Perceived Behavioural Control and Behaviour Intention

Perceived behavioral control refers to a user's perception of how easy or difficult it would be to perform a certain behavior (Ajzen, 1991). Perceived behavioral control describes users' perception if they have the necessary resources, capability, and a sense of control in successfully performing the behavior. Although mobile apps are relatively ease-to-use technology, users still need to have the basic Internet skills to use it. When users have the necessary resources and capabilities in using mobile apps, they feel in control, which increases the level of continuance intention toward it. In addition, compared with conventional purchasing, such as physically visiting the store, mobile app based purchasing is done on the Internet – a virtual space. This may sometimes arouse their anxiety of control and negatively influence their behavioral intention. When consumers perceive that technology is in their control, they perceive that they can control their task process and the perceptions will further increase consumer confidence about the outcome (Bateson and Hui, 1987). The previous literature confirms the significant relationship between perceived behaviour control and behavioural intention (Kim, 2010; Yang, 2012). Perceived behavioral control may have a direct impact on the actual usage behavior (Ajzen, 1991). This means that even if users have a strong intention to use mobile app, they will not adopt the technology when they lack the necessary resources, skills, and sense of control. Hernandez et al., (2009) presented that individuals who felt they had the capability of purchasing online would perceive online shopping as easier to use. Thus, following hypothesis is proposed -

H3: Perceived behavioral control is positively related to the behavioral intention to use mobile app for household shopping

H4: Perceived behavioral control is positively related to the actual mobile app usage.

Behavioral Intention and Actual Usage

In the literature behavioural intentions have been found to be the strong predictor of actual usage of information technologies (e.g. Davis et al., 1989; Venkatesh et al., 2003) and of online shopping (e.g. Ajzen, 2011; Lin, 2007; Pavlou & Fygenson, 2006).

H5: Behavioral intention toward using mobile app is positively related to the actual mobile app usage.

RESEARCH METHODOLOGY

To test the model, the study carried out a survey based on respondents' retrospective online purchasing experience. This is appropriate because online purchase behaviors are memorable events that can be recalled by customers (Grégoire & Fisher, 2006). The participants were instructed to complete the survey questionnaire only if they had online buying experience, and the product was for household use. This solved the problem of respondents answering questions related to purchases they had carried out. The survey data was collected from a sample of working women in public sector/ private sector in the major cities

of Madhya Pradesh India. The questionnaire was developed with the help of previous literature to enhance the validity of the questionnaire. The items in the questionnaire were taken from the previous studies (Rauniar et al., 2014; Wu and Wang, 2005; Taylor & Todd, 1995; Fishbein and Ajzen, 1975; Mun et al., 2006; Rawstorne et al., 2000; Chau and Hu, 2002; Moon & Kim, 2001; Al-rahmi & Othman, 2013; Venkatesh & Davis, 2000) and shown in appendix in the end. All items used a five-point Likert-type scales anchored from 1 (strongly disagree) to 5 (strongly agree). Before conducting the survey, the survey measurements were reviewed by experts to identify problems in the wording, sequencing, content, and any ambiguities in the questions. The data were collected via a paper-based survey in India from the working women/girls. Nearly 500 questionnaires were initially distributed, and 340 responses were eventually received. 15 responses were discarded due to incomplete or invalid answers on them; thus, the final number of valid responses was 325. The ages of the respondents in the final sample ranged from 25 and above. Table 1 presents the demographic data of the respondents in the final sample.

Table 1: Demographic Profile of the respondents

Demographics	Items	Frequency	Percentage
Age	25-30	79	24.31
	31-35	134	41.23
	36-40	67	20.62
	40-45	36	11.08
	above 45	9	2.77
Job	Private	291	89.54
	Public	34	10.46
Mobile app based usage experience for household purchasing	less than 2 years	78	24.00
	2-5 years	178	54.77
	above 5 years	69	21.23

RESEARCH RESULTS

The research model was tested using multiple regressions through SPSS 20. The internal reliability of the items was verified by computing the Cronbach's alpha (Nunnally, 1978). Nunnally suggested that a minimum alpha of 0.6 sufficed for early stages of research. The Cronbach's alpha estimated for attitude was 0.711, subjective norm was 0.770, perceived behavioral control was 0.728, behavioral intention scale was 0.674 and actual usage behavior was .787. As the Cronbach's alpha in this study were all much higher than 0.6, the constructs were therefore deemed to

have adequate reliability.

Normality of Data and Multicollinearity

This study involves a relatively large sample (325 respondents) and therefore, the central limit theorem could be applied and hence there is no question on normality of the data. Two major methods were utilized in order to determine the presence of multicollinearity among independent variables in this study. These methodologies involved calculation of both a tolerance test and variance inflation factor (VIF). None of the

tolerance levels is ≤ 0.01 ; and all VIF values are well below 10 as shown in table 2.

Table 2: Multicollinearity Results

Variables	Tolerance	VIF
Attitude	.552	1.811
Perceived Behaviour Control	.562	1.779
Subjective Norms	.896	1.116

Hypothesis Testing

The table 3 and table 4 provided the results obtained from multiple regression analysis to evaluate the strength of the proposed relationship. The individual hypothesis were tested using the guidelines prescribed by Hair et al.(1998) and followed to predict the regression model with mobile app based purchase intention as the dependent variable as shown in table 3 and table 4. The results obtained, as shown in

Table 3 and in model summary, revealed that H1-H3, were found to be significant in the prediction model. The results provide support for hypotheses H1-H3, that is, the relationship between attitude ($\beta = 0.625$ and $p \leq 0.05$), subjective norm on house hold purchase intention ($\beta = 0.193$ and $p \leq .05$), and perceived behavioral control house hold purchase intention ($\beta = 0.146$ and $p \leq .05$).

The results obtained, as shown in Table 4, revealed that H4 and H5 were found to be significant in the prediction model. The results provide support for hypotheses H4 and H5, that is, the relationship between perceived behaviour control and actual behavior ($\beta = 0.157$ and $p = 0.019$) and purchase intention and actual behavior ($\beta = 0.193$ and $p \leq .05$), and perceived behavioral control house hold purchase intention ($\beta = 0.205$ and $p = 0.002$).

Table 3: Regression Results

Variables	Standardized Coefficients	t Value	P value
	Beta		
(Constant)		-.097	.923
Attitude	.625	14.221	.000
Perceived Behaviour Control	.146	3.343	.001
Subjective Norms	.193	5.598	.000

a. Dependent Variable: Behaviour Intention

Table 4: Regression Results

Variables	Standardized Coefficients	t value	P value
	Beta		
(Constant)		8.847	.000
Perceived Behaviour Control	.157	2.364	.019
Behaviour Intention	.205	3.079	.002

Dependent Variable: Actual Usage Behaviour

DISCUSSIONS

The main objective of this study was to explore how the TPB could facilitate in predicting the intention to make household purchasing using mobile apps in India. The study results show that the TPB model could explain 65.8 percent of the variance in the intentions to purchase household products. The model was statistically significant and this study results demonstrates, once again, the robustness of the TPB for helping to explain purchasing intention. Other studies have also successfully used the TPB as a theoretical framework from which to examine the purchase intention (Madahi & Sukati, 2016).

The study depicted that attitude has a significant and positive effect on household purchase intention using mobile apps. Attitude is an important factor in influencing consumer intention in purchasing household products because those with high positive attitudes appeared to have greater intentions to intent to purchase. Social pressure may compensate for high favorable attitudes in building intentions to purchase household items in such culture. The results are well supported by previous studies as well (Madahi & Sukati, 2016; Shah Alam & Mohamed Sayuti, 2011).

Consistent to the study of Karijin et al. (2007), the research found that subjective norm was

positively and significantly related to intention. This study also confirms other studies like Kamariah and Muslim's (2007) which found subjective norms to be important.

The study also confirmed that perceived behavioral control has a significant effect on house hold purchasing intention. The relationship is a positive relationship which means that the greater impact of control in explaining variability in behavior is not unusual. Ajzen (1991) suggested that control could directly affect behavior by increasing effort to goal achievement.

CONTRIBUTION OF THE STUDY

In the current study, TPB served as a useful foundation for helping explain mobile app based shopping. The relationship between attitudes towards mobile app based purchasing and the actual behavior was strong and positive. The direct relationship in TPB between perceived behavioral control and behavior was supported here. Typically in TPB models, the effects of subjective norms on behavior would be mediated by intention instead of the direct relationship posited here. As more and more studies of online purchasing behavior and its antecedents are done within the TPB framework, we are more able to discover and confirm which antecedents are most important helping us build a robust theory of mobile app based purchasing behavior. From a practical perspective, we will be better able to advise app developers on the elements they need to address in order to increase their usefulness and trustworthiness. The developers can focus on promoting the apps as trustworthy, and in doing so, they can generate positive attitude sonline purchasing.

IMPLICATION OF FINDINGS

From a theoretical perspective, the results of this paper have an important implication for the theory of planned behaviour. The TPB model appeared to effectively predict household purchase intention among working women in India. Past research may provide guidance in developing these perceptions, beliefs, and attitudes. Thus, an individual with a confident command of mobile app skills and familiarity with the Internet is more inclined to adopt Internet shopping.

LIMITATIONS AND DIRECTIONS OF FUTURE RESEARCH

The sample was selected based on purposive sampling, and therefore precautions should be

taken before generalizing the results. The study was conducted in Indian context and cross-cultural issues were not addressed. The study can be further tested in other countries as well. Research is needed on application of TPB in other countries. Modification of the model may help to maximize their predictive efficacy (Moon and Kim, 2001). Other variables can be included for future research, such as other aspects of trust, moral obligation, habit, and self-identity (Karijin et al., 2007). Valid and reliable scales for these constructs need to be developed in order to include them in future research (George, 2002).

REFERENCES

- Ajzen, I. (1991). Theory of planned behavior. *Organization Behavior and Human Decision Process*, 50(1), 179-211.
- Kearney, A.T. (2015). *The 2015 Global Retail E-Commerce Index: Global Retail E-Commerce Keeps On Clicking*. Chicago: A.T. Kearney.
- Al-rahmi, W., & Othman, M. (2013). Using TAM model to measure the use of social media for collaborative learning. *International Journal of Engineering Trends and Technology (IJETT)*, 5(2), 90-95.
- Bateson, J.E.G., Hui, M.K., 1987. Perceived control as a crucial perceptual dimension of the service experience: an experimental study. In: Surprenant, C.F. (Ed.), *Add Value to Your Service.. American Marketing Association*, Chicago, 187-192.
- Chau, P. Y., & Hu, P. J. (2002). Examining a model of information technology acceptance by individual professionals: an exploratory study. *Journal of management information systems*, 18(4), 191-229.
- E-commerce report. (2018). <https://www.ibef.org/download/Ecommerce-Report-Jan-2018.pdf> << downloaded on 31/8/2018>>
- Fong, K. K., & Wong, S. K. S. (2015). Factors influencing the behavior intention of mobile commerce service users: an exploratory study in Hong Kong. *International Journal of Business and Management*, 10(7), 39-47.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Addison-Wesley.
- Grégoire, Y., & Fisher, R. J. (2006). The effects of relationship quality on customer retaliation. *Marketing Letters*, 17(1), 31-46.

- George, J.F. (2002). Influences on the intent to make internet purchase. *Internet Research: Electronic Networking Applications and Policy*, 12(2), 165-80.
- Hernandez, B., Jimenez, J., & José Martín, M. (2009). Adoption vs acceptance of e-commerce: two different decisions. *European Journal of Marketing*, 43(9/10), 1232-1245.
- Karijin, B., Iris, V., Florence, B.B. & Wim, V. (2007). Determinants of halal meat consumption in France. *British Food Journal*, 109(5), 367-86.
- Kamariah, N. and Muslim, N. (2007). The application of theory of planned behaviour (TPB) in internet purchasing: using SEM. *International Conference on Marketing and Retailing*, Petaling Jaya, 196-205.
- Kulviwat, S., Bruner II, G. C., & Al-Shuridah, O. (2009). The role of social influence on adoption of high tech innovations: The moderating effect of public/private consumption. *Journal of Business Research*, 62(7), 706-712.
- Kim, K. K., Shin, H. K., & Kim, B. (2011). The role of psychological traits and social factors in using new mobile communication services. *Electronic Commerce Research and Applications*, 10(4), 408-417.
- Kim, B., & Han, I. (2009). What drives the adoption of mobile data services? An approach from a value perspective. *Journal of Information Technology*, 24(1), 35-45.
- Kim, B. (2010). An empirical investigation of mobile data service continuance: Incorporating the theory of planned behavior into the expectation–confirmation model. *Expert systems with applications*, 37(10), 7033-7039.
- Lin, H. F. (2007). Predicting consumer intentions to shop online: An empirical test of competing theories. *Electronic Commerce Research and Applications*, 6(4), 433-442.
- Lu, Y., Zhou, T., & Wang, B. (2009). Exploring Chinese users' acceptance of instant messaging using the theory of planned behavior, the technology acceptance model, and the flow theory. *Computers in human behavior*, 25(1), 29-39.
- Moon, J.W. & Kim, Y.G. (2001). Extending the TAM for a world wide web context. *Information & Management*, 38(4), 217-30.
- Moon, E., & Domina, T. (2015). Willingness to use fashion mobile applications to purchase fashion products: A comparison between the United States and South Korea. *Journal of Textile and Apparel, Technology and Management*, 9(3), 1-15
- Madahi, A., & Sukati, I. (2016). An Empirical Study of Malaysian Consumers' Channel-switching Intention: Using theory of Planned Behaviour. *Global Business Review*, 17(3), 489-523.
- Mun, Y. Y., Jackson, J. D., Park, J. S., & Probst, J. C. (2006). Understanding information technology acceptance by individual professionals: Toward an integrative view. *Information & Management*, 43(3), 350-363.
- Mathieson, K., 1991. Predicting user intentions: comparing the technology acceptance model with the theory of planned behavior. *Information Systems Research*, 2 (3), 173–191.
- Moon, J. W., & Kim, Y. G. (2001). Extending the TAM for a World-Wide-Web context. *Information & management*, 38(4), 217-230.
- Pavlou, P. A., & Fygenson, M. (2006). Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior. *MIS quarterly*, 115-143.
- Pavlou, P. A., & Chai, L. (2002). What drives electronic commerce across cultures? Across-cultural empirical investigation of the theory of planned behavior. *J. Electron. Commerce Res.*, 3(4), 240-253.
- Rauniar, R., Rawski, G., Yang, J., & Johnson, B. (2014). Technology acceptance model (TAM) and social media usage: an empirical study on Facebook. *Journal of Enterprise Information Management*, 27(1), 6-30.
- Rawstorne, P., Jayasuriya, R., & Caputi, P. (2000). Issues in predicting and explaining usage behaviors with the technology acceptance model and the theory of planned behavior when usage is mandatory. In *Proceedings of the twenty first international conference on Information systems* 35-44.
- Shah Alam, S., & Mohamed Sayuti, N. (2011). Applying the Theory of Planned Behavior (TPB) in halal food purchasing. *International journal*

of Commerce and Management, 21(1), 8-20.

- Sykes, T. A., Venkatesh, V., & Gosain, S. (2009). Model of acceptance with peer support: A social network perspective to understand employees' system use. *MIS quarterly*, 371-393.
- Shukla, A., & Sharma, S. K. (2018). Evaluating Consumers' Adoption of Mobile Technology for Grocery Shopping: An Application of Technology Acceptance Model. *Vision*, 22(2), 185-198.
- Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information systems research*, 6(2), 144-176.
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management science*, 46(2), 186-204.
- Wu, J. H., & Wang, S. C. (2005). What drives mobile commerce? An empirical evaluation of the revised technology acceptance model. *Information & management*, 42(5), 719-729.
- Yang, K. (2012). Consumer technology traits in determining mobile shopping adoption: An application of the extended theory of planned behavior. *Journal of Retailing and Consumer Services*, 19(5), 484-491.
- Yeon Kim, H., & Chung, J. E. (2011). Consumer purchase intention for organic personal care products. *Journal of consumer Marketing*, 28(1), 40-47.

APENDIX – SCALE ITEMS

Constructs	Items	Sources
Attitude	1. Using mobile app is a good idea for household purchasing.	Taylor & Todd, 1995; Fishbein and Ajzen, 1975
	2. I like using mobile app for household purchasing.	
	3. Using mobile app for household purchasing is a wise idea	
	4. I believe it would be advantageous to use my mobile device in my grocery shopping process.	
	5. I think it would be a good idea to use a mobile device when shopping for groceries.	
	6. I think it would be positive to be able to use my mobile device when shopping for groceries.	
Subjective Norms	1. The people who influence my behavior think I should use mobile app for household shopping	Mun et al., 2006; Rawstorne et al., 2000
	2. The people who are important to me think I should use mobile app for household shopping	
	3. The people whose opinions I value think I should use mobile app for household shopping	
	4. Colleagues who are important to me think I should use mobile app for household shopping	
	5. Superiors at work think I should use mobile app for household shopping	
	6. Subordinates at work think I should use mobile app for household shopping	
Perceived Behaviour Control	1. I have knowledge to use mobile app for purchasing	Chau and Hu, 2002; Mun et al., 2006
	2. It provide me facility to use mobile app at work	
	3. Using mobile app at work is wise	
	4. Using mobile app for purchasing is entirely under my control	
	5. I am not using mobile app for purchasing	

Behavioural Intention	1. I will frequently use mobile app for household shopping.	Moon & Kim, 2001; Al-rahmi & Othman, 2013, Venkatesh & Davis, 2000
	2. I intend to keep using of mobile app for buying groceries in the future.	
	3. I intend to increase the use of my mobile app in the future.	
	4. I intend to recommend my friends to using of mobile app for grocery shopping in the future.	
	5. Assuming I have access to the mobile app, I intend to use it	
	6. Given that I have access to the mobile app, I predict I would use it	
Actual usage Behaviour	1. How often per week do you use your mobile app for household shopping? (Never, rarely, occasionally, often, frequently)	Rauniar et al., 2014; Wu and Wang, 2005
	2. How many hours do you used your mobile app for household purchasing purpose every week? (0-2 hours, 2-4 hours, 4-6 hours, 6-8 hours, more than 8 hours)	
	3. How often do you engage in household purchasing via mobile app?	
	4. Use mobile app for household shopping several times a day as per my requirement	
	5. Do not use mobile app	

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.728 ^a	.658	.655	.431

a. Predictors: (Constant), Subjective Norms, Perceived Behaviour Control, Attitude

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64.962	3	21.654	205.765	.000 ^b
	Residual	33.781	321	.105		
	Total	98.742	324			

a. Dependent Variable: Behaviour Intention

b. Predictors: (Constant), Subjective Norms, Perceived Behaviour Control, Attitude

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.325 ^a	.106	.100	.507

a. Predictors: (Constant), Behaviour Intention, Perceived Behaviour Control

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.788	2	4.894	19.050	.000 ^b
	Residual	82.723	322	.257		
	Total	92.512	324			

a. Dependent Variable: Actual Usage Behaviour

b. Predictors: (Constant), Behaviour Intention, Purceived Behaviour Control

Impact of Economic Growth and Trade Openness on Foreign Exchange Reserves in Indian Economy

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ABSTRACT

The present study analyses empirically the effect of economic growth and trade openness on international reserves in India. The study employed time series data with annual frequency from 1996 to 2016. The study developed an econometric model relating RES to ECON and TRDOP variables and used logarithmic transformation of the variables for econometric estimation. The econometric tools such as Augmented Dickey-Fuller (ADF) test, Johansen co integration test and vector error correction model were applied. The co integration test results suggest that there is an existence of a stable long-run equilibrium relationship among the variables. The vector error correction model (VECM) of international reserves reveals that lagged independent variables shows the expected signs i. e. economic growth and trade openness have significant effect on international reserves. Findings of the study suggest that economic growth and trade openness is positively related to international reserves. This implies that the authorities of Indian economy have to involve more actively in foreign reserve management practices.

Keywords: *Economic growth, Trade openness, International reserves, VECM, Cointegration, India.*

INTRODUCTION

Over the past few years, there has been a remarkable increase in international reserves (IR) with the central banks of developing economies around the world, especially in the aftermath of East Asian crisis 1997-98 and Global Financial Crisis 2008. Total world international reserves have climbed up nearly from US\$7.4 trillion in 2008 to US\$ 11.4 trillion by 2017. The management of these huge reserves and the associated cost of holding are the major issues faced by the central banks of developing economies now.

International Reserves, also called as foreign reserves and foreign exchange reserves, are foreign currencies and deposits in the form of securities, bonds and financial derivatives held by Central Banks and monetary authorities of any economy. The components of IR comprise of monetary gold Special Drawing Rights and IMF reserves positions. International Reserves may also be referred to as official reserves which are assets of Central Banks held in different reserves currencies such as US Dollar, British Pound Sterling, Euro and Japanese Yen (Reza *et al.* 2011). According to IMF Balance of Payments Manual 6th edition (BPM6), reserve assets (gross

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international reserves) are those “external assets that are readily available to and controlled by the monetary authorities for meeting balance of payments financing needs, for intervention in exchange rate markets to affect the currency exchange rate, and for other related purposes (such as maintaining confidence in the currency and the economy, and serving as a basis for foreign borrowing).”

In developing countries like India, international reserves are one of the crucial determinants of BoP. They play a very significant role in the adjustment of exchange rate. Nevertheless, irrespective of all the theoretical justifications, the stock of international reserves of many emerging and developing countries, including India, has increased substantially even after their official announcements about commitment to the flexible exchange rate system (Flood and Marion, 2002).

Over the last decade, the pace of accretion in the India’s stock of international reserve has been so striking that it has registered more than 1000% growth, despite the fact that India has entered into flexible exchange rate system since March 1993 (Ramachandran, 2006). And now it seems convincing to believe that India has surpassed many standard measures of reserve adequacy to rest in a somewhat protected zone. Theoretically, it was believed that under flexible exchange rate system countries will need to keep less stock of international reserves, since central banks were not obligated to defend their parities through frequent interventions.

India’s stock of international reserves has been increasing continuously since the launch of economic reform in 1991. Starting from a stumpy level of US\$ 5,834 million in 1990-91, the stock of international reserves increased regularly to US\$ 1,99,179 million by 2006-07 and reached their highest at US\$ 3,04,818 million in 2010-11 (see figure 1). Thereafter, owing the international financial disorder caused by 2008 crisis and strengthening of the US dollar and other international currencies, the stock of reserve declined to US\$ 2, 51, 985 million at the end of 2008 and again touched the height of US\$ 3, 60, 176 million by 2015-16. This evidently shows that irrespective of all the theoretical justifications, international reserves stock of India like many emerging countries has been constantly increasing during the economic reform period i. e.1991-till date.

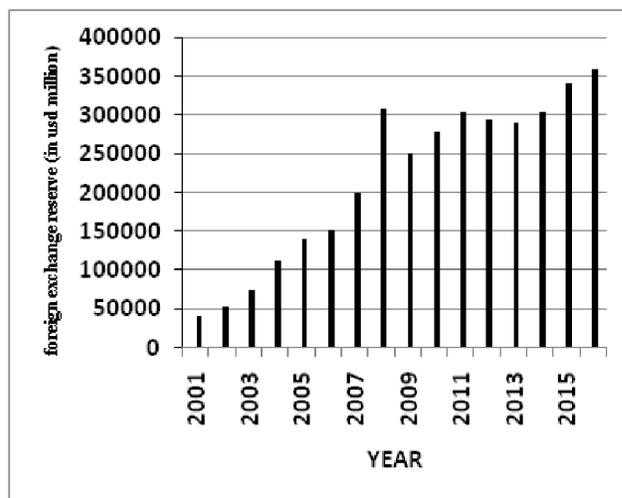


Figure 1: India’s international reserves in the post reform era

Source: Handbook of statistics on Indian economy

After this introduction, rest of the paper is organised as: Section II discusses relevant review of literature, section III discusses objectives of the study whereas section IV presents data description and methodology, section V discusses about results and interpretations and section VI concludes.

LITERATURE REVIEW

Conceptually, a unique definition of foreign reserves is not available as there has been divergence of views in terms of coverage of items, ownership of assets, liquidity aspects and need for a distinction between owned and non-owned reserves. Nevertheless, for policy and operational purposes, most countries have adopted the definition suggested by the International Monetary Fund (Balance of Payments Manual, and Guidelines on Foreign Exchange Reserve Management, 2001); which defines reserves as external assets that are readily available to and controlled by monetary authorities for direct financing of external payments imbalances, for indirectly regulating the magnitudes of such imbalances through intervention in exchange markets to affect the currency exchange rate, and/or for other purposes.

According to Krugman and Obstfeld (2000), Official international reserves (or foreign exchange reserves) are assets held by central banks of respective economies that are used for various transactions such as purchases of foreign goods

and assets, or payments of obligations to international organisations.

Foreign exchange reserves are defined as external stock of assets, which is available to the country's monetary authorities to cover external payment imbalances or to influence the exchange rate of the domestic currency through intervention in exchange market, or for other purposes (IMF, 2000). A country's reserve consists of gold, foreign currencies, special drawing rights (SDR) and the reserve position with the International Monetary Fund (IMF).

Historically, official international reserves consisted only of gold. But after World War II when the Breton Woods System was set up, the US Dollar turn out to be reserve currency and it also became part of a nation's official IR assets. From 1944-1968, the US dollar was convertible into gold through the Federal Reserve System. After 1968 no central bank could convert dollars to gold from official gold reserves and after 1973 no individual or institution could convert dollars into gold from official gold reserves. Since 1973 no major currencies have been convertible into gold from official gold reserves.

Under the Bretton-Woods system, the foreign exchange reserves were used by the central banks across the world to maintain the external value of their respective currencies at a fixed level. With the breakdown of Bretton-Woods system in the early 1970s, countries started adopting a relatively flexible exchange rate system, under which the reserves play only a less important role. Yet, the global exchange reserves have increased from 1.75 to 7.8 percent of world GDP between 1960 and 2002 (Flood and Marion, 2002).

The following specification from Aizenman and Lee's (2007) can be used to investigate factors influencing international reserves-

$$\begin{aligned} Re_{sit} = & \beta_0 + \beta_1 EXGrowth_{it} + \beta_2 PLDev_{it-1} \\ & + \beta_3 KAcc_{it} + \beta_4 Debt_{it} \\ & + \beta_5 Pop_{it} + \beta_6 Open_{it} + \beta_7 TOT_{it} + \varepsilon_{it} \end{aligned}$$

Where, EX Growth, PLDev, KAcc, Debt, Pop, Open, TOT denotes higher export growth rates, Price Level Deviation, capital account liberalization, log of the ratio of short-term external debt to Gross Domestic Product, Population size, log of ratio of imports to GDP, log of the terms of trade respectively.

Several conclusions emerge from the specification. First, the holding of foreign reserves motivated

by mercantilist concerns is positively correlated with higher export growth rates (variable $EXGrowth_{it}$) and with the deviation of the real exchange rate from its equilibrium value (Price Level Deviation noted $PLDev_{it}$). The latter observation captures the idea that international reserves are hoarded to manipulate the exchange rate.

Second, the holding of reserves motivated by precautionary concerns is positively correlated with the degree of capital account liberalization ($KAcc_{it}$) and the log of the ratio of short-term external debt to Gross Domestic Product (GDP) ($Debt_{it}$).

Third, the reserves stock is positively correlated with a country's population because reserves increase as the number of international transactions increases. In addition, reserves accumulation is positively correlated with the log of ratio of imports to GDP ($Open_{it}$). Last, the log of the terms of trade (TOT_{it}) is positively correlated with reserves if countries absorb their fluctuations through reserves holdings.

Frenkel and Jovanovic (1981) states that most of the rules for a country's demand for foreign exchange reserves consider real variables, such as imports, exports, foreign debt, severity of possible trade shocks and monetary policy considerations. Similarly, there are some common indicators that are used to determine international reserves for an economy. These indicators includes: import adequacy, debt adequacy and monetary adequacy.

Chin-Hong et al. (2011) empirically examined five explanatory variables to investigate their impacts on the international reserves holding in Malaysia. These variables include economic size, real effective exchange rate, openness, balance of payments and the opportunity cost of reserves holding. They concluded that all the variables are found to be statistically significant in the model. In particular, economic size and real effective exchange rate are positively related to international reserves, while balance of payments and the opportunity cost of holding reserves have negative impacts on international reserves.

Empirical research works on foreign reserves (e.g. Landell-Mills, 1989; Lane and Burke, 2001) established a relatively stable long-run demand for reserves based on a limited set of explanatory variables such as gross domestic products (GDP).

Gosselin and Nicolas (2005) grouped the influencing factors of reserve holdings in five categories: economic size, current account vulnerability, capital account vulnerability, exchange rate flexibility, and opportunity cost. In the long run, central banks will increase their reserves in response to a greater exposure to external shocks. Thus, the level of foreign reserves could be positively correlated with an increase in both exports and imports. Capital account vulnerability increases with financial openness and potential for resident-based capital flight from the domestic currency. Consequently, reserves could be positively correlated with some variables like the ratio of capital flows to GDP. Exchange rate flexibility is usually important.

Charles (2012), in his study finds the factors that affect the level of foreign reserves are GDP, level of trade openness, exchange rate and inflation. The levels of GDP and trade openness were found to exhibit positive impacts on foreign reserves, supporting the self-insurance theoretical base of foreign reserves whereas the level of foreign capital inflow and inflation had a negative relationship with foreign reserves.

India Economic Survey (2004) identified three main factors that predicated the nation's reserve holdings which include: import adequacy—the number of months of imports that it can finance; its ability to cover external payment obligations—captured by the ratio of reserve to external and short-term debt; and monetary adequacy—measured by ratio of reserve to broad money and reserve money. Demand for liquidity is one of the factors influencing international reserves.

OBJECTIVES OF THE STUDY

Almost all economies particularly developing countries have accumulated large stockpiles of international reserves on breakdown of the Bretton Wood system. They reflect fabulous increase in international reserves. The flexible exchange rate system was introduced after breakdown of Bretton Wood System. Henceforth, developing countries have frightened the uncertainties of this system. They embarked accumulating international reserves to intervene FX markets to get price stability and lessen foreign exchange volatility. The hoarding of these reserves is made irrespective of the opportunity cost and the effects they have on price stability and volatility. Another reason to have large stockpile of international

reserves is foreign debt service and international trade activities. The import and export transactions affect foreign exchange reserves as foreign currencies get involved in these transactions. The more export of goods and services will fetch more trade activities and economic growth. This paper, therefore, assesses how international reserves are being affected by trade openness and economic growth.

Foreign Exchange Reserves are now accumulated regardless of the opportunity cost and other impacts on the economic activities. As for explaining the current reserve hoarding, numerous arguments have been set forth. Some say that international reserves are a by-product of the countries' exchange rate regime. Another argument is that countries hoard international reserves for precautionary purposes to insure themselves against financial crises (Aizenman and Marion, 2003). Yet another theory suggests that high level of reserves is the outcome of countries' mercantilist behavior to keep their real exchange rate devalued against the dollar to bolster the domestic economy (Flood and Marion, 2001).

Countries all over the world in particular developing ones are fanatical with accumulation of international reserves. Several explanations as we have seen in earlier lines advocated for reserves hoarding. International reserves have both social and opportunity costs that impact the whole economy. A lot of studies are there on international reserves but not much appears to have been done to examine the effect of economic growth and trade openness. This study contributes to international reserves literature by examining the effect that economic growth and trade openness have on international reserves in Indian context. Hence, this paper is to add to existing knowledge. Also there will be some information on hoarding of international reserves and the relationship among the variables under consideration. The findings will thus enrich the existing literature. The main aim of this study is to find why India hoards reserves. Other objective is to explore the influence that economic growth and trade openness have on international reserves.

DATA DESCRIPTION AND METHODOLOGY

The study employs secondary data and econometric modelling to obtain the results. Following is the data description and methodology applied:

(a) Data

The present study deals with extensive literature review which takes in the areas of international reserves and economic growth of India. Time series data for a period of 21 years from 1996 to 2016 were collected from World Development Indicators (WDI) of the World Bank. The variables are arranged as dependent and independent variable. Dependent variable is international reserves (RES) measured as total reserves excluding gold divided by nominal GDP converted into logarithm form. Independent variables are economic growth (ECON) proxied by real GDP and trade openness (TRDOP) measured as the ratio of sum of exports and imports to real GDP converted into logarithm form. E-Views 8.1 package has been used to run regression equation.

(b) Model Specification

This study analyses the impact of economic growth and trade openness on international reserves in Indian context. The study developed an econometric model below relating RES to ECON and TRDOP variables and used logarithmic transformation of the variables for econometric estimation.

$$(RES) = \beta_1 + \beta_2(ECON) + \beta_3(TRDOP) + e \dots\dots\dots(1)$$

Where, (RES) is total international reserves minus gold divided by nominal GDP. (ECON) is economic growth proxied by the real GDP. (TRDOP) is trade openness measured as the ratio of sum of exports and imports to real GDP. β_1 , β_2 and β_3 are regression coefficients for the model and e is an error term. Logarithmic transformation of the equation is as under:

$$\ln(RES) = \beta_1 + \beta_2 \ln(ECON) + \beta_3 \ln(TRDOP) + e \dots\dots(2)$$

(c) Methodology

First time series properties of the variables are checked. The study checked stationarity of the series using Augmented Dickey-Fuller (ADF) test. If the variables are found to be order of I(1) or say non-stationary, there may be chances of forming I(0) variable. This is called cointegration which mean long-run relationship among the variables. The long-run relationship can be appropriately examined through cointegration tests. If the variables under study are cointegrated, the cointegrating vector is normalized with respect to international reserves. To test whether cointegration exists or not, we apply the systems method of cointegration proposed by Johansen and Juselius (1992). The Johansen cointegration

test suggests that variables are highly cointegrated indicating to employ vector error correction model (VECM).

Vector Error Correction Model (VECM)

If three I (1) series x, y and z are cointegrated, then there exists unique α_0 , α_1 and α_2 such that $u_t = y_t - \alpha_0 - \alpha_1 x_t - \alpha_2 z_t$ is I(0). In the single equation model of cointegration where we thought of y as the dependent variable and x and z as an exogenous regressor, the appropriate specification for the error-correction model will be:

$$\Delta y_t = \beta_0 + \beta_1 \Delta x_t + \beta_2 \Delta z_t + \lambda u_{t-1} + \varepsilon_t \dots\dots\dots (3)$$

Or,

$$\Delta y_t = \beta_0 + \beta_1 \Delta x_t + \beta_2 \Delta z_t + \lambda (y_{t-1} - \alpha_0 - \alpha_1 x_{t-1} - \alpha_2 z_{t-1}) + \varepsilon_t \dots\dots\dots (4)$$

All terms in equation (4) are I(0) as long as the coefficients (the “cointegrating vector”) are known or at least consistently estimated. The u_{t-1} term is the magnitude by which y was above or below its long-run equilibrium value in the previous period. The coefficient λ (which we expect to be negative) represents the amount of “correction” of this period (t-1) disequilibrium that happens in period t. For example, if λ is 0.25, then one quarter of the gap between y_{t-1} and its equilibrium value would tend (all else equal) to be reversed (because the sign is negative) in period t.

The VEC model extends this single equation error correction model to allow y, x and z to evolve jointly over time as in a VAR system. In the three variable case, there can be two cointegrating relationship and the y equation of the VEC system is similar to (4), except that we mirror the VAR specification by putting lagged differences of y, x and z on the right hand side. With only one lagged difference (there can be more) the VECM can be written as:

$$\Delta y_t = \beta_{y0} + \beta_{yy1} \Delta y_{t-1} + \beta_{yx1} \Delta x_{t-1} + \beta_{yz1} \Delta z_{t-1} + \lambda_y (y_{t-1} - \alpha_0 - \alpha_1 x_{t-1} - \alpha_2 z_{t-1}) + \eta_t^y \dots\dots(5)$$

$$\Delta x_t = \beta_{x0} + \beta_{xy1} \Delta y_{t-1} + \beta_{xx1} \Delta x_{t-1} + \beta_{xz1} \Delta z_{t-1} + \lambda_x (y_{t-1} - \alpha_0 - \alpha_1 x_{t-1} - \alpha_2 z_{t-1}) + \eta_t^x \dots\dots(6)$$

$$\Delta z_t = \beta_{z0} + \beta_{zy1} \Delta y_{t-1} + \beta_{zx1} \Delta x_{t-1} + \beta_{zz1} \Delta z_{t-1} + \lambda_z (y_{t-1} - \alpha_0 - \alpha_1 x_{t-1} - \alpha_2 z_{t-1}) + \eta_t^z \dots\dots(7)$$

As in (4), all of the terms in equations (5), (6) and (7) are I(0) if the variables are cointegrated with cointegrating vector $(1, -\alpha_0, -\alpha_1, -\alpha_2)$, in other words, if $y_t - \alpha_0 - \alpha_1 x_t - \alpha_2 z_t$ is stationary. The λ coefficients are again the error correction coefficients, measuring the response of each

variable to the degree of deviation from long-run equilibrium in the previous period.

We expect $\lambda_y < 0$ for the same reason as above: if y_{t-1} is above its long-run value in relation to x_{t-1} and z_{t-1} then the error correction term in parentheses is positive and this should lead, other things constant, to downward movement in y in period t . The expected sign of λ_x depends on the sign of α_1 . We expect $\partial\Delta x_t / \partial x_{t-1} = -\lambda_x \alpha_1 < 0$ for the same reason that we expect $\partial\Delta y_t / \partial y_{t-1} = \lambda_y < 0$: if x_{t-1} and z_{t-1} is above its long run relation to y , then we expect, ceteris paribas, Δx_t and Δz_t to be negative.

A simple, concrete example may help clarify the role of the error correction terms in a VEC model. Let the long-run cointegrating relationship be $y_t = x_t + z_t$, so that $\alpha_0 = 0$, $\alpha_1 = -1$ and $\alpha_2 = -1$. The parenthetical error correction term in equations of (5), (6) and (7) is now $y_{t-1} - x_{t-1} - z_{t-1}$, the difference between y , x and z in the previous period. Suppose that because of previous shocks, $y_{t-1} = x_{t-1} + 1$ so that y is above its long-run equilibrium relationship to x by one unit (or, equivalently, x is below its long-run equilibrium relationship to y by one unit). To move toward long-run equilibrium in period t , we expect (if there are no other changes) $\Delta y_t < 0$, $\Delta x_t > 0$ and $\Delta z_t > 0$. Using equations (5), (6) and (7) Δy_t changes in response to this equilibrium by $\lambda_y (y_{t-1} - x_{t-1} - z_{t-1}) = \lambda_y$ so for stable adjustment to occur $\lambda_y < 0$; y is “too high” so it must decrease in response to the disequilibrium. The corresponding change in “ x_t and Δz_t from all equations is $\lambda_x (y_{t-1} - x_{t-1} - z_{t-1}) = \lambda_x$. Since x and z are “too low,” stable adjustment requires that the response in x and z be positive, so we need $\lambda_x > 0$. Note that if the long-run relationship between y , x and z were inverse ($\alpha_1, \alpha_2 < 0$), then x and z would need to decrease in order to move toward equilibrium and we would need $\lambda_x < 0$. The expected sign on λ_x depends on the sign of α_1 and α_2 .

If theory tells us the coefficients a_0 , a_1 and a_2 of the cointegrating relationship, then we can calculate the error-correction term in both the equations and estimate it as a standard VAR. However, we usually do not know these coefficients, so they must be estimated.

RESULTS AND INTERPRETATION

The study employed time series data for analysing the variables. Empirical research work based on time series data presumes that the underlying time series is stationary. The estimated results are

reported table wise. To test the stationarity the widely applied Augmented Dickey-Fuller (ADF) unit root test has been used. All the variables i.e. international reserves (RES), trade openness (TRDOP) and economic growth (ECON) were non-stationary at level. After first differencing, the variables became stationary i. e. order of I(1) (see Table 1). This suggests that long-run relationship may exist among the variables.

Table 1: Augmented Dickey Fuller Unit Root Test

Variables	Level	First Difference
RES	-1.092974	-4.720630*
ECON	-0.190311	-3.616661*
TRDOP	-0.182341	-4.736683*

*denotes rejection of null hypotheses at 1% level

The long-run relationship can be appropriately examined through cointegration tests. For this purpose the study employed Johansen cointegration test. The significant values or trace statistics, maximal eigen value and critical values are given below (see Table 2).

Table 2: Johansen Cointegration Test

Hypothesized no. of CE(s)	Trace Statistic	5% critical Value	Max-Eigen Statistic	5% critical value
None*	22.64	15.49	16.37	14.26
At most 1*	6.27	3.84	6.26	3.84
At most 2*	5.94	3.84	5.26	3.84

*denotes rejection of null hypotheses at 5% level

The normalized cointegrating coefficients imply theoretically expected signs and the standard errors in the parentheses indicate that the explanatory variables are statistically significant at 5 percent level. The normalized cointegrating coefficients are given in Table 3.

Table 3: Normalized Cointegrating Coefficients

	RES	ECON	TRDOP
Normalized β	1.000	1.148 (0.121)*	1.367 (0.136)*

*denotes significant at 5% level; Figures in parenthesis are standard error

Now, the long run equation of cointegration can be written as:

$$RES = 1.148 (ECON) + 1.367 (TRDOP) \dots\dots\dots(8)$$

The normalized equation of cointegration shows theoretically expected signs. The equation (8)

suggests that a one percent increase in economic growth and trade openness will lead more than one percent increase in foreign exchange reserves.

The VECM of international reserves reveals that lagged independent variables shows the expected signs. The variables $\Delta(\text{ECON})$, $\Delta(\text{TRDOP})$, $\Delta(\text{ECON})_{t-1}$, and $\Delta(\text{TRDOP})_{t-1}$ are found significant in vector error correction model. The determination coefficient R-squared is 74% and 73%. This means that changes in economic growth explains 74% and changes in trade openness explains 73% of the reasons for India's accumulation of international reserves over the years. Moreover the t-statistics is 4.36 and 3.86 with a p-value of 0.04. The t-stat result is used to test the hypothesis that- economic growth and trade openness have no significant effect on international reserves. Since the p-value is highly significant, the null hypothesis can be rejected and alternative hypothesis (Economic growth and trade openness have significant effect on international reserves) can be accepted. Hence based on these results, this study found that economic growth and trade openness have significant effect on international reserves in Indian economy.

Table 4: Vector Error Correction Model (VECM)

Variables	$\Delta(\text{RES})$	$\Delta(\text{ECON})$	$\Delta(\text{TRDOP})$
$\Delta(\text{RES})_{t-1}$	0.385 (1.160)	-0.421 (-2.686)*	-0.332 (-1.881)*
$\Delta(\text{RES})_{t-2}$	0.016 (0.080)	-0.186 (-1.925)*	-0.153 (-1.622)
$\Delta(\text{ECON})_{t-1}$	-0.578 (-1.349)*	-0.204 (-1.011)	-1.123 (-0.021)*
$\Delta(\text{ECON})_{t-2}$	-0.119 (-0.251)	-0.315 (-1.400)*	-0.233 (-1.337)
$\Delta(\text{TRDOP})_{t-1}$	-0.367 (-1.239)*	-0.314 (-1.021)*	-0.423 (-1.132)*
$\Delta(\text{TRDOP})_{t-2}$	-0.197 (-1.132)*	-0.272 (-1.031)*	-0.165 (-1.103)*
Constant	0.107 (1.242)	0.178 (4.364)*	0.241 (3.858)*
R-squared	0.35	0.74	0.73
F-Statistics	1.32	3.71	4.23
Std. Error	0.12	0.05	0.04

Note: Figures in parenthesis are t-statistics; * denotes significant at 5% level

DISCUSSION ON RESULTS

The present study assessed whether independent variables under consideration have systematic

effects on international reserves with special reference to Indian economy. The main finding of the study is that economic growth and trade openness impact positively the international reserves of Indian economy. Encouraging domestic trade will assist to achieve higher rate of economic growth. These results are important for the policy makers because international reserves are utilized as buffer stock in the time of financial crisis. Moreover, these are used to manage exchange rate fluctuations in the capital market. *Ceteris paribus*, keeping substantial amount of international reserves is beneficial for the economy. More international trade especially export activities will fetch more reserves. Hence the concerned authorities should engage more actively in the management of international reserves.

CONCLUSION

This paper has analysed empirically the influence of economic growth and trade openness on international reserves in Indian context. We study employed time series data with annual frequency from 1996 to 2016. The study developed an econometric model relating RES to ECON and TRDOP variables and used logarithmic transformation of the variables for econometric estimation. Our study agrees with Puah C. et al. (2011) in which they found economic size and real effective exchange rate positively related to international reserves in case of Malaysia.

The purpose of this study is to investigate empirically the effect of economic growth and trade openness on international reserves in India. The ADF unit root test results indicate that all the variables are integrated with order one. Thus, we proceed to the Johansen-Juselius cointegration test to study the long-run equilibrium association between the variables. The cointegration test results suggest that there is an existence of a stable long-run equilibrium relationship among international reserves, economic growth and trade openness at 5 % level of significance. By normalizing the cointegrating vector with respects to international reserves, the study obtained the parameters that showing the relationship among economic growth, trade openness and international reserves. The determination coefficient R-squared is 74% and 73%. This means that changes in economic growth explains 74% and changes in trade openness explains 73% of the reasons for India's accumulation of international reserves over the years. Moreover

the t-statistics is 4.36 with a p-value of 0.04. The t-stat result is used to test the hypothesis that economic growth and trade openness have no significant effect on international reserves. Since the p-value is highly significant, the null hypothesis can be rejected and alternative hypothesis can be accepted. Therefore, economic growth and trade openness have significant effect on international reserves.

Findings of the study suggest that economic growth and trade openness is positively related to international reserves. This implies that India must involve more actively in foreign reserve management practices. The Government of India should procure constructive steps to maintain steady exports growth rate as it is a real indicator of a nation's real growth rate. The Government should encourage people to avoid demonstration effect through home country's satisfied products in our own country to satisfy the consumption needs of the Indian consumer. The Government should bargain to get high volume of SDRs, to avoid balance of payments problem.

REFERENCES

- Aizenman, J., & Marion, N. (2003). The high demand for international reserves in the Far East: What is going on? *Journal of the Japanese and International Economics*, 17, 370-400.
- Aizenman, J., & Lee, J. (2007). International reserves: precautionary versus mercantilist views, theory and evidence. *Open Economies Review*, 18(2), 191-214.
- Bahmani-Oskooee, M., & Brown, F. (2002). Demand for international reserves: a review article, *Applied Economics*, 34, 1209-1226.
- Bird, Graham, and Ramkishan Rajan (2003). Too Much of a Good Thing? The Adequacy of International Reserves in the Aftermath of Crises. *The World Economy*, 26(6), 873-891.
- Charles-Anyago Nneka, B. (2012). External Reserves: Causality Effect of Macro Economic Variables in Nigeria: 1980-2009. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 1(12). American University.
- Chin-Hong Puah, Choi-Meng Leong, Abu Mansor Shazali & Evan Lau (2018). Revisiting Money Demand in Malaysia: Simple-Sum versus Divisia Monetary Aggregates. *Journal Ekonomi Malaysia* 52(2) 267 – 278.
- Dash P. and Narayanan K. (2011). Determinants of Foreign Reserves in India: A Multivariate Cointegration Analysis. *Indian Economic Review*, Vol. XXXXVI(1). 83-107.
- Dickey, D. A., & Fuller, W. A. (1979). Distribution of the estimators for autoregressive time series with a unit root. *Journal of the American statistical association*, 74(366a), 427-431.
- Dooley, M. P., Folkerts-Landau, D., & Garber, P. (2003). *An essay on the revived Bretton Woods system* (No. w9971). National Bureau of Economic Research.
- Edwards, S. (1983). The Demand for International Reserves and Exchange Rate Adjustments: The Case of LDCs, 1964-1972. *Economica*, 50. 269-80.
- Garcia, P. and C. Soto, (2004). Large hoarding of international reserves: Are they worth it? *Central Bank of Chile Working Paper No 299*.
- Gosselin M. A. and Nicolas P. (2005). An Empirical Analysis of Foreign Exchange Reserves in Emerging Asia. *Bank of Canada Working Paper 2005-38 December 2005*.
- Halliday, J., & Archer, D. (1998). The rationale for holding foreign currency reserves. *Reserve Bank of New Zealand Bulletin*, 61.
- Heller, H. (1966). Optional International Reserves. *The Economic Journal*, 76, 1966. 296-311.
- India Economic Survey (2004-05), accessed through www.indiabudget.nic.in.
- JM Landell- Mill (1989). The demand for International Reserves and Opportunity Cost, *Staff Papers*. 36, (3), pp 708-732. <https://doi.org/10.2307/3867053>.
- JA Frenkel, B Jovanovic (1981). Optimal international reserves: a stochastic framework. *The Economic Journal*. 91 (362), pp. 507-514.
- Johansen, S. and Juselius, K. (1990). Maximum likelihood estimation and inference on cointegration—with applications to the demand for money. *Oxford Bulletin of Economics and statistics*, 52(2), 169-210.
- Jeanne, O., & Rancière, R. (2011). The optimal level of international reserves for emerging market countries: A new formula and some applications. *The Economic Journal*, 121(555), 905-930.

- Kashif, M., &Sridharan, P. (2015). International reserves accumulation and economic growth: Evidence from India. *International Journal of Engineering and Management Research*, 5(2). 583-599.
- Kashif, M., Sridharan, P., &Thiyagarajan, S. (2017). Factors Affecting International Reserves with Special Reference to India. *Vision*, 21(4), 339-349.
- Kashif, M., Sridharan, P., &Thiyagarajan, S. (2017). Dynamics of Algeria's international reserves. *African Journal of Economic and Management Studies*, 8(4). 410-419.
- International Monetary Fund (2000). Monetary and Financial Statistics Manual. <https://www.imf.org/external/pubs/ft/mfs/manual/pdf/mmfsFT.pdf>
- Mohaghadam, R., Ostry, J. D., & Sheehy, R. (2011). Assessing Reserves Adequacy International Monetary Fund, Prepared by Money and Capital Markets, Research Strategy. *Policy and Review Departments*.
- P Krugman, M Obstfeld (2000). International economics: Theory and practice. *Addison Wesley Longman*. 356 p.
- P R Lane, D Burke (2001). The empirics of foreign reserves. *Open Economic Review*. 12, (4), pp 423-434.
- Prabheesh, K. P., Malathy, D., &Madhumathi, R. (2007). Demand for foreign exchange reserves in India: a co-integration approach. *South Asian Journal of Management*,14(2). 36-46
- Prabheesh, K. P., Malathy, D., &Madhumathi, R. (2009). Precautionary and mercantilist approaches to demand for international reserves: an empirical investigation in the Indian context. *Macroeconomics and Finance in Emerging Market Economies*, 2(2), 279-291.
- Puah, C. H., Jais, M., Arip, M., &AffendyLiew, O. (2011). Determinants of international reserves in Malaysia. *International Journal of Business Research*, 11(4), 127-135.
- Ramachandran, M. (2006). On the upsurge of foreign exchange reserves in India, *Journal of Policy Modelling*, 28, 797-809.
- Ranciere, R., & Jeanne, M. O. (2006). The optimal level of international reserves for emerging market countries: formulas and applications (No. 6-229). *International Monetary Fund*.
- Reserve Bank of India, *Handbook of statistics on Indian economy*, RBI, Mumbai (various issues).
- Ritesh K. M. and Chandan S. (2010). The Demand for International Reserves and Monetary Equilibrium: New Evidence from India. Unpublished article. *igidr.ac.in*.
- Rodrik, D., & Velasco, A. (1999). Short-term capital flows (No. w7364). *National bureau of economic research*.
- R P Flood & N P Marion (2002). International reserves in an era of high capital mobility. *IMF Working Paper*, No. WP/02/62.
- Sehgal, S., & Sharma, C. (2008). A study of adequacy, cost and determinants of international reserves in India. *International Research Journal of Finance and Economics*, 20(2), 75-90.

Factors for Successful Lubricant Brand: A Study of Positioning Strategies in Indian Lubricant Market

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ABSTRACT

Brand Positioning as the act of designing the company's offer so that it occupies a distinct and valued place in the mind of the target customers. Brand Positioning is the process of promoting buyers to form a particular mental impression of our product relative to our competitors. Brand Positioning is a 'part of brand identity and value proposition that is to be actively communicated to the target audience, and that demonstrates an advantage over competing brands. A brand could develop distinction in a chosen field by developing associations related to product performance. It focuses on the brand's delivery on the functionality expected by customers. The brand could develop associations on the intrinsic product dimensions like durability, reliability, price, style or service. This research paper focuses on the need of brand positioning of automotive lubricant in Indian market. This study represents an approach of factor analysis to determine the effect of brand positioning of lubricant on consumer perception. An empirical study has been conducted in Delhi region to find out the perceptions of consumers towards the automotive lubricants. Survey has been conducted with the help of structured questionnaire to determine the different attributes responsible for brand positioning lubricant oil. Factor analysis has been done to reduce the number of factors and identifying only the important factors for brand positioning of

automotive lubricant for four wheeler segments. Further, reliability test has been conducted to test the reliability of the important factors.

Keywords: PSUs, Perception, Reliability, Brand Positioning.

INTRODUCTION

The demand of lubricant in India is, third largest in the world after USA and China. In the decade of 1990s the Indian lubricant market was dominated by PSUs (IOCL, BPCL and HPCL). India produce around 8 to 10 percent of the total global lubricant production. The demand of lubricant in India is around 9.6% of the total global lubricant demand. The Indian lubricant market changed after 1992 when liberalization took place. After liberalization too many private lubricant manufacturers enter into the Indian market. Later on Indian government dismantled the administered pricing mechanism and free pricing policy was allowed in the Indian lubricant market. The deregulation policy of Indian government encouraged so many foreign lubricant manufacturers expand their business in India. Entry of multinational companies imposed too much competition between PSUs and Private players which benefitted the end consumers. Lubricant oil is very essential for automobile sector. Indian Oil *SERVO* continues to be the dominant player in the Indian lubricant sector backed by cutting edge product development, high

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quality customization and extensive blending and distribution network. Mak lubricant of Bharat Petroleum offers a full range of Automotive Engine Oils, Gear Oils, Transmission oils, Specialty Oils and Greases. HP Lubes is an integral part of Hindustan Petroleum Corporation Limited, one of India's frontline oil majors, committed to providing energy and fueling growth in every significant area of development.

Before the liberalization of the Indian economy, the public sector oil companies dominated the Indian lubricant industry with a market share of 90 per cent. The lubricants produced were simple blends based on low and medium level technologies. More sophisticated lubricants were imported and these accounted for a relatively small market share.

There are total 1380 lubricant manufacturer world wide. Earlier the percentage share of lubricant was very less for oil companies. But now a day's lubricant business play a crucial role for oil companies to increase their profits. Out of 1380 around 180 oil companies are manufacturing lubricants. These independent lubricants manufacturer generally purchase the raw materials from the open market. The lubricant manufacturer spent a very small amount of money on their research and development.

LITERATURE REVIEW

As per **Verma Pooja (2003)** there is a wide scope for new private players in Indian lubricant oil market. He find out that India is the third largest lubricant market in the world. According to him the Indian lubricant market is growing at the rate of 8 to 10 percent annually. There are so many private oil companies in the Indian market but they are not manufacturing lubricant oil so there is too much scope for them to grab the opportunity.

According to **Mitra Surajit (2006)** Indian lubricant market is increasing due to increase in income level of Indian middle class. Due to the growth of Indian middle class the purchasing power of middle class is increasing which enhance the sales volume of automobile sector. The increase in sales volume of automobile sector will increase the sales volume of lubricant oil.

Mang T, Dresel W (2007) said that only few oil companies are manufacturing lubricant oil.

According to him there are worldwide 1380 lubricants manufacturer ranging from large to

small are today. Out of which only around 180 companies are manufacturing the lubricant oil. On one hand there are vertically-integrated petroleum companies whose main business objective is the discovery, extraction and refining of crude oil. Lubricants account for only a very small part of their oil business. At present, there are about 180 such national and multinational oil companies engaged in manufacturing lubricants.

As per **Kline Blog (2011)** Indian commercial automotive segment represent more than half percent of India's total lubricant market. India's Market Analysis focuses on key trends, developments, challenges, business opportunities and threats and competitive positioning amongst the MNC suppliers, and other local independents the Indian lubricants market. Total demand for finished lubricants in India is estimated at over 1,400 kilotonnes in 2009. The commercial automotive segment represents about 53% of the total lubricants market, followed by the industrial segment at 34% and the consumer automotive segment at 13%. According to **Frost and Sullivan (2010)** India is the sixth largest lubricant market in the world so there is a wide scope for private players in Indian lubricant market. The Indian automotive lubricants market is largely price sensitive and volume growth is stagnating due to longer lasting lubricants. There are overall 22 big and small lubricants manufacturer in India but only a big companies are enjoying the market share. Companies are more focusing on customer centric approach where they are likely to focus on creating brand awareness through print and visual media. The retail trade are a major marketing channel in the Indian automotive lubricant. Petrol pumps form a major distribution channel in retail trade, however sales of lubricants through retail outlets has transformed the Indian automotive lubricants market into a fast moving consumer goods (FMCG) sector. The other marketing channels are authorized service stations, garages, rural and agricultural dealers, super markets, and wholesale distributors. **Niladri B.Syamand Benedict & G.C. Dellaert (2002)** said that quality of services is one of the most important factors in brand positioning. Producers' are committed to provide surplus value to the customers at least possible cost. If producer provides best quality with least possible cost, than they can survive in the market for a long time. According to a report by **Mordorintelligence (2017)**, the increase in

the sales volume of automobile sector is enhancing the sales volume of lubricant oil. In near future there will be too much competition between the oil companies for lubricant market. Indian lubricant market is dominated by public sector unit Indian Oil Corporation (IOCL), Hindustan Petroleum Corporation (HPCL) and Bharat Petroleum Corporation Limited (BPCL). Only Castrol is playing a major role in Indian lubricant market other private players of oil and gas are also now participating in the manufacturing of lubricant oil. Indian lubricant market is one of the fastest growing retail market in India. Due to huge population the consumption of automotive lubricant in India is very high and lubricant oil is acting as a FMCG product for Indian market. Indian lubricant Market is dominated by automobile lubricant. **Sun, Baohong and Neslin, Scott and Srinivasan, Kannan(2002)** said that promotion play a major role in brand choice. Different promotional tools help the producers to make the consumers aware about the product. So promotion play a major role in brand positioning of lubricant oil. According to **Adam Lindgreen and Gurvinder Shergil (2010)**, customer relationship is a very important factor for brand positioning. He also said that customer retention leads to increased market share and bigger profits. According to **Pham, Michel Tuan, and E. Tory Higgins (2005)** under promotion, consumers will pay relatively more attention to the desired state compared to the actual state. Consumer decision making has been dominated by information-processing theory and, more recently, by behavioral decision research. Satisfaction from desirable outcomes should be more intense under Promotion. Promotion-oriented consumers will experience greater dissonance from the positive attributes Availability, Accessibility, Price, Quality are some of the important factors responsible for consumer decisions. According to **S. Ramesh Kumar (2003)** no brand can afford to ignore consumer promotion schemes. He also said that the promotion must be in line with the other elements of the marketing mix. As per **Philip J. Kitchen, Ilchul Kim, Don Edward Schultz (2008)** brand positioning is a combination of high perceived prestige and price premiums in order to attract middle class. In Indian market price play a crucial role to attract the middle class. Indian consumers are highly price sensitive. They prefer good quality of product at least possible price. **Sun, Baohong and Neslin, Scott and Srinivasan, Kannan (2002)** said that

promotion is major cause of brand switching. The main advantages associated with promotional sales are-an easy way to learn customer response and it work fast. It also an inexpensive marketing technique. Before **designing a promotional campaign**, an organization must identify the target groups. This is done by breaking up of our product markets and identification of small groups of consumers whose wants and needs are not the same as the mass market as a whole-this is one of the key to success in sales promotion.

RESEARCH OBJECTIVES

To determine the important factors for brand positioning of automotive lubricant oil in India for four wheeler segment consumers.

RESEARCH METHODOLOGY

Research Design

The research was exploratory research followed by descriptive research. The method of research used is that of quantitative analysis through results obtained from questionnaires. The research is based on primary data. Primary data were collected from the four strata. The four strata is based on four wheeler segment consumers. These four strata were non commercial four wheeler (petrol), non commercial four wheeler (diesel), commercial four wheeler (petrol), commercial four wheeler (diesel). The sample size of 400 had been taken by using Yamene's formula. The sample were collected from the Delhi region. Sample size has been divided into the ratio of commercial and non commercial four vehicles which are registered in Delhi. Further four vehicles are further classified on the basis of the ratio of petrol and diesel four vehicles.

DATA ANALYSIS AND FINDING

Following variables of brand positioning of automotive lubricant has been identify by pilot survey:

Packaging, Advertising, Purchasing, Availability, Superiority, Promotion, Credibility, Innovativeness, Reliability, Reputation, Commitment, Quality, Experience, Extra Benefits, Longevity.

Factor Analysis

Factor analysis has been used to determine the important factors:

The Kaiser Meyer Olkin’s measuring of sampling adequacy and Bertlett’s Test of Sphericity.

Table 1: KMO and Bartlett’s Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.702
Bartlett's Test of Sphericity	Approx. Chi-Square	2090.789
	df	120
	Sig.	.000

The value of Kaiser Meyer Olkin is greater than 0.5 i.e. (0.702) (Table 1) so it is acceptable.

The significance level of Barlett’s Test is .000. It means that R- matrix is not an identical matrix and there are some relationships between different variables.

Factor Extraction

Table 2: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.015	18.845	18.845	3.015	18.845	18.845	2.971	18.571	18.571
2	2.618	16.363	35.208	2.618	16.363	35.208	2.408	15.048	33.619
3	1.956	12.226	47.434	1.956	12.226	47.434	2.110	13.186	46.804
4	1.604	10.024	57.458	1.604	10.024	57.458	1.655	10.346	57.151
5	1.177	7.358	64.816	1.177	7.358	64.816	1.226	7.665	64.816
6	.947	5.920	70.736						
7	.885	5.530	76.266						
8	.730	4.561	80.828						
9	.611	3.817	84.645						
10	.504	3.152	87.797						
11	.472	2.949	90.745						
12	.436	2.722	93.467						
13	.346	2.163	95.630						
14	.259	1.620	97.250						
15	.234	1.460	98.710						
16	.206	1.290	100.000						

Extraction Method: Principal Component Analysis.

Table 2 gives the list of Eigen values associated with each linear component (factor) before extraction, after extraction and after rotation. SPSS has identified 16 linear components within the data set The Eigen values associated with each factor represent the variance explained by that particular linear component and SPSS also displays the Eigen values in terms of the percentage of variance explained so as to factor explained (so, factor 1 explains 18.845 % of total variance). It should be clear that the first few factors explain relatively large amount of variance whereas subsequent factors explain only small amount of variance. SPSS then extracts all factors

with Eigen value greater than 1, which leaves us with 5 factors. The Eigen values associated with these factors are again displayed in the columns labeled extraction sum squared loadings. The values in this part of the table are the same as the value before extraction, except that the values for the discarded factors are ignored. In the final part of the table, the Eigen values of the factors after rotation are displayed. Rotation has the effect of optimizing the factor structure and one consequence for these data is that the relative importance of the five factors is equalized.

Component Matrix

Table 3: Component Matrix^a

	Component				
	1	2	3	4	5
Price	.154	.062	.164	.762	.115
Packaging	.157	.504	.616	-.289	-.010
Advertising	-.022	.472	.599	-.175	.025
Purchasing	.088	-.122	.442	.531	.073
Availability	.035	.209	.297	.650	.081
Superiority	.278	.687	-.478	.060	-.108
Promotion	.078	.506	.574	-.258	-.023
Credibility	.798	-.186	.035	-.076	.182
Innovativeness	.814	-.362	.040	-.115	-.018
Reliability	.225	.718	-.430	.178	-.108
Reputation	.797	-.149	-.033	.063	-.185
Commitment	.880	-.114	.045	-.044	.081
Quality	.324	.690	-.202	-.042	-.113
Experience	-.065	.383	-.195	.127	.537
Extra Benefits	.073	-.054	.093	-.216	.623
Longitivity	.006	.094	-.266	-.115	.603

Extraction Method: Principal Component Analysis.
a. 5 components extracted.

This matrix contains the loadings of each variable onto each factor (Table 3). By default SPSS displays all loadings; however we requested that all the loadings less than 0.5 be suppressed in

the output. At this stage SPSS has extracted seven factors. Factor analysis is an exploratory tool and so it should be used to guide the researcher to make various decisions.

Scree Plot

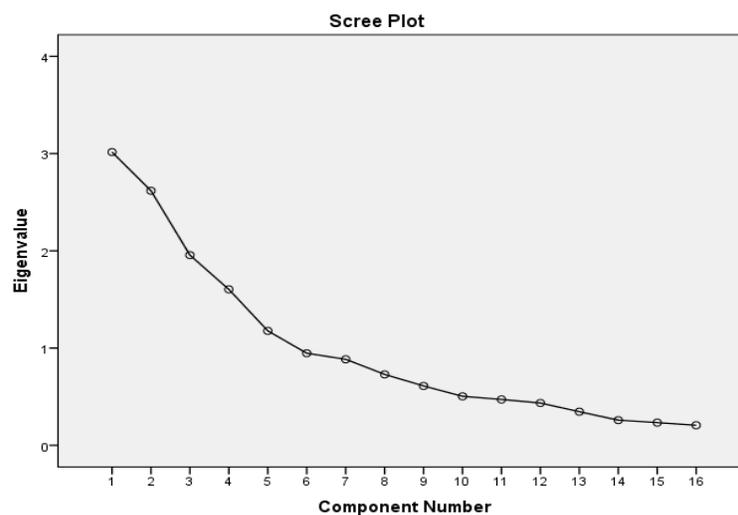


Figure 1: Screen Plot

The scree plot (Fig 1) shows the point of inflexion on the curve. The curve begins to tail off after five factors. Therefore it is justify retaining five factors.

The different factors (Table 4) after factor analysis are as follows:

Table 4: Final Factors

Factors	Variables	Correlation Coefficient	Factor Name	Cronbach α
Factor 1	Credibility	0.798	Product Trustworthiness	0.874
	Reputation	0.797		
	Innovativeness	0.814		
	Commitment	0.880		
Factor 2	Quality	0.690	Product Quality	0.830
	Superiority	0.687		
	Reliability	0.718		
Factor 3	Advertising	0.599	Marketing Strategy	0.760
	Packaging	0.616		
	Promotion	0.574		
Factor 4	Price	0.762	Accessibility	0.673
	Availability	0.650		
	Purchasing Location	0.531		
Factor 5	Experience	0.537	Extra Advantages	0.638
	Extra Benefits	0.623		
	Longitivity	0.603		

Researcher consider only those factors whose Cron Bach Alpha is greater than 0.60. The Cron Bach Alpha of Factor Extra Advantages is 0.238 so researcher do not consider this factor.

CONCLUSION

In this research, researcher has identified four factors. First factor is product trustworthiness which is a combination of variables credibility, reputation, innovativeness and commitment. Second factor is product quality which is a combination of variables quality, superiority and reliability. Third factor is marketing strategy which is a combination of variables advertising, packaging and promotion. Fourth factor is accessibility which is a combination of variables price, availability and purchasing. The factors-Product Trustworthiness, Product Quality, Marketing Strategy and Accessibility which have been identified by the researcher. The automotive lubricant manufacturer in India can enhance their market by focusing on these factors in their brand positioning. Trustworthiness is very important factors because companies can retain their

customers only when they are trustworthy. Product quality is also very important factors. Consumers are loyal to the lubricants companies only when the quality of product is better than other competitors. Marketing strategy is another important factor because giving the information about products to the bulk number of consumers is very essential. The consumers will purchase the automotive lubricant of particular brand only when they have full full information about the product, So the automotive lubricant companies should choose the appropriate marketing strategy channel. Accessibility is another important fator for brand positioning of automotive lubricants. The automotive lubricant of particular should be easily accessible, so than only consumers can only purchase it easily. lubricants companies should focus on these factors to increase their market share. Automotive lubricants companies should do the immense brand positioning to make the distinct image of their lubricants in the mind of the consumers in comparison to other competitors, so they can capture the market share of competitors.

REFERENCES

- Adam Lindgreen and Gurvinder Shergil (2010), Customer Relationship Management Programmes and Their Impact on the Financial Performance of Businesses: A Proposed Model, Adam Lindgreen
- Dellaert, Benedict & Syam, Niladri. (2001). Consumer-Producer Interaction: A Strategic Analysis of the Market for Customized Products. SSRN Electronic Journal. 10.2139/ssrn.310583.
- Dellaert, N. B. (2002), an analysis of terminology use in place branding, European Journal of Marketing vol(3) page 17-22.
- Frost and Sullivan (2010) Strategic analysis of Indian automotive engine lubricants market, available on <https://store.frost.com/strategic-analysis-of-indian-automotive-engine-lubricant-market.html>, retrieve on 06 June 2019
- Kline Blog (2011), India's lubricant consumption is on the rise, available on https://www.klinegroup.com/india_lubricant_1/, retrieve on 06 June 2019
- Mang T, Dresel W (2007) Lubricants and lubrication. Wiley-VCH, Weinheim
- Mitra, S. (2006). Automotive Mission Plan 2006 - 2016 - A Mission for development of indian automotive industry. Ministry of Heavy Industries & Public Enterprises, Government of India. New Delhi: Society of Indian Automobile Manufacturers. Retrieved March 20, 2010
- Mordorintelligence (2017), India Lubricants Market, available on <https://www.mordorintelligence.com/industry-reports/india-lubricant-market>, retrieve on 06 June 2019.
- Pham, Michel Tuan, and E. Tory Higgins. "Promotion and Prevention in Consumer Decision-Making: The State of the Art and Theoretical Propositions." In Inside Consumption: Consumer Motives, Goals, and Desires, 8-43. Ed. S. Ratneshwar and David Glen Mick. Abingdon, Oxon: Routledge, 2005.
- Philip J. Kitchen, Ilchul Kim, Don Edward Schultz (2008), Integrated marketing communications: Practice leads theory, Journal of Advertising Research, Vol. 48, issue 4, Dec 2008.
- S Ramesh Kumar (2003), Branding strategies in a changing marketing environment (Indian context), Journal of Brand Management, September 2003, Volume 11, Issue 1, pp 48-62
- Sun, Baohong and Neslin, Scott and Srinivasan, Kannan(2002), Measuring the Impact of Promotions on Brand Switching Under Rational Consumer Behavior (April 2002). Tuck School of Business Working Paper No. 02-10. Available at SSRN: <https://ssrn.com/abstract=310180> or <http://dx.doi.org/10.2139/ssrn.310180>
- Verma Pooja (2003), The Indian Lubricant Market: Survival of the Slickest, available on <https://www.frost.com/sublib/display-market-insight.do?id=4968520>, retrieved on 5 June 2019.

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