SMART COMMERCE ANALYSIS FOR CLICK AND MORTAR OF INTEGRATION PLATFORM

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ABSTRACT

As mobile, social communities and networks become increasingly prevalent, innovations in business services are often triggered by the real world instances. Terminal services increase the numbers of consumers through the physical channels and Internet. Effectively integrate and link between the Internet and physical services will be a challenge for all channel business and e-commerce industry. How to provide a total solution for building and maintaining the operation is not available absence of opportunities. It is a key issue to balance features of Social, Location-based and Mobile (SoLoMo) in a new business era when the pace of changes is particularly rapid. How to provide a total solution for building and maintaining the operation is not available absence of opportunities. E-commerce has developed rapidly by evolving from sales online only into the actual situation integration (online to offline, offline to online, O2O). The industry will reshape the composition of the target customer, redefine marketing strategy and rethink interactive content and service depth. The goal of this paper provides a total solu1tion with an interoperable interface, forward-looking technology, field deployment, and configuration flexibility from the development of business intelligence data collection and analyzes services to support the operation development of business service in the industry.

Keywords—social community, innovative, business intelligence

INTRODUCTION

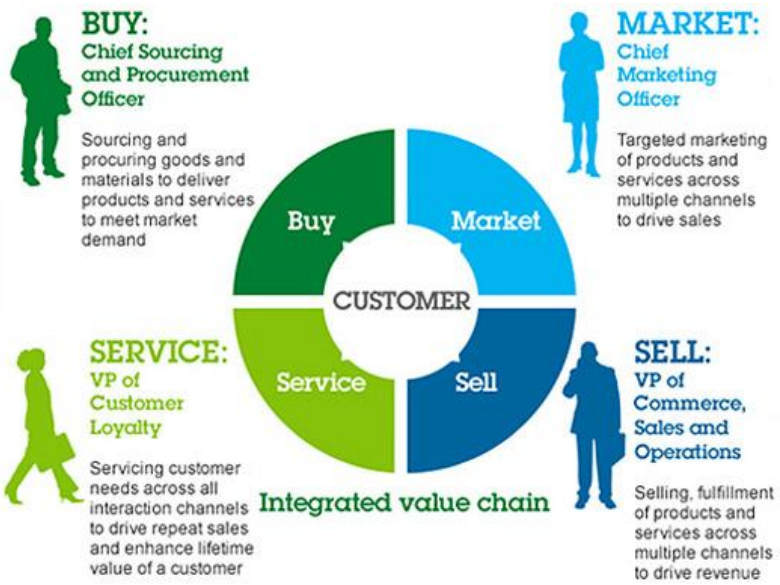
As mobile, social communities and networks become increasingly prevalent, innovations in business services are often triggered by the real world instances. Terminal services increase the numbers of consumers through the physical channels and Internet. Effectively integrate and link between the Internet and physical services will be a challenge for all channel business and e-commerce industry. How to provide a total solution for building and maintaining the operation is not available absence of opportunities. It is a key issue to balance features of Social, Location-based and Mobile (SoLoMo) in a new business era when the pace of changes is particularly rapid. The development of the next wave of business innovation services and revolutionary solutions should also be addressed, while taking into account the history of the source of production, critical information of management and products to grasp for consumers, and optimization of commodity value chain and production decisions to solve inventory issues.

According to Forrester Research report, U.S. e-commerce generated $23.1 billion output value in 2012 and is expected to increase by 13% to $26.2 billion in 2013. E-commerce accounted for about 8% of the total U.S. retail sales which are expected to reach $37 billion in 2017. E-commerce will regard as one-tenth of all U.S. retail sales. E-commerce sales in Europe are expected to grow even faster than the U.S. from 11.2 billion in 2012 to 19.1 billion in 2017.

E-commerce has developed rapidly by evolving from sales online only into the actual situation integration (online to offline, offline to online, O2O). Consumers who can purchase from the virtual channel (product / service) can be attracted to the physical store to enjoy shopping and service experience situation or online purchasing parity through mobile devices in the store. The boundary of traditional retailers and online e-commerce industry is blurred. The industry will reconsider who are the target customers, redefine marketing strategies and rethink interactive content and service depth. The money that consumers spend in the virtual path will gradually transfer to the physical path.

According to IBM, new types of customers are redefining the interaction model between the buyer and the seller. The forces of these customers come from technology and information transparency. Customers are able to retrieve extensive information from more diverse sources than in the past. Smarter Commerce is customer-centric. Smarter commerce recognizes that the sale is just one aspect of the experience. As with traditional commerce, the customer is at the center of all operations. Smarter commerce turns customer insight into action, enabling new business processes that help companies Buy, Market, Sell and Service their products and services. Smarter Commerce has integrated supply value chain. The type of commerce will change significantly with diversified technology pipeline to enhance the contact experience with customers, employees, and suppliers. The commerce operation will reach smooth seamless to increase the business satisfaction and service efficiency. Figure 1 shows the Smarter Commerce which is a smarter way for companies to buy, sell and market their products by integrating operations.

Figure 1
Smarter Commerce. (IBM, 2012)



Buy: expanding the procurement view

Using a new rules-based order management system, the company can accurately forecast inventory, manage demand and coordinate distribution and sourcing. These customers enjoy an order fulfillment rate of nearly 100 percent. The new approaches enable supply chain decision makers to synchronize supply to demand and gain better control over inevitable disruptions (IBM, 2013).

Market: personalizing the message

Companies have become even more precise, and can be delivered through the most effective channels for each customer with powerful analytics and coordinated cross-channel marketing, personalized campaigns. Therefore, marketers are closer than ever to speak directly to customers about products and services and delivering the best offer, automatically, with a more complete understanding of how customers interact and respond to their brands (IBM, 2013).

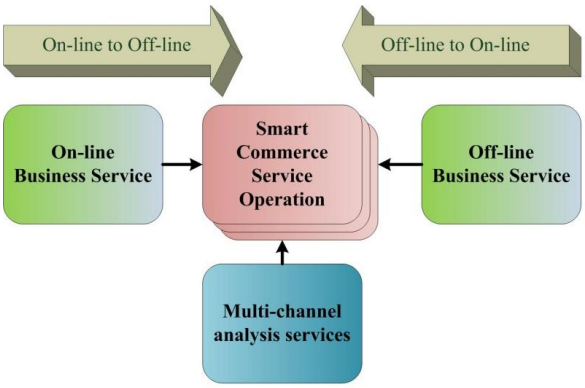
Sell: going where the customer is

Smarter Commerce expands customer options, such as checking product availability on the spot, designating the best shipping location, and essentially enabling customers to order anywhere and pick up anywhere. Especially, it's not just about selling to consumers. Companies with B2B models can offer account-specific catalogs, contract-based pricing, complex product configuration and powerful order orchestration processes (IBM, 2013).
Service: a winning follow-through

Smarter Commerce doesn't end at the sale. A reputation for excellent customer care in the months and years following purchase can be a strong selling point. Executives charged with customer service are using customer insights to predict service demands. From synchronizing product installation and warranty to managing and tracking returns more efficiently, fluently operations imply a better customer experience (IBM, 2013).

Whether taking the perspective from the development of an online business or of a physical channel, Smarter Commerce of the maintenance and operation business services industry will be required. The new type of industry service can integrate the wisdom of the actual situation of maintenance and operation business and of choosing the business information to provide integrated services. In addition, "Data is the King" and "Know What Your Customers Want Before They Do", approaches, together with a strong service system, starting from the actual situation of consumer behavior provides business intelligence services business is the key to success in this industry.
The goal of this paper provides a total solution with an interoperable interface, forward-looking technology, field deployment, and configuration flexibility from the development of business intelligence data collection and analysis services to support the operation development of business service in the industry. Figure 2 depicts the architecture of the Smart Commerce service solution.

Figure 2
The architecture of Smart Commerce service solution.



Click And Mortar Business Analysis
Click and mortar business analysis refers to understanding the track of customers and product information as well as what information should be provided them. Rather than being passive, the industry should actively provide information to customers and analyze consumers' personalized information.
Multi-channel analysis services
The goals are to create consumer-centric analysis services and integrate various analytical models in order to identify the common model of the business and production. Composite multi-channel and cross-sector analysis can help the industry to grasp consumer behavior and preferences across different sales channels.

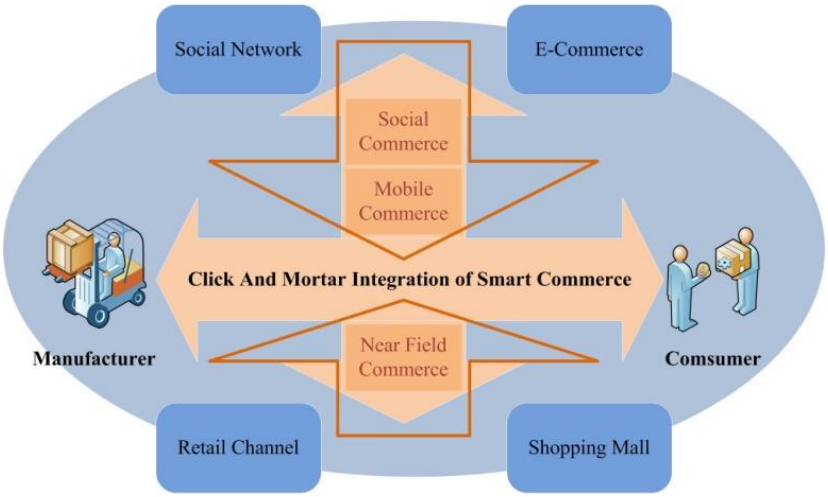
LITERATURE REVIEW

In this section, we draws on and contributes to several streams of literature, each of which we review below.With the rapid growth of e-commerce, the development of organizations have also been diverse. Click-and-mortar is a type of business model that includes both online and offline operations, which typically include a website and a physical store (Oxford Reference, 2013). A click-and-mortar company can offer customers the benefits of fast online transactions or traditional face-to-face services. In general, company relies on a mixed channel that involves the use of multiple channels serving sales opportunities (Friedman & Furey, 1999). A conceptual framework includes four types of synergies obtained by integrating e-commerce with physical infrastructures: cost savings, improved differentiation, enhanced trust, and market extension (Steinfield et al., 2002). Knowledge of consumers' cross-channel shopping behavior was scarce and important. How to obtain the knowledge of consumer shopping behavior is a key issue to success in this industry (Doong et al., 2011).

BUSINESS ANALYSIS FOR CLICK AND MORTAR OF INTEGRATION PLATFORM

In this section, we describe a click-and-mortar of integration platform with business analysis. Figure 3 depicts the architecture of the Smart Commerce service solution.

Figure 3
Business Analysis for Click And Mortar of Integration Platform.



Consumers detection and tracking

Shopping guide or recommended behavior will depend on the understanding of consumers. This is a difficult issue in the physical world. How to close to the consumer, understand the consumer intention and behavior and analyze consumer attributes and preferences, are some issues to be a breakthrough in technology.

Target consumers exploration

In a different location and different consumer groups, these are not the same about what products to launch. How to use information technology to quickly understand the goals and preferences of region consumers in the international market, is a technical issue that must be addressed.

Actions shopping guide

Personal services are the key factors for competition which includes understanding and predicting customer requirements, personal selection of quality merchandise, putting up a communication bridge between industry and consumers, or attracting consumers attention with interactive experience to market products.

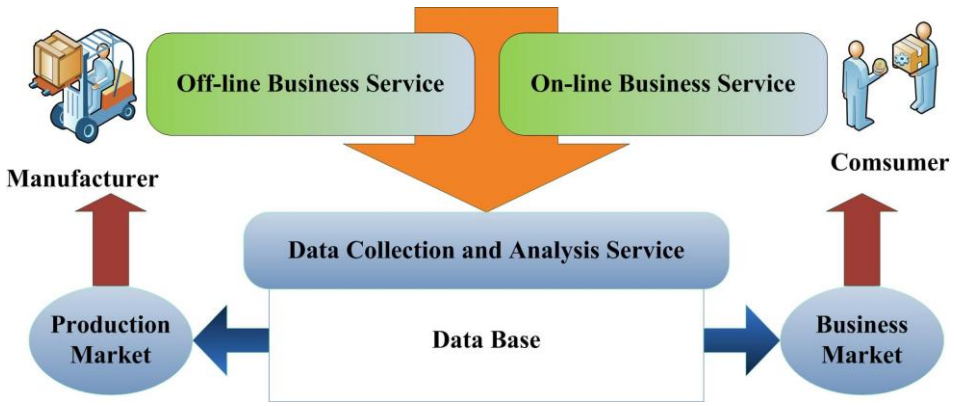
Multi-channel identification and publishing

Company needs to add new product information from a pipe to publish for multiple sales platforms in order to supply multi-channel distribution services. The data feedback becomes the company's next

wave of marketing tactics basis. The combination of heterogeneous system functions include displaying and selling platform, cash flow and customer service and et al., so that consumers can purchase and pay directly from the entire transaction platform.

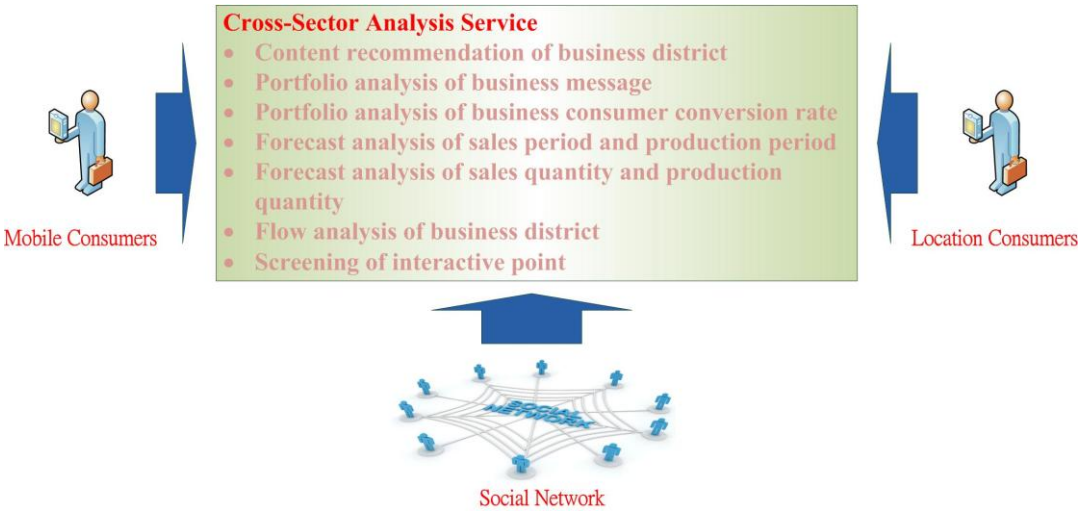
Collection and analysis service of business intelligence is a critical requirement for new business channel. Collecting the data of consumer behavior for mobile consumer at various channels is first step. And then, analyzing business intelligence through business-related analysis model to provide operators to develop smart commerce and to serve production industry, system integration industry, E-commerce industry, physical shopping channels, as well as brand advertising industry.
First step is to develop key technologies and solutions to break in some issues related about exchange interface, forward-looking technology, field deployment, and configuration flexibility. Next step is to practice solutions to reduce the risk of industrial investment. Final step is to analyze the data from smart commerce to provide analysis service for business operators. After repeating to correct and modify the analysis model and analysis result, smart commerce platform continues to provide business intelligence data collection and analysis services to become the technology and service providers. Figure 4 depicts the processes of smart commerce.

Figure 4
The processes of smart commerce.



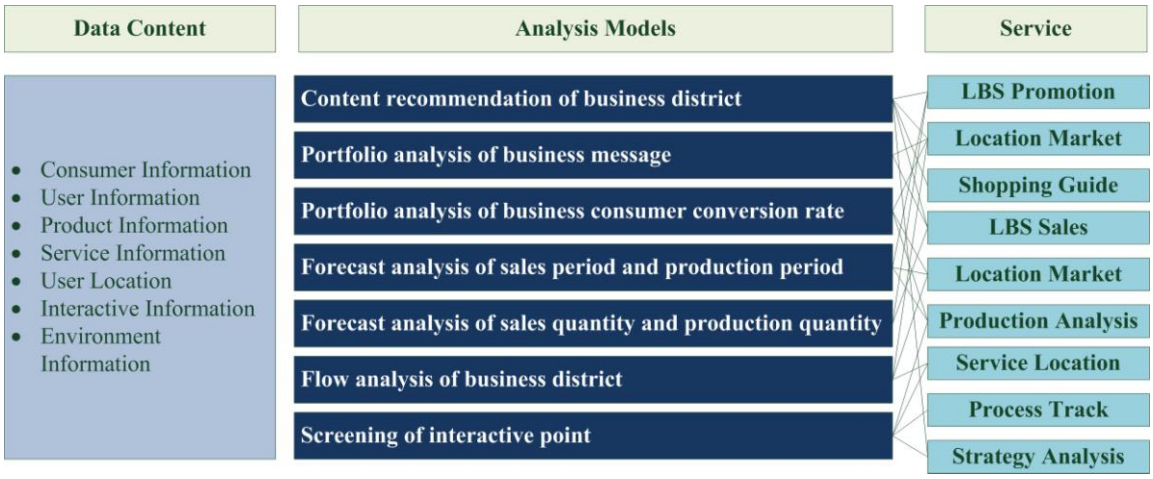
This paper develops seven analysis models which include content recommendation of business district, portfolio analysis of business message, portfolio analysis of business consumer conversion rate, forecast analysis of sales period and production period, forecast analysis of sales quantity and production quantity, flow analysis of business district and screening of interactive point. Figure 5 describes the seven analysis models.

Figure 5
Seven analysis models.



Academic researches focus on how to optimize and achieve targets to provide profits maximization. This paper uses different data content from consumers through analysis models to provide various services for business operators to make better sales and improve profits. Figure 6 indicates the architecture of analysis models.

Figure 6
The architecture of analysis model.



CONCLUSION

This paper intends to complete an intelligence service information platform and focuses innovation and development of business services to solve the related issues. And then, the integration of business intelligence system architecture and related specifications and standards are developed. Business services are quickly extended to create new types of e-commerce industries revenue. The relevant industry can start an opportunity in the next wave of business revolution.

ACKNOWLEDGMENT

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AN INNOVATION APPROACH FOR IMPROVING PASSENGER VESSELS SAFETY LEVEL: OVERLOAD PROBLEM

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ABSTRACT

The purpose of this paper is to design the conceptual model concerning an innovation overloaded sensor that can be used to detect and reduce the overload problem of passenger ships. A passenger vessel becomes an important mode of transport to transfer people or goods from one destination to other destination. The passenger vessel service generates high income and profit margin to the ship operators. Thus, most ship operators are operating their vessels with over capacity of passengers for a single voyage. By doing that, the voyage and operating costs of the passenger ship can be reduced respectively. The overload passenger vessels scenario leads to the collision or sink of the vessel and also it causes the possibility of passenger death. To overcome this issue, an innovation technology incorporates the elevator concepts using the load sensor (HCC-High Capacity Compression) and use batching controller to setting the minimum and maximum capacities is recommended to be installed at the entry point of the passenger vessels. The number of passenger ship collisions due to the overloaded problem is expected to be reduced using the proposed sensor. Ultimately, the total number of passenger deaths due to this problem will automatically be reduced.

Keywords: Passengers Vessels; Overload Problem; Load Sensor; Maritime Tourism Innovation; High Capacity Compressor (HCC).

INTRODUCTION

This study describes an innovation approach for improving the passenger ships safety level in the scope of the overload problem. There are a number of passenger death cases due to the overloaded passenger ship problem all over the world. For example, the overloaded passenger vessel capsized was sinking after hitting rocks at Rajang River, Sawarak in May 28, 2013. The accident occurred when the owner of the passenger ship, Express Bakun Mas carried 204 passengers instead of 74 passengers as per allowed (New Straits Times, 2013). As a consequence, 21 people were missing and death as a result of trapped inside the vessel. The latest passenger ship collision occurred due to the overloaded problem is at Pulau Lan, Bangkok in November 4, 2013. The ship carried more than 200 passengers on board and this is against the standard capacity. As a result, 6 persons were death including the tourist from China and Russia.

In both cases, the ship operator aims to obtain higher profit margin by carrying a high number of passengers in one trip without taking care the passenger safety matter. Rules and regulations concerning the overloaded passenger ships have been introduced by the international authority since 1906. However, due to the lack of enforcement by the local authorities, ship operators' awareness and non-compliance to the regulation, the total number of death due to this problem is gradually increased from time to time.

Thus, the purpose of this study is to design a conceptual innovation overload sensor that can be used to detect and reduce the overload problem of passenger ships. Such an innovation technology incorporates the elevator concept using the load sensor (HCC-High Capacity Compression) and use batching controller to setting the minimum and maximum capacities. The sensor will be installed at the entry point on the passenger ship and the minimum and maximum weights of passenger ships will be detected by the HCC sensor when passengers enter the ship. If the minimum of capacity is

detected, the first alarm warning will be appeared by a green light at the system. The alarm sound will active when the HCC sensor detects the overload burden at the maximum capacity. The alarm sound will only can stop if the load burden is removed.

LITERATURE REVIEW

Passenger vessels can be defined as a ship carrying more than 12 passengers and for on international voyages must comply with all relevant IMO regulations, including those in the international convention for the safety of life at sea (SOLAS) and Load Lines Conventions (IMO, 2013). The passenger vessel is a specific ship designed for carrying passengers and some small size of cargoes. The types of passenger vessels can be categorised into 4 categories namely 1) ferries, 2) boat (carry more than 12 passengers), 3) cruise ship, and 4) ocean ship. While, overloads can be defined as load with too great a burden of cargoes or passengers or in other word is an excesses load (The New Oxford Dictionary of English, 1998).
According to Part V (101), Survey and Safety, Chapter 179, Merchant Shipping Act (1996), the overloaded ship can be defined as follows:

> "where a cargo ship is so loaded at any time that, if the ship were floating without a list in still salt water of a specific gravity of 1.025, the load line marked on either side of the ship that is the appropriate load line at the time would be submerged, the ship shall, for the purposes of this Act, be deemed to be overloaded, and, subject to subsection (4), to be overloaded to the extent which that load line would be submerged".

Such a described statement in Merchant Shipping Act (1996) can be considered in the case of passenger vessels. The overloading of passenger vessels is dangerous and may seriously reduce the stability and seaworthiness of the vessel. For example, overloading of passenger ships may reduce freeboard, making the less able to resist waves and more likely to be swamped. Freeboard is the minimum vertical distance from the surface of the water to the gunwale or deck. The gunwale is the upper edge of a ship's or boat's side. Overloading compromises the safety of everyone on board and increases the chance of swamping or capsizing (Maritime Safety Queensland, 2013). This scenario leads to the passenger vessel collision and sinking, also may causes of passenger fatalities. Furthermore, there are a number of negative impacts from the overloaded problems such as 1) a country may loss professional workers (lawyer, accountant, doctor, etc.) if the victim of passenger vessels overload problem is one of them, and 2) children may lose their parents and family if the same situation happened.

There are a number of cases dealing with passenger ships overload problem all over the world. For example, in Bangladesh, every year there are many passenger vessel accidents in which hundreds of people die. According to the records between April 2003 (Lawson 2003) and July 2003 (BBC News 2003a), over 1,200 people died in six different passenger ships collisions cases. The actual number of fatalities is difficult to be reported in some cases due to the number of passengers on board is usually unknown and not recorded in a proper way. In addition, more than one passenger vessels collision cases occurred at the same time in Bangladesh. At the time of the passenger vessel disaster in May 2004, over 150 people were died (Lloyd's List 2004), while an official report from the Inland Water Transport Authority said that over 1,000 people were died in the cases of passenger vessel accidents each year (Reuters 2004). The accident report is unreliable at present and makes meaningful analysis difficult.

Figure 1: The condition of vessel before voyage

Figure 2: The accident occur during

Figure 1 shows the condition of one of the passenger vessel before the voyage at Bangladesh. The MV Shariatpur-1 passenger vessel carries 250 people that were exceed the number of passengers allowed during the sailing time. It means that the overloaded passenger vessel occurred. The passenger vessel was travelling to the nation's capital from Shariatpur district. After a while of sailing, the MV Shariatpur-1 passenger vessel suddenly unstable and sank in the Meghna River at Munshiganj district of about 25 miles (40 kilometres) south of Dhaka after colliding with another passenger vessel (Figure 2). There are some passengers jumped into the river to save their lives without life jacket and the passenger vessel had been traced 70 feet (more than 20 meters) under water.

Figure 3: Accident victims was death

As a result, 32 people were death and 61 people were missing due to the accident (Figure 3). There are many lives were lost in this accident including children. More than hundreds of people will die in such collision every year if ship operators often ignore the rules that have been introduced by the International Maritime Organization (IMO) and Merchant Shipping Act. The passenger vessel overloaded problem can be categorised as one of the fatalities factor worldwide because the ship itself has no ability to sail. This situation can be considered as very crucial factor especially for some countries that using passenger vessels as main medium of transport.

In addition, US Coast Guard's Safety Divisions also describes the numbers of passenger vessels accidents and fatalities caused by the overload problem that occurred at United Stated from 2000 to 2012 (Table 1).

Table 1:
The total number of passenger vessel accident and fatalities

Year	Total Number	
	Accident	Fatalities
2000	47	31
2001	55	21
2002	34	22
2003	36	30
2004	36	18
2005	26	11
2006	30	24
2007	33	13
2008	48	29
2009	41	31
2010	51	27
2011	53	29
2012	43	21

Sources: US Coast Guard's Safety Divisions.

Table 1 shows the passenger vessel accidents due to the overload problem have been occurred every year from 2000 to 2012. The accident causes the fatalities to the passengers. For example, in 2010, there are 51 passenger vessels accidents have been reported and from that, the total number of fatalities is 27 person. In reality, more than half of the passenger vessels operations have potential to engage with collision case if their carry passengers more than the total number allowed. The scenario happened because some ship operators intend to obtain high profit margin from a single voyage trip by ignoring the passenger safety matter. Finally, the passengers become a victim due to the greed attitude of some ship operators.

Figure 4 shows a graph of the statistical data for the total number of passenger vessels accident and fatalities caused by the overload problem at United Stated from 2000 until 2012.

Figure 4:
The total numbers of passenger vessel accident and fatalities

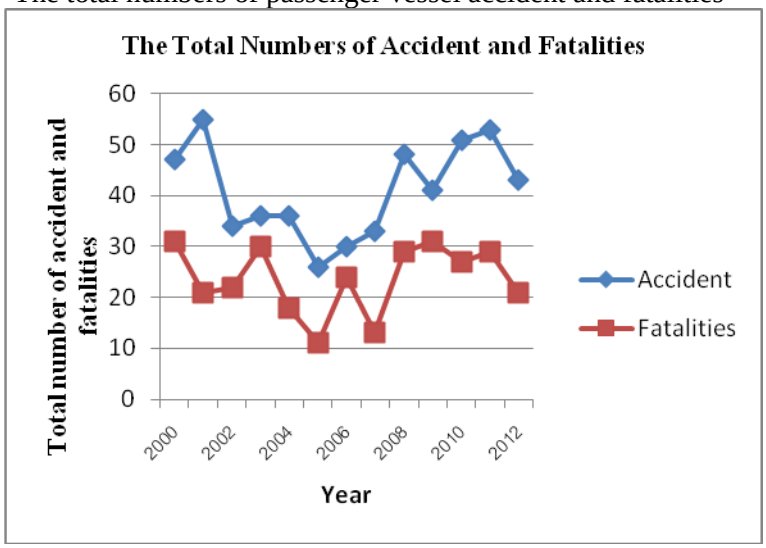


Figure 4 shows the reading of irregular number of accidents and fatalities rate from 2000 to 2012. Although the data fluctuate, the more important is that every year the number of accidents and deaths will be happened due to the passenger vessel overload problem. This scenario should be thought as a serious issue that need to be prevented or reduced the numbers of accidents and death due the overload problem. The overload problem will have adverse effects on the passengers themselves in the event of the accident.

Reflect to the overloaded passenger vessels problem, the Regulation Safety 1906 has been introduced by the International Maritime Organization (IMO) was described in detailed the rules and regulation of operating passenger vessels. In addition, the Merchant Shipping Act 1996 has described the penalty will be charged to ship operators who carrying passengers in excess condition as follows (Part V (102), Survey and Safety, Chapter 179):

> "The owner/operator or the master of any passenger ship shall not carry or receive on board thereof, or on or in any part thereof, any number of passengers which, having regards to the time, occasion and circumstances of the case, is greater than the number allowed by the passenger ship's safety certificate, and if he does so, he shall be guilty of an offence and shall be liable on conviction to a fine not exceeding $10,000 or to imprisonment for a term not exceeding 2 years or to both".

The statement clearly described the punishment will be given to those ship operators who failed to fulfil the specific requirement in the passenger ship's certificate. In facts, the IMO, a United Nations agency, and Merchant Shipping Act 1996 are concerned with safety for international shipping and the prevention of marine pollution. This emphasis was reflected to the changing IMO's motto from "safer ships, cleaner oceans" to "safe, secure and efficient shipping on clean oceans" (Sam Bateman, 2006). While, for the domestic shipping trade is not considered as part of the IMO portfolio. However, the passenger safety matters on board ship have to be considered as the top priority element in operating passenger vessels. As described by Efthimios Mitropooulos, the secretary-general said (Maritime News 2004):

> "It is essential that we find way of addressing the question of safety standards aboard non convention ships (i.e., ships that are not subject to IMO regulations). The tragic passenger vessel accidents in the Philippines and the Maldives this year have highlighted how devastating these incidents can be in terms of loss of life. IMO has already promoted the development, adoption and implementation of safety codes for non-convention vessels in Asia and the Pacific, Africa, the Caribbean and the Mediterranean and will continue to explore initiatives to assist countries in avoiding these tragedies in the future."

The international passenger vessel community working with IMO has embarked the developing countries want to reach the goal in reducing passenger vessel accident by 90% in 10 years will take a serious effort by all parties (IMO, 2013). By systematically examining the evidence and establishing and allocating responsibilities, the partners in passenger vessel safety can make progress on a number on front actions. The current efforts produce successful experiences; lessons learned can provide transferable strategies for other countries with similar challenges. What can the world do in order to reduce the passenger vessel fatalities due to the overload problem?

This situation rise to the question on how do the current passenger ship regulations and existing technology (such as AIS, GPS, etc.) assist in reducing the total number of death due to the overload problem. Therefore, this study intends to design a conceptual innovation technology using a HCC sensor incorporates the elevator concept for improving the passenger vessel safety level as part of the important tool. The purpose of such a sensor is to detect and reduce the overload problem of passengers' ships and can be considered as a preventive action for avoiding the overload problem.

An Innovation can be defined as the process of making changes to something established by introducing something new (The New Oxford Dictionary of English, 1998). According the Nowotny, 2008, he says "Innovation is also a central idea in the popular imaginary, in the media, in public policy and is part of everybody's vocabulary. Briefly stated, innovation has become the emblem of the modern society, a panacea for resolving many problems, and a phenomenon to be studied". As such, it can be radical or incremental, and it can be applied to products, processes, or services and in any organization. It can happen at all levels in an organization, from management teams to departments

and even to the level of the individual. In fact, the innovation has been studied in a variety of disciplines including economics, business, engineering, science, and sociology.

3.0 An Innovation Approach for Improving Passenger Vessels Safety Level: Overload Problem

An innovation technology to reduce the overload problem can be considered using the elevator concept operation. The elevator concept is eligible to detect the overload people or goods when entering the elevator box using a sensor. If the overload problem occurs, the sound alarm of elevator will active and the door cannot be closed until the burden was reduced. Once the burden has been removed, the sound alarm will stop and the elevator door will close respectively. The elevator continues the operation smoothly.

The elevator concept operation will be applied in the study as a conceptual design concerning the overload problem. The first process is making a model to test the sensor detection. The High Capacity Compression (HCC) sensor will be used in this study as the main sensor for detecting the overload problem. Meanwhile, the packed batching controller will be used as an automatic tare weight which is programmable by function setting the minimum and maximum capacities. The HCC sensor and microcontroller-chip will on at the hub passenger vessel located at the entry point inside the passenger vessel. The weight of passenger and goods will be detected when entry the passenger vessel. The innovation development process is discussed from Step 1 to Step 5 as follows:

Step 1: Identify the goal.

There are many consequences once the overload of passenger vessels happens as described in Section 2. Therefore, the goal of this study is to reduce the rate of passenger vessel accidents caused by overload problem. Indirectly, it will reduce the number of fatalities rate caused by the same reason. The technology-based innovations will be used to achieve the goal of this study incorporates the elevator concept and the HCC sensor.

Step 2: Conceptual / Model of elevator.

The existing technology from other industry is applied as a model in this study called the elevator concept. This concept is chosen because of enabling to deal with the human and cargoes weight measurement. The operation process and some equipment in the elevator concept will be used in designing the model of this study. Having says that, an innovation technology will be designed for improving the safety level of the passengers' vessel when dealing with the overload problem. Figure 5 shows the model of the traction elevators.

Figure 5:
The elevator concept

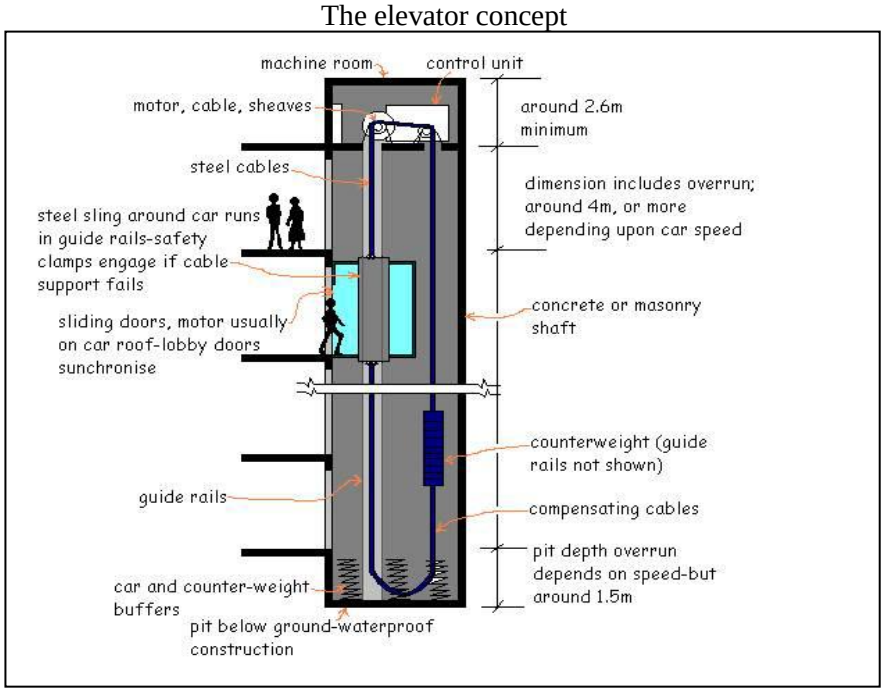


Figure 5 shows the elevator concept that to be applied in this study. Further detailed explanation of this figure has been summarised in Section 1 to Section 3 as follows:

Section 1: Traction elevator
Traction elevators are the most popular form of elevator designs used widely across the world. These consist of the elevator car and a counterweight held together by steel ropes looped around the sheave. The sheave is a pulley with grooves around its circumference. The sheave is driven by the AC or DC motor. The sheave grips the hoist ropes so that when it rotates, the ropes move, too. This gripping is due to traction. The traction drive depends on the friction, or traction, between the hoisting ropes and the drum. The hoisting ropes are wound over the drum (possibly several turns are made) and down to the counter weight, which compensates for the weight of the empty elevator car and vastly reduces the power needed by the hoisting motor.

Section 2: Structural Design Criteria
The elevator cars are built at the elevator manufacturer's plant using standard metal cutting, welding, and forming techniques. The rest of the elevator is assembled on the building site. Elevator shafts are sized according to car shapes and sizes and door sizes, with due consideration given to space requirements for guide rails and brackets, counterweight systems, running clearances, and ancillary equipment. Sufficient air space should always be provided around cars and elevator counterweights to minimize buffeting and airborne noise during operation.
The building design integrates the elevator shaft from the beginning, and the shaft grows as the building is erected. The walls of the shaft are poured concrete, and the shaft straightness and other dimensions are carefully monitored as each floor goes up. Guide rails, switch ramps, service ladders, and similar support equipment are bolted into the shaft after the shaft walls are complete, but before the shaft is roofed. While the shaft is still open at the top, a crane raises the counterweight to the top of the building and lowers it into the shaft along its rails. The crane then lifts the elevator car and inserts it partly into the shaft. The guide wheels connect the car to the guide rails, and the car is carefully lowered to the bottom of the shaft.

The shaft is then roofed over, leaving a machine room above the shaft. The hoist motor, governor, controller, and other equipment are mounted in this room, with the motor located directly over the elevator car pulley. The elevator and governor cables are strung and attached, the electrical connections completed, and the controller programmed. Electromechanical switching is the oldest controller technology for elevator drive systems. Modern installations use microprocessor and relay logic controllers.

1. Microprocessor: Computer logic control is the standard for both electric traction and hydraulic elevators. Microprocessors are typical in most installations
2. Relay logic: Mechanical electro-magnetic controller relays control the operation of the elevator.

Section 3: Elevator control
The modern elevator control systems include a logic controller that takes the user’s input and translates it into meaningful actions. The logic controller's central processing unit (CPU) must be given at least three critical pieces of information, namely:
• Where people want to go?
• Where each floor is?
• Where the elevator car is?
The first input “where people want to go” comes directly from the users and the elevator controls must interface with user’s requests. In its simplest form when the users desire to ride the elevator they press a button located in the elevator lobby. The lobby is defined as the area of the building, adjacent

to the elevator, on a given floor. The user presses the either of two buttons, up or down, correlating to the direction they want to move. The elevator logic controller receives the signal and responds by travelling via the path of predetermined travel routes or cycles. An elevator that is initially idle will dispatch immediately to the floor of the user request. The elevator will stop only for other requests for moving in its current direction of travel. Once all requests have been serviced in one direction of a cycle, the elevator will reverse and begin responding to requests in the same manner as before. An elevator that is idle for several minutes will return to the ground, or bottom, floor.

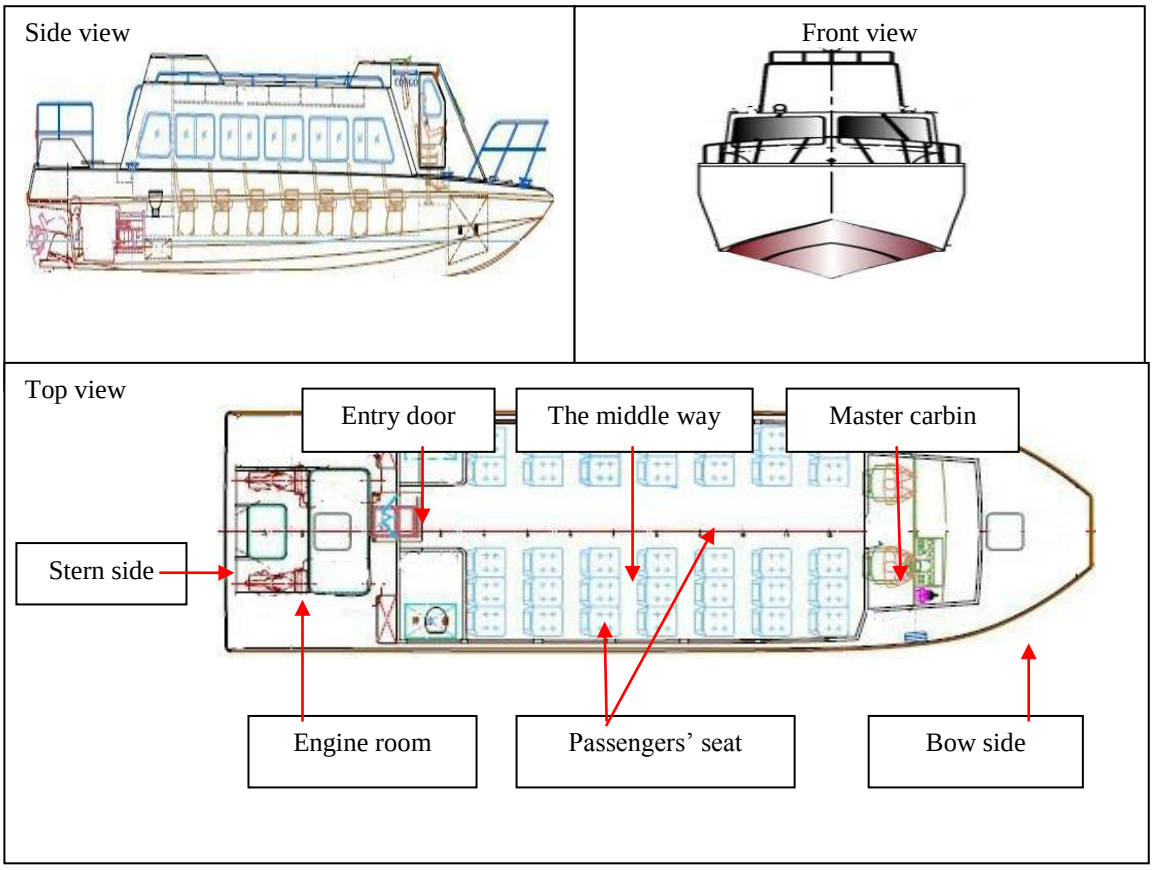
The second input "where each floor is" can often be determined by the addition of holes located on a long vertical tape inside the elevator shaft. The elevator car is equipped with a light or magnetic sensor that reads the number of and which holes are being passed by the elevator car as it ascends and descends. The elevator controller is equipped with a means of varying the motor's speed based on a set of feedback signals that indicate the car's position in the shaft way. As the car approaches its destination, a sensor near the landing, signals the controls to stop the car at floor level. Additional shaft way limit sensors are installed to monitor over travel & under travel.

The third input "where the elevator car is" related to the elevator scheduling operations. When a user presses the 'Up' or 'Down' button outside the elevator car, the elevator should begin moving towards them. Logic controllers must have some way to determine in what order riders should be picked up and dropped off. Many elevator systems will move in one direction (e.g., upward) and only pick up riders that are also signalling to go in that direction (e.g., upward).

When the final floor that has been requested in that direction (e.g., upward) is reached the elevator will turn around and pick up all riders signalling the opposite direction (e.g., downward). Of course, the elevator car also stops at all floors for which riders, already inside the car, have input a requested. A more sophisticated system, often used in hotels and other large buildings with a lot of foot traffic, involves the traffic patterns that reoccur. These systems have logic controllers that are programmed with information about the demand on each floor with respect to the time of day and they route the elevator cars accordingly so as to minimize the wait for all riders. When there are multiple elevator cars, the logic controller bases the movement on each car on that of the others. Often, the elevator car is equipped with a load sensor so that if the elevator is full to capacity it sends a signal to the control system and the logic controller signals the car not to pick up any more passengers until the load is lowered.

Step 3: Design the passenger vessel sensor technology.
Figure 6 shows the design of passengers' vessel that will be used in this study. There are three views of the vessel's structure: 1) side view, 2) front view and 3) top view. The design of the passenger vessel is using prototype software in order to obtain the real image of vessel. There are seven important elements that need to be identified before the next process can be done. There are 1) steam side, 2) engine room, 3) passenger seat, 4) bow side, 5) entry door, 6) the middle way and 7) master cabin.

Figure 6: The design passengers' vessel

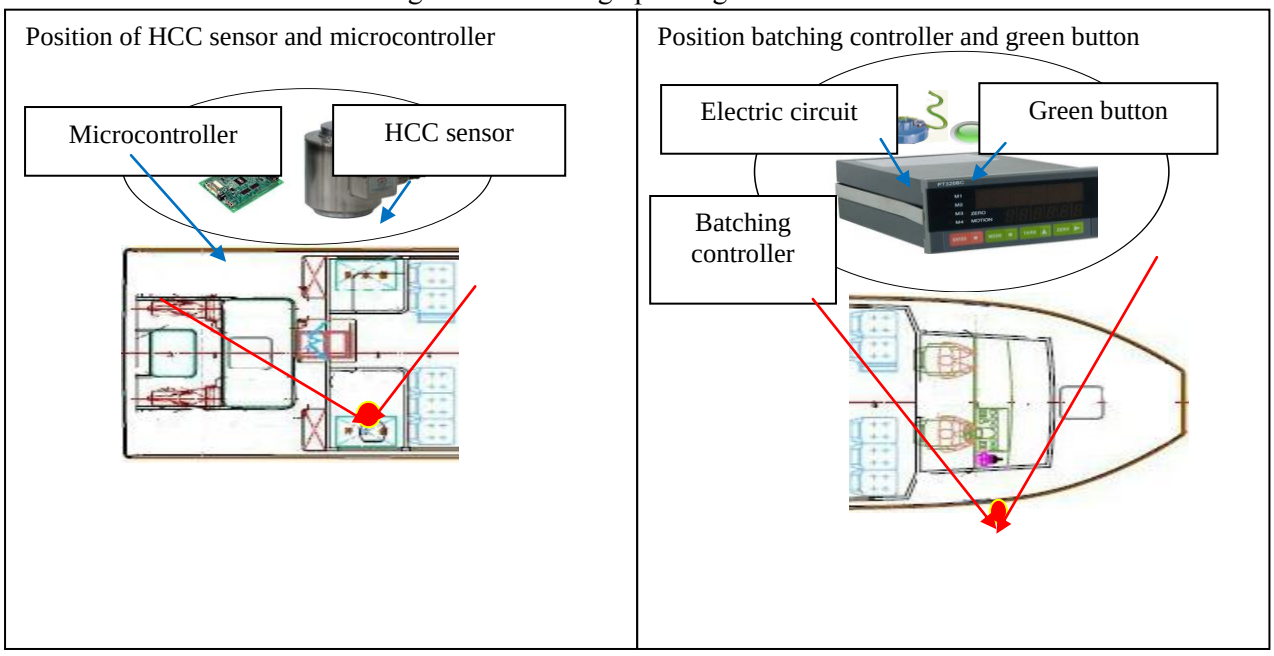


After the seven elements have been identified, the next steps are discussed as follows:
The first process is the HCC sensor will located at the entry point of passenger vessel (Figure 7). This is because when the passengers enter in the passenger vessel and stand in front of the doors, automatically the capacity of passenger will be detected using both ranges of minimum and maximum capacities through the HCC sensor. The microcontroller-chip will send the reading number of capacity burden to the batching controller. If the minimum capacity is detected the green button will automatically being active. Meanwhile, the alarm sound is not active at this stage. Logically, the sensor cannot be control by any person included the master ship.
The second process is the operation system will set both ranges of minimum and maximum capacities at the batching controller. The batching controller will be located at the master cabin. The reason of locating such equipment at the master cabin is because the master or crew can easily monitor the weight measurement detected by the sensor. The minimum and maximum capacities depend on several factors such as 1) the size of the passenger vessel, 2) the numbers of seat, 3) the speed uses for a specific voyage and 4) the weight of the vessel that has been built by the manufacturer.
There are two situations that the sensor detection for dealing with the overload problem. The first situation is the minimum capacity will be detected by the HCC sensor. When the minimum capacity is detected, the first warning will be appeared at the screen board in the master carbin in order to attract the master's and crew's attention. The green button will be connected with the microcontroller and batching controller. This is because when the bathing controller detects the minimum capacity automatically the green button will be active. The batching controller and the green button will be connected using the circuits' electric. Alarm is not active in this situation because it has been set up to

active once the maximum capacity of burden is detected. In this situation, when the minimum capacity is detected the passenger vessel can sail safely.

Figure 7: The entry point of vessel and the HCC sensor

Figure 8: The design passengers' vessel



The passenger vessel will sail smoothly when the minimum capacity of burdens is achieved. Thus, the passenger vessel can safely arrive at the destination without having an overload problem. This situation leads to the rate of passenger vessel accidents due to the overload problem will be reduced respectively and the same case to the mortality rate will be decreased.

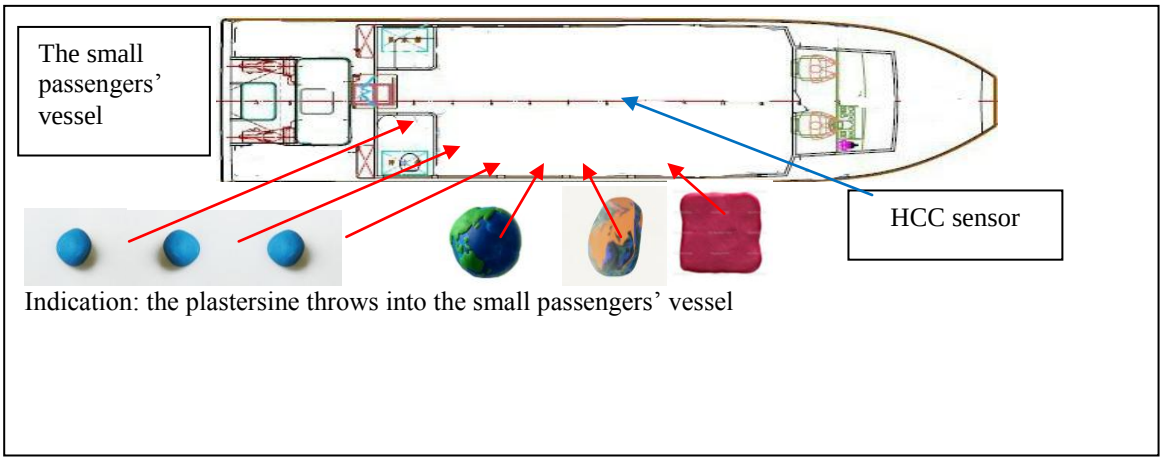
Step 4: Experiment / Test the model and sensor.

The purpose of the experiment is to analyse the functionality of the sensor concerning the weight or burden measurement. The selected materials will be used for conducting the test of this model is including:

- A small passengers vessel (replica)

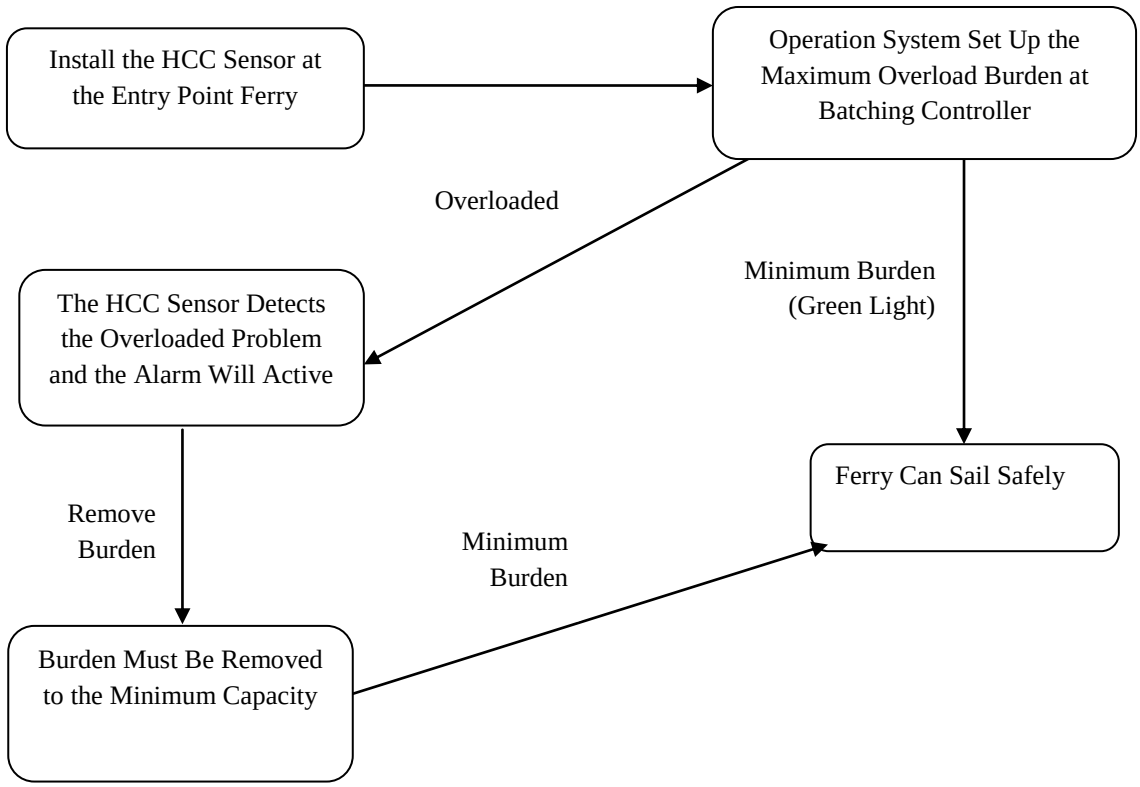
- A sensor / alarm
- 6 pieces of plastersine (3 same weight, 3 different weights)
- Electric circuit
- Green button

Figure 9:
The experiment for detecting the overload problem using the HCC sensor



The result of this experiment will be divided into two situations. The first situation is the sensor will detect the burden of the plastersine at the maximum capacity. When the maximum capacity will archive the alarm will active. That means the experiment is successful because can detect the overload problem occur.
The second situation is the sensor cannot detect the burden of the plastersine. There may have a problem in the experiment. When this situation happens, the experiment must be repeated from Steps 3 and step 4. The experiment will repeat again and again until the result will archived. When the experiment archived that means this innovation will be used in the passengers' vessel industry as a tool to reduce the passenger vessel accident due to the overload problem and the fatalities rate.
Figure 10 shows the conceptual detection overload problem at the sensor model in the passenger vessel. The same process and flow can be explained in the figure. The process starts with the installation of the HCC sensor at the entry point of the passenger vessel. After that, the operating system will be set up the minimum and maximum ranges of capacity at a batching controller. The batching controller will be placed at the master cabin for monitoring purposes. Once the passenger walk into the entry point of the passenger vessel, the weights of passengers and cargoes will be counted and recorded in the operating system. If there is no over loaded case detected in the operating system, the passenger vessel can directly sail without having the overload problem. However, if the overloaded matter is detected by the operating system, the alarm sound will automatically active and make a noisy. The sensor cannot be controlled by the master or crew on board because it will be installed inside the hull of the passenger vessel. In order to start the sail, the master and crew have to take action by removing or reducing the burden until it reaches the minimum capacity level. In this case, some passengers or cargoes have to take them out from the passenger vessel. Once the minimum capacity level is achieved, the passenger vessel can start sailing as normal.

Figure 10:
Conceptual of detection overload problem



CONCLUSION

By implementing this system onto the real passenger vessels, perhaps it is benefited to all passenger vessel players including the policy makers and passengers. Basically, the HCC sensor incorporates the elevator concept can be used for improving the safety level of passenger vessel when dealing with the overload problem. A preventive action has to be taken for reducing the number of passenger vessel collision or sinking due to the overloaded passenger on board. By doing this, perhaps the number of passenger fatalities due to the problem can be reduced respectively. Further investigation on the experiment of the model will be carried out and the specific analysis will be conducted in order to identify the positive and negative impacts of this model. If this model is successfully working in the experimental test, the next step is to test the model on the real passenger vessel for a short term period.

Acknowledgement
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INFORMATION TECHNOLOGY PROFESSIONALS AND FAMILY DISORGANIZATION : WITH SPECIAL REFERENCE TO BANGALORE CITY

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ABSTRACT

Indian society is one of the traditional societies existing in the world. The impact of globalization, privatization and liberalization has created a way for emergence of Information Technology industry in India. Information Technology is one of the fastest growing industries. IT related industries are more established around urban centers in India, especially Bangalore, Noida, Hyderabad, Chennai, etc. The new IT profession has resulted in higher ratio of divorce rate and structural change of family in the society. The divorce rate in India has been increasing gradually due to the impact of ITians. The divorce cases registered in Bangalore family court reveals that out of 100 cases more than 75 to 80 percent of the cases are registered from ITians. It has significant impact on the traditional, cultural and a structural change on the society. The family structure is taking a new diversion due to the impact of IT culture.

KEYWORDS: Divorce, Globalization, ITians, Liberalization, Privatization

INTRODUCTION

The Family Relationships has undergone major changes through the decades. Families used to be major production units where every individual works to acquire the family daily needs as well as they are responsible for keeping the social order, defending, education and social development of the family. The industrialization made a major change in the traditional family structure which has led the large family units to split into small family unit.

Revolutionary change in the society like industrialization has led to rapid development of urbanization and made a way for migration which has led a way for combining of multi culture in the society. Rapid growth of mass-media has brought tremendous changes in the concept of family relations and marriage. Industrial revolution has also impacted both positively and negatively on the social, economic, political and cultural lifestyles of the human beings. India has also experienced the changes due to the influence of industrialization and changes in the urban communities because majority of the industries are located in and around urban locality. Many sociological theories have analyzed the impact of industrialization on Indian society and the historical changes in the pattern of culture, traditions and morals of the society.

The impact of the liberalization, privatization & globalization has led to the entry of the second phase of the industrialization which took place in the name of Information Technology worldwide.

Information technology (IT, also known as Information and Communication Technology (ICT)) is a broad subject concerned with technology and other aspects of managing and processing information, especially in large organization. In particular, IT deals with the use of electronic computers and computer software to convert, store, protect, process, transmit, and retrieve information. For that reason, computer professionals are often called IT specialists (ITians) and the division of a company or university that deals with software technology is often called the IT department. IT includes hardware, database, software, and other resources suitable for information processing. Since 1990s, information technology (IT) has emerged as an essential element in the business environment and has been recognized as a critical component of business strategy. Technology not only enables organizations to compete in global markets and to increase responsiveness to customers and partners, but also has the potential to transform how organizations operate by affecting the nature of work processes.

Table 1

The nature of work processes

Ranking	City	Description
1	Bangalore	Popularly known as the capital of the Silicon Valley of India is currently leading in Information Technology Industries in India.
2	Chennai	It is the Second largest exporter of Software next to Bangalore. It has the largest operations for India's top software company TCS, Infosys (has worlds largest development center with 25,000 employers in Mahindra world city at Maraimalainagar, and many centers in IT corridor), and other software companies like Wipro, CTS, Patni, L&T infotech and many companies have major operations in IT corridor, Ambattur and other places in Chennai
3	Hyderabad	Hyderabad, called Cyberabad, which has good infrastructure and good government support is also a good technology base in India. The Government of AP has built a separate township for IT Industry called the HITEC City
4	Pune	Pune, a major industrial point in India.
5	NCR	The National Capital Region of India comprising Delhi, Noida, Greater Noida , Ghaziabad, Gurgaon, Faridabad and are having ambitious projects and are trying to do every possible thing for this purpose.

India is a country comprising of multi-cultural, multi-linguistic and multi-traditional aspects. But from past two decades urban communities in India are experiencing rapid change in its family relationships and marriage due to the fast growth of IT industries and it is effected by both positive and negative aspects. Indian IT companies have various streams such as IT Services, ITES-BPO, Engineering services, R&D and Software products and Hardware. Majority IT related industries are established only in and around urban centers in India, especially Bangalore, Hyderabad, Chennai, Noida, etc. But in them Bangalore has acquired a prominent position in IT industry where all parts of the country people are employed. Bangalore which was named as garden city has been renamed as Silicon Valley

and presently it is recognized and named as Divorce Capital of India. 1.1 Conceptualization: The word „Divorce in English is derived from the Latin word "divertive" which again is derived from „Dis‟ which means „apart‟ and "vertere" which means „to turn‟ Divorce is the dissolution of the tie of marriage. Divorce represents the end of the hopes that two people had for each other, it is the certificate that their relationships failed. According to the Hindu Marriage Act, 1955 (amended up to 1976), any marriage solemnized, whether before or after the commencement of this Act, may on a petition presented by either the husband or the wife, be dissolved by a decree of divorce on the grounds mentioned therein. The concept of divorce may be understood as different form such terms as;

a) Separation may be an informal preliminary step towards divorce, a temporary expedient to lessen the immediate conflict, legally recognized to lessen the immediate conflict, or a legally recognized decision to live separately without divorcing. Marital separation means, one deprived of normal marital association, affecting their health, security and happiness for the children there is the loss of daily love and conical of one parent.
b) Desertion: as the term is ordinarily employed, means "the irresponsible departure from the home on the part of either husband or wife, leaving the family to fend for itself.‟ several studies have shown that the deserters are husbands form the lower economic groups. Desertion is an evasion of marital responsibilities and hence, we have no way of ascertaining its true extent. Many of the consequences of desertion are similar to those of divorce, for the family may be permanently dissolved. Desertion, however, presents a few special problems. Emotionally, the wife and children often suffer much more severely than in the case of divorce.
c) Annulment: is a court decision that the marriage contains some legal flaw (coercion, fraud, unwillingness to consummate the union, homage, bigamy etc,). Nimkoff defines annulment as a legal action that invalidities the marriage on the ground that it never legally existed and should not have occurred. In separation, the spouses are legally recognized as living in separate households but are not free to remarry since they attain their marital status. Desertion is the voluntary withdrawal of one marriage partner from the other without the latter‟s consent, while nullity is the legal recognition that a marriage had not in fact been valid.

IREVIEW OF LITERATURE

Traditionally, sociologists have referred to the study of how groups of people share meaning and resolve their common problems as the study of culture (e.g., Barley, 1983; Hofstede, 1991; Louis, 1980; Schein, 1992). Later research describes contemporary organizations as multicultural entities (e.g., Barley, 1996; Gregory, 1983; Martin, 1992; Schein, 1996). Within this literature, Van Maanen and Barley (1984) describe the subculture component as an occupational culture, defined as:a group

of people who consider themselves to be engaged in the same sort of work; who identify (more or less positively) with their work; who share a set of values, norms, and perspectives that apply, but extend beyond, work-related matters; and whose social relationships meld the realms of work and leisure. The occupational culture perspective focuses on the meaning of the work role from the perspective of those who engage in it (Chase, 2002). "Members of occupational communities are favourably oriented toward their jobs and careers. To them, work is more than merely „making a living;" it is a source of meaning and value" (Van Maanen& Barley, 1984). Several studies have identified elements of an occupational culture in technical employees of various kinds. The research of Gregory (1983) examined the "native" viewpoint of Silicon Valley technical professionals and focuses on how technical professionals from a wide variety of companies managed their careers. Kaarst-Brown and Robey (1999) presented a cultural theory relative to the management of IT utilizing the metaphor of myth and magic to describe archetypes of IT culture. Prager (1999) maintained, "We all know intuitively that IT professionals behave differently than everyone else. In fact, separate organizational cultures exist for IT professionals and non-IT employees based on a different set of organizational behaviors". Interestingly, Prager also reported that the world view of IT professionals has a tendency to change over time, and eventually these professionals may behave more like non-IT employees. This finding parallels the study of Sornes, Stephens, Saetre, and Browning (2004) which discovered few differences between the use of information and communication technologies by knowledge workers of Norway and the United States. Travica (2008) investigated the concept of information culture as a component of organizational culture and explored its influence on the implementation of self-service software. "Within the discipline of information systems the concept of culture is generally regarded as being very important" (Avison& Myers, 1995). Keen (1997) supports this statement and maintains that "the main source of sustainable competitive advantage through information technology is the most neglected: the IS culture. It makes much more sense to invest in the IS organization and build a culture, not a collection of jobs and tasks".

The present day ITians culture is been playing an important role in the Indian society, even though they represent very less work force. In Bangalore ITians culture is greatly impacting on urban communities in the form of social, cultural, personal and moral aspects including the food pattern, dressing and lifestyle. The impact of science and technology should implement a positive policies regarding social development for the better of the society from the concern towards political and social concern and more over women employees should be provided proper security, by Gloria Bonder. Stewart Witing Chong has expressed about the sustainable development in developing countries through IT industry and has ousted the impact of ICT and to create the global knowledge networks and to improve the poor communities. MehriEzadiYoganesh has spoken about the National culture and organizational culture on the development and use of information and communication technologies. He also has made an attempts define the National culture and organizational culture.

Greg Laudeman has said about the information technology and community-level socio-economic development and pointed out the gaps and difficulties in the process. Nancy Chase has studies about the culture of information Technology and focus on unrelenting change where she has used three stages, the constrictive aspects of changes, difficult aspect of change and change and IT culture by using various sociological theories

OBJECTIVES

The main objectives of the study are as follows: -

- To analyze the impact of Information Technology on family relations.
- To analyze the impact of divorce.

RATIONALE OF THE STUDY

The emergence of liberalization, privatization and globalization has led to the vast development of information technology industry in India. The family relationships in India have been growing in the negative aspect. In the state of Karnataka family relations are breaking down day by day from the impact of IT. Bangalore as the capital of IT industry the divorce rates are increasing everyday among the youngsters working in the IT firms. In this regard there is a need to study the emerging divorce problem.

METHODOLOGY

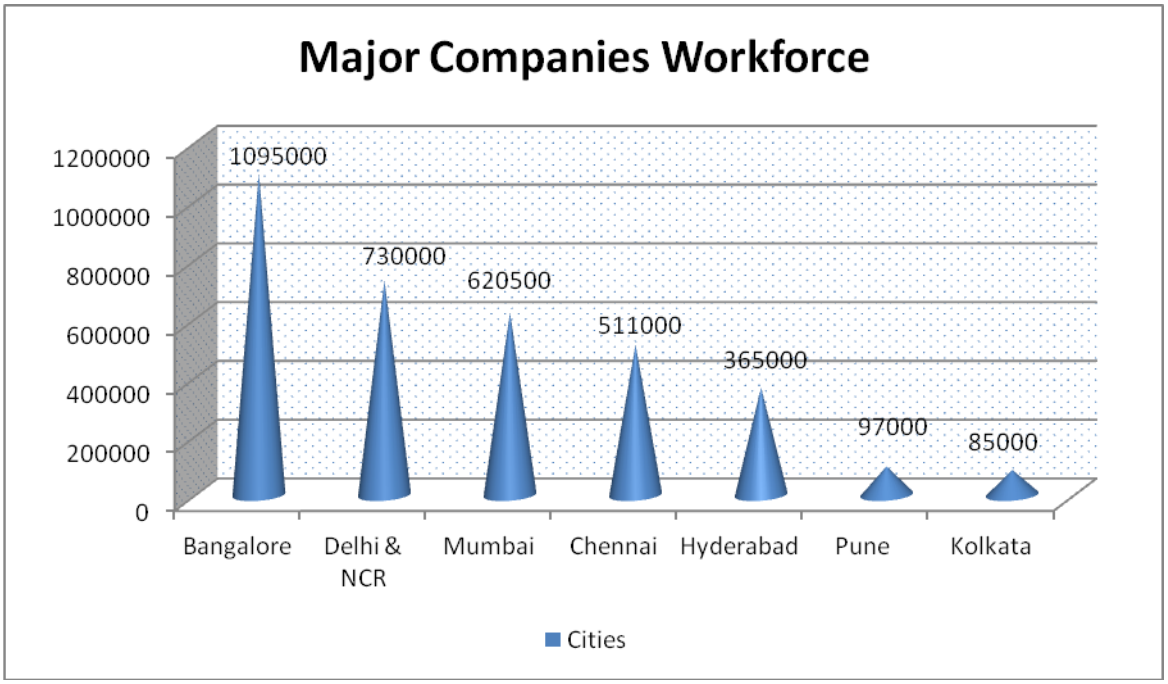
This paper aims at analyzing the changes in the family relationships from past few years. At present, the paper is purely based on secondary sources such as articles, journals, books, newspapers and internet websites.

RESULTS AND DISCUSSION

The tertiary sector which is popularly known as service sector in India is growing rapidly. By one or the other means the western concepts have been influenced the Indian society with both positive and negative aspects. But in the family relations aspect the rise of new forms of marriages and the traditional way of marriage system is vanishing slowly which has resulted in the increasing of divorce in the society. Especially in Bangalore which is known as the capital city for the IT hub (Silicon Valley) large number of people are residing here from various parts of the country. It has also created a well-established job market while compared to secondary sectors. The life style, food habits, behavioral pattern and etc.., are being influencing the local community and younger generations are attracted to this development easily which has resulted in the negative growth in the society.

Figuer 1

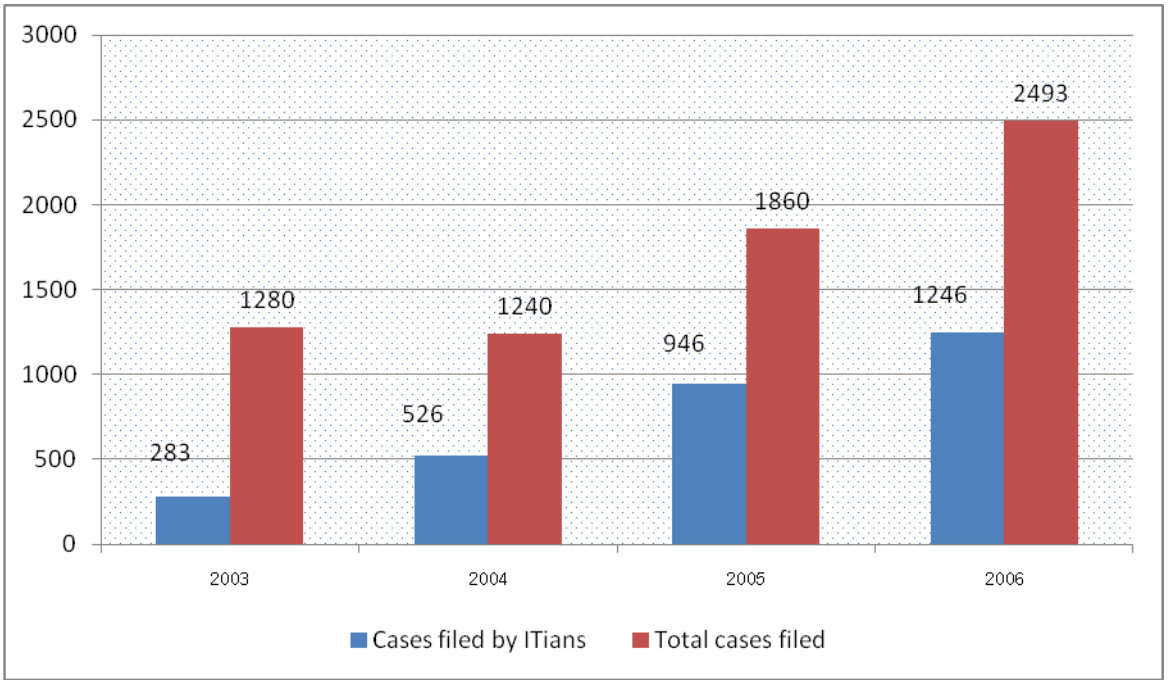
MAJOR WORKFORCE OF INFORMATION TECHNOLOGY INDUSTRY IN INDIA



The above figure 01 represents the workforce of the Information Technology sector especially in major companies. Apart from this there are number of small industries also. This reveals that the job market is well-established rather than in other cities of the country. This is also one of the reasons for increasing divorce rate in Bangalore. Moreover the matrimonial websites and social networking sites also play an important role in the issue of divorce. Today more than forty percent of the marriages are been happening by the means of matrimonial and social networking sites, in future there might be rise in such types of marriages rather than the traditional type of marriages which may result in the high divorce rate in the society.

Figuer: 2

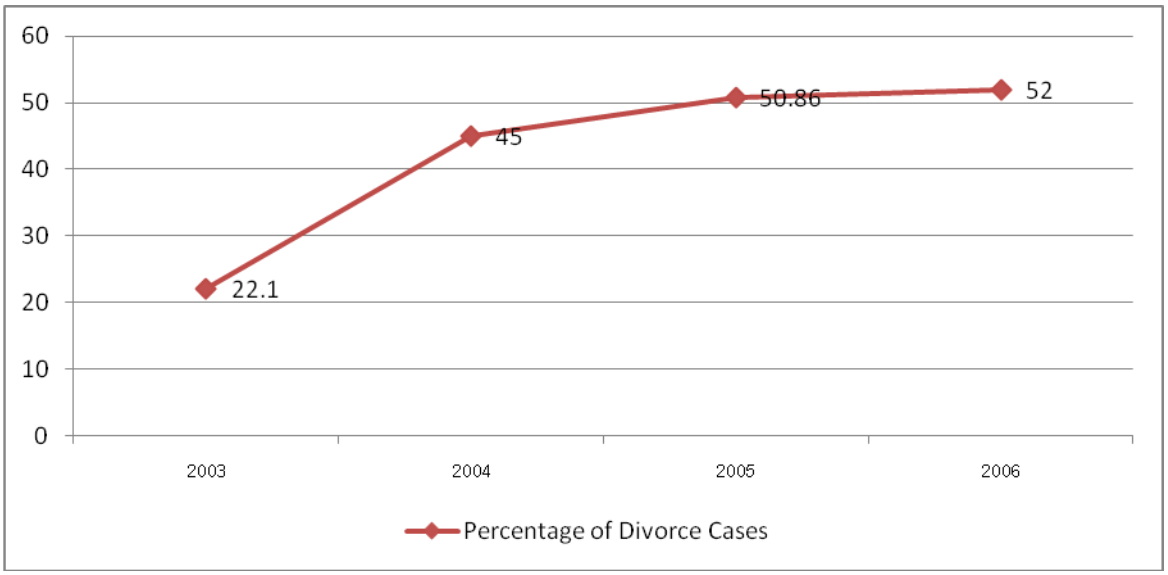
PERCENTAGE OF DIVORCE CASES FILED BY ITIANS FROM 2003 TO 2005



The above figure reveals that the divorce cases filed by the ITians are increasing year by year. Only 283 cases were filed in the year 2003 whereas 1246 cases were filed in the year 2005. Bangalore is fast becoming the divorce capital of India with about 300 in every 1,000 married couples seeking separation from their partners. While 11 out of 1,000 Indian marriages end in divorce compared to the whopping figure of 400 out of every 1,000 in US, the statistics in Bangalore alone is scary. About 40 divorce cases get filed at the family court every day on an average and each case takes a minimum of three to five years before it closes.

Figuer 3

PERCENTAGE OF DIVORCE CASES FILED BY ITIANS FROM 2003 TO 2006



The above figure shows the increasing rate of percentage of the divorce cases filed by the ITians. Over a period of time the increase of divorce may increase rapidly and the number of divorce filed by ITians may also increase which may result in the effects on the younger generation and local culture and traditions of the society.

VII. FEW OF THE IMPORTANT REPORTS BY THE EXPERTS REGARDING DIVORCE:-

The Chairperson of the Commission Pramila Nesargi says that in most cases she has come across, marital discord is due to an unhappy physical relationship. "Viewing the computer for long hours has proven to cause impotency," she adds. She also says the commission is planning to visit the IT companies and take stock of the situation. She says she wants to inspect working conditions and would also make suggestions to change the working pattern of the employees so that they get more time at home. She says that she has hired counsellors who will talk to couples to avoid going in for a divorce. The pendency rate in such cases is not high either. Out of 3,829 cases relating to the IT sector from 2003 onwards till date, around 1,700 cases have been disposed of thanks to the couples opting for a mutual consent. The remaining cases are pending since as per the matrimonial law, one year time is granted for reconciliation.

FACTORS INFLUENCING FOR THE RISE OF DIVORCE:

- Work pressure and stress
- Economical security
- Haphazard working hours
- Lack of time to spend in the house with family – lack of cohesion.
- Financial freedom

- Matrimonial freedom

Vishwanath B N, an advocate who is handling at least five cases pertaining to couples from the IT sector, says that these couples do not even try to reconcile and are in a hurry to end the marriage. There is very little that can be done to save the marriage after it comes to courts. Something ought to be done to try and prevent the marriage from breaking up. Sanjanthi Sajan, who runs a boutique matrimonial firm in Bangalore which has handled several such cases, says that at her firm the basic idea is avoid reaching the courts. While in the case at marriage the number of marriages has increased that to Gandharva Marriage in present day it is been named as love marriage. According to the data available from various sources it is been identifies that 40% of the IT professionals get love marriage. By this activity the negative effect on the customs, traditions and moral values are been lost in and around Bangalore city which has created a major effect of urban communities. The cases coming to the family court, at least 80% are filed under the Hindu Marriage Act. While 70% of couples are from the IT sector, BPOs and private companies, 30%are from the other sections of society, said a source in the family court. Thirty per cent of the cases are from the lower middle-class filed under Domestic Violence Act. Financial stability is a major cause for the rise in divorces. Couples do not try to save the marriage as they are confident they can lead an independent life as both of them are financially stable. In Bangalore ITians are known to solve the toughest problems in the computer world using complex algorithms, but when it comes to marriage the smallest problem takes a toll on them. The pressures of the modern workplace have made a bigger difference in the lifestyle of ITians. According to lawyers in the city, 30 percent of all divorces that happen in the city every year are among couples working in the IT sector, and 50 percent of them use hacking techniques to collect electronic evidence against each other. In many cases people meet on social networking sites and choose to marry without checking each other's background.

FINDINGS OF THE STUDY

1. It has been found that the number of divorce cases are been increased day by day.
2. Information Technology employees are been filing the cases more rather than rest of the sectors.
3. It also reveals that the influence of the western culture is directly affecting the local culture and traditions.
4. The traditional marriages are been dominated by web based marriages.
5. This type of development is also affecting the social structure of the society.
6. The safety of the younger generations and saving of the local culture is a challenging task.

CONCLUSION

Change is inevitable; however, the attempt to change the course of change should be in the hands of the rational, intelligent citizens of the society so that the environment, society, culture, and human race are not affected significantly.

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TECHNOLOGY READINESS AND THE ADOPTION OF ATMs IN ZIMBABWE

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ABSTRACT

The Zimbabwean economy, and in particular, the country's banking sector is an interesting case study. Within the last two decades, banking in Zimbabwe, as described by analysts, is a volatile business. The sector is characterised by successive periods of growth, stagnation, and even decline, which invariably resulted in the emergence of new banks and, sometimes, the collapse of others. While this phenomenon is widely and extensively studied from a macroeconomic perspective, very little research has focused on the effects of this volatility on individual consumers' perceptions of the banking sector and even less on how banks operating in such environments market their products to these consumers. It was therefore opportune for this study to establish not only the usage patterns of banking services, but also the factors influencing the adoption of innovative technologies including Automated Teller Machines (ATMs). Given that the study sought to focus on individual consumers, considering consumers' personality traits as a precursor to adoption was deemed useful. Consequently, the Technology Readiness Index (TRI) was useful for modelling consumer's adoption of ATMs in Zimbabwe. Through a self-completion questionnaire, data were collected from a sample of 770 consumers. Results broadly confirm the efficacy of these personality traits in predicting the adoption of technology-based banking services. This study provides new insights in that it suggests that technology readiness assumptions, regardless of prevailing economic conditions, will generally hold and remain good indicators for adoption even in uncertain and volatile situations similar to those observed in Zimbabwe.

Keywords: Adoption, ATM, banking, e-Banking, technology readiness, Zimbabwe

INTRODUCTION

The Zimbabwean retail banking sector presents numerous lessons as well as challenges for the marketing of electronic banking services. Four critical factors are noteworthy. Firstly, the sector operates amidst a difficult political and economic environment (Richardson, 2005). Secondly, the economy has totally dollarised and is using the United States Dollar as its de facto currency (Reserve Bank of Zimbabwe, 2011b:36). Thirdly, owing to the near-collapse of the banking sector in 2004, consumers' trust of the sector appears to have been affected (Shambare, 2012). Lastly, despite the fact that the financial services sector in general depends on market certainty, economic stability and fidelity, Zimbabwean retail banking industry, nonetheless, continues to thrive amid a hostile and uncertain environment (Dube, Chitura and Runyowa, 2009). Of note, industry literature is abounding with reports of increased uptake of banking technologies such as automated teller machines (ATMs), cell phone banking (CPB), and electronic funds transfer at point of sale (EFTPoS) (Reserve Bank of Zimbabwe, 2011a).

In 'unstable' economic environments such as Zimbabwe (Richardson, 2005), it is reasonable to assume that consumers would generally shy away from formal banking, as the risk associated with the sector would usually be high. Despite this, patronage of the formal banking services in Zimbabwe including the adoption of technology-based banking services reportedly is growing (Dube et al., 2009). This apparent contradiction is deserving of further investigation, and thus forms the raison d'etre of this paper.

RESEARCH OBJECTIVES

Firstly, are mainstream theories such as the technology readiness (TR) framework useful in explaining conditions in these difficult situations? Secondly, do consumers in volatile economies react differently when selecting and using banking services? Naturally, the Zimbabwean retail banking sector presents itself as an opportune case study for understanding the latter phenomenon. More importantly, it presents numerous lessons as well as challenges for the marketing of electronic banking services such as ATMs especially given that within the last decade, the banking sector was at the brink of collapse.

Against this background, the purpose of this paper seeks to establish the extent to which traditional theories that have been tried and tested in relatively stable economies would fare in explaining the adoption of electronic banking services within the context of 'volatile' developing economies such as Zimbabwe. To achieve this, technology readiness as proposed by Parasuraman (2000) was utilised as a theoretical basis for this study to establish the relationship between personality traits and adoption of electronic banking services. Subsequently, the following hypothesis was developed: Zimbabwean data will yield the same four technology readiness dimensions as initially established by Parasuraman (2000).

To remainder of the paper is structured as follows. The literature review is presented next. Following on, the methodology applied to test the above-mentioned hypotheses is described. Thereafter, results and discussions are presented.

LITERATURE REVIEW

In financial services, technology "embraces the systems that underpin the delivery of services, the information systems, and the digital revolution driving fundamental changes in marketing and marketing communications" (Farquhar and Meidan, 2010:14). Technology therefore redefines the concept of banking in that the modern bank can now be represented by a telephone in a customer's home, a plastic magnetic stripe cards, ATMs, or the Internet (Jayamaha, 2008; Prendergast and Marr, 1994). The convergence of these information and communication technologies (ICTs) facilitates the extension of banking services beyond the conventional physical branch (Kumar and Gupta, 2008). In fact, it places remote banking into the mainstream culture (Farquhar and Meidan, 2010).

While these findings are generally true in developed economies, the trend is increasingly being observed in emerging economies including Nigeria, Kenya, and South Africa (Berndt, Saunders and Petzer, 2010; Chen and Li, 2010). Of particular interest, however, is that the electronic banking culture is fast catching up in countries such as Zimbabwe. A cursory review of the literature shows that there are very few studies that consider adoption of banking innovations in such economies (Shambare, 2012).

RETAIL BANKING IN ZIMBABWE

As a direct result of the poor economic performance, the banking sector in 2004 was in much distress. Financial institutions grappled to stay afloat as they battled hyperinflation. The banking sector rebounded in 2009 with the formation of the coalition government between the country's three major political parties – ZANU PF, MDC-T, and MDC-M. Another positive step realised in 2009 was that the country suspended use of the Zimbabwe Dollar and adopted the American Dollar as the official currency to help ease further economic meltdown and instability (Reserve Bank of Zimbabwe, 2011a). In 2012, three retail banks were placed under curatorship and another's licence being revoked by the country's central bank (Reserve Bank of Zimbabwe, 2012).

Undeniably, the events of the past decade affect customers' trust and confidence in the financial services sector (Farquhar and Meidan, 2010). It would not be unreasonable to assume that risk-averse

consumers would rather not associate themselves with such unpredictability. Notwithstanding this, industry literature reports that the numbers of banking customers and among them, the use of electronic banking channels is increasing rapidly (Reserve Bank of Zimbabwe, 2011a; 2011b). While the increase in banking customers in laudable, it is equally astounding given the negative ratings of the economy (Richardson, 2005). Very little explanation to the phenomenon exists owing to the lack of scientific research into the area. What is known, however, is that owing to high unemployment levels, the number of unbanked individuals is still intolerably high (Reserve Bank of Zimbabwe, 2011b). For that reason, the Reserve Bank of Zimbabwe regards extending the reach of financial services by means of remote banking channels to the unbanked communities a high priority (Reserve Bank of Zimbabwe, 2011a). Therefore, understanding the diffusion of banking technologies in Zimbabwe transcends beyond just understanding the bounds of theoretical applications, but also might provide valuable insights into extending the reach of banking services to a critical mass of Zimbabwean consumers.

ATM BANKING IN ZIMBABWE

Commercial banks in Zimbabwe provide a wide array of banking products and services. ATMs were among the first electronic banking services in Zimbabwe. ATMs also known as cash machines are among the earliest of banking innovations. Customers operate ATMs by means of plastic magnetic stripe cards (such as ATM cards, debit cards, or credit cards) together with a personal identification number (PIN). Newer and more advanced ATMs support cardless functionalities, in which users instruct the ATM to perform certain activities (e.g., cash withdrawals) through a series of numerical codes. Common banking activities supported by ATMs include cash deposits and withdrawals, transfer of funds between accounts, balance enquiries, and issuance of mini-statements.

According to the Government of Zimbabwe (GoZ) (1997), by the end of 1996 there were about 200 ATMs spread across the country. In 2011, some 2.9 million ATM payments were recorded, and these totalled US$593 million. Table 1 provides a summary of the extent of remote banking in Zimbabwe.

Table 1
Extent and size of remote banking channels in Zimbabwe as at 30 June 2011
Source: RBZ (2011b)

Banking channel	No. of transactions	% increase from 30 June 2010	Total value of payments (US$)	% increase from 30 June 2010
Cheque	235, 421	71%	57, 490, 879	64%
POS	2, 454, 528	174%	110, 334, 273	238%
ATM	2, 849, 097	78%	593, 119, 340	225%
CB	934, 318	108%	2, 129, 326	137%
IB	124, 114	54%	345, 171, 455	9%

ATM usage also increased significantly in the same period. There has also been a phenomenal growth in the number of ATM terminals from 200 in 1996 to over 3, 132 terminals in 2011.

TECHNOLOGY READINESS AND CONSUMER ADOPTION OF ATMs

Developed by Parasuraman (2000), technology readiness (TR) models consumers' personality traits and beliefs associated with technology usage. More specifically, it measures consumers' "propensity to embrace and use new technologies" (Parasuraman and Colby, 2001:27). TR is not a measure of competence of using a particular technology, it is an amalgamation of attitudes that determine consumers' disposition to interact with technology in general (Aldas-Manzano, Lassala-Navarre, Ruiz-Mafe and Sanz-Blas, 2009). Many authors including Yi, Tung and Wu (2003), Walczuch et al. (2007), Berger (2009) and later Chen and Li (2010) have found correlations between TR, TAM and TPB. In fact, Berger (2009) proposes that TR is an extension and addition to Davis's TAM in that its

four constituent dimensions (optimism, innovativeness, discomfort and insecurity) that essentially measure attitudes.

When faced with a decision whether to adopt or reject a new technology-related product, the literature acknowledges that potential adopters deal with a complex set of emotions, some of which act as psychological barriers and others as enablers to adoption (Berger, 2009). Parasuraman and Colby (2001) illustrate that consumers harbour both favourable and unfavourable beliefs about a technology, with the dominant feeling determining adoption or rejection decisions. Accordingly, the technology readiness index (TRI) is a metric measuring consumer attitudes towards these psychological push and pull factors (Parasuraman and Colby, 2001). The 36-item TRI scale identifies four dimensions of TR which are ultimately responsible for adoption. These dimensions are explored next.

Optimism

Optimism refers to the beliefs that technology will provide increased control, flexibility and efficiency within adopters' lives or work. This point of view therefore acknowledges that technology enhances effectiveness and efficiency; a position proposed in numerous conceptual frames including TPB (Ajzen, 1991) and TAM (Davis, 1989). Optimism ties in very closely with the notions of relative advantage (Meuter, Bitner, Ostrom and Brown, 2005), perceived behavioural control (Ajzen, 1991), user-convenience (Maenpaa, 2006) and perceived ease of use (Berger, 2009). In their research, Parasuraman and Colby (2001) and later Tsikriktsis (2004) found that younger consumers tend to be more optimistic than the elderly.

Innovativeness

In the context of technology in general and TR in particular, to be innovative is the tendency to be a technology pioneer and thought leader within the community. Innovativeness measures people's beliefs of being at the forefront of technology adoption (Walczuch et al., 2007). Parasuraman and Colby (2001) explain that a vast majority of innovative individuals work in ICT-related disciplines, in which the development and use of new technologies integrate well with their life and work. By and large, this trend corroborates earlier findings about innovators and early adopters (Robertson, 1967; Rogers, 1995). For the most part, innovative individuals tend to be highly motivated and skilled in using technologies (Shivers-Blackwell and Charles, 2006).

Discomfort

While optimism is the trust that technology improves life and work by making it easier and more efficient, discomfort is the direct opposite. It is a general distrust of technology and the fear that it further complicates life (Tsikriktsis, 2004). To a certain extent, feelings of discomfort are comparable to those of perceived complexity or the lack of relative advantage associated with the technology. To this effect, consumers presenting high levels of discomfort fail to see the benefits of using technology in their present circumstances. Parasuraman and Colby (2001:61) articulate that these consumers do not hate technologies per se, but need reassurance that technology can perform as expected. Ideally, they should receive relatively more support, if they are to adopt and use technology.

Insecurity

Like discomfort, insecurity inhibits adoption of technologies. The major difference between discomfort and insecurity is that while the former is the distrust of technology in general, the latter is transaction specific. That is to say, consumers may be less willing to engage in certain transactions using technology. By definition, insecurity is in many regards similar to the notion of perceived risk (Brown, Cajee, Davies and Stroebel, 2003; Ho and Ng, 1994).

Collectively, the four TRI dimensions as explained in the foregoing section define individuals' technology readiness. Research demonstrates that behaviours associated with adoption of technologies correlate highly with TR (Berndt et al., 2010). Undoubtedly, one of the clear advantages of the TRI is the realisation that consumers possess a complicated mix of beliefs and emotions about technology.

Research methodology

A survey method was used to collect primary data from students at a Zimbabwean university in Harare. Three undergraduate students were trained as research assistants and helped with administering the instrument. The research assistants were positioned at strategic places within the university campus – close to dining halls, restaurants, libraries, and sports arenas – points where the density of students tends to be high between November 2011 and January 2012. Non-probabilistic sampling techniques were utilised; research assistants solicited volunteers to participate in the study by completing the self-administered questionnaires (Malholtra, 2010). SPSS 19 was used for data analysis (Field, 2009).

Sample

The entire sample comprised of a homogenous group of university students, and hence non-probabilistic sampling was deemed appropriate (Calder, Phillips and Tybout, 1981). In total 1, 000 questionnaires were distributed. Of the 823 questionnaires returned and only 770 were fully completed and used for analysis. Table 1 illustrates the participants' demographic characteristics.

Table 1:
Demographic Profile

Demographic Characteristics		Percentage
Gender	Male	63
	Female	37
Age	20 years or below	32
	21 – 30 years	65
	31 years +	2
Education level	1st year	34
	2nd year	36
	3rd year	18
	4th year	12
ATM Awareness	< 5 years	23
	5 – 10 years	24
	>10 years	53

RESULTS AND DISCUSSION

Technological readiness

To assess respondents' level of technology readiness, the 36-item scale developed by Parasuraman (2000) was utilised. Respondents used a 5-point likert scale (1 = strongly disagree; 5 = strongly agree) to rate the extent to which their agreed with each of the 36 questions. Descriptive analysis was performed on the responses of the 36-item TRI scale. Table 2 indicates that the TRI statement: "I like the idea of banking using this product because I would not be limited to the regular bank hours" was most significant, with a mean of 3.96. This provides further support for customers' need for convenience (Maenpaa, 2006). On the other hand, issues relating to technical support of banking products were observed to be most inhibitive when it comes to adoption, as shown by the lowest mean of 2.50 to the question (Table 2): "When I get technical support from my bank about this product, I sometimes feel as if I am being taken advantage of by someone who knows more than I do."

Table 2
TRI descriptive analysis

TRI Statement	Mean	SD
Other people come to me for advice on technological innovations.	2.78	1.35
It seems my friends are learning more about these banking products than I am.	2.80	1.31
In general, I am among the first in my circle of friends to acquire new banking technologies when they first appear.	2.89	1.31
I can usually figure out new banking products and services without help from others.	3.19	1.31
I keep up with the latest technological developments in banking technologies.	3.05	1.32
I enjoy the challenge of figuring out new banking products and services.	3.24	1.36
I have fewer problems than other people in using banking technologies.	3.48	1.18
I do not consider it safe giving out my credit card number or other banking details over a computer.	3.35	1.51
I do not consider it safe to do any kind of banking using this product.	2.40	1.32
I worry that financial information transmitted using this product will be seen by people.	2.58	1.31
I do not feel confident doing business with a place that can only be reached online.	2.93	1.39
Any business transaction I do electronically should be confirmed later with something in writing.	3.69	1.34
Whenever something gets automated, I need to carefully check that the machine or computer is not making mistakes.	3.65	1.30
The human touch is very important when banking.	3.31	1.36
When I call a business, I prefer to talk to a person rather than a machine.	3.45	1.42
If I provide information to a machine or over the Internet, I can never be sure it really gets to the right place.	3.15	1.40
Technical support lines (and Call Centres) are not helpful because they don't explain things in the language I understand.	2.53	1.32
Sometimes, I think this product was not designed for use by ordinary people.	2.56	1.29
The manuals and instructions for this service are not written in plain language.	2.55	1.24
When I get technical support from my bank about this product, I sometimes feel as if I am being taken advantage of by someone who knows more than I do.	2.60	1.29
If I use this product, I prefer to use the basic model (or version) over one with a lot of extra features.	2.95	1.30
It is embarrassing when I have trouble with this service while people are watching.	3.24	1.38
There should be caution in replacing important people-tasks with technology because this technology can breakdown or get disconnected.	3.36	1.29
This product like many new technologies has health or safety risks that are not discovered until after people have used them.	2.87	1.24
This technology makes it too easy for governments and companies to spy on people.	3.11	1.33
This product always seems to fail at the worst possible time.	2.97	1.32
This product gives me more control over my finances.	3.54	1.24
This product much more convenient because it uses the newest technologies.	3.52	1.19
I like the idea of banking using this product because I would not be limited to the regular bank hours.	3.81	1.19
I prefer to use this product because it is the most advanced banking technology available.	3.53	1.18
I like this product because it allows me to tailor my finances to fit my own needs.	3.56	1.11
This product makes me more efficient in my job and life.	3.59	1.18
I find this product to be mentally stimulating.	3.37	1.21
This product gives me more freedom of mobility.	3.52	1.24
Learning about this product can be as rewarding as the technology itself.	3.56	1.16
I feel confident that this product will perform the functions I command it to do.	3.63	1.18

As previously mentioned, TRI consists of four distinct factors (i.e., optimism, innovativeness, discomfort, and insecurity); of these, innovativeness and optimism are considered to be enablers of adoption. Discomfort and insecurity are recognised as inhibitors and are reverse-scored. In calculating the overall TRI score, the item mean scores of TRI items (Table 2) are computed into averages. Table 3 summarises the results of the TRI dimensions as well as the overall TRI, which is 3.13. This score compares favourably to other developing countries such as South Africa at 2.53 (Berndt et al., 2010).

Table 3:
TRI descriptive analysis

Dimension	Mean	Standard Deviation
Innovativeness	3.10	.81
Optimism	3.57	.80
Insecurity	3.27	.85
Discomfort	2.88	.76
Overall TRI*	3.13	.45

*TRI overall = (optimism + innovation + [6-discomfort] + [6-insecurity])/4.

Having established a moderate to high level of TR among the respondents (Table 3), it was instructive to conduct further analysis in order to test hypotheses. Hypothesis 1 sought to establish whether Zimbabwean (i.e., from a developing country) data would yield a similar structure of TR comparable to the evidence found in past works (e.g., Berndt et al., 2010; Chen and Li, 2010; Parasuraman, 2000; Parasuraman and Colby, 2001; Tsikriktsis, 2004). Factor analysis using the principal components analysis (PCA) utilising Varimax rotation was used to test this hypothesis (Parasuraman, 2000; Tsikritsis, 2004).

Table 4:
TR Factor analysis summary

	Optimism	Discomfort	Insecurity	Innovativeness
OPT4	.745			
OPT8	.698			
OPT3	.694			
OPT6	.682			
OPT2	.674			
OPT9	.670			
OPT5	.666			
OPT7	.621			
OPT10	.603			
OPT1	.580			
DIS2		.693		
DIS3		.675		
DIS4		.634		
DIS5		.546		
DIS9		.545		
DIS10		.536		
DIS1		.522		
DIS8		.507		
DIS6		.481		
DIS7		.433		

INS8			.683	
INS9			.638	
INS5			.636	
INS6			.627	
INS7			.574	
INS1			.546	
INS4			.544	
INS3		.314	.407	
INS2				
INN5				.731
INN6				.685
INN3				.601
INN4				.554
INN7				.525
INN1				.513
Eigenvalues	5.065	4.372	2.184	2.046
% of variance	12.825	9.588	8.934	6.615
Cronbach's α	.865	.777	.759	.680

As indicated in Table 4, a four-factor structure, accounting for approximately 38 per cent of variance, emerged. All the four TR dimensions loaded uniquely as single factors onto each of the four resultant factors, with no cross-loadings. The measure of internal consistency of these factors was assessed by means of Cronbach's alpha. All four factors were observed to have good measures of reliability above the minimum .6 threshold (Ozer and Gunluk, 2010). Therefore, it was concluded that all the emergent factors were consistent with the theory (Parasuraman and Colby, 2001).

Optimism loaded onto Factor 1 followed by Discomfort, Insecurity, and lastly Innovativeness (Table 4). Since optimism refers to the beliefs that technology provides the potential adopter with increased control, flexibility and efficiency, in this context, this suggests that using ATMs has considerable relative advantages over traditional forms of banking.
Clearly, this consistent with past research findings that observed that the convenience associated with remote banking services is an important determinant of adoption (Ho and Ng, 1994; Kumar and Gupta, 2008; Maenpaa, 2006). Discomfort (an adoption inhibitor) was observed on Factor 2. This is consistent with the TR theory, which presupposes a combination of both favourable and unfavourable believes about technology to influence its adoption (Parasuraman and Colby, 2001). The findings suggest that optimism appears more dominant and thus has greater effect than the inhibiting variables. Overall, these results, therefore, provide evidence that the four TR dimensions, as postulated by Parasuraman (2000), are indeed applicable and useful in predicting adoption behaviour even within developing nations' contexts. Thereby providing support for studies undertaken in other developing nations such as Berndt et al. (2010). More importantly, the findings indicate that TR assumptions are also applicable to economies characterised by market volatility such as Zimbabwe.

CONCLUSION

The objective of this paper was to establish the extent to which the technological readiness theory is applicable first in the financial services sector of a developing economic context and second, within a market described as volatile. Lack of research in this area was therefore seen as an opportunity to conduct this study, as most of the literature reports on the Western and developed world context (Berger, 2009; Parasuraman, 2000; Parasuraman and Colby, 2001; Tsikriktsis, 2004).

Generally, the results conform to previous studies, wherein the four TR dimensions hypothesised by Parasuraman (2000) and later by Parasuraman and Colby (2001) were observed to be associated with

adoption behaviour. The latter was also demonstrated in studies such as that undertaken by Berndt and colleagues as well and by Chen and Lin, which specifically reported on developing nations' context. The implication of this is that technology readiness is indeed an important predictor of technology usage. Of particular importance is the fact that regardless of the market dynamics at play within the economy, consumers' level technology readiness remains an important indicator of technology usage even in the context of banking technologies.

Overall, the implications for financial institutions operating in difficult economic environments are that they should place more attention on understanding consumers' needs and bank patronage motives together with their technology readiness, which can best be estimated by consumers' usage patterns of other hi-tech products (Parasuraman and Colby, 2001).

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TOURISM PROMOTION AND THE USE OF LOCAL WISDOM THROUGH CREATIVE TOURISM PROCESS

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ABSTRACT

The trend of creative economy concept has created a paradigm for a new kind of tourism that is different from the traditional one known as "Creative Tourism". This is a kind of tourism that is directed toward and engaged an authentic experience with participative learning in the arts, heritage or special character of a place between tourists and local people in the community. This new paradigm of tourism has been used as a tool to develop sustainable tourism to keep the equilibrium between economic, social and environmental changes caused by tourism. As for Thailand, creative tourism is not completely new since many of creative tourism activities have already existed in Thailand for a long time, for instance, home stay, culinary tourism and Thai boxing. These tourism activities have been connected and developed to support creative tourism and serve as alternative activities for some tourists with special interest in Thai culture and way of life. Nonetheless, creative tourism has been employed as a tool to conserve and develop Thai tourism in the form of many projects, for example, amulet making in Nakorn Chum, Kamphaeng Phet province and Thai boxing camp. The success and sustainability of using local wisdom to promote tourism through creative tourism process depends on these factors; having a strong community base, having fertile natural resources, having capable leader who can create faith, having strong cultural base, having participation from local people in the community, having continuous operation and having innovation and creative tourism activities.

INTRODUCTION

When the world enters the creative era, a new paradigm in economic development known as "Creative Economy" occurs. This is an economic development concept that focuses on driving the economic through the use of knowledge, education, creativity, and intellectual property that are connected with culture, wisdom, technology and innovation. This covers different industrial sectors, thus, encouraging counties with the need to create economic prosperity and security in their people's living to this developing concept as a guideline for their country development.

Moreover, the trend of Creative Economy has also created new tourism paradigm that differs from the traditional one. In the first era, tourism focuses on relaxation and pleasure from traveling. The second era is cultural tourism and sustainable tourism with the focus on culture and environmental impacts, and sustainability of the community in tourism areas. Lastly, the third era, creative tourism that is one form of cultural tourism (Ohridska-Olson, 2010) that is directed toward and engaged an authentic experience with participative learning in the arts, heritage or special character of a place (Wurzburger, 2009). Thailand has realized the importance of this new tourism paradigm and utilized local wisdom as a tool to develop and promote tourism within the community through creative tourism process in order to balance the changes from tourism within the community and advantages gained in terms of benefits and sustainability of the community development.

Accordingly, people in the tourism community, entrepreneurs, local administrative organizations and affiliated organizations should be aware of what and how local wisdom is used to promote tourism through creative tourism process. This article explains how local wisdom is used to promote tourism through creative tourism process and the contents of this article are divided into 4 parts; 1) Literature reviews, 2) Methodology, 3) Findings, and 4) Conclusions and recommendations

LITERATURE REVIEWS

Local wisdom and the development concepts

Local wisdom is the knowledge of the provincial gained through their experience and initiation as well as those one that has been passed down from generation to generation. During the transition, the knowledge has been adjusted, adapted, changed and developed. Although something might be lost, new knowledge is acquired in accordance with the era. It can also be said that local wisdom is the use of local wisdom or knowledge to develop local community, resulting in the new set of knowledge (Chuaybamrung, 2011 : 40). The Center of Folklore Research (2007) has summarized the definition of local wisdom into 4 types: 1) local wisdom is an abstract and is related to religion, 2) local wisdom is the potential that protects the community, 3) local wisdom is the body of knowledge and 4) local wisdom is an intellectual capital

Seree Pongpit and Vichit Nantasuwan (2002 : 15) proposed 4 guidelines to elevate local wisdom to creative development as follows;

1) Conservation: To keep very little remains of things so that they continue to exist, for example, the conservation of Thai traditions like "Rod Nam Dum Hua" (to pour water on the hands of revered elders and ask for blessing) or "Long Kak Giew Kao" (gathering for harvesting rice) or forest conservation.

2) Restoration: To bring whatever is lost back again, for example, the restoration of traditional Thai children play, mixed farming, and building sand pagoda.

3) Adaptation: To adapt old things for a proper use in the current period, for example, forest ordination is adapted from monk ordination to create the conscious of natural resources conservation.

4) Invention: To create new things based on the old knowledge, for example, inventing irrigation system in place of irrigation ditch or producing gas stove instead of charcoal stove

Terdchai Chuaybamrung (2011 : 71-72) proposed these guidelines to develop local wisdom into creative local development by using these analytical processes;

1) Analyzing basic information in the local context such as population, occupation, income, education. This is basically the analysis of the local information in general in order to understand the context in that particular area to see if there are any problems, weaknesses, strengths, and opportunities for development.

2) Analyzing the community and the society in the area to be developed by evaluating

(1) Social unit: analyzing what the society is composed of and what the status and role of each component is.

(2) Institution or social organization: analyzing what institution or social organization that area is composed of what role and potential each organization has.

(3) Social structure: analyzing the relationship between social units and social institutions to see the connection of each sector in the area.

3) Analyzing local wisdom/resources and their situation in the area to be developed to see what local wisdom/resources are available and in what situation they are. Some might be lost or remain in a good or very good condition.

4) Analyzing problems and potential of the area to see what the weaknesses, strengths, opportunities and threats are in order to understand problematic area and what potential that area has to solve the problems.

5) Analyzing developing opportunities of the area to be developed to see what opportunities are available for the development, what local wisdom/resource should be developed and what techniques should be used for the upcoming development.

The analysis mentioned above requires participative analytical process which means the provincial must be given an opportunity to participate in the process in order to obtain full perspective from both the local and the outsider.

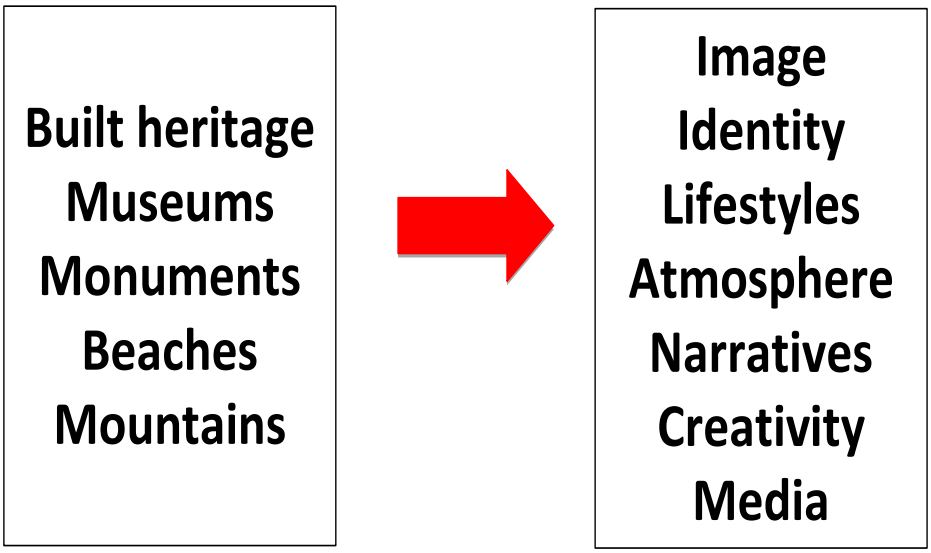
Creative tourism concepts

The term "Creative Tourism" was invented by Raymond and Richards who were inspired by their impressive travel experience during their trip to Thailand, Indonesia and Australia during 1999-2000. They attended several weeks of traditional Thai massage course in Chiang Mai followed by a

vegetarian cooking class in Bali and a short course of sheep keeping and livestock in Australia. Raymond and Richards defined this new type of tourism as “Creative Tourism” which means tourism that offers visitors the opportunity to develop their creative potential through active participation in courses and learning experiences which are characteristic of the holiday destination where they are undertaken (Richard and Raymond, 2000 : 18)

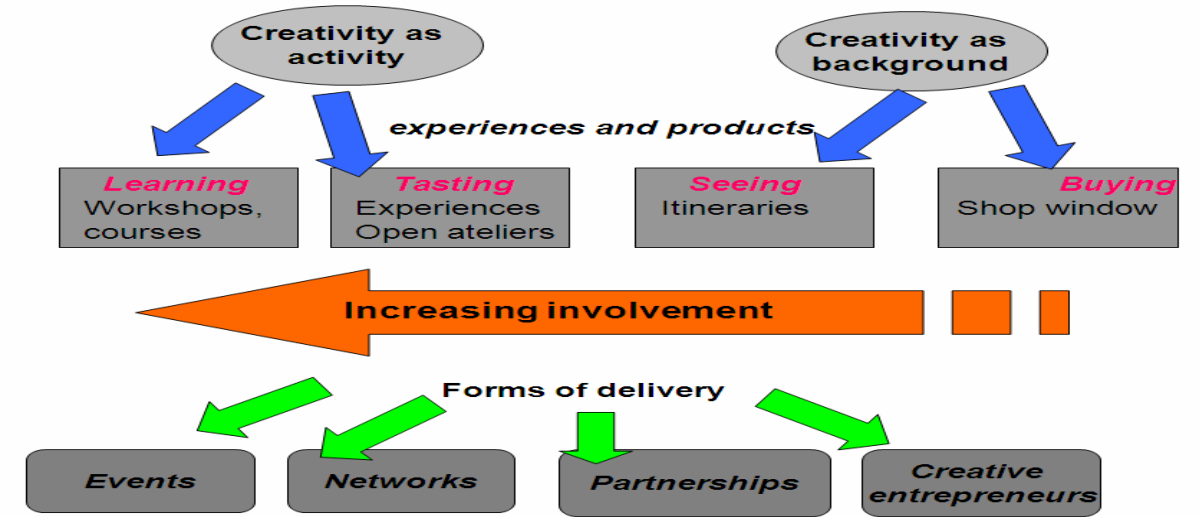
UNESCO (2006) defined "Creative Tourism" as the tourism that is related to community development for a sustainable way of life. The activities provided had to be harmonious and connected to history, culture, and way of life in terms of learning and experience. Tourists gain experience and knowledge from the real life of the communities they visit. Additionally, communities had to set creative tourism as a tool for maintaining (1) innovations for in-house tourism and (2) benefits to communities in terms of economy and sustainable development. This also includes organizing activities of learning from direct experiences such as participating in activities and interacting with local people. The goal is that tourists are not just tourists, but they become an active citizen of the community.
In addition, Richard (2010) pointed out that creative tourism is the change from traditional tourism of which the quality seems to degrade over times since it has become mass tourism with people spending most of their time visiting and taking photographs of interesting natural and cultural attractions such as built heritage, museums, monuments, beaches. New generation tourists, on the other hand, have a desire for participation in the culture or identity of the visited place. The overall picture of creative tourism is the tourism with a shift of interests from tangible cultural resources to intangible cultural resources (figure 1)

Figure 1:
Cultural shift from traditional tourism to new tourism



Richards proposed the following patterns of creative tourism; 1) using creativity as tourist activities and 2) using creativity as a background of tourism. The first form refers to those activities that have already been practiced in creative tourism activities in which tourists are allowed to participate in the place but using creativity as a background of tourism or creating “atmosphere” tends to gain more popularity since it enhances the “charm” of that particular place. For example, Santa Fe has been appointed by UNESCO to be creative town in handcrafts. Activities regarding workshops and trainings on pottery (art of Pueblo indigenous population in this area), local cooking, or local lucky charms are provided at Santa Fe Museum of International Folk Arts, offering various types of experiences to creative tourists who participate in creative product shopping, visiting, testing, or learning a certain skill from the place (figure 2).

Figure 2:
Richards' Patterns of Creative Tourism



Methodology/Experimental design
This study uses documentary research method to study information from various documents, research articles, and the Internet. For data analysis, critical analysis method is used to conclude the patterns and guidelines on how to use local wisdom to promote tourism through creative tourism process.

RESULTS AND DISCUSSION

According to the study, it was found that, in Thailand, local wisdom has been employed to promote tourism thought creative tourism process and to create conservation and development in various forms of projects. These projects were implemented by entrepreneurs, academic institutes, government and private organizations. Several interesting case studies include;

1) Educational Thai Culinary Tourism
Educational Thai culinary tourism is one of the creative tourism activities that has received a great attention from tourists. Nowadays cooking schools for foreigners are located at many tourist provinces in Thailand like Bangkok, Chonburi, Phuket and Chiang Mai. A Lot of Thai and Thai Kitchen Cookery Centre, for example, are located in Chiang Mai and they use Thai culture and way of life to promote creative tourism. Activities include taking tourists to shop at the fresh market, cooking Thai food using the menu designed for tourists like Pad Thai (Thai-styled stir fried noodle, Pad See Ew (stir fried noodle in black bean sauce), Gang Kiew Wan (green curry), Massaman curry, Beef Panang, Pad Kra Prao Kai (stir fried chicken with basils), Som Tum (papaya salad), Yum Pla Dook Fu (spicy crispy catfish salad) etc. Moreover, "Cook Book" has been created for tourists, using simple explanation and landscape orientation for the ease of use. Taking tourists to shop at the fresh market helps distribute income from the schools to the community, thus, allowing the community to participate in creative tourism. Tourists will experience, have a chance to interact with merchants at the fresh market and be impressed when being greeted with Thai smiles and hospitality.

2) Thai Boxing Class for Foreigners
Thai boxing is one of Thai martial arts. Many tourists are interested in Thai boxing and, in order to have a profound understanding of Thai boxing, many of them have applied for Thai boxing classes at many Thai boxing camps. Thai boxing camps for foreigners can be put into 3 categories
(1) Boxing camps that offer serious training for foreigners. These foreigners will practice very hard, not leaving the camp anywhere. They will focus on learning and practicing. While learning, they will

ask their friends to take photograph and after finishing the class, they will record what they have done in a day and keep it for future use when they go back to their countries.
(2) Boxing camps that do not really teach but only allow foreigners coming on tour groups to try kicking sand bag and have their picture taken so that they have something to show their relatives and friends that they learn Thai boxing.
(3) Boxing camps that welcome long-stay tourists. Since the accommodation cost will be very high for a long stay, some foreigners choose to stay at the boxing camp. In Phuket, boxing camps that provides boxing classes, practice place and accommodation for students are available. Foreigners may choose whether they want to practice or go out to travel.
The types of foreigners who take boxing classes in Thailand can be put into 3 categories. The first category is those who learn Thai boxing for the purpose of opening their own boxing camp in their own countries. The second category is those who learn Thai boxing for exercise purpose. The third category is those who work as bodyguards or bouncers in pubs, bars and casinos.
There are 2 types of Thai boxing curriculum for foreigners; (1) basic class for tourists who only have 2-3 days to learn. The basic of Thai-style kicking and punching is taught and (2) class for those who have more time. More techniques are taught.

3) Nakorn Chum Amulet Making, Khamphaeng Petch Province
The evidence of amulet making in Thailand can be dated back since Dvaravati era and continues until now. Many amulets are found in satupas, chedis, or under the base of Buddha images. In some cases, 84,000 (the number that complies with the number of Buddhism morality codes) amulets were found. The decline of Buddhism was mentioned in the Tipitaka and this strongly affects the idea of creating Buddhism related activities in many areas, such as, Sermon of the last great incarnation story of the Buddha, praying, chedis and amulets making. This is known as "Panja Antaratarn" (5 causes of the decline of Buddhism) which comprises "Pariyat Antaratarn" (the lost of learners), "Patibat Antaratarn" (the lost of Buddhism practitioner) "Pativet Antaratarn" (the lost of enlightenment) "Sangka Antaratarn" (the lost of monks) and "Tartu Antaratarn" (the lost of the Buddha's relics)
Nakorn Chum amulet making was created by Mr. Somai Payorm who lives in Nakorn Chum and has been in the amulet society. He is fond of amulet making and has learned how to make amulets from one amulet maker in Kamphaeng Phet province and was successful in making "Pra Sum Kor" amulet. In 2008, he set up the center of Nakorn Chum amulet making in order to educate high school and university students, people, and tourists who are interested in amulet making. At the center, the members will demonstrate different processes of amulet making. The knowledge and the local wisdom related to Nakron Chum and Kamphaeng Phet amulet making do not only connect to Buddhism teachings that explain the philosophy of amulet making and historic attractions in Kamphaeng Phet but also link with the community ways of life. Since the making of amulet is still practiced in households just like in the past, the heritage of Kamphaeng Phet amulet making is a cultural bond that connects the glorious past with the present and deserves to be developed into creative tourism.

4) Sun Sai Home Stay Business Group, Chiang Mai
Sun Sai Home Stay Business Group is located at Bann Pong, San Sai, Chiang Mai. Bann Pong community covers a concession area of more than 3600 Rai of mixed deciduous forest. There are plenty of interesting herbs, insects, birds that worth studying. Most of the provincial are descendent from Tai Yai (Shan) ethic group and live a simple way of life, making their living on agriculture. When tourism is introduced to the area, natural resources have gained more interests. Various programs for tourists have been arranged. Tourists can commute or spend a night. Different rates are applied and depend on the facilities and needs required by tourists. The service includes guided train trip to the village followed by a warm welcome from the provincial and a traditional Khantoke dinner, comprising sticky rice in palm leaves, Nam Prig Ong (northern style chili dip), Hung Lay Curry, etc. Local music is performed during the meal. Next is a guided trekking program along the natural route and tourists have an option to rent mountain bikes if they like. They will learn about herbs, plants, animals, birds, insects as well as many natural wonders. The home stay business creates extra income for the provincial apart from their rice and fruit farming. Besides providing services to tourists, they

can make use of the existing resources by selling locally grown produces (Vipada Santiwattanapan and team, 2010).

CONCLUSION

Creative tourism is a form of tourism that complies with culture and community ways. The community can manage their own tourism. In terms of area, it's the tourism in the area that is mainly connected with community ways and nature with natural attractions with the area's identity as well as the culture and history of that particular area. In terms of management, it's the tourism that has no impact on the environment and has sustainable management by allowing tourists, community, and local people and affiliated persons to participate in the conservation of culture and environment in the community attractions. In terms of activity and process, it's the tourism that facilitates the learning by educating on culture and community ways as well as environment and ecosystem of tourism to create awareness and consciousness in tourists, community, local people and affiliated persons. In terms of participation, it's the tourism that is aware of the participation from tourists, community, local people and affiliated persons.

Accordingly, using local wisdom to promote tourism through creative tourism process in order to create sustainable tourism development is targeted at the community. Equilibrium must be created in terms of economy, society and environment so that the community, with this equilibrium, can develop sustainable tourism. The concept of sustainable development that focuses on people-centered is applied to create equilibrium, stability and sustainability in these 4 sides; 1) Life - human from individual, family and community level are affected by external environment, resulting in risks and instability, 2) Economy of people in the community, 3) Society – community and society of human beings living together, having relationship and responsibility in the change of the society and 4) Environment around human beings and social environments.

Nonetheless, the success and sustainability of conservation and development by using local wisdom to promote tourism though creative tourism process depend on these factors; 1) having a strong community base, for example, a community with production system or sufficiency economy and harmony in the community, 2) having fertile natural resources, 3) having capable leader who can create faith, 4) having strong cultural base such as having unique culture, 5) having participation from local people in the community, 6) having continuous operation and 7) having innovation and creative tourism activities.

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A COMPARATIVE STUDY OF FIRST-TIME AND REPEAT TOURISM MOTIVATIONS AND OTHER TRAVEL-RELATED CHARACTERISTICS OF THAI TOURISTS

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ABSTRACT

Tourism is seen as a tool to stimulate broader economic growth and as a key component of economic development generating jobs and furthering incomes. As such, competition in the tourism industry is intense. Different strategies have been developed in the tourism market in order to increase market share. Both first-time and repeat tourists play a fundamental role in the overall well-being and success of a tourism destination. However, there are differences between first-time and repeat tourists in terms of their demographics, trip characteristics and travel motivations. This article therefore compares first-time and repeat tourists to a historical town in Thailand based on these categories. A survey questionnaire was administered to first-time and repeat tourists and a total of 400 completed responses were collected. Statistical analysis was employed as a technique for examination of data. The findings indicate that there are significant differences between first-time and repeat tourists in motivations and other travel-related characteristics. First-time tourists are motivated to visit the destination by relaxation, while repeat tourists are mainly motivated by socialization and visiting friends and relatives. On the push factor, both first-time and repeat tourists are motivated to visit the destination by the 'appreciating historical resources' factor. However, first-time tourists tend to visit icon destinations and activities, while repeat tourists are likely to visit a greater variety of locations and participate in a wide range of activities. The results confirm that there is a need to propose specific marketing strategies for each tourist group.

Keywords first-time tourists, repeat tourists, motivations, behavior

INTRODUCTION

The tourism sector is seen as a tool to stimulate broader economic growth and as a key component of economic development in many countries, Thailand included. Tourism developers therefore not only are aware of the importance of tourism attributes and other factors in a range of settings that can attract tourists to destinations, but also focus on differences in tourist behavior and other travel-related characteristics to develop marketing strategies appropriate for each tourist group.

Previous research (Fuchs & Reichel, 2011; Gitelson & Crompton, 1984; Kruger, Saayman, & Ellis, 2010; Lau & McKercher, 2004; Oppermann, 1997) has identified that there are significant differences between tourists in terms of motivation and travel-related variables, especially for first-time and repeat tourists. The term 'repeat tourist' refers to experienced tourists, who already made a previous visit to one and the same destination and 'first-time tourist' is defined as a person that visited a destination for the first time. However, despite extensive research on tourist motivation and behavior, the boundaries between these tourists are not clear, especially in Thailand. Moreover, such differences in tourist motivations and behavior emphasize the importance of establishing specific marketing strategies. Therefore, understanding why tourists choose certain destinations is important to tourism businesses that are trying to attract tourists to visit the destinations. For this reason, the objective of this study is to identify differences in motivations and other travel-related characteristics between first-time and repeat tourists to a historical town in Thailand. To achieve this, the article is structured as follows: the literature review is followed by a description of the method of research, a discussion of the findings and finally conclusion

LITERATURE REVIEW

Relationships between Motivations, travel-related characteristics and Choice of Destination

Motivation is regarded as one of the most important variables to explain tourist behavior. In the tourism context, the tourist motivation has tended to revolve around the concept of 'push' and 'pull' factors (Baloglu & Uysal, 1996; Dann, 1977; Yoon & Uysal, 2005). The underlying principle of this theory has been commonly used in travel motivation (e.g. Crompton, 1979; Uysal & Hagan, 1993; Yoon & Uysal, 2005) and destination choice studies (e.g. Jang & Cai, 2002; Lang, O' Leary, & Morrison, 1997; Moscado, Morrison, Pearce, Lang, & O'leary, 1996). According to Uysal & Hagan (1993), push factors describe how tourists are pushed by motivation variables into making travel decisions and pull factors focus on how tourists are pulled or attracted by destination attributes. In other words, push factors are useful for explaining the desire for travel while the pull factors are useful for explaining the actual destination choice.

Traditionally, push factors can be defined as origin related and refer the intangible, intrinsic desires of the individual tourist such as desire for escape, rest and relaxation, prestige, health and fitness, adventure and social interaction, family togetherness and excitement (Crompton, 1979). Pull factors are mainly related to the attractiveness of a destination and tangible characteristics such as tourism attractions, accommodation, natural scenery and recreation facilities (Uysal & Hagan, 1993). These destination attributes can also stimulate and reinforce inherent push factors (McGehee, Loker-Murphy, & Uysal, 1996). Moreover, tourism motivation is a multi-motive dimensional (Eftichiadou, 2001). Tourists can have more than one motive for choosing a certain destination. As Bagzzi and Dholakia (1999, p.19) observed, a person's holiday goal might not only include 'location and time period but rather might residing anticipated educational, recreational and interpersonal experiences'.

In tourists' destination choice literature, once a tourist has the right motivation to travel, the type of holiday and destination is based on his/her perception of the various options. However, there are differences between first-time and repeat tourists in choosing a destination. For example, although tourism activities play an important role for tourists, generally iconic tourism activities become important for first-time tourists but this factor may be applicable separately to repeat tourists on their intention for a second visit (Freytag, 2008). Similarly, researchers (e.g. Gyte & Phelps, 1989; Kruger, Saayman, & Ellis, 2010; Mazursky, 1989b) discussed previous experience with destination and activity decision making and/or differences between first-time and repeat tourists. However not all variables differed significantly. In line with these assumptions, tourists choose destinations to visit and pursue activities that a response to their needs and motives and when they become satisfied with a trip, they tend to buy the product repeatedly.

In addition, although an analysis of tourist motivation is important for destinations to understand destination choice for tourists (Moscado, et al., 1996; Riley & Van Doren, 1992), the results and effects of the motivation studies of tourists' destination choice require more than an understanding of their travel motivations. There are numerous studies examining the relationship between tourists' travel-related characteristics (such as demographic, attitudes, values, travel mode, preferred tourist resources (activities) and information search behavior) and their destination choice (Decrop & Snelders, 2005; Guillet, Lee, Law, & Leung, 2011; Samuel Seongseop. Kim & Prideaux, 2005; Redmond, 2000). Many studies (e.g. Fairweather, Maslin, & Simmons, 2005; Torres & Pérez-Nebra, 2007) presumed that there is a link between socio-demographic factors and value orientation in the sense that people with similar socio-demographics also might be similar in values and destination choice. It is possible that value orientation can provide further explanations to the mixed results between socio-demographic factors and destination choice. Thus, in order to understand tourist's destination choice, tourist's motivations and some travel-related characteristics are examined in the study.

METHODOLOGY

The purpose of this study was to compare and contrast the motive and travel-related characteristics of first-time and repeat tourists visiting a historical town in Thailand. The questionnaire instrument was developed in four parts. The first section included travel motivation questions that were measured through a 5-point Likert-type scale: 1-very important, 2-important, 3-undecided, 4- not important, and 5-not at all important. Respondents were asked to indicate the level of importance for 13 travel motivation factors in relation to their trip. The second section sought travel information such as tourism attractions, tourism activities, length of stay, size of travel party, expenditure during the trip and spending patterns. Section 3 listed a total of 7 possible activities tourists could participate in or attractions they could visit during their stay. The list of potential activities and attractions was developed through a review of official websites promoting the town. The last section gathered demographic information including age, education level, gender and household income.

The reliability of the data was tested using Cronbach's alpha coefficient to test for internal consistency. The results of the reliability tests performed in this case showed that the 13 motivation variables achieved an acceptable level of Cronbach's alpha of .80. According to Hair et. al. (1998), the generally agreed on lower limit for Cronbach's alpha is .70 and this may be lowered to .60 for an exploratory study. Therefore, the level of Cronbach's alpha for this study was internally consistent.

The survey was administrated on May – June, 2013. The questionnaires were randomly handed out at the entrances of popular tourist places such as temples and historical palace to the potential respondents. Repeat tourists had to answer a screening question. Only those tourists who had visited this town at least once in the past 5 years were included the sample. A total of 400 questionnaires were collected. The collected data were analysed by employing the Statistical Package for the Social Sciences (SPSS for PC) computer program. A series of independent *t*-tests were used to determine if differences existed among identified motivation factors across first-time and repeat tourists.

Findings and Discussions

Demographic and trip profiles of respondents

This study segmented tourists according to the number of times they had visited the town in order to compare first-time and repeat tourists with respect to three aspects – socio-demographics, trip characteristics, motivation to visit the town (Table 1). Although there is no significant difference between first-time and repeat tourists in their profiles, there are some differences in their trip characteristics.

Table 1

Demographic profiles

Variables		**First-time tourists N = 200 (%)**	**Repeat tourists N = 200 (%)**	**Variables**		**First-time tourists N = 200 (%)**	**Repeat tourists N = 200 (%)**
Gender	Male	41.5	34.5	*Occupation*	Gov. official	13.5	11.5
	Female	58.5	64		Company employee	24	18.5
						15	14.5
Age	18-20	28	16.5		Business owner	6.5	5.5
	21-30	30	43		Worker	2.5	5
	31-40	24	16.5		Housewife	32.5	38.5
	41-50	10.5	15.5		Student	2	1
	51-60	5	7		Retired	2.5	4
	61 and older	2.5	1.5		Farmer	1.5	1.5
					Other		
Education	Junior high school	8.5	10			15.5	16.5
		16	16.5	*Income*	Bth Less than 5,000	23.5	36
	Senior high school	19	15.5			22	13.5
		52.5	56		Bth 5,001-10,000	13.5	14
	Diploma	4	2			12.5	6
	University				Bth 10,001-15,000	5	5
	Post graduate					8	3
					Bth 15,001-20,000		
					Bth 20,001-30,000		
					Bth 30,001-40,000		
					more than 40,000		

Note: Totals differ due to missing data.

Table 1 shows demographic profile of first-time and repeat tourists. Most first-time tourists were female, in the 21-30 age groups and had a household income between 5,001-10,000 Bth/month. The largest group of tourists were students who had at least a diploma or university degree.

For repeat tourists, the proportion of females was higher than that of males. The majority of respondents were aged 21-30 years. Over 50% of the respondents were university graduates and most of them fell into 5,001-10,000 Bth income bracket.

Table 2

Travel patterns of first-time and repeat tourists

Variables		First-time tourists N = 200 (%)	Repeat tourists N = 200 (%)	Variables		First-time tourists N = 200 (%)	Repeat tourists N = 200 (%)
Purposes	Vacation/Leisure	32	24.5	*Information source*	Friends/family	57.5	53.5
	New knowledge	25	17		Tourist info. centre	26	18.5
	convention/meeting	22.5	10.5		Travel agents	21.5	10.5
Travel arrangement	Visit friends/family	20.5	37		Media	34	32.5
		89.5	92.5		Travel mag./brochure	30	26
	Independent travel	3	1		The internet	53.5	54
Travel with	Package tour	10.5	13		Others	25	23
	Alone	47	59.5	*Attractions and activities*		81	58
	Family	40.5	22		Arts, culture, history and heritage	35	58
	Friends	2	5		Nature	43.5	38
Length of stay	Others	21.5	12		Sports, outdoors and adventure	19	14.5
	1 night	25	19.5		Relaxation, health, indulgence	16	32
	2 nights	8.5	5		Entertainment, nightlife, shopping	25	12.5
	3 nights	5	7.5		Tours	12.5	8.5
Destination choice	More than 3 nights	48.5	35.5		Others		
		31	52	*Spending*		67.5	67
	The internet	51.5	40		Souvenirs	23.5	27
	Past experience				Electronics	25.5	36.5
	Friends/family				Clothing	31	41
					Accessories	15	16
					Handicrafts	1.5	0.5
					others		

Note: Totals differ due to missing data.

Table 2 illustrates the travel patterns of first-time and repeat tourists. For first-time tourists, there were more tourists who travelled independently than those who purchased package tours. These tourists visited the town for their vacations by travelling with either family or friends. The average length of their stay was two nights. They reported their trip spending mostly on souvenirs followed by accessories and clothing respectively. They tended to visit arts, culture, history and heritage sites and to enjoy sports, outdoors and adventure activities. The results also revealed that first-time tourists usually have a clear list of priorities regarding what to do and where to go during their stay. First-time tourists usually relied on friends/relatives recommendation and the Internet for their information in order to prepare for the trip and develop more or less specific plans and expectations for the stay. This finding is supported by Li et.al. (2008) who found that first-time tourists relied more on family and friends to make their travel decisions. Similarly, Engel, Blackwell and Miniard (1995) viewed that word of mouth strongly influenced decision making especially with complex products' purchase. Moreover, most tourists were very active in moving and getting to iconic destinations and felt the need to complete the standard tourist program. As Fakeye and Crompton (1992) noted, first-time

tourists are likely to be more curious to see the area than repeat tourists whose curiosity motive has been satiated by previous visits.

In the case of repeat tourists, most of them were independent tourists and more likely to travel with family. The main purpose to travel was to visit friends and family. They normally stayed two nights and spent mostly on souvenirs followed by accessories and clothing. They visited more variety places. However, repeat tourists tended to avoid some of the major tourist sites because they had already been there from earlier visits. Moreover, it was found that repeat tourists were less likely to participate in iconic activities, they engaged in activities such as nightlife, shopping and visiting friends and relatives. This finding is supported by Wang (2004) who found that repeat tourists participated in activities related to local culture and life and preferred more social activities.

The findings also revealed that repeat tourists were more likely to experience both historical venues and nature and intended to visit less touristy places, especially for repeat tourists who had already visited more than three times. Additionally, although the destination choice was made by alternative evaluation based on their past experiences, they still drew information from the internet and friends/relatives recommendation as information sources before and during a trip. It can be seen that the Internet has become a modern communication channel for both groups as they use interactive services before, during and after their travel activities. Molz (2006) stated that tourists who used the internet for preparing a trip not only used those services during their stay, but also they documented their tourist experience in travel-blogs. Similarly, Hawkins, Best and Coney (1995) viewed that there are five primary sources of information: memory (past experiences, personal sources (friends/family), independent source (government), marketing sources (advertising) and experiential sources (product trial). According to the findings, it is clear that differences exist between first-time and repeat tourists, therefore destination developers can set marketing strategies and be able to provide specific tourism resources and activities to each group.

Comparison of push and pull factors for different type of tourists

An independent sample *t*-test was carried out on the mean scores of each individual item in order to determine whether significant differences existed between the mean scores assigned to the items by first-time and repeat tourists (Table 3).

Table 3

Mean differences between motivations of first-time and repeat tourists (*t*-test)

Push and Pull factor domains	First-time	Repeat	*t*-value	*p*-value
Push factor				
(1) To appreciate historical resources	4.12	3.86	3.331	0.001
(2) Time period	4.02	3.81	2.555	0.011
(3) To work and travel	3.63	3.62	0.050	0.960
(4) To rest and relax	4.03	3.72	3.715	0.000
(5) To spend time with family	3.91	3.70	1.944	0.053
(6) To gain knowledge/experience	3.87	3.57	3.275	0.001
(7) To visit friends and relatives	3.39	3.44	-0.431	0.667
Pull factor				
(1) The price of the holiday	3.86	3.70	1.855	0.064
(2) Safety issues of significance	3.88	3.63	3.007	0.003
(3) Accessibility and transportation	3.98	3.78	2.259	0.024
(4) Well-organized information system	3.80	3.49	3.293	0.001
(5) Various tourism resources	3.98	3.85	1.446	0.149
(6) Tourism activities	3.95	3.62	3.615	0.000

Statistically significant differences were noted in 4 of the statements suggesting that each tourist group came to this historical town to have different motives satisfied. Gitelson and Crompton (1984) viewed that different motivations among tourists can lead to different intended activity sets. As can be seen on the push factor, 'to appreciate historical resources' showed the highest mean score for

both groups, indicating that their main motivations in considering the town as a destination would be historical experiences such as visiting historical and cultural sites. However, first-time tourists appeared to be attracted by the important historical sightseeing spots, while repeat tourist hardly returned to the icon tourist destinations. A similar picture emerged from Freytag's study (2008) where the stereotypical character of the tourists who visit Paris for the first time is that of feeling the need to visit places which they already know from pictures and stories. Similarly, Crang (2004) viewed that a key element of tourism for first-time tourists is not going to places but rather attaining the status of 'having been to somewhere'. According to the findings, first-time tourists seem to be the primary market for icon attractions. The tourism developers should pay attention to tourists' specific preferences in order to attract them.

In addition, tourists are also motivated by external factors including 'time period'. The study found that the number of tourists visited the town rose in a given period of time (during school holiday). As mentioned above, heritage sites are well-known for this town; temples and the palace are the most visited sights, especially among university students during semester break. Furthermore, both tourist groups had similar relaxation/rest based and spend time with family motivations while visiting the town. However, while the 'to gain knowledge/experience' factor was another key reason for first-time tourists, repeat tourists did not perceive this item to be an important motive pushing them to visit the town. This may be because repeat tourists already had some experiences in the destination area.

For the pull factor, the 'various tourism resources' item appeared to be a strong motive for both first-time and repeat tourists. This factor is likely to be a common factor which has been found in previous tourist motivation studies by Kim, Lee and Klenosky (2003), Kim & Prideaux (2005) and Yoon and Uysal (2005). The result also showed that there is a significant relationship between destination attributes and motives. Although first-timers and repeaters attended a variety of attractions and activities, first-time tourists mostly visited iconic destinations and enjoyed iconic tourism activities, while repeat visitors are likely to visit a more variety of locations and participate in a wider range of activities. Many studies of tourist motivation (e.g. Crompton, 1979; Dann, 1981) presumed that tourists will choose activities that they believe will best satisfy their desires and/or needs. Furthermore, first-time tourists also placed importance on the pull factor of 'accessibility and transportation'. This finding reflects the fact that the town is relatively accessible and easy to get around. Most destinations have abundant and generally free or low-priced parking and most transfer stations (airport, train and bus stations) are located and designed for convenient highway access, vehicle parking and often vehicle rental services. Therefore, accessibility is affected by the quality of system integration such as the ease of transferring between modes, the quality of stations and terminals and parking convenience. The 'tourism activities' factor also plays a key role for first-time tourists. It was found that this tourist group tended to visit historical sites and attend sports, outdoors and adventure activities such as rafting and golfing. This indicated that tourism activities can create valuable experiences and can influence overall satisfaction with the destination which in turn can attract tourists to revisit the town. This finding is similar to Wang (2004) who found that first-time tourists were involved in more activities, while repeat tourists were less likely to engage in tourist activities.

In addition, while the 'safety issues of significance' factor appeared to be a strong motive to first-time tourists, repeat tourists did not recognize this push factor as influential in motivating them to travel to the destination. A possible explanation for this finding is that of when tourists have already visited a destination, their perception of risk declines. Many studies (Reisinger & Mavondo, 2006; Sönmez & Graefe, 1998) have found that travel safety was positively associated with intentions to travel. In other words, tourists' perceptions of safety are likely to influence travel decisions and destination choice. Mazursky (1989a) added that past travel experience and personal experience can influence future travel decisions. Therefore, it can be concluded that personal experience with travel in general or in a destination in particular can affect safety perceptions, which in turn can influence the chance of future travel to or the desire to avoid that destination

CONCLUSION

The study suggests that there is no significant difference in terms of tourists' socio-demographic, however, there are some differences in their trip characteristics and travel motivation among tourists. It was found that first-time and repeat tourists are motivated to come to this historical town for different reasons. First-time tourists are motivated to visit the destination by relaxation, while repeat visitors are mainly motivated by socialization and visiting friends and relatives. The differences in reasons for traveling influence intended behavior. Therefore, each destination should offer a variety of products and services to attract tourists and each tourist has an opportunity to choose from a set of destinations.

The general pattern of tourist practices during the stay widely corresponds with the activities that are recommended from their friends or the Internet. This research highlights that personal recommendations and media are the primary influence on tourists' decisions due to the fact that they are built on a foundation of trust and allow people to be selective about the information. More importantly, as tourists use the Internet as a primary planning tool, there is an opportunity for attractions to allocate more of their marketing budget to this channel and also there is the need for market research and segmentation prior to the development of targeted marketing campaigns.

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