

AN EMPIRICAL TEST OF FACTORS INFLUENCING INDUSTRIAL TECHNOLOGY LEAKAGE¹

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ABSTRACT

The importance of industrial technology in modern era cannot be stressed enough. Industrial technology leakage can be a serious threat to national competitiveness, particularly economic competitiveness if inadvertently leaked abroad. Most of technology leakages have been committed by current or former employees. This study analyzes the criminological factors of technology leakage committed by the employees who are the key element in preventing such a crime. Based upon a self-control theory, this study attempts to investigate the relationship between self-control and organizational attachment. The results of this study show that the higher self-control and organizational attachment would contribute to prevent the industrial technology leakage.

Keywords: Criminological Approach, Industrial Security, Technology Leakage

1. INTRODUCTION

Along with the advance in the technological competitiveness of South Korean companies it can also increase industrial technology leaks. According to the Korean Association for Industrial Technology Security (KAITS), the loss from industrial technology leakage in 2014 was estimated to be about 50 billion U.S. dollars which is 3% of the GDP of South Korea. This fact shows that most of companies have actively invested in developing a new technology for sustainable growth, with having less attention in protecting the technology. It should be to clarify the perpetrator and causes of industrial technology leakage to protect the leakage. In other words, who leaks industrial technology? And why?

The KAITS data show that the leakage by insider account for 80 % of the industrial technology leakage during the last five years. The internal staff or insider appear to be the main perpetrator leaking technology. The reasons for the insiders' leakage of industrial technology would include personal profit motive and dissatisfaction with the company. The data show that profit motive accounts for 78 % of the reasons while dissatisfaction with the company having 13%. In short, most of industrial technology leakage result from the insider including former and current employees for profit motive, money.

This study is to explore the deeper causes to protect industrial technology based on the facts known. The effective way to suppress industrial technology leakage for personal profit is to change the external factors such as environment as well as to change the internal factors including criminal motive. The insiders who leak technological technology could incapacitate the security system as external factor. This is why a change of internal factor such as criminal motive might be a fundamental way to deter and protect industrial technology leakage. Thus this study focuses upon the protection of industrial technology through

¹ "This research was supported by the MSIP(Ministry of Science, ICT and Future Planning), Korea, under the ITRC(Information Technology Research Center) support program (IITP-2016-H8501-16-1018) supervised by the IITP(Institute for Information & communications Technology Promotion)"

suppressing criminal motives. Based upon a self-control theory of Gottfredson and Hirschi (1990), this study attempts to analyze the impact of self-control and organizational attachment upon industrial technology leakage. In short, the purpose of this study is to test empirically whether self-control and organizational attachment have relationship with industrial technology leakage.

2. THEORETICAL BACKGROUND

2.1 Industrial Technology Leakage

Industrial technology leakage mainly refers to leak out industrial technology to the outside by illegal methods (Lee & Kim, 2013: 57). The concept of industrial technology should be defined narrowly and legally to understand industrial security. The legal concept of industrial technology can be defined as the technology notified and certified by the administration with regard to methods and technological information needed for the development, production, and supply of products and services for the purpose of enhancing industrial competitiveness. The technology include the national core technology, cutting-edge technology, and root-technology. The illegal methods are the activities to acquire, use and expose industrial technology by stealing, fraud, and threatening, etc.

Industrial technology leakage can be considered as white-collar crime from a criminological perspective. Sutherland (1983) defined white-collar crime as a crime committed by a person with social respectable position in connection with their duties. The relevancy of job is recognized as an essential element of white-collar crime. Geis (1992) also emphasized the abuse of authority as the key elements of the white-collar crime and defined white-collar crime as the crime committed by these people in positions that may have an opportunity of such misconduct (1992: 47). Thus, the concept of white-collar crime is widely accepted as the crimes relevant to job by using his or her authority (Lee & Kim, 2013: 67).

The motive of the white-collar crime is also not much different from other crimes. Most of researches on white-collar crime argued that greed is the most important motive like other crimes. White-collar criminals would commit a crime due to low self-control as well as other criminals, failing to suppress their greed, usually greed for money (Simpson and Piquero, 2002). Self-control must be, in this sense, an important factor in explaining white-collar crime.

2.2 Self-Control

Michael Gottfredson and Travis Hirschi (1990) defined the concept of self-control as spontaneous and comprehensive ability to suppress the instinct to seek personal satisfaction. They also defined the factors affecting self-control, including impulsivity, lack of continuity, risk seeking, lack of planning, indifference to others' agony, dissatisfaction with long-term compensation (1990: 85). Also June Tangney et al. (2004: 272) presents a self-control as "the ability to resist undesirable or socially unacceptable impulse or to control the actions, thoughts, feelings." Tangney argued that impulse for momentary satisfaction and lack of self-control lead to low self-control, which is the main cause of crime. This claim has since been verified through many subsequent studies. Thus self-control and crime can be considered as having a meaningful relationship despite some critical claims.

2.3 Organizational Attachment

The concept of organizational attachment has been generally defined as a combination of individual attitudes and behavioral will. Organizational attachment refers to the member's identity feeling to the organization and will to contribute to his organization. John Wagner (1992) defined organizational attachment as member's will dedicated to working hard and staying in his organization. Mayer & Allen (1990) has conceptualized organizational attachment as affective attachment, continuance attachment, and personal responsibility for the organization, normative attachment based on a sense of duty. Behavioral approach is based on Howard Becker's theory of organizational attachment, which emphasizes the concept of exchange and compensation-cost (1960, 32).

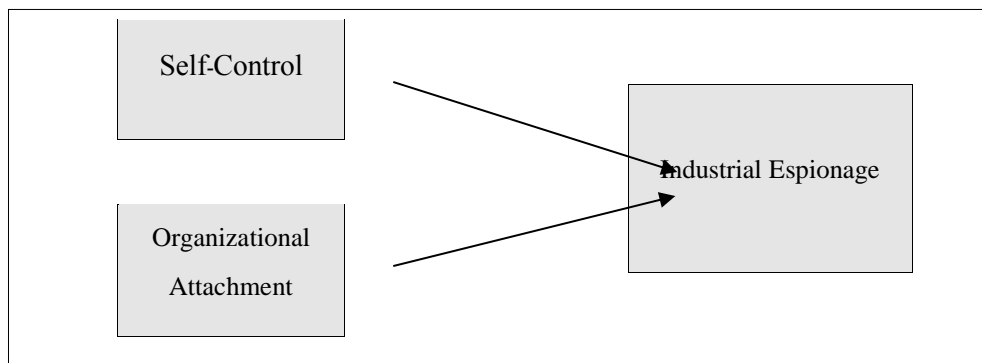
Particularly emphasized is the transaction and exchange between individual and organization. A member's organizational attachment grows as he would get more advantage from the exchange, which means that organizational attachment arises from awareness of the costs and benefits associated with the organization. The member is likely to leave his organization when cost is perceived more than gains. In other words, individuals with high organizational attachment are likely to form a unity with the goals and values of the organization and focus on the process of striving for the realization of these values and goals. Organizational attachment can be formed when the organization's member tries to identify the values and goals of the organization and to achieve this.

3.METHODOLOGY

3.1 Sampling

Sampled for this study is the employees in the metropolitan area. Both online and offline questionnaire survey were conducted and a convenience sampling method was used. The total sample is 125 people with subtracting non-response using hotdeck imputation method.

Figure 1 Research Model



3.2 Hypotheses

H1: The higher self-control is likely to be the lower industrial technology leakage.

H2: The higher organizational attachment is likely to be the lower industrial technology leakage.

This study is to investigate the relationship between industrial technology leakage and psychological factors such as self-control and organizational attachment. To clarify the causal relationship between self-control and organizational attachment, and industrial technology leakage, this study set up self-control and organizational attachment as the independent variables and industrial technology leakage as the dependent variable, using logistic regression analysis.

Tangney's scale was used to measure self-control (2004: 271-322). The five point Likert scale from 'not at

all" (1 point) to "strongly agree" (5) was used to measure self-control and the total number of questionnaire items is 36. Self-control was measured by adding total scores of 36 items. Organizational attachment was measured by using the scale Allen & Meyer's (1990) developed. They distinguished organizational attachment into three types such as emotional, continuance, and normative attachment, and measured organizational attachment from these three criteria. Total 15 items were measured by using the five point Likert scale from "not at all" (1 point) to "strongly agree" (5). Organizational attachment was also measured by adding scores of 15 items.

4. RESULTS AND ANALYSIS

In order to test the hypothesis H1 and H2, this study employed a logistic regression analysis to examine the causal relationship between the independent variables, self-control and emotional, continuance, and normative attachment among organizational attachment, and the dependent variable, industrial technology leakage.

Table 1 The Results of Logistic Regression Analysis

Variables included in Equation		B	S.E	Wals	DF	Sig.	Exp(B)
Step 1	self-control	-0.032	0.014	5.189	1	0.023	0.968
	affective attachment	0.106	0.099	1.141	1	0.285	1.112
	continuance attachment	0.012	0.079	0.024	1	0.878	1.012
	normative attachment	-0.202	0.092	4.808	1	0.028	0.817
	constant	4.115	1.632	6.355	1	0.012	61.223
Step 2	self-control	-0.032	0.014	5.158	1	0.023	0.968
	affective attachment	0.114	0.084	1.856	1	0.173	1.121
	normative attachment	-0.196	0.085	5.304	1	0.021	0.822
	constant	4.127	1.633	6.389	1	0.011	61.974
Step 3	self-control	-0.030	0.014	4.633	1	0.031	0.971
	normative attachment	-0.133	0.070	3.626	1	0.057	0.876
	constant	4.414	1.591	7.702	1	0.009	82.625

By using a backward elimination method, insignificant variables were removed in three steps. Self-

control and normative attachment among independent variables were verified with a significant probability of 0.031 and 0.057. The full test result of model coefficient was a significant probability of 0.009, showing that the model coefficients were all statistically significant.

$$Pr = \frac{1}{1 + e^{-(4.414 - 0.030 \times Self - Control - 0.133 \times Normative\ Commitment)}} + e_i$$

The final model is shown in the above formula. One point higher of self-control variable is likely to lower 0.971 times the chance of industrial technology leakage. In other words, it means that when self-control is one point lower, the probability of industrial technology leakage increases by 3%. When a normative attachment score gets one point higher, likewise, the probability of industrial technology leakage decreases 0.876 times lower, which means that the probability of industrial technology leakage increases by 12.4% as the total score of a normative attachment gets one point lower.

Table 2 Classification Table

Classification				
Surveillance		Prediction		Accuracy (%)
		Industrial Technology Leakage		
		0	1	
Industrial Technology Leakage	0	35	25	58.3
	1	22	43	66.2
Total (%)				62.4

The classification table showed the accuracy of the model by comparing the actual value and the predicted value. The accuracy probability was 58.3% when it was predicted that industrial technology would not be leaked out. The accuracy probability was 66.2% when it was predicted that industrial technology would be leaked out.

In sum, low self-control increases industrial technology leakage like other crimes, while high self-control reduces industrial technology leakage. Among three variables of organizational attachment, a normative attachment was only found to have statistically significant relationship with industrial technology leakage. The statistical significance of normative attachment implies the importance of normative characteristics such as legal responsibility, compared to affective attachment including friendliness. Based upon this result, therefore, normative attachment like legal obligations should be more emphasized to strengthen security measures as well as for preventing industrial technology leakage.

5. CONCLUSION AND POLICY IMPLICATION

In a recent period representing as an economic war, industrial competitiveness should be vital for the

national economy. In this sense, the leakage of industrial technology must be a serious problem, which may be critical to the competitiveness of the national economy. Although industrial technology leakage must be an obvious criminal behavior, few researches have been done from a criminological perspective. Particularly there has been no study with regard to the causal relationship between self-control and industrial technology leakage. This is why this study aims to explore the factors influencing industrial technology leakage from a criminological perspective, specifically focusing upon self-control and organizational commitment.

From the result of this study, both hypotheses H1 and H2 were proved to be statistically significant. In other words, the higher self-control is, the lower the probability of industrial technology leakage gets (H1). The higher organizational attachment is, the lower the probability of industrial technology leakage gets (H2). Therefore, it is predicted that high self-control and organizational attachment decrease the leakage of industrial technology. In order to prevent industrial technology leakage as white-collar crime and strengthen industrial security, from the results of this study, it is clear that the employee's self-control and organizational attachment should be promoted.

The limitation of this study is not to have representativeness of the population by relying on a convenience sampling and insufficient number of samples in pursuit of easy survey. Future research will need to be secured by a representative survey by extracting a sample from a number of industries and having enough sample. Nonetheless, the academic contribution of this study can be found in an attempt of employing a new approach to explore the factors influencing industrial security from a criminological perspective.

Acknowledgment

"This research was supported by the MSIP(Ministry of Science, ICT and Future Planning), Korea, under the ITRC(Information Technology Research Center) support program (IITP-2016-H8501-16-1018)) supervised by the IITP(Institute for Information & communications Technology Promotion)"

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PERCEPTION OF CSR IN A DEVELOPING COUNTRY

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ABSTRACT

This paper reports the findings of a questionnaire survey that investigated the attitude of public towards corporate social responsibility (CSR) in Saudi Arabia. The study revealed the benefits that CSR may bring to companies. It is expected that the importance of corporate social responsibility in Saudi Arabia will increase as this concept is relatively new and there is a huge field for future research.

Keyword: Corporate Social Responsibility, Saudi Arabia, Attitudes

INTRODUCTION

CSR can be broadly defined as the activities making companies good citizens who contribute to society's welfare beyond their own self-interests (Mc Williams and Siegel, 2001; Tsoutsoura, 2004; Nicolau, 2008). According to Campopiano et al. (2012), the concept of CSR means that companies have moral, ethical, and philanthropic responsibilities. With estimated spending on charitable giving reaching millions of Saudi Riyals, CSR has become a mainstream topic that goes beyond just a support to worthy causes, but a very important factor for creating a strong reputation and corporate image, thus gaining a competitive advantage in the market. According to Khanifar et al. (2012), CSR activities might improve a firm's reputation and relationship with bankers, investors and government officials. Thus, a high CSR profile may improve a firm's access to resources of capital. Arli and Lasmono (2010) state that CSR is still a concept which needs to be applied in developing countries. Despite the fact that companies face higher pressure in engaging in CSR activities, not many studies have been conducted on their impact on corporate performance in Saudi Arabia.

The study examines the perception of individuals toward the corporate social responsibilities in Saudi Arabia using Carroll's pyramid of CSR and Davids and Blomstrom's environment responsibilities and investigate the positive or negative relationship between them. The study also evaluates the level of CSR of companies operating in Saudi Arabia and the benefits that corporate social responsibility activities may bring to organizations.

LITERATURE REVIEW

Principally, the concept of CSR started getting more attention in the late 1990s when numerous organizations world over were redefining their role towards their individual responsibility related to the society and the surrounding environment. This phenomenon ultimately emerged into what is being called today as Corporate Social Responsibility (CSR).

The most modern definition was developed by Archie Carroll who suggested that total CSR includes: economic, legal, ethical and philanthropic" (Carroll, 1991). He argued that economic responsibilities are the most important responsibility because the obligation of any company is to be profitable and offer good or

service that society needs. The second responsibility is legal; the profits should be achieved in compliance with laws and regulation of the government. Third, responsibility in Carroll's pyramid is ethical which includes morals based on justice. Finally, philanthropic responsibilities are voluntary actions by companies such as charity and any contribution to the society that improve the quality of life. The study will help to recognize the most important responsibility in Saudi Arabia and build Carroll's Pyramid of CSR as adapted to Saudi Arabia. Davis and Blomstrom (1975) highlight environmental responsibilities as part of CSR. The study will take into consideration "environmental friendliness" as one of the principles of CSR to learn the attitude of the individuals toward companies' responsibility to protect the environment. Companies can no longer afford to operate as independent entities disregarding the public interest and also the societal welfare and the eventual consequence of the same on the environment (Sen, 2009). Companies today have started appreciating the fact that in order to be successful in business and reap the maximum amount of strategic benefits, it is very vital for them to practice responsible business protocols. According to the report of The Economist, *"Companies typically allocate about 1% of pre-tax profits to worthy causes because giving something back to the community seems 'the right thing to do'"* (Franklin, 2008)". Modern organizations have established countless strategies for handling the connection that exists between the societal needs, the natural environment, and the analogous business imperatives depending on the depth and the form in which social responsibility approaches are being integrated into both the long-term strategy and the day-to-day operations globally (Babalola, 2012).

CSR Concept

According to Carroll (1999), the modern concept of CSR has evolved since the 1950s and proliferated in the 1970s. In his analysis of 37 definitions of CSR, Dahlsrud (2008) stated that many authors have tried to give a full definition of CSR but still an exact one is elusive and yet to be obtained. According to Alniacik et al. (2011), CSR behavior includes a range of activities such as treating customers, employees, and business partners fairly; supporting societal causes; protecting and improving the natural environment; and so on. In this study, the definition of CSR by Carroll (1979) will be adopted: "The societal responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point of time".

CSR and Performance

A considerable amount of researchers tried to identify the relationship between CSR activities of corporate performance. The results of these studies were equivocal going from showing a positive relationship, negative relationship to no significant effect. Blomgren (2011) studied the relationship between CSR and profit margin of the 15 largest textile companies in Norway. He found that 13 out of 15 companies reported beneficial effects of CSR. Arendt and Brettel (2010) examined the effects of CSR on corporate identity, image and firm performance in 389 European countries. They found that the relationship varies significantly based on company size, industry and marketing budget. Starwick and Starwick (1998) examined the relationship between CSR of an organization and 3 variables: the size, the financial performance and the environmental performance. They found that the firm's corporate social performance is impacted by its size, the level of profitability and the amount of pollution emission released by the firm. In

their study, Dabbas and Al-Rawashdeh (2012) aimed to identify the effect of CSR on the profitability of the industrial companies in Jordan. They found a significant relationship between CSR activities and profitability of these companies. Babalola (2012) examined the relationship between CSR and firms' profitability in Nigeria. The results showed that the sample firms invested less than 10% of their annual profit to social responsibility. Rettab et al. (2009) surveyed the link between CSR activities with the performance of 280 firms operating in Dubai. They found a positive relationship with all three measures of performance they used.

CSR in Saudi Arabia

CSR initiatives in Saudi Arabia are perceived as highly significant means to serve the people who are more unlucky and ill-fated in the society and also as a means through which a sense of religious fulfillment might be attained (The National Commercial Bank, 2009). There is moderate amount of awareness in the entire Saudi Arabian region on the concept of CSR and majority of the companies which focus on activities related to CSR primarily work on areas related to health, safety, ethics and corporate governance, environmental issues, and community commitment. According to the NCB Survey that was conducted in the year 2009 the following were identified:

- The top 3 CSR activities identified in KSA are creating job opportunities for the unemployed (49%), encouraging entrepreneurship (47%) and conducting or supporting anti-smoking campaigns (46%).
- Other activities identified include medical support programs (32%), computer literacy and education drives (30%), and training to the physically challenged (41%) (The National Commercial Bank, 2009).

METHODOLOGY AND RESULTS

Questionnaire and Data collection

A questionnaire has been employed to learn the attitudes of individuals towards the corporate social responsibilities. The items of the questionnaire were developed on the basis of literature review and studying some previous questionnaires. A five point Likert-type scale was used as the response format for the variables, with assigned values ranging from 1 being "Strongly disagree" to 5 being "Strongly agree".

RESULTS

Table 1 shows the distribution of respondents by age, length of service, education level and salary. Of the 300 respondents there were 180 male with percentage of 60 % of the sample size and 120 female which equal 40 of the sample size. Table 1 indicates that highest portion of the sample was 25-35 years old with percentage of 41.6 % of the sample.

The highest percent of the sample have 5 years or less of work experience representing 41.4 %. Finally, a last demographic variable of this research was the education, which the highest portion of the respondents has bachelor degree with 60%.

Table 1: Description of the sample

	Frequency	Percent
Gender		
Male	180	60
Female	120	40
Age		
below 25 years	60	20.0
25-35	125	41.6
36-45	75	25.0
46-55	35	11.6
55or older	5	01.8
Work experience		
No experience	54	18.0
Below or equal 5 years	124	41.4
6-20 years	71	23.6
more or equal 21 years	51	17.0
Education		
High school	68	22.6
Diploma	36	12.0
Bachelor degree	180	60.0
Master degree or higher	16	5.4
Total	300	100

Tables 2 and 3 show the perception of individuals toward the CSR by using the means and Standard Deviation of each question and combined under each category. The higher perceptions were the environmental friendliness with mean of 4.43, followed by the ethical responsibilities with mean of 3.98 and philanthropic responsibilities representing 3.86. That means, the public of Saudi Arabia expect companies to protect the environment or not harm it. Ethical responsibilities is ranked second in importance which implies that companies are expected to not compromise ethical norms of the society and treat people fairly. Comes after the legal responsibility, which means that companies should obey the rules and laws is viewed as least important.

Table 2: Mean, Standard Deviation

	Mean	SD
Economic Responsibility		
1. The primary goal of companies is to make as much profit as possible.	3.77	1.43
2. Socially responsible companies strive to lower their operational costs.		
3. Companies should strive for the highest returns to their shareholders.	2.84	1.16
4. Companies should not be distracted from their economic functions by solving social problems.	3.73	1.44
	3.55	1.44
Legal Responsibility		
5. Well run companies strive to comply with all the state laws and regulations.	3.47	1.44
6. Companies must operate strictly within the legal framework of the society.	3.81	1.40
7. It is sometime expedient for companies to violate some laws and regulations.	2.66	0.83
8. Companies have to adhere to all state rules and regulations even though it may be costly for them.	3.69	1.44
Ethical Responsibility		
	4.36	1.19
9. Companies should not compromise ethical norms of the society in order to achieve corporate goals.	3.36	1.34
10. Socially responsible companies always do what is right, fair and just.		
11. Companies should avoid doing harm at all cost.	4.22	1.26
Philanthropic Responsibility		
	4.17	1.33
12. Companies should contribute resources to the community.	3.57	1.44
13. Socially responsible companies strive to provide for community betterment.	3.91	1.41
14. Companies should actively promote volunteerism.	3.81	1.43
15. Companies have to commit resources to support culture and arts.		
Environmental Friendless		
16. Companies should take care of the natural environment.	4.31	1.25
17. Companies should avoid damaging the natural environment.	4.43	1.16
18. Companies should contribute to the upkeep of the natural environment.	4.39	1.19
19. Companies should have waste minimization and recycling programs.		

	4.60	1.00
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Table 3: Mean, Standard Deviation, and Correlation (by responsibility)

	Mean	SD	Economic	Legal	Ethical	Philanthropic	Environmental Friendliness
Economic	3.4857	1.61539	1				
Legal	3.40625	.80087	.273**	1			
Ethical	3.9831	.89152	.247**	.341**	1		
Philanthropic	3.8665	1.0146	.261**	.379**	.282**	1	
Environmental Friendliness	4.43327	.95623	.307**	.183**	.267**	.404**	1

** Correlation is significant at the 0.01 level (2-tailed).

CONCLUSION

The study investigated the attitude of public toward corporate social responsibilities. It is expected that the importance of corporate social responsibilities in Saudi Arabia will increase as this concept is relatively new and there is a huge field for future research. The study found that environmental responsibilities and ethical responsibilities are considered the most importance in Saudi Arabia. Companies are socially responsible in the eyes of the public means not harming and protecting the environment, be honesty and fairness to the public.

ACKNOWLEDGEMENTS

The author would like to express his thanks and appreciation for the support provided by KFUPM in the preparation of this paper.

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READING PATRIARCHAL IDEOLOGY FROM DOMESTIC HOMICIDE, AND LEGAL PRECEDENTS

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ABSTRACT

In 2013, the media started to bring to the surface different aspects of domestic violence, which has been hidden in our society until now, in order to raise awareness about the seriousness of domestic abuse. The police, on their part, are publishing various manuals to respond to domestic violence cases. Nevertheless, no matter how well the relevant systems are reformed, change in the perception of women and domestic violence held by the legal circle, which has the right of final judgment, is needed to give effect to such systems. This study aims at highlighting the importance of such change in perception by reading through legal decisions how the court sees domestic violence. To that end, precedents of the past three years involving homicide by family members, which are the most serious cases of domestic violence, have been analyzed to look at the circumstances where domestic violence leads to homicide; offender-victim characteristics; and a patriarchal perspective of the criminal justice system on domestic violence. Non-parametric t-tests have also been performed when necessary given the limited data. As a result, it was found out that the final sentence was harsher in cases where males were the victims compared to those where the victims were female. In addition, legal statements included andocentric terms as well as words that represent preconception on gender roles, criticism on victimized women and stability of male offenders' families. It is believe that diverse social responses to combat domestic violence and efforts to overcome patriarchal ideology will make substantive differences in our endeavor to resolve the social issue. Further details will be discussed in the context.

Key words: domestic violence, domestic homicide, patriarchal ideology, legal decisions, legal precedents

INTRODUCTION

It seems Korean society is nowadays in a war against violence. With the launch of the new government in 2013, independent of the violent crimes classified by criminal justice agencies, new categories of crimes that are serious and need to be rooted out have been introduced, so called "four social evils", which include sexual violence, school violence, unsafe food and domestic violence. What is lamenting is that these types of crimes

¹ This paper is a revised version of the presentation done at the 41th Symposium of Korean Association of Public Safety and Criminal Justice on May 15, 2013.

that are emerging as new subjects of eradication are not new to criminologists, legal experts as well as the public. They are similar to chronic diseases whose seriousness has long been under debate, but lacked people's attention. However, like the way our body works, the causes of each of these "four social evils" cannot be independent of each other. As we learn the seriousness of school violence and juvenile delinquency, one of the common aspects of the two types of crimes that we come across is that the offenders are from unhealthy families. Violence by fathers against mothers or children as well as violence by mothers against children, and family structures that prevent affection between family members from growing all lead minors to a vicious circle of violence (Moon & Lee, 2010). This supports the argument that efforts to protect healthy families should be made at the government level.

Communities, households, and individuals each exist as subsets that belong to a set, society. A household that consists of individuals shapes their personalities and values, and the positive energy that flows from the household will drive the society safely. However, we have recognized a household as a private sphere without the involvement of social energy or governmental authority. Although the police started to actively engage in domestic violence in Minnesota, U.S. in 1980, it was 18 years later that South Korea enacted "Act on the prevention of domestic violence and protection, etc." Not many people, however, were benefited from, or criminalized by the laws. It may be because the laws are far from the reality and difficult to actively apply in households, society and criminal justice system. Violence within a household is an embarrassing matter when exposed to others, and in many cases, although there exist offenders, such violence is "a family affair tricky to meddle in" for the police. Only a few cases are brought to the court for the final judgment, but sometimes the final decision includes blames on those concerned for not having divorced or reported to the police. Violence between family members is not easily reported immediately unlike simple violence cases because of the fact that they are family. Therefore, when domestic violence cases are publicized, they are in many cases extreme instances that have long continued and can no longer be endured. As soon as they are reported and the victims begin to be protected under the criminal justice system, the household concerned is likely to be destroyed.

Recognizing the danger of continued domestic violence, this study describes the circumstances where domestic abuse leads to homicide and interprets them in connection with criminological theories and socio-cultural backgrounds, through an analysis on the relevant judicial decisions.

LITERATURE REVIEW

2. Preceding Research on Patriarchal Ideology

1) Patriarchism, Households, and the Law

In explaining experiences of violence within families, tendency to be violent, or offence and victimization of domestic abuse, Park (2009) and Gover and her colleagues (2011) argued that collective and individual theories can be applied discriminately depending on the socio-cultural characteristics. According to the report

by Park (2009), violence and its victimization is better predicted by self-control theory in the case of American students, while social learning theory can better predict dating violence and its victimization among Korean college students. These cultural differences can be explained in the context of the society's macroscopic structure, which is interpreted as a cultural "blueprint" and includes organizational, social and political contexts (Hong et al., 2010).

Patriarchal ideology is more useful to explain domestic violence with more collective cultural and social characteristics. The ideology is about social relationships based on power between men and women, among women, and among men. This is a social system used to maintain the superiority and power between social classes, genders, races, and opposite sexes. Patriarchal belief that puts males at the center of the relationship between different genders becomes the source of gender violence. Patriarchal system, whether the relationship is abusive or not, acts as a social force which influences the power relationship (Belknap, 2007). Under a patriarchal system, women are compensated for their obedient and passive attitude, which is defined as a "feminine" behavior, while aggressive or masculine behaviors compensate men (Belknap, 2007). Consequently, patriarchal culture, as a tool for control, tends to justify men's violence and depicts women as weak, less rational, and ones who sacrifice for men (Belknap, 2007).

Feminist theories have long argued that abuse against wife is a type of violence against women, which has rooted in a male-dominated and patriarchal society. Problems of the patriarchal ideology have long been around in the eastern and western societies. Until the 19th century, the western laws have been dominated by patriarchal ideology for a long time (Millet, 1969, Cassidy and Trafimow, 2002). It is only recently that these patriarchal legal systems are changing through many social and feminist campaigns. According to Blackstone of the U.K. (Blackstone, 1768), a man and woman, upon marriage, are one person in law and the husband is granted the right to represent his wife under the principle of coverture². This principle shows women subordinate to their husbands, and the legal status of those women under the principle meant their property rights being put under the protection of their husbands. Responsibilities granted by this system justified the right to discipline and correct bad behaviors of wives. Under the control of the head, a household can be safe from outside invasions and becomes a private area which is immune from any punishment. As Suk(2009) has mentioned, the existence of punitive clauses for violation of domicile shows that common law seeks such a "safe home." However, the abovementioned safety was only granted to men who are the leaders of a household, not to other family members who, therefore, had to face battery, sexual harassment, and intimidation behind the scene. The common law in the 20th century demonstrates that domestic violence is "something that cannot be intervened" or that it served well as a "shield against public intervention." For the past 40 years, what feminists and criminologists have fought for is to allow the government's involvement in doing away with the

² The American laws also reflect Blackstone's coverture system(Suk, 2009).

concept of a private household and letting all the family members, not just the head, pursue safety.

Such a patriarchal ideology reflected in the common law is similar to conservative and patriarchal aspect of the East Asian society. It becomes more apparent when the basic principles of the Three Bonds and Five Relationships in Confucianism (Samgang-oryun), which have influenced in the East Asia, including Taiwan, Korea, Japan, Viet Nam, and China, are related to the exclusive nature of a household. The Three Bonds (Samgang) are about relationships of father over son, husband over wife, and ruler over minister, while the Five Relationships refer to loyalty between the ruler and minister, love (filial piety) between father and son, mutual respect between husband and wife, order and discipline between elder and younger, and trust between friends. Among these, wives' virtue of being faithful to their husbands and a hierarchy depending on the age, combined with the patriarchal system under which women are expected to be obedient, produces a unique ranking structure, Samjongjido (three ways for women's obedience) (Shim & Nelson-Becker, 2009). Most women get married to elder men, facing stark differences in age and roles for different genders, are forced to do household chores, serve their husbands, take care of their kids, and respect the elders.

In addition, Confucian values in agricultural society further facilitated maltreatment against women. In agricultural society where sons served as a social safety net, not being able to produce sons and not treating them better meant an uncertain future (Watson & Ebrey, 1991). Therefore, wives who did not produce a son could be regarded worthless as a property from the perspectives of the western property rights and they may have had to accept abuse or divorce (Tran & Des Jardins, 2000).

When we look at the situation of the 21st century which has moved from agricultural society, Confucianist patriarchal principles which consider domestic abuse not as violence, but "household affairs" do not look very different from the coverture system of England and America, which has made the heads of households solely responsible for their families' safety. Even though society has changed, the laws still put first stability of households and safety of the heads just as the coverture system of the 19th century does.

2) Previous Research on Disparity between Groups

Before we discuss imbalanced perspectives towards men and women, it is necessary to consider disparity between groups that is now being discussed in the West. The first to look at is racial disparity between White and Black. The most frequently, White and Black are cited as an example of groups facing different sentencing, which shows the imbalance in the criminal justice system. According to the power conflict theory, different races are granted different sentencing. The more threatening they seem to the current power structure, the more severe sentencing they get. Crimes that produced white victims are considered more threatening to the current power structure, and thus lead to more severe sentencing compared to offences that victimized Black. Crimes (especially homicide) against different race are regarded as more threatening than those targeting the same race.

Therefore, when a black killed a white, he/she will be in a more disadvantageous position. Prejudice of a judge who has the right to final judgment also results in discriminate sentencing between different races. If the judge blames the victim, not the offender, or he/she finds the victim accountable, this would affect the sentencing. Negative perception of the judge against Black sometimes leads to attributing a fault to them (Albonetti, 1987, Baumer et al., 2000).

When it comes to the differences between genders, the perspectives above are divided into two. Scholars who support the power conflict theory argue that crimes against women will result in lenient punishment because women are devaluated compared to men, and in turn it is less worthwhile to punish the offender. They say this trend becomes more apparent when a woman in a lower class is murdered (Belknap, 2001; Grana, 2002; Carlen & Worrall, 1987). However, research conducted in America on murder and capital punishment shows that more severe sentencing was given to crimes against women than those targeting men (Baumer et al., 2000; Farrell & Swigert, 1986; Baldus et al., 1990; Gross & Mauro, 1989). Baumer & his colleagues (2000) and Kleck (1981) argue that, if it is not a sexual violence case, offences that involved women victims are considered more threatening to society. In many cases, when women were targeted, they were innocent and defenseless. Crimes in such a situation are regarded more threatening to the community in conformity with the focal concerns perspective. This suggests that the criminal justice system of the community should respond to crimes against innocent and weak people in a stricter way (Sundby, 2003).

Besides, Cassidy and Trafimow (2002), discussing changes in patriarchal ideology of the legal authorities of the U.S., analyzed cases pertaining to woman battering from the 1800s to 1997.. Interpreting legal decision of the judge as indicators of patriarchal ideology in the legal system, they found that the number of blaming toward battered woman decreased while the winning cases of domestic homicide from domestic violence increased.

3) Previous Research on Patriarchal Structures and Woman Battering

Comparing domestic violence in society where men and women enjoy the same social status to the offense in a male-dominated society, Kim and sung (2000) reported that women in the latter society face a three times higher rate of domestic abuse (Yick, 2007; Kim & Sung, 2002). Gover and her colleagues (2011) conducted research comparing the rate of college students of South Korea and the U.S. who have witnessed violence between their parents. As a result, it was found that 8% of both Korean and American students have witnessed violence by their mothers against fathers. On the contrary, only 8% of American students have witnessed violence by their fathers against mothers, while the figure goes up to 24% for Korean students, which is three times higher.

This situation was commonly found among women who came from Asian countries and are residing in the U.S. Yoshioka and his colleagues (2001) have analyzed domestic violence and abuse of wives among Asian

immigrants, and they reported high rates of experience of domestic violence among women from China, South Korea, Viet Nam, and Cambodia. In these countries, abuse of wives and domestic violence was rarely punished and violence against wives was often interpreted as justified behavior which is attributable to the wives' infidelity, nagging and refusal to cook, clean the house and respect their husbands (Yoshioka et al., 2001). According to their research, female immigrants from Viet Nam and Cambodia were more inclined to recognize male chauvinism and justify battering wives. In the case of those from South Korea, different generations of immigrants showed different degrees of admitting domestic violence. That is, elder generation of Korean-Americans were more likely to accept husbands' violence more generously compared to younger generations (Yoshioka et al., 2001).

This study explored cases pertaining to domestic homicide caused by domestic violence among family members using the context analysis. By discovering patriarchal ideology on the legal precedents of domestic homicide cases reflected in the judges opinions, this paper aims at discussing the necessity of change to see the domestic violence the society, systems as well as the perception of the legal authorities towards domestic violence.

RESEARCH METHODOLOGY

1) Data Collection

Out of cases where conviction of guilt was confirmed in the first court and sentencing guidelines were applied between September 1, 2009, and March 1, 2013, those which fall under the "Type 1 – murder with extenuating circumstances" were selected. The Type 1 murder includes those for which special consideration can be given and typically apply to offences the cause of which is attributable to the victims. To put it concretely, it refers to cases where the offender or his/her family has long suffered physical/mental harm such as domestic violence, sexual harassment or stalking; or been threaten to be killed (excessive self-defense is not considered as a special mitigating factor) (Sentencing Commission, 2012, p 3). Among these Type 1 cases, this study analyzed legal precedents on those the cause for which is attributable to the victims' domestic violence. From 46 cases collected, only those resulted from problems and violence between family members were finally taken, except for infanticide due to financial difficulties. Finally, analysis has been conducted on legal precedents of a total of 15 cases. Among these were a case in which a wife who has suffered domestic violence killed her husband and parricide by a child resulted from family violence and maltreatment by parents.

2) Analysis

In this study, analysis has been conducted on legal decisions mainly through inductive reasoning based on grounded theory. Judges' legal precedents show the judge's reasoning process for the final decision and are the results of a comprehensive thinking that reflects interpretation of the relevant provisions, social and cultural

sentiment, and the judge's logic and personal experiences. Therefore, analyzing such legal precedents provide facts of cases as well as social and cultural perceptions. It also tells us how the society sees domestic violence and domestic homicide. This study analyzed the contents of legal precedents and interpreted them in connection with related theories. When there is a need to verify significance in statistics regarding age groups or offender-victim relationship, the Mann-Whitney test in the way of a nonparametric analysis, which does not require taking into account stationarity and homoscedasticity, has been used to overcome the limited number of 15 subject cases. As for indicators of patriarchal ideology reflected on legal decisions, this study applied the six indicators of Cassidy and Trafimow (2002)³ and differences in sentence length depending on the gender of the victims used by Baumer and his colleagues (2000), Albonetti (1987) and Halcomb, William and Demuth (2004).

FINDINGS

1) Descriptive Statistics of domestic Homicide

Among the 15 domestic homicide cases that fall under the Type 1 crimes with extenuating circumstances, seven were committed by male offenders (46.7%) and eight by females (53.3%). The age of the offenders ranges from 26 to 90 with three in their 20s, three in their 30s, two in their 40s, three in their 50s, and four at the age of 60 or more. They were sentenced to, at least, 30 months in prison and the death penalty was the most severe punishment. Excluding one case where capital punishment was rendered, the maximum was a 60-month prison term. The average of the sentence, except for the death penalty, was 41.57 months, roughly three years and six months. Among the 15 cases, four cases were suspended the execution of the sentencing (26.7%). Private attorney were hired for 10 cases which account for 66.7% of the total cases, and public attorney were appointed for five cases.

<Table 1> Technical Statistics of domestic Homicide

Categories		Frequency	Proportions (%)
Offender's gender	Male	8	53.3
	Female	7	46.7
Age group of the offender	20s	3	20.0
	30s	3	20.0

³ Cassidy and Trafimow (2002) set out six aspects of judges as indicators of patriarchal ideology in the legal authorities.

1. The judge regards family privacy/stability as being more important than the individual rights of the battered woman.
2. The judge regards intimate-battering as a social problem rather than a legal one.
3. The judge considers the battered woman to be the instigator or provocateur of the battering incident(s).
4. The judge negatively stereotypes the behavior of the battered woman.
5. The judge uses male-based standards or masculine generics.
6. The judge employs gender stereotypes in his descriptions of situations and/or references to the batterer and battered woman.

	40s	2	13.3
	50s or older	7	43.7
Sentence in month	death penalty excluded	41.57 month on average	
Suspension of execution	Whether or not	4 cases admitted (60 months)	26.7
Types of defenders(attorney)	Public	5	33.3
	Private	10	66.7
Accomplices	Unilateral	14	93.3
	Accomplices	1	6.7
Weapons used	Deadly weapon (knife)	8	53.3
	Blunt weapon	6	40.0
	Death from suffocation	2	13.3
	Poisoning (cyanide)	1	6.7
Motives of killing ⁴	Domestic violence	9	60.0
	Financial incompetence	7	46.7
	Extramarital affairs	3	20.0
Types of trial	Jury Trial ⁵	2	13.3
	General courtTrial	13	86.7
Children to nurture/ favorable arrangements for children	Mentioned or not	8	53.3
Whether the offenders were drunk or not	Drunk	5	33.3
	Sober	10	66.7
Planned or not.	Planned	4	26.7
	Accidental	11	73.3
Victim's gender	Male	11	73.3
	Female	4	26.7
Vulnerability of the victims	Drunk	5	33.3
	Asleep	5	33.3
	Normal	5	33.3
offender-relationship victim	wife□husband	7	46.7
	husband□wife	2	13.3
	children□parents	3	20.0
	parents□children	3	20.0
Total		15	100%

With regard to the circumstances and methods of crimes, all of the offences were committed by a single offender, with only one exception where parents who have continuously suffered violence by their son killed

⁴ multiple responses

⁵ General type of the court trial is “the court by judges without jury.” The Jury style trial is possible to open upon request of the attorney or the offender.

him. Knives were used in eight out of 15 cases, all of which were kitchen knives except for one case. Six cases involved strangling and the victims were hit with blunt weapons such as dumbbells in two cases. There was another case in which a daughter poisoned her father to death with cyanide.

When it comes to the motives of murder, nine out of 15 cases (60%) were caused by domestic violence which continued for six to 30 years. Seven cases were due to responsibilities for financial situations or financial incompetence, and three cases involved cheating (multiple responses were permitted). Two cases led to jury trials and the other 13 cases were judged in a trial. For 11 cases out of 15, it was recognized that there was continued violence within households. In eight cases, “children to nurture” or “favorable arrangements for children” were invoked as a factor to consider in sentencing.

In five cases, the offenders were under the influence of alcohol at the time of committing a crime and ten cases involved crimes committed by sober perpetrators. Deliberateness was recognized only in four cases, which suggests that in many cases homicide within family members is accidental. Nevertheless, crimes in six cases were considered evil and cruel. The victims were male in 11 cases and female in four cases. Murder was not always committed by the opposite sex. Sons kill fathers and parents kill their sons. The victims were under the influence of alcohol in five cases and another five cases involved victims who were killed while being asleep. In the case of murder of husbands by wives, many cases involved wives who killed their husbands in retaliation for physical/verbal violence by their husbands while they were under the influence of alcohol, or wives who stabbed with knives, suffocated or hit with blunt weapons their husbands who fell asleep after using violence. The victims of these cases were killed when they were unable to resist, therefore the wives’ behavior was in many cases not considered as justified self-defense. Wives killed husbands in seven cases, husbands killed wives in three cases, parents killed children in three cases, and children killed parents in three cases.

In addition, offenders in 11 cases (73.3%) surrendered themselves to justice or confessed to a crime after committing murder. In 14 cases, the judge admitted or considered “serious reflection (remorse).” Self-defense was claimed in the court hearing for three cases and none of them was successful. In eight cases, it was claimed that the offenders were mentally weak (incapacity), and the judge admitted it in two cases.

2) Continuation of Violence and Accidental Cases

Legal precedents of seven cases where a wife has murdered her husband commonly include contents about complains about financial incompetence after marriage and continued verbal/physical violence. In many cases, wives killed their husbands after being battered severely, or sexually harassed or verbally abused before their children. Anderson (1997) points out that the fact that wives are financially dependent on their husbands is a risk factor of such continued violence. On the contrary, however, there is another aspect of patriarchal ideology

that justifies criticism against men when they failed to faithfully carry out economic activities which have assigned to them in a patriarchal society.

Those two cases in which husbands killed their wives show that verbal abuse and physical violence against women have continued, and, on the day of the murder, husbands were in a rage because of their wives' nitpicking and being doubtful about their having an affair, which led to murder under the influence of alcohol. Johnson and Ferraro (2000) pointed out that patriarchal violence gets severer in order to control his family members, and this domestic violence is represented as serious violent acts as well as emotional obedience, which is a type of strong control against a spouse. It was, therefore, argued that not only physical violence, but also emotional abuse and control should be included as indicators of domestic abuse (Kaukinen, 2004). It is in line with these arguments that murder of wives starts from control and emotional abuse against wives.

In the three cases of parricide, sons, who have endured continued violence by their fathers against their mothers and themselves, accidentally killed their fathers under the influence of alcohol, due to their fathers' violence on the day of the murder. Daughters deliberately poisoned their fathers to death out of discontentment about their fathers' being abusive against their mothers. In the case of sons, they physically confronted with their fathers while they were trying to kill their fathers and the murder was the result of a process of attack and defense. However, daughters killed their fathers avoiding physical violence.

Those three cases where parents killed their children involved households that were not properly functioning due to long-continued domestic violence and cheating affairs of fathers. Under such circumstances, offenders or victims were influenced by alcohol and they physically confronted with each other, which led to an accidental murder.

<Table 2> offender-victim relationship and motives & weapons of homicide

Relationship	Motives	Weapons used
Wife □ husband	Continued verbal abuse, violence	knife, blunt weapon
Husband □ wife	Doubt about extramarital affairs, nagging	Suffocation
Parents □ children	Continued violence	Suffocation
Children □ parents	Continued violence	knife, toxic substances

Regarding domestic violence in relation to offender-victim relationship, it was found that long-continued problems within a household, combined with violent situations on the day of the incident, led to murder, which is different from accidental murder cases resulted from sporadic violence between strangers. The common factor of cases where wives killed their husbands, where husbands killed their wives, where parents killed their children, and where children killed their parents was that verbal abuse and physical violence, or sexual harassment continued within family. Legal opinions of 15 cases show that the offenders and victims were

exposed to domestic violence for six to 30 years.

When it comes to the tools used for murder, deadly weapons (kitchen knives) were used in eight cases; six cases involved suffocation; and blunt weapons such as dumbbells were used in two cases. Male offenders, such as husbands killing their wives, or fathers killing their sons, usually committed the offense by using physical power, i.e. suffocation. On the other hand, female offenders often used kitchen knives, blunt weapons including hammers or dumbbells that can be found in a house, and toxic substances (cyanide). Even though male and female perpetrators both used deadly weapons (kitchen knives), the circumstances were different. Wives often killed their husbands by using a lethal weapon (kitchen knives) when violence by them was ended, i.e. when a husband was drunk or sleeping after using violence. In the case of a son killing his father, using a deadly weapon while both of them used violence against each other or they physically confronted with each other resulted in murder.

Except for cases of deliberate poisoning, kitchen knives were used to get out of accidental or violent situations. This makes it seem important to keep out of sight tools that cause excitement, like tools used in murder cases other than those caused by domestic violence. What is more essential, however, is the fact that repeated and continued violence within family affects the development of self-control and, at the same time, causes transfer of violence through generations, internalization of violence, decrease of sensibility to violence, and development of hostility. Therefore, it is believed that both offenders and victims of murder within a family are the victims of a violent environment that is neglected.

3) Alcohol, Violence, and Self-Control and Learning

In five cases, the offenders were under the influence of alcohol at the time of committing the crime, while the victims were intoxicated in another five cases. Some family murder cases occur when offenders or victims are “under the influence of alcohol.” Those who commit verbal abuse or physical violence while intoxicated become victims of homicide, or people accidentally become perpetrators of murder under the influence of alcohol. As described above, many of family murder cases are caused by violence after consumption of alcohol. Because of the “state of being under the influence of alcohol” of the victims of murder cases, who used violence against family members, the offenders who suffered domestic violence cannot claim self-defense or excessive self-defense. Furthermore, if the offenders who have physically abused family members commit murder within family while they were intoxicated, it is possible to claim that the offenders were “mentally weak(incapacity)” because they were “under the influence of alcohol.” Given that most murder cases in which the offenders were intoxicated were not planned in advance and took place accidentally, it is necessary to conduct research on violent tendencies as well as self-control of offenders. Offenders who are habituated to using violence within family continuously, which cannot be considered as accidental incidents simply caused by alcohol consumption, and victims who are accustomed to continuously being battered can be in the opposite position,

i.e. offenders become victims and vice versa, when involved in homicide. As social learning theory argues, in a household where violence has existed through watching, compensation and enhancement, and imitation, victims of violence learn from the perpetrators. Consequently, the victims turn more violent offenders due to reduced sensitivity to violence.

In addition, it is hard to believe that children who grew up in unhealthy households developed self-control by being brought up in a stable way at the age of three to eight, which is the most important period of growth⁶. Considering impulsiveness, insensitivity, and preference for non-linguistic expressions among the six aspects of self-control, which were examined by Grasmick et al. (1993), it becomes necessary to verify the lack of self-control of them. Given the fact that, as Gottfredson and Hirschi (1990) argued, self-control developed during infancy does not change very much throughout one's lifetime, violence within a household, and non-linguistic and impulsive aspects of parents are watched and imitated by other family members, and are huge impediments to the development of self-control to a degree that is required for human beings who are social animals living together with others.

4) Patriarchal Aspects of Legal Decisions and Hierarchical Views

a. Determination of victims' values (importance): gender and sentence length

The final sentence ranges from 30 months in prison to the death penalty. With the death penalty treated as an outlier and excluded from the calculation of the average length of sentences, Mann-Whitney test has been carried out on sentence length.

<Table 3> differences in sentences length by gender

Gender		Difference	Mann-Whitney Z
Offenders	Male	7.58	-0.069
	Female	7.44	
Victims	Male	9.45	-2.209*
	Female	4.00	

According to the result of Mann-Whitney test, no difference was found in sentence by offender's gender. In many violent crimes, women offenders are sentenced to shorter prison terms compared to male offenders, and it is explained using chivalry theory. Apparently, however, gender and differences in sentences are not enough to explain chivalry theory. On the contrary, significant difference in sentence length was found by victim's gender, i.e. longer sentences for crimes whose victims were male. These results, unlike the previous studies which found severe sentence for female victims than male victims (Baumer, et al., 2000; Farrell & Swigert, 1986; Baldus, et al., 1990; Gross & Mauro, 1989; Radelet & Pierce, 1991), shows the patriarchal aspect of the society which regards death of males more valuable, devaluating death of women. From the perspectives of a

⁶ As this study analyzed legal decisions, not "self-control" of offenders and victims, verification of self-control, which is used in a quantitative analysis, was not conducted.

power conflict, another interpretation is also possible that the threat of killing the ruling powers (males) in the current system is considered more significant and thus led to longer sentences. Suspension of execution was rendered in four cases, but there was no any significant statistical difference by gender.

“This case is not about simple marital discord as it is acknowledged that damage was caused by religious fanaticism, which is not a personal matter but a religious and social problem that is generating a huge controversy. Such a religious fanaticism combined with coercion against a spouse who opposes it is the cause of this case.” (Seoul Central District Court June 15, 2012, 2012 Gohab 347)

In a case where a woman or child killed her/his husband or father, it was described as a dysfunctional household or marital discord. However, a case where a husband killed his wife due to her nitpicking regarding religious matters, etc., it was considered as a “religious” and “social” problem not violence.

b. Liability of victims of homicide cases: legitimate and excessive self-defense

Another indicator that Cassidy and Trafimow (2002) used to measure the degree of judges' being patriarchal was legal decisions that discuss the victims' liability in a domestic violence case. They point to the contents that blame the victims or regard them as partially responsible (Cassidy & Trafimow, 2002). These blames, in a family violence case that resulted in homicide, were also directed to those who suffered violence for a long time but did not resort to help from outside, or who did not run away from such a violence. These were the victims of family violence and, at the same time, the offenders of homicide. As reported in their study, there are a growing number of domestic violence cases where legitimate self-defense is admitted in the U.S (Cassidy & Trafimow, 2002). This is not a temporary phenomenon that takes place when a war against domestic violence is underway, but reflects change in how the court sees households and women (Suk, 2009).

Since 2005, more than half of the states passed or proposed a “Castle Doctrine bill”, which permits use of deadly force in a way of self-defense (Suk, 2009). This bill guarantees the right of those who were attacked inside their houses to use deadly force in self-defense without trying to retreat for safety. This doctrine adds one or two changes to the existing self-defense law. First, those who are inside a home are allowed to kill intruders even when there is no substantial evidence that they reasonably felt threat of being killed or seriously injured. Second, the ordinary obligation to retreat from attacks is denied even when such a retreat is possible in a house or in public places (Suk, 2009).

Unlike such a change in philosophy of American courts, there has been no domestic violence case where self-defense was admitted in Korea (Keum, 2012). Among the 15 cases reviewed for this study, self-defense was claimed in three cases and they are all the cases wives killed their husbands.

<Table 4> offender - victim relationship and claims for self defense

offender- relationship	victim	No claims for self defense	Claims for self defense	Total
Wife □ husband		4	3	7
Husband □ wife		2	0	2
Children □ parents		3	0	3
Parents □ children		3	0	3
Total		12	3	15

From the analysis of legal precedents, all cases which claimed self-defense was denied in the court. The reasons for this are described in legal precedents as follows;

“□ It seems that the defendant could have avoided the victim's violence by running away from the house to ask neighbors for help or to report to the police, without using a knife. □ As the defendant went to the kitchen to get a kitchen knife and approached the victim with the tip of the knife pointing down, it is hard to see that the defendant did so only to defend herself. □ After the victim moved back when the defendant cut him on the right collarbone with the knife, she could have escaped from his violence by running away. However, she went on to cut him on this back and consequently killed him. With all of these circumstances considered, it is hard to see that the defendant committed this crime out of fear, shock, and embarrassment created from her weak-minded impulse.” (Daejeon District Court, May 11, 2012, 2012 Gohab 31)

“Even though the case falls into the category of “battered women syndrome” in which a wife who endures prolonged and repeated battering and abuse without attempting to respond to it, the defendant should have solved the problem by divorcing with the victim or by reporting to an investigating agency or counseling center for counseling. However, from the record, it is hard to see that the defendant made such an effort, and being beaten up until her lips are split did not amount to causing any imminent risk on her body.” (Daejeon High Court, August 17, 2012, 2012 No 172)

“Even though the defendant has long suffered repeated domestic violence by the victim, it seems that the defendant could have escaped from such circumstances by actively responding including by divorcing with the victim or reporting to an investigating agency. However, the defendant did not take such actions at all. Instead, she made the victim to take sleeping pills and tranquillizers and hit him with a dumbbell when he fell asleep to kill him. This seems to go beyond the limit of self defense to protect her or acts to avoid the situation, and cannot be seen as socially reasonable. Further, it is hard to see this as excessive self- defense.” (Suwon District Court Ansan, January 18, 2013, 2012 Gohab 104)

“The victim was drunk. Even though the victim threatened the defendant, there is no evidence of resistance. Their kids were sleeping without knowledge of what was happening. Although it was a life-threatening situation

where the defendant was battered by the victim who also tried to stab her with a knife, it seems that the defendant could have moved to another room or got out of the house to report to the police. Therefore, the defendant's action is not considered as a reasonable one that can be tolerated and, thus, is not a legitimate self-defense. Even though the accident happened at 5 o'clock in the morning, it took place in a room. This cannot be seen as a situation where a defendant is not able to make a normal decision due to fear, shock, excitement or embarrassment at night." (Busan District Court, September 7, 2010, 2012 Gohab 372)

In the West, self-defense is acknowledged in an increasing number of homicide cases resulting from domestic violence. To the contrary, however, it was acknowledged only in three cases in Korea even though the legal precedents showed that those cases involved fighting and violence. It is believed that this is probably because the conservative and patriarchal legal system who has not acknowledged self-defense has discouraged claims for self-defense. In other words, it is assumed that there not many cases where self-defense is claimed irrespective of the actual situations.

Under the current law, the "Act on the prevention of domestic violence and protection, etc" introduces protective disposition, which is a minor sanction, for its purpose of protecting households, taking a dual structure – criminal punishment and protective disposition (Won, 2008). Consequently, domestic violence cases were regarded as "minor violence cases" and there is a tendency of avoiding active criminal punishment. This means in most cases one-time disposition is rendered without considering the nature of the crimes or recidivism. Furthermore, Won (2008) found that awareness of the "Act on the prevention of domestic violence and protection, etc" has been raised after ten years of its enactment. However, it is uncertain that those who are aware of the Act are actually the victims of family violence. As the police also feel uncomfortable about getting involved in "family affairs of others", it is not easy to immediately define the offender and victim, and those cases hardly lead to appropriate punishment. Among those analyzed in this study is a case where a wife finally killed her husband while she was resisting his violence 25 days after the day when the police was called upon for domestic violence but failed to immediately separate the offender and victim, and an approach prohibition order was not rendered in time.

In relation to these cases, in *People vs. Tomlinsin 1914*, a thesis on abused women and self defense was cited to express concerns about the serious second damage of domestic violence. Suk (2009) argued, reciting the thesis, "domestic violence is usually repeated and, as time goes by, it becomes almost impossible to escape from the house unless one bears a risk of severe violence or death. As the victims of these cases have already "retreated to the wall", they should not be asked to run away to a safe place (Madden, 1993; Suk, 2009). Asking the victim to make efforts to escape from the house while being abused in order to fulfill the duty to retreat is exposing her to greater violence and death. For those victims whose independence is hugely restricted, retreat is not a probable option. Escaping from the house is "almost impossible," she should not be obliged to retreat

(Suk, 2009). Similarly, the *Weiland court* in 1999 was very much concerned that the jury may have a groundless myth that victims of domestic violence can sever or leave the abusive relationship whenever they want, and seriously cited the battered spouse syndrome. In the case of Common Law, a variety of systems and legal philosophies related to women have changed since the middle of 20th century. However, it seems like Korean society still stick to reflect common law philosophies of 19th century. Self defense is not admitted even on the brink of death and, although the battered spouse syndrome is admitted, women are still responsible for not having “reported,” “asked for help from outside,” and “divorced.” This is no different from the law which renders pathetic solutions, telling prisoners who are living in a fortress where battering is rampant to escape within their capabilities.

c. Stability of households: offenders as the head of a household

This study also reviewed descriptions about stability of households in legal precedents. It looked at patriarchal aspects of legal decisions which prioritize stability of households and accord immunity to the heads, like the coverture of common law. It was easy to find such contents. Even though domestic violence consequently resulted in homicide, “children not wanting punishment” and “responsibility for bringing up children” were frequently mentioned as mitigating factors that are considered in sentencing in legal decisions. In particular, in a case where a wife killed her husband, roles as a faithful mother, children not wanting punishment, or children in need of their mother’s care were considered in final sentencing and led to declaration of suspension of execution. Also, the decision was more lenient for woman who plays a society-given role brining up children. Nonetheless, it is believed that statistical analyses on more cases are needed to discuss further details with certainty.

<Table 5> offender - victim relationship and mentioning about children in final decisions

Offender- Relationship	Victim	Children not mentioned	Children not wanting punishment responsibilities or for bringing up children	Total
wife □ husband		2	5	7
husband □ wife		0	2	2
children □ parents		3	0	3
parents □ children		2	1	3
Total		7	8	15

d. Views on sacrifice

What is to be pointed out from legal decisions as a view of the criminal justice system on domestic violence is glamorization of women’s sacrifice. As discussed in Cassidy and Trafimow (2002), legal precedents that contain explicit prejudice against gender roles or interpretation highlighting roles of women show patriarchal

legal culture. Women who endure violence for the sake of stability and peace of their families are not definitely in a right direction in their life and not good examples to be learnt by others. However, some legal decisions value such sacrifice of women.

The following is a legal decision of a case in which a husband in his 80s choked his wife in her 80s to death while she was sleeping, out of doubt that she is having an affair and using poisons on him.

“During the past 50 years of marriage, the victim tried to maintain peace of her family by bearing with the offender even when he used violence. The victim has committed and sacrificed herself by preparing every meal and taking care of her children and so forth. Even though the victim suffered violence and her husband had a delusional jealousy of her, she served as a bread earner.” (Incheon District Court, December 17, 2009, 2009 Gohab 696 Decision)

The decision above describes a woman who endures violence in order to protect her family's peace as a good example of a victim of domestic violence. This shows that the judge criticizes her for not having “reported” or “divorced”, but at the same time takes a favorable view about her having borne domestic abuse.

The same decision also includes the following:

“Given that the victim has committed to taking care of her family for her lifetime, it may not be seen that she wants the defendant to be punished severely. In addition, as the children are now having a hard time since their father is in prison, she is looking forward to seeing her family smile again.” (Incheon District Court, December 17, 2009, 2009 Gohab 696)

Such a judgment bears a risk of “implied presumption.” Besides, the fact that the victim has endured violence without having reported or divorced acts not as an aggravating but mitigating factor in sentencing of the offender, and the husband's exercising control over, and using abusive words to his wife was not considered as problematic. All of these show male-centered and patriarchal aspects.

e. Ignoring sexual minorities and partners in intimate relationships

War against domestic violence in the U.S. is not limited to legal couples. The government gets involved in incidents originating from intimate relationships as well such as couples who are not married but live together raising a child, or who share common properties – so called, being physically affectionate. Gender does not matter either (Suk, 2009). Patriarchal and discriminate views of judges reflected in legal decisions are not related to gender only. Views that are confined to legal couples who maintain their marriage and unfavourable treatment towards social minorities are also problematic. Legal precedents reviewed in this study include one

on domestic violence and homicide of a couple who were both sexual minority. In this case, a man who has been given treatment in the hospital due to six-year-long violence of his male partner ended up killing him. An argument about financial capacities and their relationships led to the offender killing the victim when the latter threatened with a knife. What is worthy of note is the interpretation of “immediate surrender” in a written judgment of the High Court to which an appeal has been made.

The legal decision mentions about the appellate brief of the defendant as follows;

“The defendant argues that he did not immediately report his partner’s death because he was afraid of being criticized for being homosexual when his identity is publicized. Even though he knew that he had to report his partner’s death, he thought that he did not have to call 119 because the partner was already dead and he could report to other agencies a bit later. However, when comparing the possibility of his identity being publicized to his partner’s death, it is not easily acceptable that he did not report the victim’s death out of fear that their homosexual relationship would be known to others. It is also difficult to see other circumstances that the defendant presents as reasonable grounds for his failing to report immediately.” (Seoul Southern District Court, November 11, 2011, 2011 Gohab 206)

According to Park (2013), one of the main reasons that not many Asian people in the U.S. report crimes to the police is that they feel shame because of the language barrier. Similarly, social isolation and unfriendly attitudes that homosexuals face in our nation would affect their will to surrender themselves to the police or confess their crimes as well as to report victimization of crimes. As the case above shows, sexual minorities are treated so unfriendly in our society that they fear “a stigma attached to being homosexual more than that of murderer.” It seems important for the criminal justice system including the police to amend and maintain the relevant systems so that homosexuals can enjoy equal legal protection.

CONCLUSION

The representative keywords of criminal justice of 2013 in Korea are “four social evils.” It is welcoming that those four evils include domestic violence which has been a chronic social problem in our nation but has not been rooted out. This can be seen as the first step towards sharing the seriousness of domestic violence and taking actions at the government level. Now we have come to the point when we are required to come up with sophisticated strategies to crack down on domestic violence which still exists despite our efforts during the past 20 years. Under the circumstances, this study analysed legal precedents of the most serious cases of domestic violence, i.e. those that led to homicide, to find out circumstances where family violence resulted in murder, offender-victim characteristics, and patriarchal views of the criminal justice system on domestic violence.

This study has a limitation that quantitative analyses were not possible due to the nature of the research data.

Since, therefore, it was not clearly identified what caused differences in sentencing, non-parametric t-tests were conducted. Although the number of samples used for this exploratory research was not enough to assume statistical significance, it would not have been difficult to agree that all of them were victims of long-standing domestic violence. It was also easily found out that the victim-offender relationship of domestic violence was reversed when the violence led to homicide. The offender-victim relationships included not only a wife and a husband but also parents and children. As a result of analyses on these homicide cases where there are motivations to be taken into consideration, it was assumed that men and women have learned about violence from each other while they have continuously been exposed to violence, although they used different methods of committing murder.

We have to establish social and cultural sentiments that regard various types of violence within family not as “something that can be happened” but as “something that must not be happened.” The police, for their part, should consider domestic abuse as “violence cases” not as “family affairs of others” and make efforts to punish the offenders.

Furthermore, there should not be any group excluded from protection under the law. The police and criminal justice system should change their mindset and create protective systems so that minorities in a range of areas do not give up their right to be protected because they feel shame just like the abovementioned sexual minorities.

Lastly, analyses of legal decisions demonstrated that patriarchy and hierarchical Confucianism are still the major sources of domestic violence. In particular, it was easy to find legal decisions which blame women victims for not having reported to competent agencies or divorced. Most of these cases took place in poor households and thus the family members were financially dependent on a husband, but legal decisions suggested divorce as “a shelter from violence.” This raised a question since when judges have been such radical feminists. A few radical feminists claim “rights to legitimate divorce to escape from violence,” but that is not a correct answer for those women who are not financially independent and have suffered abuse for 20-30 years. To tell them “to get divorced and free from battering” is equivalent to rendering the death penalty in a capitalistic society and could cause them to be victims of another crime. With no money or transportation, and their kids left with furious husbands, where should and can those women go? And who is going to assist their escape?

Law still assigns female victims with gender roles based on prejudice, and blames the victims while being favorable to male offenders as the heads of households for the sake of maintaining stability of families. More severe sentences are rendered for homicide cases where the victims are males compared to cases where women were killed. In the U.S., discrimination based on gender of the victims has been solved but different sentences

depending on the race (black and white) of the victims have yet to be resolved. Is the gender barrier in our nation where patriarchal legal culture is dominant as high as the race barrier which is not easily overcome in the American society?

I believe that many expert meetings, social movements, and efforts of competent agencies to crack down on the four social evils would make a huge contribution to changing perceptions reflected in the systems so that domestic violence cases would be regarded as the same violence cases but happening "within households." Even though many systems are created and enforced, the police should actively change their mindsets to give effects to them. If judges still stick to patriarchal ideology, all of the social changes and systematical advancement would be in vain. Now is the time to reflect on ourselves about having judicial officers of the 19th century employ systems of the 20th century in this time of 21st century.

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GLUTATHIONE LEVELS IN THE FIVE HEALTHY FRUITS FOR SKIN CARE

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ABSTRACT

Glutathione, a tripeptide composed of glycine, cysteine, and glutamic acid, is one of the most abundant low molecular weight cellular thiols in mammalian tissues. It is an important endogenous antioxidant in many organisms including human. In addition to its many biological functions including maintenance of intracellular redox activities, xenobiotic metabolism, signal transduction, and gene regulation, glutathione has been associated with skin whitening ability. The role of glutathione as a skin whitener was discovered as a side effect of large doses of glutathione. So, the objective of this work was to study the glutathione level and compare between the five fruits known as healthy fruits for skin care by using Ellman's reagent, a chemical used to quantify the concentration of thiol groups in a sample. The results showed that the glutathione levels (mg/ 100g fresh mass) were 11.58 ± 1.32 , 10.5 ± 3.28 , 5.5 ± 1.06 , 2.46 ± 0.13 and 1.46 ± 0.09 for orange, strawberry, lemon, avocado, and tomato respectively.

Keywords—Ellman's reagent, Glutathione, Healthy fruits

INTRODUCTION

Skin is the largest organ of the human body, and its functions include protection, sensory detection, and thermal regulation. People suffer from many skin problems, such as mottled pigmentation, wrinkles, photoaging, acne, and skin cancer. Skin diseases are usually caused by overexposure to ultraviolet radiation. However, one of the most dermatologic concerns is skin aging that involves degradation of extracellular matrix in both the epidermal and dermal layers that leave visible signs on the surface of the skin. The detailed mechanisms involved in the age-dependent decline of tissue function to produce harmful effects during proteolytic degradation of fiber network [1]. So, in to slow down it, people, especially women, have always taken good care of it. Skin-care is the group of practices that support skin integrity including nutrition, avoidance of excessive sun exposure, and appropriate use of emollients that enhance appearances such as the use of cosmetics, exfoliation, and fillers. Although there are several synthetic skin-care products containing ingredients active against skin aging, they can produce adverse reactions such as allergic contact dermatitis, phototoxic and photoallergic reactions. Therefore, it is necessary to seek out new safe and effective skin-care cosmetic compositions from natural resources. The properties of natural products as good resources for developing skin-care cosmetic agents included their non-toxic and environmentally friendly properties compared to artificial synthetic chemicals. Many herbs, vegetables, fruits and whole grains are currently in demand worldwide due to their impact on skin aging. Notably, fruits and vegetables constitute an important source in the search for metabolites active against skin aging due to their antioxidant capacity and their richness in phenolic compounds, carotenoids, and ascorbic acid. Plants and their secondary metabolites have been widely used in the cosmetic industry as antioxidants, sunscreen agents, and skin whitening agents [2-3]. Glutathione, a tripeptide composed of glycine, cysteine, and glutamic acid, is one of the most abundant low molecular weight cellular thiols in mammalian tissues. It is an important endogenous antioxidant in many organisms including human. In addition to its many biological functions including maintenance of intracellular redox activities, xenobiotic metabolism, signal transduction, and gene regulation [4], glutathione has been associated with skin whitening ability [5]. The role of glutathione as a skin whitener was discovered as a side effect of large doses of glutathione [6]. In plants, glutathione is crucial for biotic and abiotic stress management. It is a crucial component of the glutathione-ascorbate cycle. To monitor the glutathione level, several analytical methods have been developed for many years [7]. The current methods for analyzing GSH in biological samples included high performance liquid chromatography (HPLC), enzymatic method [8] and colorimetric method in which a derivatization step was required to introduce on glutathione either a chromophore

moiety (Ellman's reagent) [9-10], or a fluorescent one (monobromobimane) permitting its detection by a diode array or fluorescence detector or by combination with electroanalytical method [11]. In this work, to understand more about the relation of glutathione level between the five fruits (Orange, strawberry, lemon, avocado, and tomato) that have been reported as healthy fruits for skin-care [3, 12-14], The colorimetric method by using Ellman's reagent was used for GSH level determination.

METHODS

Chemicals and Reagents

5,5'-dithiobis-2-nitrobenzoic acid (DTNB), sulphosalicylic acid (SSA) and reduced glutathione (GSH) were purchased from Sigma-Aldrich Co., Ltd. All other solvents and chemicals were of analytical grade.

Sample preparations

The glutathione content in the following fruits was measured, orange (*Citrus sinensis*), strawberry (*Fragaria × ananassa*), lemon (*Citrus × limon*), avocado (*Persea americana*), and tomato (*Solanum lycopersicum*). Sample preparation included the preparation of juice. Fruit juice was obtained by squeezing (orange and lemon) or mixing (strawberry, avocado, and tomato) the fruit. After centrifuging the supernatant was guided through a filter (0.45 µm) and stored immediately in the freezer.

Glutathione (GSH) assay

A modified M.W. Korir [10] method was used to assay glutathione (GSH) levels in the fruits. Fruit juice was mixed with a solution containing sulphosalicylic acid (5.0% w/v) and 0.25 mM EDTA and the mixture centrifuged at 8000g for 10 min. 200 µM glutathione (GSH) standard solution was prepared in 0.5% sulphosalicylic acid (SSA) and serial dilutions prepared using the same solution (0.5% SSA) to reach final concentrations of 200, 100, 50, 25, 12.5 and 6.25 µM. Ellman's reagent (5,5'-dithiobis-2-nitrobenzoic acid) was prepared by dissolving in 0.1 M potassium phosphate buffer and 5 mM EDTA disodium salt, pH 7.5, to a final concentration of 0.6 mg/ml. 0.5 ml of standard solution or sample were mixed with freshly prepared Ellman's reagent after that the absorbance was measured at 412 nm. A calibration GSH standard curve was prepared which was used to extrapolate the GSH levels from the biological samples.

RESULTS AND DISCUSSION

The existence of GSH caused a yellow color development by the reaction between thiol and DTNB, so the GSH can be detected via measuring the amount of yellow color product (TNB²⁻). Figure 1 showed the UV-Vis spectra of Ellman's reagent solutions with the concentrations of 0.0, 6.25, 12.5, 25.0, 50.0, 100.0, and 200.0 µM GSH. It is obvious that the absorbance value at 412 nm (λ_{\max}) gradually increase along with GSH concentration.

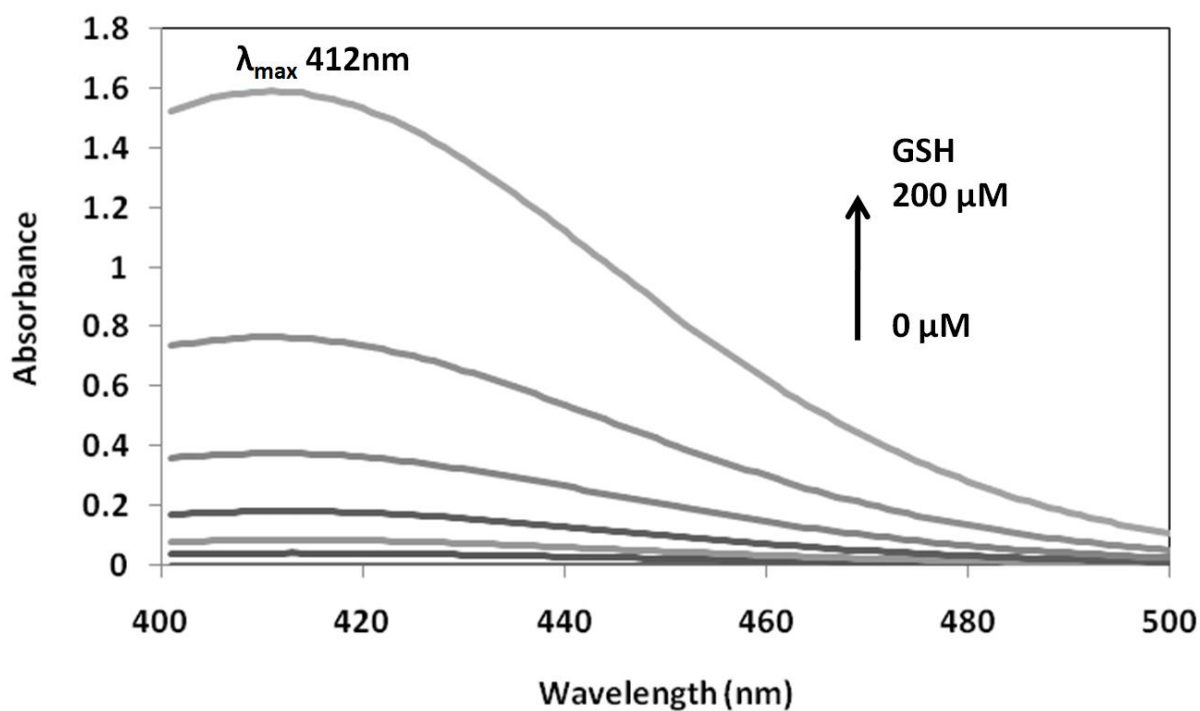


Figure 1 UV-Vis spectra of Ellman 's reagent solutions with the concentrations of 0.0, 6.25, 12.5, 25.0, 50.0, 100.0, and 200.0 μM GSH.

The calibration curve for GSH determination was shown in figure 2. The result indicated that the concentration of detectable GSH could be 6.25 μM with a linear range from 6.25 to 200.0 μM and correlation coefficient (R^2) 0.999.

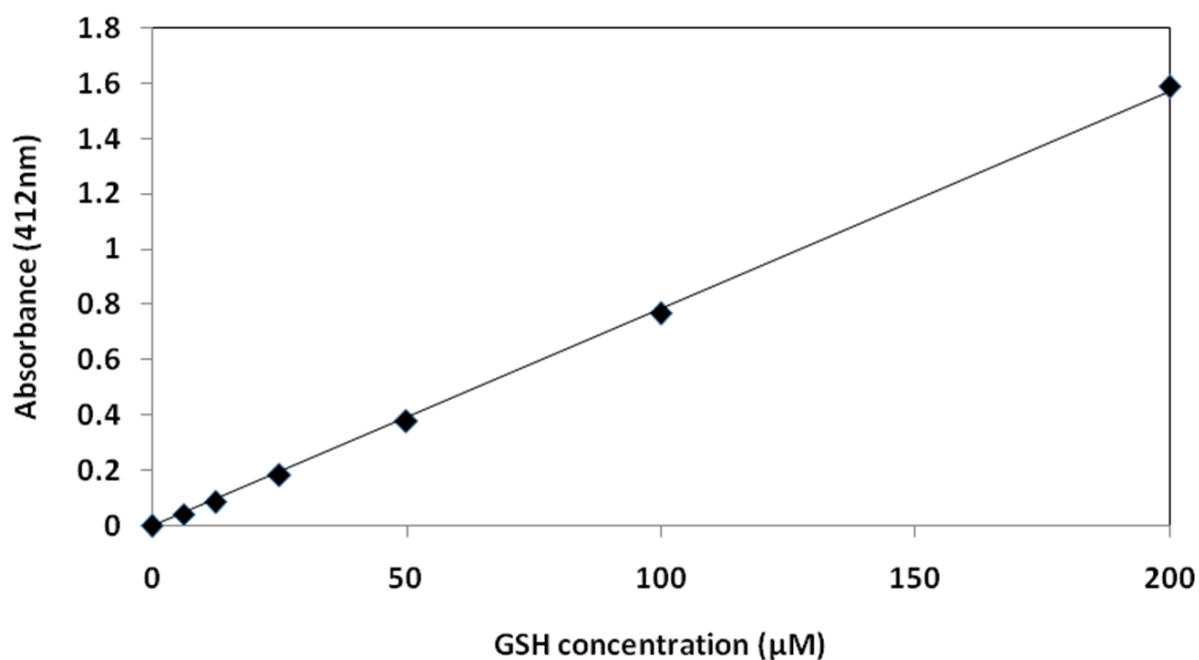


Figure 2 The linear calibration plot for GSH detection.

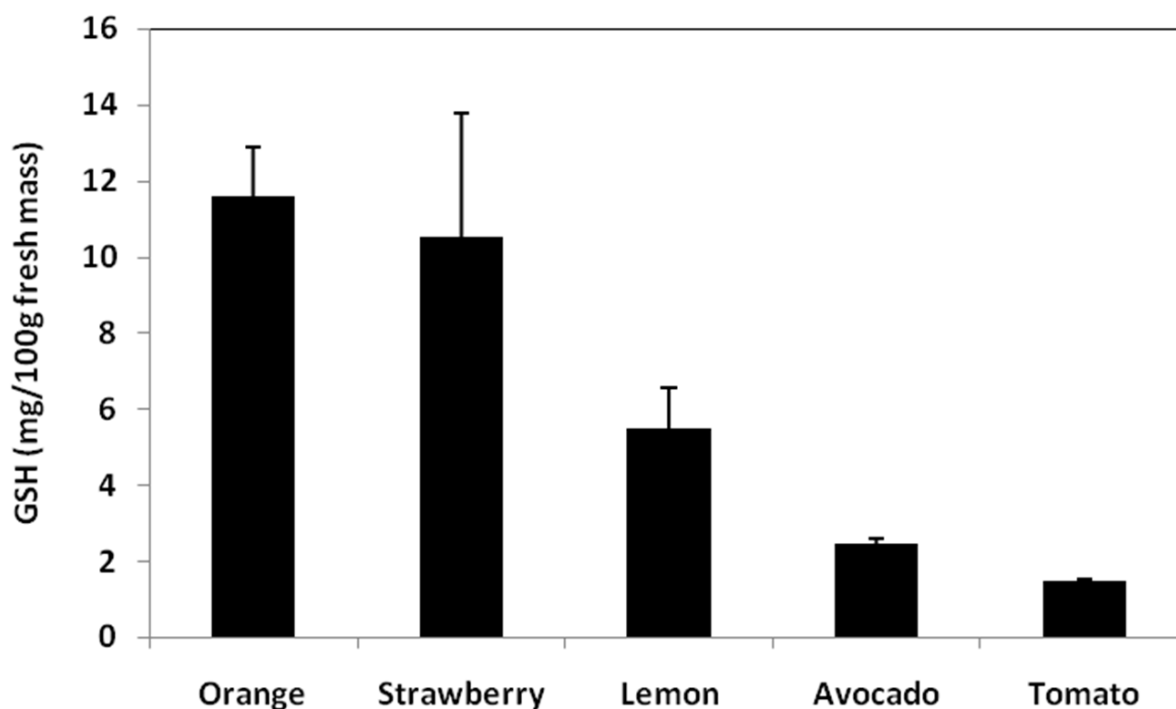


Figure 3 Glutathione levels in the five healthy fruits.

The results from figure 3 showed that the glutathione levels (mg/ 100g fresh mass) were 11.58 ± 1.32 , 10.5 ± 3.28 , 5.5 ± 1.06 , 2.46 ± 0.13 and 1.46 ± 0.09 for orange, strawberry, lemon, avocado, and tomato respectively. These results are in agreement with the report from D.P. Jone [15] except the glutathione levels in avocado and tomato that was too low in this work.

CONCLUSION

To determine the glutathione levels in the five healthy fruits for skin-care by using Ellman 's reagent. The results showed that the glutathione levels were too low when compared to the amount that can be effectively used as the whitening agent.

ACKNOWLEDGEMENTS

The author would like to thank the Research and Development Institute, Suan Sunandha Rajabhat University, Bangkok, Thailand for financial support.

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SAVING POTENTIAL FOR THAILAND ECONOMIC STABILITY

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ABSTRACT

Abstract—The objectives of saving potential for our country economic stability were to study the potential of household saving in usual lifestyle and to educate the suitable saving knowledge and create the useful handout for the Thai savers monetary future planning in 5 perimeter provinces: Nonthaburi, Pathum Thani, Nakhon Pathom, Samut Sakhon and Samut Songkram. For quantitative research technique, the results from 400 sampling savers revealed that they were well-educated, having upper medium to high revenue and had average saving rate between 31 – 40 % of their income. Their main purpose of saving was for spending in the end of life period. As for the pattern of savings / investment they tended to deposit in commercial bank, purchase the Government Saving Bank Lottery and invest in life insurance policies more than invest in financial assets in The Stock Exchange of Thailand (SET) because of the household savers understood the lump sum risk from SET and they did not want to face with fluctuation movement. For qualitative research technique by an in-depth interview with 15 savers showed their vision that “SAVING” was essential for everyone. The highest proportion of savings was distributed to deposit in commercial bank, deposit in their office saving co-operation and invest in life insurance policies. As for the high income household or the new family was allocated to the investment in real estate and sometimes in jewelry and the bullion.

Keywords— Economic Stability, Saving Potential

INTRODUCTION

Globally, Household Savings have become increasingly important for the economic growth and stability for a decade. Huge savings, especially from the citizen, in sufficient quantities to businesses can be reinvested to grow the economy leading the Household Savings Sector to become the cornerstone of the country growth direction. The significant source of funding of the local household sector also does not rely on lending from abroad since it has higher risks from several factors. Finally, as Thailand is preparing to be one of the ASEAN members in 2016, we need to have a considerably good economic position, especially the financing that needs to be strengthened by starting from the most basic level, the household sector in particular. According to the forecast by the International Monetary Fund (IMF), GDP of Thailand economic rate would increase from 4.4 to 4.9 percent [11].

When comparing the proportion of savings as gross domestic products (GDP) percentage among Asian countries with similar economic status, we found that in 2013, the savings rate of Thailand, Indonesia, Vietnam and the Philippines were 34.36, 28.90, 24.59 and 13.41 respectively; all of which except the Philippines increased from 2012. Although Thailand has a high domestic savings ratio which makes the country seemingly able to grow and meet the targets; however, we found that savings in the household sector actually decreased when compared with both business and public sector. In 2014, the average growth of the total savings of Thailand was at 4.5 percent per year while it could expand the investment average at 9.5 percent per year [13], indicating that the savings were much lower. This trend reveals that savings amount is not enough to invest in the future which might as well possibly result in deficit savings. These important and interesting points indicate

that, even if Thailand's savings ratio is close to Singapore, Malaysia, Vietnam, and Indonesia, the capital market was still very low developed compared to Singapore and Malaysia [15].

Savings in the economic system were not only limited to those in commercial banks and other financial institutions, but also in the form of investment in the private sector or in the bond market. Before the economic crisis in 1997, Thailand mainly relied on commercial banks for a long time. Such banks had the ability to mobilize savings in a high degree; also the government had policies which protected the deposits thoroughly made by the people with financial institutions. In addition, the savings habits of most people were conservative, that is, they would rather choose to deposit with banks. However, because of the effects from economic crisis that year, the Thai Government came to realize that the financial structure of Thailand was not balanced; therefore, they put more effort into developing capital markets, new financial instruments, and innovations to increase funding alternatives as well as new investment alternatives. For the savers, there had been more diverse and complex forms of savings with the purpose of raising funds through stock market and bond markets in the same amount as the lending from financial institutions. New forms of savings include common stocks, debentures, unit trusts, and etc. In addition, long-term savings through life insurance policies had an increasingly important role as an intermediary to move money from the household to the corporate sector which demands for more money. At this time, savings in the life insurance business in Thailand is still low compared to Singapore and Malaysia, both of which there are holders of insurance policies of 80 and 43 percent respectively, whereas in Thailand, the life insurance policies holders are only 14.1 percent of the whole population or only 1.1 percent per gross national product. There is definitely a chance for this number to grow rapidly by the government having various policies which encourage people to have life insurance, lawfully enforce individuals with income, and reduce the personal income tax from the insurance premium. There is also a form of savings which are tangible assets such as the purchase of real estate, gold bullion, amulets of which the value are not affected by inflation. Mostly, the households use savings and investment tool as the rights of owning the assets and receiving benefits in the form of interest, dividends, rents, and profits from financial instruments which eventually results in the wealth for the family and the country. The behavior of individual or potential household savings to create financial stability in the ASEAN Economic Community; thus, was an interesting research topic. Moreover, this study focused on savings of the household sector in order to explore the phenomenon of accessing the financial markets, contribute to the determination of measures to promote and increase the level of savings and to promote the development of financial markets to be ready for ASEAN Economic Community. The conclusion drawn from our study would be to suggest economically beneficial policies for Thailand Government. The map of Thailand, Bank Notes, Gold Bullion, life Insurance and Stock Exchange of Thailand Index were shown in Figure 1, Figure 2, Figure 3, Figure 4 and Figure 5 respectively.

Figure 1
Map of Thailand



Figure 2
Bank Notes at Bank of Thailand



Figure 3
Gold Bullion as a Monetary Reserve



Figure 4
Life Insurance Investment



Figure 5
Stock Exchange of Thailand Index



LITERATURE & THEORY

Main theories consist of 1) Liquidity Preference Theory (Keynesian Economics) in 1936 [1] which believes that aggregate demand is influenced by a host of economic decisions—both public and private—and sometimes behaves erratically. The public decisions include, most prominently, those on monetary and fiscal (spending

and tax policies). According to Keynesian theory, changes in aggregate demand whether anticipated or unanticipated come from transaction demand, precautionary demand and speculative demand 2) Monetary Policies (Milton Friedman, one of the most colorful and controversial characters in the history of American economics) in 1962 which trusts that private would collect financial assets from their work for the retirement period and the government should stay out of matters that do not need and should only involve itself when absolutely necessary for the survival of its people and the country and recounts how the best of a country's abilities come from its free markets while its failures come from government intervention.

RELATED WORKS

Numerous affiliate studies are shining up both in the Western and Asia such as Ann Foster, 2001 [2] declared that Keynesian Hypothesis: KH, Life-cycle Hypothesis: LCH, Premium-income Hypothesis: PIH and Ricardian-equivalence Hypothesis: REH; all 4 hypothesizes concluded that income and the proportion of savings are positively correlated. Hefferan Carl, 2002 [3] stated that almost savers collect monetary items from their work for the last period; preparing for Children tuition fee, daily expense, healthcare and travel but they cannot add asset in the retirement period. Michael Marquardt & Skipton Leonard, 2009 [4] revealed that the borrowing is the channel to escape liquidity constraint at the present but its affects the decreasing future consumption. Woo Jung, 2009 [5] classified household income from low to high and explained that the small revenue they get, the tiny saving they have. Moreover, Michael Marquardt, 2010 [6], Richard Thaler & Shefrin Hersh, 2010 [7] and World health Organization, 2014 [14] indicated that household income positively cause to saving for wealth and Mazzocco, 2014 [12] announced that the household which accept low risk from investment tend to thrifty more than the household which accept higher risk.

METHODOLOGY

The targets of the empirical analysis came from random sampling population lived in 5 provinces that sized 23% of total GDP of our country 387.3 billion USD (Philippines 272.1 billion USD, Indonesia 868.3 billion USD and Singapore 297.9 billion USD) [11] which represented the economic situation and located in the central region of Thailand as shown in Table 1.

Table11 Number of Sample Size for each Technique

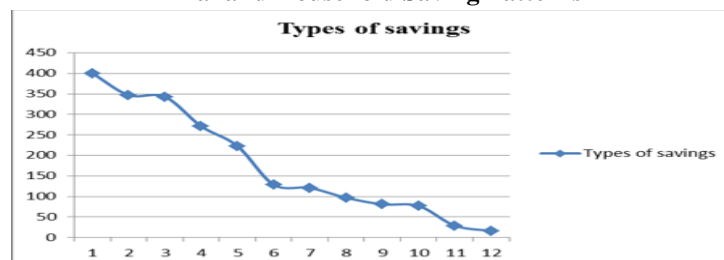
Province	Sample Size For questionnaires	Sample Size for interview	No. of population
Nonthaburi	120	5	1,193,711
PathumThani	110	4	1,094,249
Nakhon Pathom	90	3	899,342
Samut Sakhon	55	2	545,454
Samut Songkram	25	1	194,376
Total	400	15	3,927,132

First was the content which the researcher defined to evaluate the potential of household savings in normal lifestyle and to educate the suitable saving knowledge for the Thai savers to use for monetary future planning in 5 perimeter provinces. For the next step, our team used a quantitative method by 400 questionnaires and confirmed the results with a qualitative method by using an in-depth interview with 3 samplings from each province. Second, the time frame of this research was from October 2015 to September 2016.

RESULTS

We found that the level of income affected the savings rate in this study area. The higher income persons were more likely to save money or invest for the future higher benefits than those with low revenue; this result displayed among overall savers as well as when divided individuals into groups according to range of ages. Main purposes were to find savings to spend in their retirement, to fund education for their children, and to prepare for housing respectively. The desired benefits from savings or investments for the retirement period shows that each individual has to rely on 1) his/her own revenue gained during the working time and 2) an interest or dividend from the principal. This is consistent with the changing of age structure of the Thai population which the average tends to be higher, or so called aging society [8], [9]. Evidences from the findings announce the form of savings or investments in 12 patterns that every household has savings through 1) Deposit with commercial banks because they are aware of its being low-risk and the service is convenient to access; yet, it gives a low return. 2) The Government Saving Bank (GSB) Lottery, 3) Mortgage or Real estate, 4) Life Insurance Policy of which the benefit also reduces tax in time savings, 5) Investment in gold bullion and jewelry. The interesting points for this topic are, lower than 50 percent of the investors managed their saving by 6) Investment in Common Stock in The Stock Exchange of Thailand (SET), 7) Deposit with the Cooperative, 8) Government bonds, 9) Equity Fund, 10) Mutual Fund, 11) Bill of Exchange from Commercial Bank and 12) Corporate bonds. The savings or investment in the latter group provided higher returns (may even be higher than the inflation rate) than the first group but it requires that those savings must be knowledgeable as presented in Figure 7.

Figure 7
Thailand Household Saving Patterns



For qualitative research technique by an in-depth interview with 15 savers showed their vision that “SAVINGS” was essential for everyone. The highest proportion of savings was distributed to deposit in commercial bank, invest in life insurance policies and deposit in their office saving co-operation. As for the high revenue household or the new family, they allocated the investment in the property or real estate and sometimes in jewelry or the bullion.

The savers or investors realized that savings is necessary for a better quality of life both at the present time and in the retirement period. They planned and created a strategy for their savings and expenses. For those who received pension, they would have confidence for their life in the different way than the private employer or the business owner who would invest their income conservatively in order to receive the benefit over the inflation rate [10]. Even better, some behaviors needed changing such as gambling, having an improper diet, drinking alcohol, frequently eating out, along with overly spending for non-essential goods and services. The important sources of information preparing for smart saving in the AEC period came from family, public agencies and internet [16]. The main goal is to let everybody involve in and thoroughly have them experience the most out of the development. Hence, it can be said that, living in accordance with the philosophy of sustainable economy is one approach leading to a real strong community as people are always reminded of a cautious life: our home our country, stronger together as presented in Figure 8.

Figure 8
Thailand Motto



According to these results, the approach to saving in 5 provinces; Nonthaburi, Pathum Thani, Nakhon Pathom, Samut Sakhon and Samut Songkram, applying the concept of sustainable economy found that once the community has developed up to indicate where people were given an opportunity to work and get enough revenue to make a living, the people themselves should emotionally be mature, become forward-thinking or vision, and have a responsibility towards the society. In addition, they must share a common value, a tradition, and an identity, in order to make them feel belong to the community. The people will have an awareness of preserving such manners inherited from prior generations and prior period. Moreover, they will organize a network to share ideas, create a funding plan, and solve problems when necessary, all of which help to strengthen the community. Eventually, a unity will be achieved leading to an ideal peacefulness. It can be said that, a strong economic community is highly capable of dealing with difficulties by itself applying a local knowledge and its social network as major resources. Finally, this type of community tends to be self-reliant in most aspects, depending on others only for a compliment.

CONCLUSION

Saving Potential for Thailand Economic Stability was studied and major conclusions as follows:

1. Stock Exchange of Thailand Board must improve the capital market system rapidly to give the higher yield and control the lower risk from investing in financial assets at the same time. Ministry of Finance, Bank of Thailand and commercial bank must also work together in the theme of strong information. Convenient channels must provide for the investors. Finally, in the AEC 2016, everyone should save or invest for higher benefits than every year inflation rate.
2. Government should encourage savers to save their revenue in order to flow saving cash to the financial market both money market and capital market; this helps decrease the fluctuation from the foreign fund by giving knowledge and information to increase the volume of Thai baht currency circulation in Thailand economic.

ACKNOWLEDGEMENTS

This paper would not have been possible without the contribution, the supporting, the kindness help and the encouragement of Associate Professor Dr. Luedech Girdwichai, The Chancellor of Suan Sunandha Rajabhat University, Assistant Professor Dr. Witthaya Mekhum, The Vice President and Assistant Professor

Dr. Prateep Wajeetongratana, the Dean of Faculty of Management Sciences Suan Sunandha Rajabhat University.

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MODELLING OF THE PAPER PLANE SYSTEMS

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ABSTRACT

The purpose of this research is to examine and demonstrate the throwing of paper planes. The concept and objective of this demonstration is tested in various designs and type of the paper planes. The design of research is created to analyse the effect of parameter and treatment to the distance of flying air plane. There are two kinds of factors which includes controlled and uncontrolled factors. The first factor is controlled factors; genders, weight of plane, width of wing and paper type are the interested factors in this research. However, this research does not consider the uncontrolled factors. The result of this testing will be analysed by using JMP program to find consequence of ANOVA testing. The analysing from ANOVA test is normal population, constant variance, random and independent. One-way ANOVA and full factorial analysis result. The concept of the research which gains data analysis graphs from ANOVA test and explanations for those graphs also include in this research.

Keywords—Paper Plane, JMP program, ANOVA

INTRODUCTION

Design of research offers a practical approach for exploring multi factor opportunity spaces that exist in almost all real-world situations. Using multi factor experiments which can tease out the effect of an individual factor and hence learn more quickly at minimum cost. JMP offers leading-edge capabilities for optimal design of experiments. JMP also offers analysis in a form can easily use and includes a rich set of modelling methods (JPM 2011). This research will monitor the using of JMP software to analyse the various data which is collected from the experiment. The demonstration display the throwing paper planes in different kind of papers by considerate to many factors such as weight of paper plane, gender of thrower, type of paper and environment. Moreover, this research will present the concept and object of the experiment which gain data analysis graphs from ANOVA test and some explanations for those graphs.

OBJECTIVE

There are variable of the design for paper planes in order to apply in difference purpose. For this reserch, the length or distance of flight has been identified as the response variables which are considered in four factors that can affect the length or distance of the flight. The factor includes type of paper, weight of the plane, width of the wing and gender of experimenter. However, the purpose of this research is to study the difference in mean of each factor which is affected to the flight distance and discover the best value of each factor which gives the maximum value of flight distance. The three basic concept of experiment design are randomisation, replication and blocking (Montgomery, 2005).

2.1 Randomisation

The statistical process study usually requires the observations be independently distribution random variables. Therefore, it is essential to apply the random table within the experiment to ensure the experiment

that can be done by random process. The random order can be generated by random table (Ye, Liu, Ren, Okafo, 2000)

2.2 Replication

The estimate of experiment error can be obtained by replication. Therefore, the number of repeat study should be considered. According to the rule of thumb, a minimum of 6 repeat tests should be including to estimate the error of standard deviation (Mason, Lee, Richard, Hess and James, 2003)

2.3 Blocking

Blocking is a design technique use to improve the precision of experiment by reducing the effect of the nuisance factor which is not interested in this experiment. For this experiment, there is no homogenous factor which is effect to the experiment. As a result, it does not consider the effect of block to the model (Qazi, Samuel, Venkatachalam, Uckun, 2003).

Data Analysis

The response is the distance or length of the flight. In addition, gender, paper type, weight of plane and width of the wing is the interested factors in this research. Therefore, it can generate the combination table as follow

Table 1
Factor of Level

Factor	Level 1	Level 2
Paper Type	Thin (80 grams)	Thick (160 grams)
Weight of plane	Low	High
Width of wings	Short	Wide
Gender	Male	Female

From the table 1 it can generate combination table as follow. There are 16 combinations runs require for 1 replicate. Therefore, there are 6 replicates for the experiment which is required 96 runs.

Table 2
Combination Run

Combination Run	Gender	Paper Type	Weight of plane	Width of wings
1	Male	80 grams	Low	Short
2	Male	80 grams	Low	Wide
3	Male	80 grams	High	Short
4	Male	80 grams	High	Wide
5	Male	160 grams	Low	Short
6	Male	160 grams	Low	Wide
7	Male	160 grams	High	Short
8	Male	160 grams	High	Wide

9	Female	80 grams	Low	Short
10	Female	80 grams	Low	Wide
11	Female	80 grams	High	Short
12	Female	80 grams	High	Wide
13	Female	160 grams	Low	Short
14	Female	160 grams	Low	Wide
15	Female	160 grams	High	Short
16	Female	160 grams	High	Wide

Table 3
Average result of distance (m)

		Male				Female			
	Weight	Low		High		Low		High	
Paper Type	Width of Wing	Short	Wide	Short	Wide	Short	Wide	Short	Wide
Thin (80 grams)		8.83	9.55	6.88	7.50	6.48	8.09	5.45	7.00
Thick (160 grams)		13.10	13.76	9.50	10.19	8.39	9.42	6.27	7.30

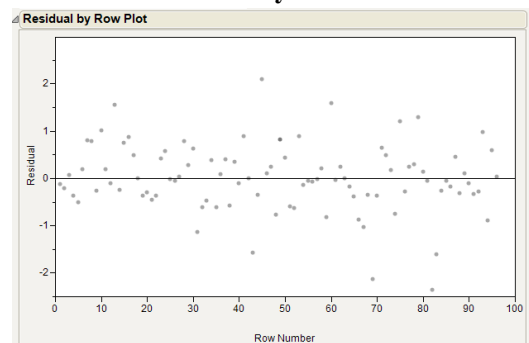
The table 3 displays average result of distance which response from paper type, width of wing, gender and weight of the plane.

METHODS

4.1 ANOVA model adequate checked

The research method conduct by random test run and the data for all run is independent. The plotting of residual in time order is help to detect correlation between the residuals. Graph below is a plot of residual versus run order. There is no reason to suspect any violation of independence assumption (JMP, 2011).

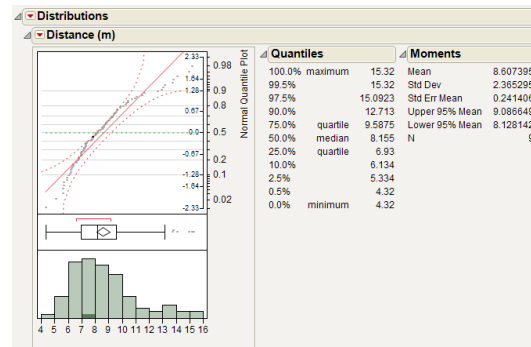
Figure 1
Residual by Row Plot



4.2 Normal Population

Normal quantile plots show the value of the data as a point in a graph. The red straight line and dash line show the boundary of normal distribution. The all value from experiment falls in the normal area. As a result, data is normal distribution (Anderson, Sweeney, Williams, 2006).

Figure 2
Distributions



5.3 Constant variance

According to “rule of thumb”, the ratio of maximum standard deviation and minimum standard deviation is less than 3. As a result, it can be assume that the variance is constant (Lubrano, Ndoye, 2016).

5.4 One-Way ANOVA Analysis Result

One-Way or Single Factor analysis of variance is the investigation process for only one factor. For this research, it was interested in the study of mean difference in each level. Therefore, the each factor ANOVA analysis is conducted by setting alpha value = 0.05

5.4.1 Factor 1: Gender

$$H_0: \mu_1 = \mu_2$$

$$H_1: \mu_1 \neq \mu_2$$

Where μ_1 is the mean value of flight distance by male

μ_2 is the mean value of flight distance by female

Therefore, fit Y by X model show that the grand mean is equal to 8.607 with R square 0.308. P-Value is less than 0.05. Therefore, the result of mean of distance between 2 levels is significant difference at 95% confident interval.

5.4.2 Factor 2: Paper Type

$$H_0: \mu_1 = \mu_2$$

$$H_1: \mu_1 \neq \mu_2$$

Where μ_1 is the mean value of flight distance of paper type 1 (80 grams)

μ_2 is the mean value of flight distance of paper type 2 (160 grams)

Therefore; fit Y by X model show that the grand mean is equal to 8.607 with R square 0.232 P-Value is less than 0.05. Therefore, the result of mean of distance between 2 levels is significant difference at 95% confident interval.

5.4.3 Factor 3: Plane weight

$$H_0: \mu_1 = \mu_2$$

$$H_1: \mu_1 \neq \mu_2$$

Where μ_1 is the mean value of flight distance of Low weight

μ_2 is the mean value of flight distance of High weight

Therefore; fit Y by X model show that the grand mean is equal to 8.607 with R square 0.217 P-Value is less than 0.05. Therefore, the result of mean of distance between 2 levels is significant difference at 95% confident interval.

5.4.4 Factor 4: width of wing

Ho: $\mu_1 = \mu_2$

H1: $\mu_1 \neq \mu_2$

Where μ_1 is the mean value of flight distance of short wing

μ_2 is the mean value of flight distance of wide wing

The result from Fit Y by X model show that the grand mean is equal to 8.607 with R square 0.044 P-Value is less than 0.05. Therefore, the result of mean of distance between 2 levels is significant difference at 95% confident interval.

5.4.5 Full Factorial Analysis result

Conducting the test by apply "Fit Model" test with 95% confident interval or alpha = 0.05. The summary fit result is R square = 0.908527 and R square adjust = 0.891376. The result show the model is good fit and mean of response = 8.67395 m.

5.4.6 Analysis of variance result show the p-value is less than 0.05

Refer to JMP result, there are 8 factors which is affect to the model show as below list

- Gender
- Paper Type
- Weight
- Width of wing
- Gender*Paper Type
- Gender*weight of plane
- Gender*width of wing
- Paper type*weight of plane

CONCLUSION

There is significant difference in mean of flight distance that review by all factors. There are 8 parameters that affect to the flight distance. This include gender, paper type, Weight, Width of wing, Gender versus Paper Type, Gender versus weight of plane, Gender versus width of wing and Paper type versus weight of plane. The best value meter that influence to longest flight distance of paper plane are factor of gender set at "male", factor of paper type set at "Thick (160 grams)", factor of weight of plane set "Low weight" and factor width of wings set at "Wide wing".

FUTURE WORK

There are some problems about the quality and reliability of paper air plane took place. The paper planes that create to make fly will wear out because the plane drops to the ground several times. This can lead to the error. Therefore, the method to improve the reliability of the paper air plane should be implemented. First of all, adding one or two layers of tape along the nose of the airplane. This method is useful if the nose of the plane flies straight up when thrown, or if the plane nosedives. Secondly, fold the back of the wings upward to provide lift and slow the speed of your plane, and downward to make the plane dive and increase the speed. Finally, if paper plane spiral during the experiments, increasing bend size and wings upward can balance the paper plane and make the paper plane fly straight again. In addition, the descent angle of each experimenter can lead to the error of the experiment result. To reduce this error, work instruction and training should be introduced and verified prior start the experiments.

ACKNOWLEDGEMENT

I would like to express my sincere thanks to Suan Sunandha Rajabhat University for invaluable help throughout this research. I am most grateful for advice, not only the research but also many other methodologies in life. I would not have achieved this far and this research would not have been completed without all the support that I have always received. In addition, I am grateful to others for suggestions and all their help. Finally, I most gratefully acknowledge my parents and my friends for all their support throughout the period of this research.

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AIRLINE GROUND SERVICE QUALITY: A CASE STUDY OF FULL SERVICE AIRLINES IN THAILAND

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ABSTRACT

The aviation industry in Thailand has growth steadily for a decade. Especially, the emerging of low cost carriers that was tighten the competition. The purpose of this study is to evaluate level of expectation on ground service quality and the performance of the domestic full service airlines in Thailand. The questionnaires were administered to collect 400 domestic passengers who fly with full service airlines in Thailand. Those are Thai Airways International (TG) and Bangkok Airways (PG) at Bangkok Suvarnabhumi International Airport. SPSS was used to analyze degree of importance from passengers and the perception of airlines' performance. The Importance-Performance Analysis-IPA technique also was applied to measure the level of expectation and the level of perceived performance. The finding on eight areas of ground services are in high expectation and high satisfaction of airlines service from passengers' perception. Those are ease of reservation, courtesy of ground staff, fast check-in, punctuality of flight, airlines' website is easy to use and informative, efficiency of baggage handling, smart phone reservation user friendly, ground staff efficiency in problem-solving. In comparison, the ground service quality of these two airlines found that passengers perceived TG performance better than PG.

Key words: Airlines ground services, Importance-Performance analysis, Service quality

INTRODUCTION

The customer's expectation and high competitive in today market are crucial that the service provider should take in to account. Since, the cost of loosing clients is high, and it is easy that the customer would ignore the firms (Harris, 2010). Moreover, the customers' needs and wants have change overtime. As refer to Atilgan, Akinci, and Aksoy. (2008) explained that customer needs are growth variety. The airlines have to serve various types of people and satisfied their needs in order to gain revenue and competitive advantages in the destructive market. It is one of industries that are highly competitive in the globalization world; both within premium carriers, low cost carriers as well as cross competition between low cost and full service carriers. Hence, the overall service quality is essential

LITERATURE REVIEW

Service quality perceptions are often defined as the difference between what a consumer expects and what they actually perceive as outcome (Headley, Bowen, 1997). Whereas, Gilmore (2003) defines as the ability of firm to meet or exceed customer expectations. The service quality is headmost of consumer satisfaction and perceiving it always reflect degree of customer satisfaction which has significant effect on purchase intention, prerequisite for success, survival, company can charge higher price and entail lower costs. (Cronin, Taylor, 1992; Cunningham, Young, 2002; Gilbert & Wong, 2003; Edvardsson, 1992)

Airlines' products are alike, but the services process deliver to customer are differ. To better understand and manage customer expectations, the airline service activities have been divided into processes or service stages. For instance, Chen & Chang (2005) identified a set of processes which were divided into ground and in-flight service stages. Notwithstanding, IATA (2012) has defined the flying passenger interaction with customer service into 5 phases; including phase one pre-journey, phase two at origin airport, phase three en route, phase four at destination airport and phase five post journey. At each phase expectations and perceptions will result in some level of customer satisfaction or dissatisfaction.

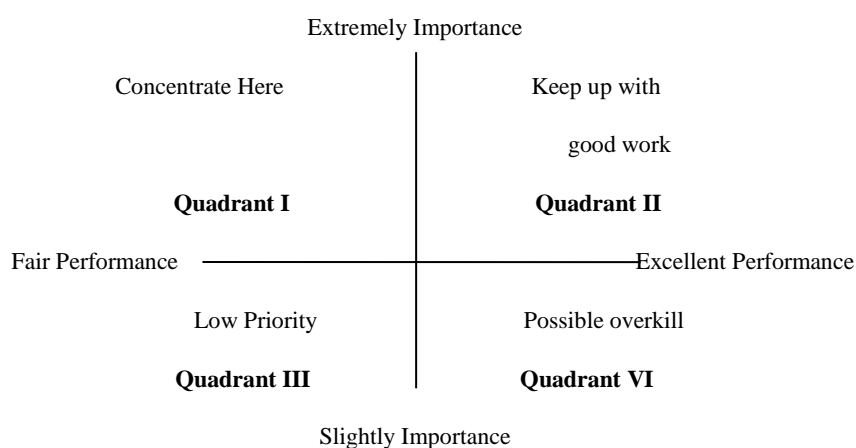
METHODOLOGY

Four hundred samples were collected at Suvarnabhumi airport, administered to domestic passenger departing and arriving from Thai Airways (TG) and Bangkok Airways (PG). The ground service attributes including ease of reservation, courtesy of ground staff, fast check-in, punctuality of flight, airlines' website is easy to use and informative, efficiency of baggage handling, smart phone reservation user friendly, ground staff efficiency in problem-solving were assessed of importance and performance with Likert Scale from 1-5. It means 1 = not important, 2 = least importance, 3 = importance, 4 = high importance and 5 = very importance respectively. SPSS and Importance-performance Analysis (IPA) tool were applied.

The IPA tool used to evaluate what the customer feels important and how well the organization perform. It is divided into four quadrants: (1) Concentrate Here quadrant indicates that the customers consider service attributes important but not satisfied with the service they perceived; (2) Keep Up with the Good Work quadrant indicates that the customers consider service attributes important and they are happy with the service perceived; (3) Low Priority quadrant indicates that the customers care less about the attributes and they are not satisfied with the service; (4) Possible Overkill quadrant indicates that the customers care less about the attributes but the service provider has good performance (Martilla & James, 1977).

Figure 1

Illustrates Importance-Performance Analysis Tool



Source: Adapted from Martilla and James (1977), Importance-Performance Analysis. Journal of Marketing.

RESULTS

There were 396 questionnaires collected with 197 copies from PG's passengers and 199 from TG's passengers. There were 140 males and 256 female accounted for 35.35 per cent and 64.65 per cent respondents. The highest respondents age range between 21-30 were 163 persons accounted for 41.16 per cent, age range between 31-40 were 132 persons accounted for 33.33 per cent, and the age range between 41-50 was accounted 16.16 per cent. Visiting-friends and relatives (VFR) was highest rank as a trip purpose at 40.66 per cent, for leisure 26.26 per cent, for business 21.21 per cent and others 11.36 per cent.

The level of importance and satisfaction of TG and PG were tested by using SPSS as shown in Table 1 for TG and Table 2 for PG accordingly.

Table 1**Illustrates satisfaction and expectation level of ground service attributes of TG.**

Service Attributes	Means (\bar{x})	Standard Deviation of Importance (SD)	Level of Importance	Means (\bar{x})	Standard Deviation of Importance (SD)	Level of Satisfaction
ease of reservation	4.60	0.58	Very High	4.19	0.75	High
courtesy of ground staff	4.60	0.60	Very High	4.13	0.77	High
fast check-in	4.62	0.59	Very High	4.15	0.82	High
punctuality of flight	4.53	0.73	Very High	3.86	0.97	High
airlines' website is easy to use and informative	4.53	0.68	Very High	3.87	1.08	High
efficiency of baggage handling	4.60	0.64	Very High	4.12	0.92	High
smart phone reservation user friendly	4.21	0.92	Very High	3.36	1.20	High
ground staff efficiency in problem-solving	4.58	0.66	Very High	4.08	0.88	High

Table 2**Illustrates satisfaction and expectation level of ground service attributes of PG.**

Service Attributes	Means (\bar{x})	Standard Deviation of Importance (SD)	Level of Importance	Means (\bar{x})	Standard Deviation of Importance (SD)	Level of Satisfaction
ease of reservation	4.18	0.61	High	3.90	0.88	High
courtesy of ground staff	4.15	0.64	High	4.03	0.92	High
fast check-in	4.21	0.68	Very high	3.94	0.98	High

Table 2 (Continue)**Illustrates satisfaction and expectation level of ground service attributes of PG.**

Service Attributes	Means (\bar{x})	Standard Deviation of Importance (SD)	Level of Importance	Means (\bar{x})	Standard Deviation of Importance (SD)	Level of Satisfaction
punctuality of flight	4.25	0.72	Very High	4.09	1.00	High
airlines' website is easy to use and informative	4.15	0.80	High	3.93	1.06	High
efficiency of baggage handling	4.13	0.78	High	3.91	1.01	High
smart phone reservation user friendly	4.04	0.89	High	3.80	1.10	High
ground staff efficiency in problem-solving	4.24	0.68	Very High	3.94	0.99	High

From the table 1 and 2, revealed that passengers have very high importance or expectation on every ground service attributes from TG, whereas they have very high importance on some service attributes from PG (fast check-in, the punctuality of flight and the capability of ground service staff in handling problem effectively; as shown). However, passengers' level of expectation on every attributes from both airlines were high. Meanwhile, both airlines performed quite good, since the level of satisfaction from passengers for all ground service attributes were high. In addition, from these two table we can interpret that passengers are always have high expectation from the services they paid. And the airlines both TG and PG ground service attributes and workforces performed their duties quite well.

The IPA technique, then plotted to assessed the importance and performance on ground service attributes for both airlines, as shown in Figure 1 for TG and Figure 2 for PG respectively. The following figure of IPA technique for TG found that most of every service attributes fall into Quadrant II (keep up on good work). It means that excellent performance where the passengers feel it is importance to them. There was only one attribute (smart phone reservation user friendly) fall into Quadrant IV (possible overkill). This means that passengers slightly focus on the issue, but the airline perform well.

The IPA of PG revealed that all ground service attributes of the airlines fall into Quadrant II (keep up on good work). This means that the airlines perform well and should follow the same standards. As well as, passengers have high importance and they are satisfied with the services.

Figure 1

The IPA technique plotted on ground service attributes for TG.

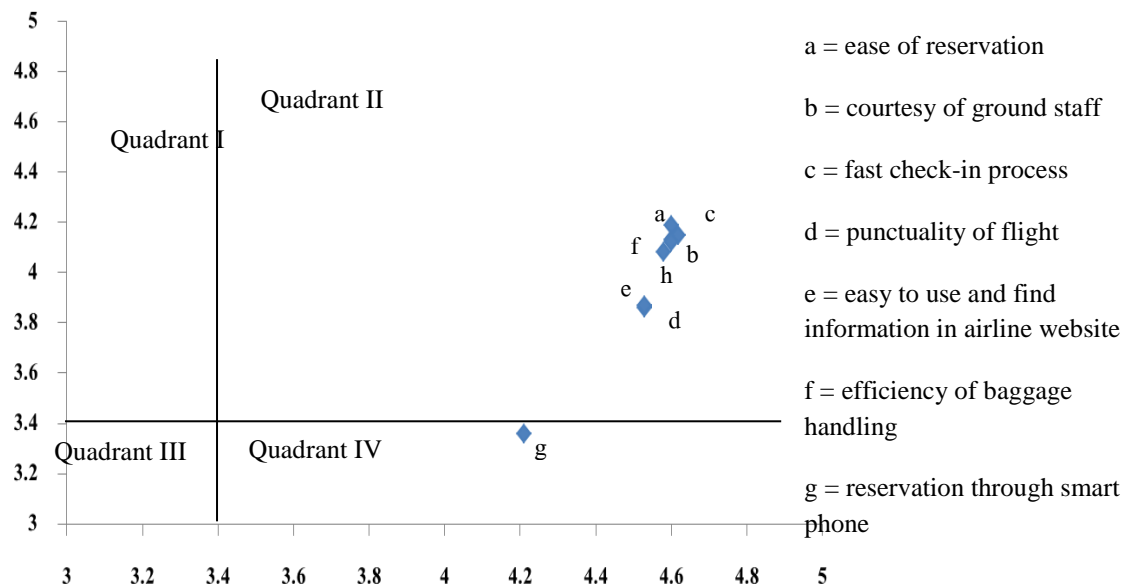
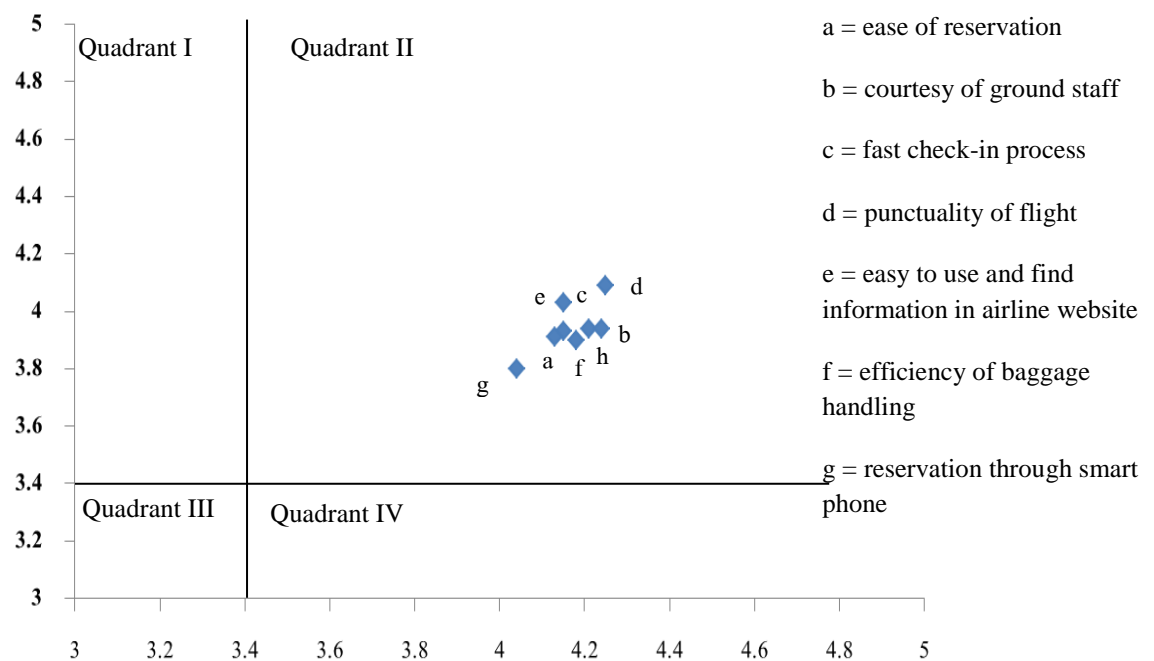


Figure 2

The IPA technique plotted on ground service attributes for PG.



CONCLUSION AND RECOMMENDATIONS

It is clearly can be seen that passengers have high level of expectation on all airlines' ground service attributes. However, both TG and PG perform well on their services and the customer satisfied. The results also revealed that customers always have high expectation on the services they have paid. There is on issue

that passengers are not focus much. It is the reservation through smart phone was found when plotted on IPA from TG ground services, even the airline still performs well. As overall score level of importance and performance felt into keep up on good work. It does not mean that airline freezing on training and development. Since, today the airline industry is competing intensely. There are various emerging airlines, especially low cost which passenger perceived low level of service and has low level of expectation. So that airlines should take consideration on passengers' behavior and trends that change over time. As well as, the advancement of technology that allow firms innovate and enhancing customer experiences.

ACKNOWLEDGEMENT

The author would like to thank for Research and Development Institute, Suan Sunandha Rajabhat University for supporting this research. As well as, Dean of International College for the guidelines.

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RELATIONSHIP BETWEEN HOFSTEDE'S CULTURAL DIMENSIONS AND TOURISM PRODUCT SATISFACTION

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ABSTRACT

This paper aims to explore the satisfaction levels of tourism product components on the island of Samui by studying the cultural dimension relationships of Hofstede's classic theory. Both the six Hofstede cultural dimensions and tourism production satisfaction measures have been of interest worldwide. Therefore, the challenge of this study is to re-confirm previous research results in the ever-changing current contexts of the modern globalized business era. Self-rated questionnaires were employed to collect data from six nationalities of tourists in Samui, totaling 386 samples. The reliability of this research methodology was 0.967. Correlation was applied to analyze the relationships. The results indicate that Masculinity is significantly related to tourism destination satisfaction for every factor, while the other five cultural dimensions are related to some factors of tourism satisfaction. Surprisingly, tourist satisfaction toward the bar/restaurant factor is significantly correlated with all six cultural dimensions.

Keywords - Cultural dimensions, tourism products, Samui, Thailand.

INTRODUCTION

Hofstede's theory on cultural dimensions has been applied worldwide in various fields, in both academia and industry, for many years. Hofstede conducted groundbreaking research focusing on the culture of 14,000 IBM employees worldwide. He originally concluded that there were four dimensions of culture. These are Power Distance, Masculinity/Femininity, Individualism/Collectivism, and Uncertainty Avoidance [5]. Hofstede's main hypothesis was that culture impacts human attitudes and behaviors. This assumption has been studied and tested on a wide range of phenomenon. Human resource management has also applied Hofstede's theory to explain behaviors and attitudes of employees and employers. The theory has also been used to examine how cultural dimensions influence customer behaviors in the business discipline of marketing in every industry, including the tourism industry.

Studying the impact of cultural dimensions on the tourism industry has been prevalent. There have been studies on tourist behavior [2], [3], [8], [12], Tourist satisfaction [9], evaluating tourism services [6] and tourist perception [12]. However, cross-cultural studies on tourism destination satisfaction has been less prevalent [10]. There is a comparative study of destination tourism satisfaction focusing on eight factors, but there were only two nationalities (British and German) and it contained no testing with consideration of Hofstede's cultural dimensions [9]. Therefore, in this globalized era where culture has become more closely intertwined, it is currently unknown if cultural dimensions are still related to tourism destination satisfaction.

Samui Island is a famous tourism destination in Surattani province, located in the Southern part of Thailand. Tourism generates a great deal of income for Samui and tourists of various nationalities visit every year. Furthermore, tourism destination satisfaction is very important for tourists in taking travel decisions,

revisiting, and making recommendations. This paper also aims to investigate the satisfaction level of tourists visiting Samui Island in order to propose solutions to further improve tourism service, and therefore tourist satisfaction levels, on Samui Island.

LITERATURE REVIEWS

1. Hofstede's Cultural Dimensions

In Hofstede's primary research, there were four cultural dimensions consisting of Power Distance (PDI), Uncertainty Avoidance (UAI), Individualism-Collectivism (IDV) and Masculinity-Femininity (MAS). Long Term Orientation versus Short Term Normative Orientation (LTO) and Indulgence versus Restraint (IND) were added later through subsequent research. Power distance is the interaction and relationship level in a hierarchical society. PDI scores reflect the degree of the equal distribution of power of people in different positions. A high PDI score indicates that the society has an unequal distribution of power in different social hierarchic strata, as is found in Asia. Hofstede found that people in Western countries tend to have lower levels of hierarchy in their societies when compared to those of people in Eastern countries [5]. Uncertainty, Avoidance measures peoples' feelings on perceived threats and risks created by an ambiguous situation (UAI). The degree to which each person is attached to family, relatives, friends and/or groups is how individualism and collectivism is defined and measured (IDV). Western people score more individualistic and Eastern people more collectivist. Tourists who score at a high level on the IDV index tend to be individualistic, i.e. not strongly attached to their society or to a group. Lastly, the dimension of Masculinity and Femininity (MAS) is considered in this context as being equivalent to gender (male and female) power dynamics in that society. In the case of people from Western societies, they are likely to have more equal gender rights. Contrary to this, Eastern people give more power to males than females. In countries with a high level of MAS, people will focus on competition, achievement and success, while with low MAS, people will be concerned with quality of life.

Long Term Orientation (LTO) and Indulgence versus Restraint (IND) are the two additional dimensions mentioned above [4]. High scoring LTO focus more on the future and therefore they try to achieve their goals through perseverance, tolerance and hard work. Low scores in LTO indicate a greater focus on the past and the present. They rely on themselves rather than a group or society, respect tradition, prefer short term feedback cycles, and value reciprocation of greetings, favors and gifts. Lastly, Indulgence versus Restraint (IND) is the newest dimension and as a consequence there are fewer papers on this dimension. IND is interpreted as the degree to which people try to control their desires and impulses. High IND scores indicate an indulgent country, whereas low scores indicate cultures that value restraint [14].

Although there have been many criticisms in applying Hofstede's theory, the validity of its use was reconfirmed in recent research [16]. Additionally, it is less concerning in two current dimensions: Long term orientation and Indulgence with tourism product satisfaction.

2. Tourism Product Components

Tourism product components have been described and defined differently in previous research papers. Since, the 4P's of products were launched by Kotler, it is questioned that what are suitable components for tourism products? The 5A's for tourism product components - Attractions, Accommodation, Accessibilities, Amenities and Activities - are proposed [11]. This model is still vague and lacks inclusion of important issues such as safety and security and also service quality. In addition, amenities are still vague, because there are many service businesses in the tourism industry (for example, restaurants, bars, souvenir shops, or even spas) that may not be suitable to be evaluated in the amenity dimension. Furthermore, it is difficult to precisely determine the correct dimension for each business. Additionally, there are four major tourism components:

natural resources, built environment, operational environment, operating sector and organizations [7]. This paper gives priority to attractions, then the attraction components are separated into two dimensions – man-made and natural. Moreover, tourism organizations are also separated. Similarly, Kozak [9, p. 394] divided the tourism components into eight detailed factors: accommodation, transportation, hygiene and cleanliness, hospitality and customer care, facilities and activities, price level, communication and destination airport services. Reference [8] reviewed an evaluation of tourist satisfaction consisting of destination, travel mode, transportation, accommodation, food and activities. Finally, the tourist satisfaction measure in [15] consists of accessibility, accommodation, restaurants, price and value, safety and security, local hospitality, entertainment, information accessibility and local organizations. From examination of previous research papers, it can be concluded that there are some repetitions in the tourism component measures. Main tourism organizations will be consolidated. Therefore, seven components will be applied in this paper consisting of attractions, accommodation, accessibilities, bars and restaurants, souvenir shops, tour operations and service quality.

3. Relationship between Cultural Dimensions and Tourism Product Satisfaction

The correlation between cultural dimensions and tourism has been variously studied. Reference [13] found that tourist behavior was significantly related to the Uncertainty Avoidant Index (UAI) dimension. Individuals with a high UAI tend to get travel information from people such as friends, relatives, tour agents, etc., while those who score a low UAI are more likely to gain information from print media or the Internet. The findings of [9] also revealed different satisfaction levels between two nationalities of tourists, however, the five cultural dimensions of Hofstede were not applied to this research. According to a review of [8] that cultural dimensions are related to tourist behaviors: before travelling, during travelling and after travelling, collectivity orientation, risk tendencies and social interaction drive travel behaviors. However, as this paper was confined to literature review, the hypothesis has yet to be confirmed. The study by [10] revealed that IDV and MAS dimensions are related to tourist satisfaction. However, the research also found that PDI and UAI are not related to tourist satisfaction toward sporting events. This can be explained by the fact that the research focused on mega-sporting events, in which the tourists who attend this type of event may be different from the general tourist population or that other factors influenced the satisfaction level, rather than that of culture.

Then, the research hypotheses verified the following:

- HP1. Power distance influences negatively tourism product satisfaction components.
- HP2. Individualism is positively related to tourism product satisfaction components.
- HP3. Masculinity is negatively related to tourism product satisfaction components.
- HP4. Uncertainty avoidance is positively related to tourism product satisfaction components.
- HP5. Long Term Oriented is negatively related to tourism product satisfaction components.
- HP6. Indulgence is positively related to tourism product satisfaction components.

RESEARCH METHODOLOGY

This paper used the quantitative research approach. The research population was foreign tourists visiting Samui Island. The sample size was 386. Self-rated questionnaires were applied and developed by reviewing previous related papers, three research experts and 30 samples for the pilot tests. Five levels of the Likert Scale: 5- highest and 1-lowest were used to measure the satisfaction levels of seven tourism product factors: Attractions, Accessibility, Accommodations, Activities, Bars and Restaurants, Souvenirs, Tour Operators, and Service Quality. These items were obtained from previously published, related papers [7], [9], [11], [15] and developed via the three experts and the pilot test. The reliabilities- Cronbach Alpha of seven tourism satisfaction variables were 0.835, 0.884, 0.878, 0.863, 0.850, 0.901 and, 0.918, respectively. The total reliability of the research tool was 0.967. While, the cultural scores of each dimension and each country were

gained from the Hofstede Centre [14], according to Table I. Data were analyzed via SPSS program by using Mean, Standard Deviation, and Pearson Correlations [1].

Table 1
Cultural Dimension Index

	PDI	IDV	MAS	UAI	LTO	IND
United Kingdom	35	89	66	35	51	69
Korea	60	18	39	85	100	29
Australia	36	90	61	51	21	71
Germany	35	67	66	65	83	40
China	80	20	66	30	87	24
France	68	71	43	86	63	48

Source: [14]

RESEARCH RESULTS

1. Respondent's Profile

Sample size was 386, consisting of six nationalities. The research respondents from the Asian countries of Korea and China composed nearly half, at 41.2 %, and those from other continents were 58.8 %, (see Table 2).

Table 2
Respondent's Profile

	Frequency	Percent
United Kingdom (UK)	44	11.4
Korea (KR)	80	20.7
Australia (AUS)	68	17.6
Germany (GER)	36	9.3
China (CN)	79	20.5
France (FR)	79	20.5
Total	386	100.0

2. Satisfaction Levels of Tourism Product Components

According to Table 3, overall satisfaction was high. Obviously, attraction (ATT) registered the highest score while souvenir (SOUR) and Tour operators (TOUR) got the lowest level. This should be taken into account during further development. Korean tourists indicated the highest satisfaction level for tourism destination, while the lowest level was from the Germans. Lastly, it seemed that the most of tourists highly satisfied tourism destination in every aspects-Samui Island.

Tourists in Samui who came from the UK tended to rate a higher score of tourism satisfaction in all aspects over their German counterparts. This is in accordance with the research result which studied German and Britain tourists visiting Turkey and Mallorca [9]. However, the highest satisfaction in Samui of German and Britain tourists are Attractiveness and Bar & Restaurant in contrast with tourists in Turkey, which are Accommodation and Service, respectively [9]. Additionally, British and German Tourists in Mallorca rated the highest scores for accommodation and airport service, respectively [9].

Table 3
Satisfaction Levels of Tourism Product by Nationalities

	FR	GER	UK	KR	AUS	CN	TOTAL
ATT	3.94 0.52	3.66 0.58	3.97 0.75	4.04 0.73	4.06 0.45	3.67 0.66	3.91 0.64
ACCOM	3.99 0.58	3.60 0.62	3.98 0.75	4.23 0.66	4.11 0.59	3.66 0.60	3.96 0.66
ACCESS	3.93 0.53	3.37 0.60	3.76 0.75	3.85 0.86	3.98 0.61	3.73 0.61	3.81 0.69
BAR	3.96 0.58	3.57 0.59	4.02 0.75	4.03 0.72	4.11 0.50	3.67 0.54	3.91 0.64
SOUR	3.95 0.55	3.43 0.58	3.65 0.88	3.94 0.76	3.90 0.49	3.66 0.61	3.80 0.67
TOUR	3.87 0.57	3.43 0.50	3.79 0.88	4.08 0.72	3.91 0.42	3.70 0.57	3.84 0.64
SERVICE	3.98 1.13	3.51 0.60	3.89 0.72	4.12 0.73	4.07 0.47	3.76 0.62	3.90 0.66
TOTAL	3.95 0.48	3.51 0.45	3.87 0.67	4.04 0.62	4.02 0.41	3.69 0.51	3.88 0.55

3. Correlation of Destination Satisfaction and Cultural Dimensions

Table 4
Correlations of Satisfaction Level and Cultural Dimensions

	PDI	IDV	MAS	UAI	LTO	IND	Nation
ATT	-.104*	.086	-.141**	.119*	-.104*	.136**	-.126*
ACCOM	-.094	.040	-.233**	.191**	-.067	.111*	-.175**
ACCESS	.027	.047	-.113*	.061	-.109*	.087	.003
BAR	-.113*	.118*	-.145**	.111*	-.149**	.178**	-.135**
SOUR	.042	.005	-.202**	.158**	-.048	.039	.006
TOUR	.019	-.046	-.212**	.145**	-.002	.018	-.103*
SERVICE	-.036	-.010	-.157**	.096	-.054	.065	.005
TOTAL	-.036	-.010	-.157**	.096	-.054	.065	-.113*

Remarks: * = significant at 0.05, ** = significant at 0.01

From Table 4, the study found that nationalities of tourists significantly related to tourism satisfaction in almost all components – most notably in Accessibilities and Service Quality. The correlation results are in accordance with that of the research that studied Germans and British tourists in Mallorca [9].

However, correlation of total satisfaction and cultural dimensions was only found in Masculinity. Noticeably, Masculinity related with all components of tourism satisfaction, while other factors did not. Surprisingly, the individualism index only related with the bar and restaurant component. This is similar to the satisfaction levels indicated by participants of an event in Naples that was also related with Masculinity and

Individualism [10].

Also somewhat intriguing was that Masculinity significantly negatively related with all components of tourism products, while other cultural aspects related with some. Additionally, Bar and Restaurant significantly related with all cultural dimensions. In contrast, there was a positive relationship between MAS and event satisfaction in Naples [10].

- HP1. Power distance (PDI) negatively correlated with Attractions and Bar/restaurants. This can be viewed as tourists with high power distance from Eastern countries, such as Korea and China, tend to be less satisfied in the two components. In contrast, high satisfaction will be found in tourists with less high power distance – as those found coming from Western countries such as the UK, AUS, France, etc., The results are in accordance with Hofstede [14].
- HP2. Individualism (IDV) is found to be positively related to only one satisfaction component - Bar and Restaurant. This can be explained by the tendency of tourists who are highly individual - who are usually Western – and are more likely to experience high satisfaction levels in bar and restaurants in tourism destinations.
- HP3. Masculinity (MAS) significantly and negatively related to tourism satisfaction. It seems that a high level of masculinity tends to create less destination satisfaction in tourists. It can be explained that high MAS tourists have greater motivation to achieve and be successful which leads to having high expectations and therefore experiencing dissatisfaction when these expectations are not met [14].
- HP4. Uncertainty avoidance (UAI) had a positive relation with most of tourism product components, most notably with Accessibility and Total Satisfaction. Unsurprisingly, the high uncertainty avoidant tourists tend to have high satisfaction with tour agents in tourism destinations. High score UAI tourists normally do something to reduce risks and are likely to travel using the service of tour agents. This is consistent with a previous paper which found that tourists originating from high UAI countries are more likely to obtain information from tour operators and tend to travel with tour guides [13].
- HP5. Long term oriented (LTO) is negatively related to three factors of tourism product satisfaction: Attraction, Accessibility and Bar & Restaurant. An explanation is that tourists who are high LTO tend to be dissatisfied with tourism products in destinations as they tend to take a more pragmatic approach and are focused on the future, rather than the present moment. This may lead them to set an expectation of a high standard of service.
- HP6. Indulgence (IND) revealed a positive correlation with three factors of tourism product satisfaction consisting of Attractiveness, Accommodation and Bar & Restaurants. Normally, tourists with high IND score give importance on leisure time and spend money as they wish. As a consequence, they tend to be happy with tourism destinations.

DISCUSSION AND FUTURE WORK

Academically, culture is still a main issue influencing tourist's satisfaction, however it appears that culture is becoming more homogeneous, diluted or less distinctive. Only one of Hofstede's cultural dimensions related with all six aspects of culture: Masculinity. Surprisingly, Bar and Restaurant related with all aspects of culture. It seems that food and beverage experiences can still clearly reflect the different impact of culture on satisfaction. Whereby globalization bridges culture gaps around the world, however food and beverage may be less affected. People are still familiar with the unique culinary aspects of their hometown. Differences experienced whilst travelling can lead to high or low destination satisfaction dependent upon the cultural identity of the traveler.

The implication for tourism planners in Samui, apart from the recommendations above, are some

tourism product aspects consisting of souvenirs and for tour operators which should be taken into account for development to increase satisfaction levels of different national tourists.

There are some limitations of this study to be taken into consideration by both academics and tourism planners. Firstly, there were only two respondents of Asian nationalities, Chinese and Korean, for this study. This is not statistically representative of Asian people. Therefore, the results of this study should be applied with caution. Secondly, the number of tourists from each country was unequal, as some countries were represented in small numbers.

Lastly are the recommendations for further research. Other tourism destinations may be studied to make a comparison and confirm the relationship between cultural dimensions and tourism destination satisfaction. Other research analysis such as Structural Equation Model, etc., should be applied to reassess the relationship as well.

ACKNOWLEDGMENT

Suratthani Rajabhat University would be appreciated for providing financial support.

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LOVE AND ITS MANY FACES

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ABSTRACT

The presentation is based on our recently published scientific book *The Many faces of Love* (Kaarina Määttä & Satu Uusiautti, authors), published by Sense Publishers. The purpose of the presentation is to discuss research on love from an educational psychological viewpoint. People live in a network of relationships and their ability to build and maintain relationships is an important strength. Love has many definitions and also many faces. The presentation provides a comprehensive analysis on love in various areas of human beings' life – the emergence and manifestation of romantic love in various phases of life, love in education, love for work, for fellow humans – and in relation to other phenomena, such as friendship, play, and creativity.

When dissecting love along the course of life, *parental love* secures children's well-being and *teachers' pedagogical love* trusts in pupils' learning. The first taste of *falling in love* can manifest itself in the form of the sweet poison of love and still is quite far from actual love. The ability to love is an important, yet difficult, skill. There are numerous theories that explain the phases of long-lasting marriages and divorces, too. Nevertheless, love does not retire and the fascination of love does not fade, not even in senior age. There are also negative manifestations of love: for example, *morbid love* has been compared to addiction. Other topical phenomena of love are, for example, *love for work* and the successful combination of work and family.

Love in its whole gamut is connected to human wellbeing and development in different areas and phases of human life. Love, as its best, is manifested by the endeavor to make things develop, grow, and come forward, whether love falls on other people, art, science, ideas, or nature. We conclude that love, in its various forms, makes the best health insurance.

SERVICE QUALITY AT FIVE STAR HOTELS IN AQABA CITY FROM FOREIGN TOURISTS' PERCEPTION

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ABSTRACT

This study aimed to examine the service quality of the five star hotels in the Aqaba city (South of Jordan) through identifying the differences between the perceptions of foreign tourists staying in these hotels and their expectations for the level of services provided to them. Thus, 215 questionnaires were distributed randomly to tourists and the questionnaires were used to measure the differences between the perceptions and expectations of the study sample.

The results indicate that the Empathy and Assurance have a negative significant effect on the Empathy (0.44-) and (0.06-) for the Assurance. The results also showed the differences of tourists' measurement for the service quality and their variables reached (0.02-) and there was a limited negative gap in the level of service quality with what the tourists' expected from the five star hotels in the Aqaba City.

The study recommends the management of five star hotels of the Aqaba city give more concern to the Empathy and Assurance variables to improve the level of service quality for tourists' satisfaction.

Keywords: Jordan, Aqaba, Service Quality ,Tourism ,Hotels

FACTORS AFFECTING THE FAILURE OF THAI EDUCATION: A CASE STUDY

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ABSTRACT

The world is moving at supersonic speed rate into global knowledge and information age with knowledge co-construction and breakthrough thinking. Every sector including education may need to reset them for this change emphasizing on personalized learning, and the teacher matters most. However Thailand has been ranked far behind its neighboring countries and near the bottom of countries participating in the PISA program despite the fact that it has allocated huge budget on its education. This qualitative case study investigated the factors affecting the failure of Thai education. Twenty teachers and principals at twenty primary schools in Thailand participated in the study. Data were obtained through interviews, lesson plans, and teaching observations. The findings illustrate that teachers' and principles' cultures and beliefs have been the main factor affecting the failure of Thai education regarding learners' learning achievement and their mastering of 21 st century skills. Interestingly, the findings reveal that the teachers' cultures and beliefs have a significant correlation influencing their teaching practices. Also, the results of the study reveal that the large test-centric system with multiple choices has been the other key factor inhibiting Thai students from mastering needed 21 st century skills.

Keywords: education, teacher belief and culture, learning achievement, 21 st century skills

LACTURER IDENTITY IN CHANGING HIGHER EDUCATION LANDSCAPES

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ABSTRACT

Following a similar path to Canada, Ireland's Higher Education landscape is consolidating with the ongoing process of creating a number of Technological Universities (TU) by merging Institutes of Technology (IoT's). With the IoT's originally evolving from technical colleges where students could undertake apprenticeship training and similar employment orientated courses, staff providing programmes fulfilled teaching roles as opposed to the traditional University employment of mixing research and teaching. As the change to Technological University proceeds, this research explores both the changing identity of staff that deliver programmes in Ireland as well as Canadian staff that are now employed within new similar entities. The research method is an experiential workshop with staff from a new Canadian Technological University, a traditional University and staff from Irish IoT's that are in the process of merging and transitioning to becoming a Technological University. Identities within the Technological University in relation to training and education are explored. Where educating students may be understood as providing a theoretical knowledge base, training them could be interpreted as developing skills to be applied in the workplace.

Themes within the research include:

Does a Technological University train, educate or both?

Are Lecturers within a TU Trainers or Educators?

What learning can be taken from the Canadian experience of developing similar institutes concerning the identify of Institutes, Academics, Students and programmes in relation to training and education.

What makes a TU different from an IoT or a traditional University?

To what extent should programmes be of an applied nature to suit industry requirements?

Keywords: Academic Identity, Role of the Academic, Technological University

STUDY ON THE EFFICIENCY OPTIMIZATION FOR ABC CUSTOMER SHUTTLE TRANSPORTATION SERVICE

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ABSTRACT

The study reveals that, after implementing the management system for Backhaul: Routing vehicle operation by identifying clear transporting routes, the Customer Shuttle Transportation Service is more effective; the continuation of trip reduces customer waiting time, and the service utilization increases twice. The identification of stop point for return trip quickly responses to the customers' demands. The application of transportation management system helps reduce the route length and fuel used; as a result, the company transportation cost is reduced. Additionally, according to the questionnaire respondent submitted by customers who use free tourist shuttle service during November 2013 – January 2014, the customers are satisfied with the convenience, vehicle condition, courtesy of driver, and safety service. The ones that mostly require improvement are the courtesy of driver and the vehicle condition. This satisfactory service studied by the researcher would help organizations and agencies responsible in this regard apply the information for improvement of customer relationships to be able to fully facilitate the customers.

Keywords—Backhaul Management, Transportation Planning

INTRODUCTION

ABC Company, retail business, is duty free shopping mall, restaurants and hotel. The firm free tourist shuttle service operating route hotel – shopping mall – sky train from 07.00 am -23.00 pm. According to the statistics determined by the volume of customers using the service, it depicts that transfer customers have increased steadily. As a researcher realized the importance of optimizing transport customers. The study in the field as a transfer drop point at the courtesy shuttle service, valet parking, security, route planning system and transportation management system (Backhaul) applied to optimize transport customers. reduce support costs and increase the number of customer. The purpose of the research 1) To study the process of free tourist shuttle service in both the traditional system and new design system 2) To study the tourist shuttle service. And facilities development, such as drop point, a period of service, driver's courtesy and information security for management decisions.

LITERATURE & THEORY

Transportation management

Transportation management there are three key characteristics of reasons.

1. Planning
2. Control
3. Co-Ordination

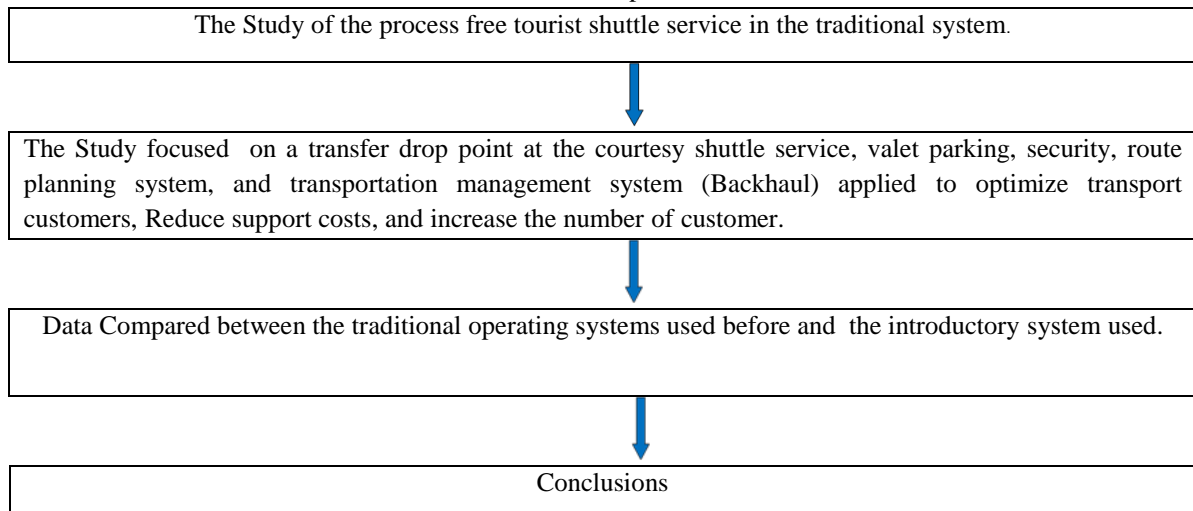
Route planning

Routing techniques

1. According to the law
2. Set up policies
3. According to community
4. Set up to facilitate
5. Set-up for trade

METHODS

Figure 1
Educational process



Research conduct

The researchers collected data from two sources.

1. Primary Data Analysis

It was used to analyze data from in-depth interviews from the department manager, Control Manager, Operation & administration staff, driver and customers.

And learn from observation, informal sector of transportation customers. By making the process of Operation & Administration and Driver. Data collected from the self-study. The resources that are searchable, relevant research articles, technical documents, books, textbooks. Magazines related to logistics. The website And collect data from the company Leo Global Logistics Co., Ltd.

2. Secondary Data Analysis

Data were collected from the self-study. The searchable resources were from relevant research articles, technical documents, books, textbooks. Magazines related to logistics. The data also were gathered from ABC company's website.

Defining the population and sample

The researcher Interviewed employees and customers of ABC company.

Data analysis

Since this study is qualitative research, so the logical analysis is used to be research-based and analysis the data collected interviews, observations, including the application of theories and research related article related.

Research Methodology

The research is based on analysis of the current situation as a way to practice, however. There are some disadvantages to the work and how it can be managed by the application can do. To make the process work. This compares to the possibility of changing practices or procedures. To find solutions to problems and to optimize the performance of the company personnel to meet the needs of customers up clutter.

Analysis of Current

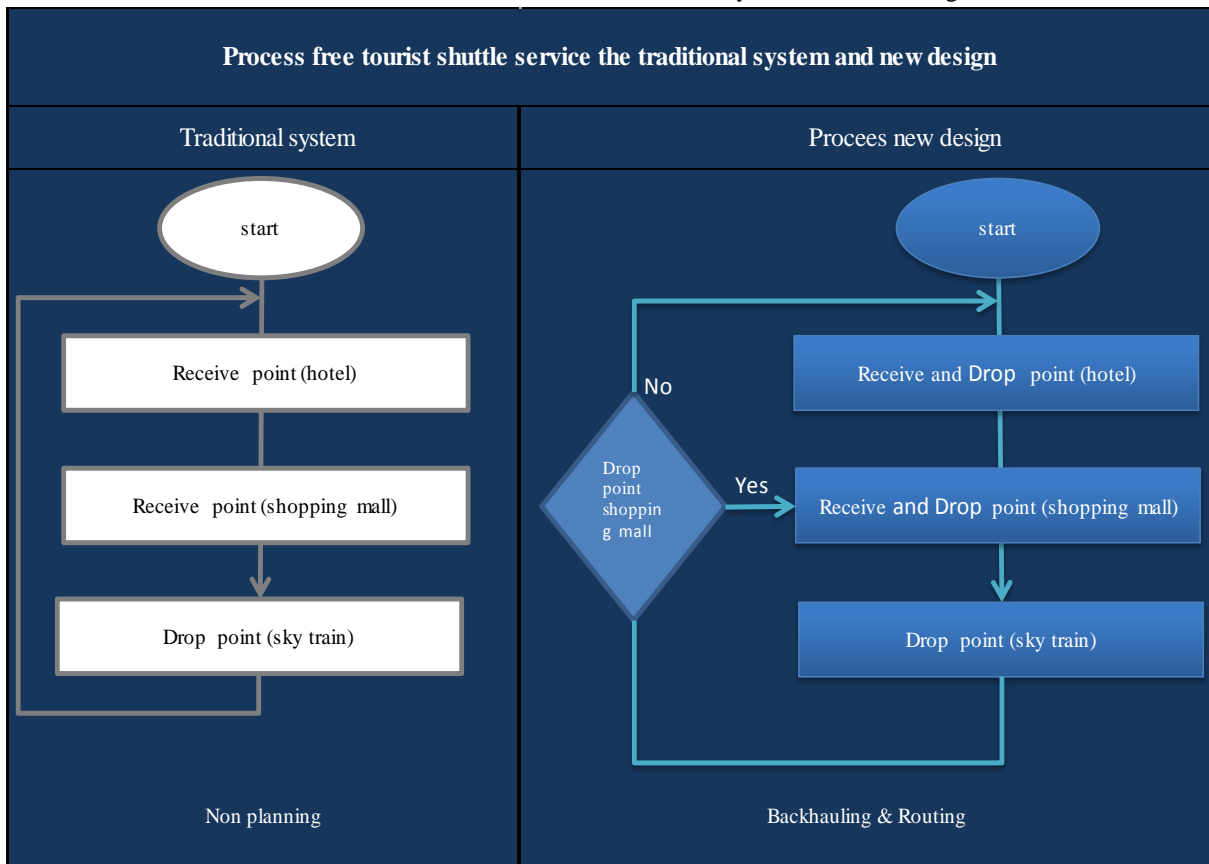
This researcher studies optimization of free tourist shuttle service operating route hotel – shopping mall – sky train from 07.00 am to 23.00 pm. According to the statistics determined by the volume of customers using the service, it depicts that transfer customers have increased steadily. As researcher has working experience in the inbound market department, optimizing transport customers is concentrated. The study focuses on a transfer drop point at the courtesy shuttle service, valet parking, security, route planning system, and transportation management system (Backhaul) applied to optimize transport customers, reduce support costs, and increase the number of customers.

The qualitative data for this research were collected through interviews, observation, monitoring, technical documents related job, journal articles, newspapers, and information on websites.

RESULTS

Figure 2

Process free tourist shuttle service the traditional system and new design.



The process to customers that come to hotel and ABC complex

Total free tourist shuttle service from August to October 2013 = 44 203 cases.

Found in most of the bus is running. The main customer of the transmission is complete, the officer driving the vehicle, ran back to the customer at the hotel immediately and will not wait for customers at a customer location, as unfavorable. As a result, the bus that runs back to the customer. And the route is running without regular route. As a result, customers wait for a long time.

So researchers have been working to improve the process to customers that come to hotel and ABC complex traditional new.

These transport management system Backhaul and Routing application by clearly defined route. The continuity of operations, customers do not have to wait for a long time and are used to increase exponentially. From the point of waiting for customers to return.

Total free tourist shuttle service from November to January 2014 = 86,240 cases.

It can be seen that the use of more customers, up from August - October 2013 to serve customers 44 203 people to 86,240 from November - January 2014, resulting in the use of cost-efficiency and good corporate image building in terms of services.

CONCLUSION

Processes and service of tourist shuttle in both the traditional system and new design system.

After leading transportation management system Backhaul Routing applied by a bus route runs clear. Of Transportation said the customer more efficiently. Continuity of operations, customers do not have to wait for a long time and are used to increase exponentially. From the point of waiting for customers to return. Thus meeting the needs of customers quickly. Applications transportation management system also allows customers to use transport distance. And less fuel The costs of transport of the company's decline.

And education shuttle service. And development of facilities such as drop point of service, the courtesy car driver. Safety information for management decisions. The results of the survey of customers using Free Tourist Shuttle Service November 2013 - January 2014 found that customer service in terms of service, the courtesy car driver. Security and overall customer service as well. The service should be improved the most. Is the courtesy of the staff. And conditions Satisfied customers in areas where the research is conducted. Help organizations and authorities can take to improve the information to develop better relationships with customers. And facilitate customers to use the service fully.

FUTURE RESEARCH

The study on the attitudes and preferences of foreign customers to tourist shuttle services can contribute to the service development, increasing sales, and other aspects within the organization.

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ANXIETY OF SENIOR HIGH SCHOOL IN PREPARATION FOR UNIVERSITY ADMISSION

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ABSTRACT

Anxiety is the main of mental health problem in adolescent, mostly in adolescent who preparation for university admission. This is descriptive researches that aim to explore levels of anxiety among senior high school in Samut Songkhram province in preparation for university admission. The samples consist of 364 persons. The research instruments include the questionnaire on personal information and the anxiety assessment form. The data analysis is conducted by using descriptive and correlation statistics. According to the findings, most senior high schools have a moderate level of anxiety (67.0%), followed by a low level of anxiety (25.8%). Family expectation is positively associated with anxiety with a .05 level of statistical significance. Family income and family support are negatively associated with anxiety with a .01 level of statistical significance. The findings can be filling a gap of knowledge and benefit for teacher and health care team to facilitate quality of life of senior high school.

Key word--- ANXIETY, ADOLESCENT

INTRODUCTION

Adolescents are in the age susceptible to face mental health problems since they have to adjust themselves to rapid changes from childhood into adulthood physically, emotionally, and socially (Crandell, Crandell & Zanden, 2012; Feldman, 2008; Slee, Campbell & Spears, 2012). Common mental health problems among adolescents include stress, anxiety, depression, and suicide (Horwitz, Hill & King, 2011). Anxiety is another significant common problem (Horwitz, Hill & King, 2011) as adolescents need to encounter the transition from childhood into adulthood. Anxiety is referred to as insecurity, uncomfortable feeling, fearfulness, and stress of individuals in response to unknown threats (Varcariolis, 2013; Shives, 2012), as well as unknown situations causing such feelings, while it is difficult for individuals to decide to fight against or escape from conflicts, stress, and uncomfortable feeling (Shives, 2012). Adolescents' anxiety may include to be afraid of not being accepted by surrounding people, and to be afraid of more responsibilities when they are entering adulthood. Particularly, during the transition to higher education in Thailand, Mathayomsuksa 6 students are required to undergo the Ordinary National Educational Test for admission purpose. As earlier mentioned regarding age-related development, adolescents are susceptible to basically face mental health problems. During the significant period affecting their future education, adolescents would have self-expectation, coupled with the awareness of their family's expectation of studying in the university, as well as lack of preparation of adolescents themselves.

Based on the literature review, it was found that there has not been any study in Samut Songkhram province on anxiety, especially among adolescents studying in Mathayomsuksa 6 who are preparing for the Ordinary National Educational Test. It is unfavorable to lack the information in preparation for preventing problems and providing assistance to adolescents susceptible to face mental health problems. Therefore, the researcher is interested in studying the anxiety of secondary students in Samut Songkhram province who are

preparing for the entrance examination in order to provide significant information to related organizations and health service providers so as to further plan how to prevent and assist with mental health problems of adolescents who are preparing for the Ordinary National Educational Test.

Research Questions

1. How about the anxiety of adolescents in secondary schools in Samut Songkhram province who are preparing for the Ordinary National Educational Test?
2. What factors are associated with the anxiety of adolescents in secondary schools in Samut Songkhram province who are preparing for the Ordinary National Educational Test?

OBJECTIVES

1. To explore the level of anxiety of adolescents in secondary schools in Samut Songkhram province who are preparing for the Ordinary National Educational Test.
2. To explore the factors associated with the level of anxiety of adolescents in secondary schools in Samut Songkhram province who are preparing for the Ordinary National Educational Test.

Scope of the Research

This is a descriptive research conducted with students in secondary schools in Samut Songkhram province, comprising 3 districts, namely, Muang district, Bangkhontee district, and Amphawa district. The research project had been carried out from December 2015 to June 2016.

METHODOLOGY

This is a descriptive research aiming to explore the level of anxiety of adolescents studying in Mathayomsuksa 6 who are preparing for the entrance examination.

Population and Samples: The samples in this study consist of Mathayomsuksa 6 students in secondary schools in Samut Songkhram province who can communicate well in Thai, and agree to participate in the study.

Sampling: Because the school size in 3 districts in Samut Songkhram province is substantially different, this study randomly selected the samples by means of the stratified sampling in order to ensure that the populations represent Mathayomsuksa 6 students in Samut Songkhram province, being stratified by district, and 1 school in each district was randomly selected. Then, the size of populations representing the sub-group, i.e., each school, was calculated. All of these 3 schools had different number of students. With regard to the calculation of the population size, the researcher used the current number of Mathayomsuksa 6 students from the selected schools in Samut Songkhram province. The calculation of the sample size was made by using the following formula:

$$\text{The formula for calculating the populations} \quad n = \frac{P(1-P)}{\frac{E^2}{Z^2} + \frac{P(1-P)}{N}}$$

N is referred to as the population size.

n is referred to as the required number of populations.

P is referred to as the required ratio of populations, generally being determined at 30%.

E is referred to as the deviation being determined at 0.05.

Z is referred to as the confidence level being determined at 1.96 (based on 95% of the confidence level).

There was a minimum of 332 populations in total from the calculation. In order to prevent the loss of questionnaires by approximately 10%, the researcher collected the data from a total of 364 populations.

Data Collection

The data collection had been carried out after the research was approved by the Ethical Review Committee for Research in Human Subjects, Suan Sunandha Rajabhat University. Subsequently, the researcher asked for permission to collect the data by submitting the letter from College of Nursing and Health, Suan Sunandha Rajabhat University to all of 3 secondary schools in Samut Songkhram province. The research instruments include / set of questionnaires, consisting of the questionnaire on personal information and the anxiety assessment form as per the following details:

1) The questionnaire on personal information

The questionnaire on personal information is used to collect basic information of adolescents, namely, gender, age, academic performance, educational plan, expected higher education institute, duration of preparation for the examination, domicile, family income, number of family members, religion, marital status of father and mother, study plan, and study results, etc.

2) The anxiety assessment form

This is a standard form for the anxiety assessment. The content was validated by experts, while the confidence level was explored through the trial use with 30 persons possessing similar characteristics to the samples. The calculation of the confidence level was made by using Cronbach's Alpha Coefficient, resulting in 0.78. The anxiety assessment form contained 20 questions regarding anxiety, while the anxiety was classified into 4 levels based on the score range.

Data Analysis

1. Personal information and factors affecting the anxiety of adolescents were analyzed by using the percentage.
2. The level of anxiety was analyzed by using the criterion-referenced assessment.
3. The Bivariate correlation was analyzed by using the Pearson correlation coefficient.

RESULTS

1 Personal information

There were totally 364 populations, comprising 36.8% males and 63.2% females. The majority of them aged 17-18, representing 60.5% and 39.0%, respectively. 72.0% of the populations are living in the two-parent family. The family income mostly ranged from 10,001-20,000 (38.5%), followed by over 30,001 (24.2%). Regarding the study plan of these populations, it was found that most populations were studying the science-mathematics program, followed by the language-arts program, and the mathematics-arts program, representing 65.9%, 22.0%, and 12.1%, respectively. 57.7% of the populations achieved over 3.00 grade point average, followed by 2.51-3.00 grade point average (29.1%), and 2.00-2.50 grade point average (13.2%). The findings revealed that most populations wished to continue studying in the public university (89.6%), and mostly in the field of health and medical sciences (29.1%), followed by the field of social sciences/mass communication (19.8%).

2. The anxiety of adolescents studying in Mathayomsuksa 6 – According to the study on the anxiety of adolescents studying in Mathayomsuksa 6, most of them had a moderate level of anxiety (67.0%), followed by a low and high level of anxiety, representing 25.8% and 7.2%, respectively as shown in Table 4.

Table 1:

The level of anxiety of adolescents studying in Mathayomsuksa 6 who are preparing for the entrance examination

Level of anxiety	Low	Moderate	High	Total
Number	94	244	26	364
(%)	(25.8)	(67.0)	(7.2)	(100)

3. The correlation between factors associated with the anxiety of adolescents studying in Mathayomsuksa 6 – According to the study, it was found that the family expectation of studying in the university was slightly positively associated with the anxiety with a .05 level of statistical significance ($r=.161$), the monthly family income was slightly negatively associated with the anxiety with a .01 level of statistical significance ($r=-.221$), and the family support for preparation to study in the university was slightly negatively associated with the anxiety with a .05 level of statistical significance ($r=-.188$), respectively as shown in Table 5

Table 2:
The factors associated with the anxiety of adolescents studying in Mathayomsuksa 6 who are preparing for the entrance examination

Variable	Anxiety
Factors associated with anxiety	
Family support for preparation to study in the university	-.188*
Family expectation of studying in the university	.161*
Monthly family income	-.221**

* $P<0.05$, ** $P<0.01$

CONCLUSION AND DISCUSSION

According to the study on the level of anxiety of adolescents studying in Mathayomsuksa 6 in Samut Songkhram province who are preparing for the entrance examination, it was found that the majority of these populations had a moderate level of anxiety, causing the individuals to have a deterioration in sensory function, i.e., vision and hearing, poor attention and concentration, as well as less perception (Varcarolis, 2013; Shives, 2012), followed by a low level of anxiety. With regard to the factors associated with the anxiety, it was found that high family expectation of studying in the university would be relatively associated with higher level of anxiety ($p<.05$, $r=.161$). Moreover, the monthly family income was most negatively associated with the anxiety ($p<.01$, $r=-.221$). This represented that low family income would increase the anxiety of adolescents who were preparing for the examination. Accordingly, regarding the family support for preparation to study in the university, this factor was negatively associated with the anxiety as well ($p<.01$, $r=-.188$).

SUGGESTION

As for the policy suggestion, related healthcare organizations should utilize the results of the study to formulate the policy for prevention of problems arising from the anxiety of adolescents who are preparing for the entrance examination, as well as to do the manpower planning for personnel responsible for promoting and preventing mental health problems. In addition, educational organizations should have the policy to thoroughly support fundraising for educational purpose from the secondary level since the findings revealed that the family income was associated with the anxiety of adolescents.

ACKNOWLEDGEMENT

I would like to express my sincere thanks to Suan Sunandha Rajabhat University for their kind assistance and financial support for conducting the research. Also, I am thankful to College of Nursing and Health, Suan Sunandha Rajabhat University, for their time and contribution through various stages of research.

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