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Statement from the Managing Editor

In this issue, as in previous ones, we have articles that span a wide variety of topics in keeping with our tradition of publishing scholarly research on the practice of management.

In our first article, Cheawkamolpat studied the online shopping behavior of consumers in Bangkok. Based on a sample of 400 consumers, the author found that age, education, benefits and psychographics were related to attitude and purchasing behavior of online shoppers. Given the growth in the field of information technology and the increasing numbers of Thai internet shoppers, the author recommends that marketers make their websites more interesting and accessible so as to capture larger market shares.

In our second article, Romprasert examines the forecast performance of five models using daily futures prices. By adopting this model selection approach, the paper sheds light on the usefulness of econometric forecasting and the empirical relevance of modeling theoretical relationships between futures and spot prices.

In our third article, Wattanapanit studied the important role played by community colleges and their administrators in supporting the development of a variety of skills of local people. Using indepth interviews with directors of these colleges in the northeast of Thailand, the author highlights the significant role that the colleges play in linking communities with important bodies such as government agents which can help generate funds as well as provide better access to training.

In our fourth article, Arttachariya reviews extant literature on organic food consumers and the determinants that underlie such purchases. The paper also outlines the barriers inherent in the purchase of organic food, and offers suggestions for marketing practitioners, organic food growers as well as retailers.

Kiseleva, in our fifth article, studied the relationship between attitude of teenagers in Moscow and their purchase intention toward subculture clothing. Her study, whilst revealing some interesting findings, also recommends that marketers in Russia consider the differences within age subgroups as well as find interesting ways to capture the attention of this growing and important segment.

In our final article, Tanchaisak examines the relationship between leadership styles and entry-level employees' commitment to organizations. Two surprising findings are revealed in his study; one, that directive leadership style is related to overall organization commitment of entry-level employees and two, only affective commitment is related to leadership style. The author concludes by highlighting the important role that attitudes and feelings play in forming relationships between leaders and their followers in Thai society.

I express my gratitude to all the contributors. Whilst urging new contributors to send in your manuscripts, I also request those who have previously contributed to the Journal to continue to do so. Happy New Year!

Patricia Arttachariya, Ph.D.
Managing Editor

Contents

ONLINE SHOPPING BEHAVIOR: A STUDY OF CONSUMERS IN BANGKOK

Pornthep Cheawkamolpat
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ABSTRACT

This research focuses on investigating factors that are associated with consumer attitude toward online shopping, and how attitude in turn, relates to online purchasing behavior. The target sample of 400 respondents was Thai and foreign consumers, both male and female, who are familiar with computer and the internet, aged 18 and over, and living in Bangkok. The data collection was conducted at business districts, department stores in the center of Bangkok, and universities. From the findings, age and education are found to have relationship with online shopping. Benefits perception and psychographics are also related to attitude toward online shopping. Attitude toward online shopping is found to have positive relationship with online purchasing in all three aspects (money spent, average time spent, and frequency of purchasing).

INTRODUCTION

At present, the role of information and technology has helped to enhance the scope of business. Consumers can evaluate the internet as an information exchange medium as well as buying channel (Martìnez-López et al., 2005). The increasing growth rate of internet users creates business opportunities for e-commerce. Hence, the internet is no longer a niche technology (Nielsen, 2008). The growth of electronic commerce or e-commerce has an impact on consumer behavior and it certainly changes consumers' lifestyle.

Researchers have claimed that consumers' decision making for online shopping be may inspired by their personality, attitude, perception, and other external environment such as culture, friends, family, and social class (Schiffman and Kanuk, 2007). According to the above information, attitude is one of the most important psychological factors to measure favorable and unfavorable toward objects. Understanding consumer attitudes toward online shopping can help marketers gain information on how consumers purchase online and this can help evaluate the future of online shopping. More specifically, the objectives of the study are developed as below:

1. To identify the differences between consumer's demographic characteristics and consumer attitude toward online purchasing behavior in terms of gender, age, monthly income, education, and frequency of usage.
2. To determine the relationship between consumers' benefits perception and consumer attitude toward online shopping.
3. To analyze the relationship between consumers' psychographics and consumer attitude toward online shopping.
4. To study the relationship between consumers' attitudes toward online shopping and consumer online purchasing behavior.

LITERATURE REVIEW

Demographic Variables

Demographic variables are often considered when researchers try to determine why consumers shop online. According to previous studies, demographic factors have an impact on online shopping. Bellman et al. (1999) identified several factors which influence individual online purchase behavior and they found that demographic factors such as income, age, and education have positively influenced online purchase behavior. Dias (2003) also mentions that different age groups have various attitudes toward purchasing behavior. Young consumers are likely to purchase products and services on the internet (Silverman, 2000). Andrew et al. (2007) suggested that men are interested in product categories such as computer hardware and software while women are strongly attracted to the functional benefits of online shopping. Thananuraksakul (2007) found that male consumers were likely to have higher online purchase intention than female, with more experience, they were more likely to purchase online. Wang et al. (2008) stated that well-educated consumers were suggestive of open-mindedness and enhanced ability to process new information. Li et al. (1999) argued that income and education are two factors usually associated with online shopping.

Computer and Internet Usage

Computer usage has been linked to online shopping (Shim and Drake, 1990). The more frequently consumers use computers the more they are willing to adopt online shopping (Gehrt and Yan, 2004). Miyazaki and Fernandez (2001) and Siu and Cheng (2001) explained that online consumers have greater internet usage experience, make wider use of other in-home purchasing methods and have more favorable attitudes toward technology.

Benefits Perception

Online shopping benefits are defined as the benefits from online shopping, such as the source of convenience that is not available in traditional shopping (Alba et al, 1997; Peterson et al, 1997). Wolfinbarger and Gilly (2001) revealed that consumers who have purchased products from online stores perceived unique benefits from online shopping as performance enhancing such as convenience, saving time, and reduced risk perception. Previous studies on online consumer behavior have suggested that online utilitarian benefits include convenience (Bhatnagar and Ghose, 2004a, 2004b; Eastlick and Feinberg, 1999; Korgaonkar and Wolin, 2002); informative abundance (Sorce et al., 2005); less price concern (Bickle and Shim, 1993; Donthu and Garcia, 1999), and variety selection of products (Eastlick and Feinberg, 1999; Rowley, 2000). Online hedonic benefits are related to experiential consumers, who seek a product specifically for the online shopping experience, enjoyment, and social approval (Wolfinbarger and Gilly, 2001).

Kim (2002) explained that attributes of convenience from online shopping comprise of offering products/services anytime and anywhere accessibility, transaction speed, and ability to deliver information. In online shopping environment, Lohse and Spiller (1998) found that convenience is related to ease of ordering, product display, and timely delivery.

Online shopping environment enables consumers to reach a decision faster than traditional shopping by providing comparison information (Alba et al., 1997), product reviews, and abundance of product and service information (Evans and Wurster, 1999). According to Kolesar and Galbraith (2000), the ability to provide information to meet the consumer demand is the key to successful online retailers.

Psychographics

Psychographics are the use of psychological, sociological, and anthropological factors to study how the market can be segmented and also understand how consumers make decisions in different segments (Demby, 1989). In psychographic segmentation, Kotler (1997) divided consumers into different groups based on their personality characteristics and lifestyle. Anderson and Golden (1984) stated that lifestyle refers to how people live, how they spend their money, and how they allocate their time. Bellman et al. (1999) described the term wired lifestyle as one which refers to individuals who use the internet for working, searching out information, and communication. These groups have been using the internet for several years and also are likely to be innovators. Online shopping can be classified as an innovative shopping format. Donthu and Garcia (1999) found that younger consumer tend to be innovators more than older consumers.

Lifestyle and personality characteristics (motivation, perception, personality, attitudes) are very useful for identifying consumer profiles and targeting consumers. Online consumers are considered to have higher computer knowledge than non-online consumers (Brown and Venkatesh, 2003). Donthu and Garcia (1999) found that the characteristics of online consumers are likely to be convenience seekers, innovative, impulsive, variety seekers, and risk averse. Kini and Chobineh (1998) found that online consumer personality characteristics are directly related to extraversion (talkative, sociable, and confidently appearing in public) and neuroticism (anxious and sensitive).

Attitude toward Online Shopping

Attitude can be described as the learning of disposition to perform consistently favorable or unfavorable way with respect to a given object (Fishbein and Ajzen, 1975). Consumer researchers have studied the construct of attitude and the problem of the relationship between attitude and behavior for a long time. Fishbein's attitude model (1967) is perhaps the most well-known study of the relationship between attitude toward behavior and performing behavior (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980; Ajzen, 1985; Davis, 1989).

There are number of different models and expansions based on the study of the relationship between attitude toward behavior and performing behavior based on the behavioral intention model (Fishbein & Ajzen, 1975) such as, the theory of reasoned action or TRA (Ajzen and Fishbein, 1980), the theory of planned behavior or TPB (Ajzen, 1985; 1991) and the technology acceptance model or TAM (Davis, 1989).

Attitude has been found to be an influencing factor on online shopping. Previous study by Park and Kim (2003) showed that consumer attitude toward online shopping was strongly influenced by their intention to search product information from the internet. George (2002) applied the theory of planned behavior to study influences on the intent to shop online. The researcher found that trustworthiness and privacy helped determine attitude toward the internet and in turn, online purchasing behavior.

Online Purchasing Behavior

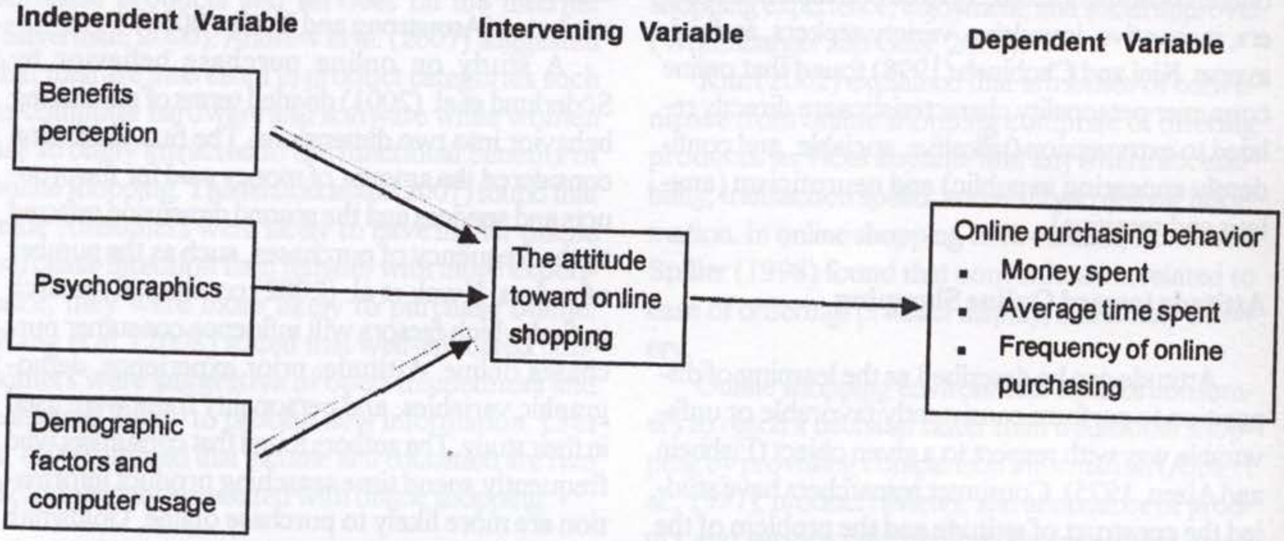
Online purchasing behavior is defined as the act of purchasing products or services on the internet (Ha and Stoel, 2004). Online shopping process includes information search, alternative selection, and purchasing. Consumer purchasing behaviors are influenced by sociological factors and psychological attributes (Armstrong and Kotler, 2000).

A study on online purchase behavior by Söderlund et al. (2001) divided terms of purchasing behavior into two dimensions. The first dimension considered the amount of money paid for the products and services and the second dimension referred to the frequency of purchases, such as the number of orders. Kwak et al. (2002) conducted research to find which factors will influence consumer purchases online. Attitude, prior experience, demographic variables, and personality traits were used in their study. The authors found that consumers who frequently spend time searching product information are more likely to purchase online. Goldsmith and Goldsmith (2002) found that online consumers who spend more time on internet were more likely to purchase online. Shim and Drake (1990) mentioned that online consumers who have previous online purchase experience will have strong purchase intention. Goldsmith and Goldsmith (2002) stated that consumers who have prior experience on online shopping will be more likely to purchase online than those who lack prior experience. Seckler (2000) explained the reason behind this issue is because consumers gain experience with online shopping and develop confidence and skills that reduce risks from online shopping.

RESEARCH FRAMEWORK

In this study, the researcher adapted the models developed by Wu (2003) and George (2004) to study consumer attitude toward online shopping and purchasing behavior. Wu (2003) found that the relative factors such as demographics (gender, age, education, and income), consumer preference, lifestyles, and benefits perception influence consumer's attitude toward online shopping. George (2004), applied the theory of planned behavior to explain the relationships between attitudes toward online shopping and online purchasing behavior, and summarized that positive attitude impacted positive online purchasing behavior. Based on these results, the researcher selected these two frameworks to examine the relationship among the selected variables.

Figure 1: Conceptual Framework



In this study, the researcher set up ten pairs of null and alternative hypotheses in accordance with the objectives of this research. They are shown as follows:

H_{o1}-H_{o5} There is no difference between consumer's demographic characteristics (gender, age, monthly income, education, and frequency of computer usage) and attitude toward online shopping.

H_{o6} There is no relationship between consumer's benefits perception and attitude toward online shopping.

H_{o7} There is no relationship between consumer's psychographics and attitude toward online shopping.

H_{o8}-H_{o10} There is no relationship between attitude toward online shopping and online purchasing behaviors.

METHODOLOGY

The research method used in this study is descriptive. The survey technique is applied. The target respondents of this study was male and female consumers, who are familiar with the computer and internet, are aged 18 and more, and who live in Bangkok.

The researcher used a questionnaire as a tool to gather the information from the target respondents. The questionnaire is divided in five parts. Three screening questions help to filter the respondents who are under 18 and those who are not familiar with computer and internet out of the sample. The first part contains four questions related to attitude measurement. These questions have been adopted from the studies of George (2004) and Lim and Dubinsky (2004). The second part consists of nine questions related to benefits perception that consumers receive from online shopping. All of these questions have been derived from the study of Forsythe et al. (2006) and Korgaonkar et al. (2006). The third part contains ten questions related to psychographic factors. All of questions have been adopted from the study of Kucukemiroglu (1999), Ha and Stoel (2004), and Smith and Whitlark (1999). Five-point Likert scales were applied for the first three parts of the questionnaire. The fourth part contains four questions related to online purchasing behavior. These four questions are adapted from the study of Goldsmith and Goldsmith (2002), Söderlund et al. (2001), George (2004), and survey by Nielsen Company Thailand conducted in 2007 (Musiket, (2008). The final part consisted of seven demographic factors: gender, marital status, age, highest education level, occupation, and monthly income in Baht, computer hourly usage per day. Both English and Thai versions of questionnaires were distributed to respondents. The questionnaires were distributed in business districts (Sathorn, Silom, and Sukhumvit), department Stores (in the center of Bangkok), and universities (state and private). A total of 400 questionnaires were distributed. All of 400 sets of questionnaire were considered valid and were used for the analysis.

FINDINGS

Table 1: The Summary of Demographic Characteristics and Computer Usage

Demographics	Variable	Frequency	Percentage
Gender	Male	206	51.5
	Female	194	48.5
	Total	**400**	**100**
Age	19 - 25	201	50.25
	26 - 33	181	45.25
	34 - 41	13	3.25
	Above 41	5	1.25
	Total	**400**	**100**
Level of education	High school	26	6.5
	Diploma	11	2.75
	Undergraduate	265	66.25
	Graduate	93	23.25
	Doctoral	5	1.25
	Total	**400**	**100**
Monthly income	Less than 10,000 Baht	123	30.75
	10,000 - 20,000 Baht	136	34
	20,001 - 30,000 Baht	71	17.75
	30,001 - 40,000 Baht	29	7.25
	More than 40,000 Baht	41	10.25
	Total	**400**	**100**
Computer's hour usage	Less than 1 hour	3	0.75
	1 - 2 hours	24	6
	2 - 3 hours	51	12.75
	3 - 5 hours	297	74.25
	5 hours and above	25	6.25
	Total	**400**	**100**

Table 2: The Summary of Results from Hypotheses Testing (Hypotheses 1, 2, 3, 4, and 5)

Hypothesis	Variable	Sig. (2-tailed)	Result
H_1	Age and attitude toward online shopping	0.012	Rejected Ho
H_2	Gender and attitude toward online shopping	0.158	Failed to reject Ho
H_3	Education and attitude toward online shopping	0.010	Rejected Ho
H_4	Income and attitude toward online shopping	0.230	Failed to reject Ho
H_5	Computer usage and attitude toward online shopping	0.180	Failed to reject Ho

As indicated in Table 1, more than half of the respondents were male (206 respondents and 51.5%). In terms of age, the largest number of respondents are those whose age range from 19 to 25 (201 respondents and 50.25%). As for the highest education, the undergraduate segment dominated with 265 respondents (66.25%). There are 136 respondents (34%) having a monthly income between 10,000 to 20,000 Baht. A total of 74.25% of respondents used the computer ranging from 3 to 5 hours per day.

As indicated in Table 2, consumers' demographic characteristics and computer hourly usage were described by hypotheses 1, 2, 3, 4, and 5. According to the findings of analysis of variance (ANOVA), the statistical analysis showed that there is a difference in attitude toward online shopping when segmented by consumer's age and education. These two factors are supported with the significant level of 0.12 and 0.010, respectively. However, gender, income, and computer usage have no difference in attitude toward online shopping with the significant level of 0.158, 0.230, and 0.180, respectively.

Consumer's benefits perception was explained by hypotheses 6. The statistical analysis showed that there is a moderate positive relationship between consumer's benefits perception and attitude toward online shopping (.000 < .01, r-value = .475). Table 4 showed that time saving has the strongest relationship (r-value = .404) when compared with other benefits of online shopping, while product availability has the weakest relationship (r-value = .032).

Table 3: The Summary of Result from Hypotheses Testing (Hypotheses 6, 7, 8, 9, and 10)

Hypothesis	Variable	Sig. (2-tailed)	"r" value	Result
H_6	Benefits perception and attitude toward online shopping	0.000	0.475	Rejected Ho
H_7	Psychographics and attitude toward online shopping	0.000	0.346	Rejected Ho
H_8	Attitude toward online shopping and money spent on online shopping	0.000	0.299	Rejected Ho
H_9	Attitude toward online shopping and average time spent on online shopping	0.000	0.231	Rejected Ho
H_{10}	Attitude toward online shopping and frequency of online purchasing behavior	0.000	0.211	Rejected Ho

Table 4: The Relationship between Consumer's Benefits Perception and Attitude toward Online Shopping

Benefits perception	r-value	p-value
Time saving	0.404	0.000
Can shop whenever I want	0.379	0.000
Effort saving	0.323	0.000
Easy to shop	0.290	0.000
Can find any product I want	0.032	0.528
Easy to find comparison information	0.272	0.000
Information on site helps to make decision	0.248	0.000
No pressure from salespersons	0.133	0.008
New experience perception	0.354	0.000

Table 5: The Relationship between Consumer's Psychographics and Attitude toward Online Shopping

Psychographics	r-value	p-value
Have more self-confidence	0.246	0.000
More independent than most people	0.148	0.003
Have a lot of personal ability	0.198	0.000
I like to be considered a leader	0.231	0.000
Friends often come to me for advice	0.169	0.001
I sometimes influence what my friends buy	0.266	0.000
I am an innovator	0.250	0.000
Hobbies are very important	0.128	0.011
I am a computer expert	0.248	0.000
I stay close to family and have a lot of friends	0.165	0.001

Table 6: The Summary of Online Shopping Behavior

Online Shopping Behavior	Variable	Frequency	Percentage
Money spent on online shopping	Less than 1,000 Baht	242	60.5
	1,001 - 2,500 Baht	84	21
	2,501 - 5,000 Baht	31	7.75
	5,001 - 10,000 Baht	19	4.75
	More than 10,000 Baht	24	6
	Total	400	100
Average time spent on online shopping	Less than an hour	153	38.25
	1 - 2 hours	124	31
	2 - 4 hours	64	16
	4 - 6 hours	22	5.5
	Above 6 hours	37	9.25
	Total	400	100
In one month, how many times do you buy online?	1 - 2 times	366	91.5
	3 - 5 times	28	7
	6 - 10 times	2	0.5
	More than 6 times	4	1
	Total	400	100

Consumer's psychographics was discussed in hypotheses 7. The statistical analysis showed that there is a weak positive relationship between consumer's psychographic and attitude toward online shopping (.000 < .01, r-value = .346).

As Table 5 showed, the statement: "I sometimes influence what my friends buy" has the strongest relationship (r-value = .266) when compared with other psychographic factors, while "Hobbies are very important" shows the weakest relationship (r-value = .128).

As indicated in Table 6, the highest percentage of respondents' money spent on online shopping is 60.5% of less than 1,000 Baht. Moreover, 38.25% of respondents spent time on online shopping for less than an hour. Most of the respondents (91.5% or 366 respondents) spent 1 - 2 times in one month for online shopping.

Hypotheses 8, 9, and 10 categorized online purchasing behavior into three aspects (money spent, average time spent, and frequency of purchasing). As indicated in Table 3, in terms of the relationship between attitude toward online shopping and online purchasing behaviors, there are positive relationships between attitude toward online shopping and online shopping behaviors in all of three aspects of online purchasing behavior at 0.000 significant level (r-value is 0.299, 0.231, and 0.211, respectively).

CONCLUSION

According to the findings of hypotheses 1, 2, 3, 4, and 5, it can be concluded that there are the differences in attitude toward online shopping when segmented by consumer's age and education. This is consistent with previous studies (Li et al., 1999; Wu, 2003; Sorce et al., 2005). However, respondents' computer usage and demographic characteristics such as gender and income are not supported in this study. These factors are not significantly related to attitude toward online shopping. This result was supported by the study of Thananuraksakul. (2007) which found that Thai consumers who earned higher incomes did not necessarily purchase online. Attitude toward online shopping becomes more favorable if consumers perceive the benefits from online shopping with time saving being the most significant benefit perceived. It can be concluded that there is a positive relationship between consumers' psychographics and attitude toward online shopping. In terms of the relationship between attitude toward online shopping and online purchasing behavior, there is a positive relationship between attitude toward online shopping and online shopping behaviors. If the respondents have favorable attitude toward online shopping, they will spend more money and time on online shopping and will purchase more frequently. This result is supported in the study by Goldsmith and Goldsmith (2002).

RECOMMENDATIONS

The findings reveal that differences in age and education of the respondents show differences in attitude toward online shopping. Different age groups have various attitudes toward purchasing behavior (Dias, 2003; Sorce et al., 2005), while gender, monthly income, and frequency of computer usage are not of such importance. From the results, it can be implied that the online retailers and marketers should be focusing on young adult Thais whose ages are between 26 to 31 years, who live in Bangkok, are well-educated, are familiar with computers and have experience in online shopping.

Since benefits perception has the strongest relationship with attitude toward online shopping, it implies that consumers' attitude became more favorable when they perceived more benefits such as convenience and information abundance. For instance, online shopping offers time and effort saving, 24 hours and seven days accessibility, lack of physical hassles (such as salespersons, traffic congestion, and crowds), and ease of use. In terms of information abundance, internet shopping allows consumers to search, compare, and in turn, make wise decisions. Consumers also perceive new experience from online shopping. This finding may be useful for online retailers to explain how consumers' perceive benefits from online shopping and which factors have the most influence on their attitude. Consumers who purchase from websites are interested in time saving, ability of accessibility, and usefulness of information, so this finding is important for marketers in setting up and maintaining websites. A good website should provide information (such as detailed product information, in-stock number status information, prices list, reviews, and FAQs) to consumers in order to create positive attitude.

Psychographic factors also have a positive relationship with attitude toward online shopping. The finding relates to characteristics of consumers who shop online. Hobbies, computer expertise, and family relationships, are indicators of heavy users of the internet for working, searching information, and for communication (Bellman et al., 1999).

It is obvious that attitudes toward online shopping are associated with online purchasing behaviors. From the findings, a positive attitude toward online shopping is found to be a key factor influencing Thai consumers who live in Bangkok to purchase from websites. However, the results from descriptive analysis displayed that the amount of money spent and frequency of purchase of consumers who live in Bangkok is still low. The large majority of respondents who live in Bangkok spend less than 1,000 Baht on online shopping. They also make only one or two purchases from websites in one month. This finding may imply that online marketing in Thailand is still in the growth stage. Popularity of online shopping is still limited to only a few groups of consumers.

According to the results of descriptive analysis, when Thai consumers shop online, they tend to buy airline tickets and hotel reservations, followed by books, computer and electronic equipment, clothing, event tickets, and cosmetics, respectively. This finding shows the different categories of products that consumers purchase from websites and offers a useful suggestion for marketers of such products to make their websites more interesting to capture a larger online market share.

LIMITATIONS AND FURTHER STUDY

There are some limitations of the study as follows. Firstly, the study mainly concentrated on those respondents who live in Bangkok, and all data were collected only in Bangkok. Hence, the research results may not be generalized to those who lived in other areas of Thailand. Secondly, it is possible that consumers who are less than 18 years are online shoppers. This study does not include these consumers. Thirdly, the independent variables selected may not cover all the variables that are related to online purchasing behavior. Finally, the findings of the research are obtained at a specific period of time (April-June 2009). Hence, the results of finding may not be generalized in the future.

However, the growth in the field of information technology in this era is rapidly increasing. Information technology is continuously developing new features and functions. Because of this expansion, the cost of using the internet has become cheaper while the speed of connection is much faster; this implies that people who can access the internet will increase. According to the growth of internet users in Thailand from the year 2000 to 2008 by Internet World Stats (Internet World Stats, 2008), further studies should focus on the online purchasing behavior of consumers in regions outside Bangkok. Researchers can also focus on the study of online purchasing behavior dealing with specific products.

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MARKET TIMING DIEBOLD-MARIANO TEST AND LEADING INDICATORS FOR PREDICTION MODEL

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ABSTRACT

The forecasting accuracy of econometric models in this paper is examined using daily futures price of rubber commodity (RSS3). The criteria investigated include market timing criterion and Diebold-Mariano test. The results suggest that judging by the Confusion Rate (CR) values, it is interesting to note that most of the models are actually quite accurate, correctly predict the direction of price changes of time. In other words, most of the models are useful for predicting the direction of RSS3 price changes. Furthermore, Diebold-Mariano test shows that each pair of model-RW and RWD, RW and RWDT – equally accurate in terms of prediction. It was also found that the quantity of imports natural rubber (China) was able to be the leading indicator of rubber futures price for the next few months.

1. INTRODUCTION

This paper examines the forecast performance of five models using daily futures prices for RSS3 futures market. The econometric models used include a random walk without drift (RW), a random walk with drift (RWD), a random walk with drift and trend (RWDT), a vector autoregressive model with time trend (VAR), and autoregressive (AR). To allow the term structure of prices to evolve over time, the paper estimates all models dynamically, using 310 days, and construct forecasts based on forecast horizons of 1-step-ahead forecasts. The data used to forecast prices is updated daily as new observation becomes available, and ex ante forecasts are constructed. The results are then compared with true values, and out-of-sample forecasting errors are generated. Then, a number of model selection criteria based on these errors are applied and analyzed. Such an approach, often called a model selection approach, has advantages over the more traditional hypothesis testing approach. One reason is that the approach allows focusing on out-of-sample forecasting performance without worrying about the specification of a correct model.

This paper includes market timing criteria and Diebold-Mariano test. The two market timing criteria include confusion matrix (CM) and confusion rate (CR). Furthermore, the other test is the asymptotic loss differential test of Diebold and Mariano (1995), which examines whether two models, are equally accurate based on predictive ability.

By adopting a model selection approach to commodity prices in a real time forecasting scenario, paper attempts to shed light on the usefulness of econometric forecasting and the empirical relevance of modeling theoretical relationships between futures and spot prices when constructing forecasting model. The rest of paper is organized as follows. Section 2 discusses data, while section 3 outlines the forecasting models examined. Section 4 describes estimation strategies, and section 5 introduces the model selection criteria used. Section 6 summarizes the results and conclusion.

2. DATA

Daily settlement prices for ribbed smoked rubber sheet No.3 (RSS3) futures markets are employed. All price data are obtained from Agricultural Futures Exchange of Thailand (AFET), Rubber Research Institute of Thailand (RRIT), and The Thai Rubber Association (TTRA) database. The sample period starts on 1 August 2007 - 31 October 2008. The out-of-sample period used is 4 June

2007 to 31 October 2008. Thus, the first forecast for 4 June 2007 is constructed based on in-sample estimation using the period 1 August 2007 to 3 June 2007. However, the researcher does not expect that the results will be affected. In Swanson, Zeng, and Kocagil (1996), they used the data with 3-month, 6-month and one-year in sample sizes and did not find any effects from choosing different in-sample sizes. Futures prices are ordered according to their maturity and are called nearby prices, with nearby one corresponding to the nearest maturity, and nearby two referring to contract with the second nearest maturity, etc. According to Bessembinder, Coughenour, Seguin, and Smoller (1995); Bailey and Chan (1993); and Fama and French (1987), the prices of first nearby futures contracts can be used to proxy for the spot price. Therefore, the analysis based on the futures prices can also be extended to basis movements, or spreads between futures prices and spot prices. The advantage of using futures prices is that it avoids problems which arise when overlapping contracts are used, as well as problems associated with the volatility near the delivery periods. Furthermore, along with demand-supply variables in the market forecasting, because of limitation on available data, the monthly prices are used for examining the leading indicator. The sample period starts on May 2004 to December 2009. The out-of-sample period used is June 2007 and ends on December 2009. Thus, the first forecast for June 2007 is constructed based on in-sample estimation using the period May 2004 to May 2007.

3. FORECASTING MODELS

The first model paper considers is a simple random walk without drift. Let F_t be a N*1 price vector at time t for a given RSS3 commodity, and let N be the number of nearby contracts this commodity has. Thus, $F_t = (F_{1,t}, \ldots, F_{N,t})'$, where $F_{j,t}$ is the j^{th} nearby contract price. Then Random Walk (RW) is $F_t = F_{t-1} + e_t$ where e_t is a N*1 vector of white noise errors.

The second model considered is also a random walk, but with a drift term. Random Walk with Drift (RWD) is $F_t = \alpha + F_{t-1} + e_t$ where α is a N*1 vector of intercepts. Random walk models explicitly impose a unit root on the system, and often perform well relative to a wide class of more complex models, in practice, and are thus useful benchmarks.

The third model examined is a linear vector autoregressive model defined as follows: VAR is $F_t = \alpha_0 + \alpha_1 t + \sum_{i=1}^{p} A_i F_{t-1} + e_t$ where α_0, α_1 are N*1 vectors, and $A_i (i = 1 \ldots, p)$ are N*N coefficient matrices. Notice that the forecasts are based on price levels rather than differences. Level VARs may outperform differenced VAR empirically, even though the variables are non-stationary. One reason why this may be the case is that differencing could result in a loss of information.

The fourth model examined is also a random walk, but with a drift and trend term. Random Walk with Drift and Trend (RWDT) is $F_t = \alpha + F_{t-1} + \beta t + e_t$.

The fifth model paper considered is an autoregressive. The autoregressive (AR) model of an order p can be written as AR(p) and is defined as $X_t = \alpha_1 X_{t-1} + \ldots + \alpha_{t-p} X_{t-p} + Z_t$ where Z_t is a purely random process and $E(Z_t) = 0$, $Var(Z_t) = \sigma^2$. The parameters $\alpha_1, \ldots, \alpha_p$ are called the AR coefficients. The name "autoregressive" comes from the fact that X_t is regressed on the past values of itself.

4. ESTIMATION STRATEGIES

The estimations of random walk models are implemented directly. VAR parametrs are estimated by using least square. The lag-length is selected by minimizing the Schwarz Information Criteria (SIC) calculated as follows: $SIC = \ln|\Sigma| + n * 1n\, 310/310$ where $|\Sigma|$ is the determinant of the covariance matrix based on the in-sample regression residuals and n is the total number of parameters estimated in all equations. The researcher strategy is to choose an optimal lag length, by beginning with a maximum p = 12 lags, and decreasing p until SIC is minimized. The maximum lag chosen really does not matter in these cases, as the final lag length is often one or two.

Note that seemingly unrelated regression does not improve the efficiency of the least square estimators since all regressions have identical right-hand-side variables and the error terms are assumed to be serially uncorrelated with constant variance. The excellent discussions on applying VAR models can be found in Sim (1980), Enders (1995), Hoffman and Rasche (1996), and Clements and Hendry (1996). Using levels VARs instead of differenced VARs can be justified by noting that differencing might lead to a loss of information with respect to comovements among variables. The advantage of applying levels VARs is that paper may better mimic the true data generating process.

Finally, it is estimated that the parameters of all regressions at each point of time using a fixed sample size and then forecast prices based on these estimated parameters. At each day, all the estimators and models are updated as the fixed 310 days sample moves forward one period. The forecasting horizon examined is one-step-ahead.

5. MODEL SELECTION CRITERIA

Paper employs a number of out-of-sample model selection criteria to evaluate the predictive performance of the five models considered, across RSS3 commodity and one forecast horizon. These criteria can be classified into two categories: criteria for market timing and Diebold-Mariano Test.

All criteria are calculated using forecasting errors based on forecast horizon. The researcher also constructs Diebold and Mariano predictive accuracy test for pair-wise model comparison, as well as market timing test based on confusion matrices, and associated chi-square tests of independence.

5.1 Market Timing Criteria

An alternative model selection criterion is the market timing criterion suggested by Henriksson and Merton (1981); Schnader and Stekler (1990: 99-107); Pesaran and Timmermann (1994: 1-7); and Stekler (1994), which can be used to forecast economic turning point. The confusion rate calculated in the paper is retrieved from a 2*2 contingency table, called confusion matrix (CM). The following is the definition of a CM.

		Actual Price Movement	
		up	down
Predicted Price Movement	up	n_{11}	n_{12}
	down	n_{21}	n_{22}

where n_{11} = number of cases correctly predicted up; n_{21} = number of cases wrongly predicted down; n_{12} = number of cases wrongly predicted up; n_{22} = number of cases correctly predicted down. The confusion rate is then computed as the frequency of off-diagonal elements, or $CR = (n_{12} + n_{21})/T$

where $T = n_{11} + n_{12} + n_{21} + n_{22}$. The best model according to CR is the least confused one (the one is with the smallest value of CR). The researcher examines the standard chi-squared test of independence. The null hypothesis is independence between the actual and the predicted directions. Thus, rejecting the null hypothesis provides direct evidence that the model is useful as a predictor of the sign of change in the prices. The chi-squared test statistics is calculated as $\chi^2 = \sum_{i=1}^{2}\sum_{j=1}^{2}\frac{(n_{ij}-ne_{ij})^2}{ne_{ij}}$

The value of ne_{11}, for example, can be computed by following these four steps. First, compute the probability of actual up, which is $(n_{11} + n_{21})/T$. Second, calculate the probability of predicted up, $(n_{11} + n_{12})/T$. Third, compute the joint probability of actual up and predicted up as the product of the above two, or $[(n_{11} + n_{21})/T][(n_{11} + n_{12})/T]$. Then $ne_{11} = (n_{11} + n_{12})(n_{11} + n_{21})/T$. Similarly, $ne_{22} = (n_{12} + n_{22})(n_{21} + n_{22})/T$, $ne_{12} = (n_{11} + n_{12})(n_{12} + n_{22})/T$ and $ne_{21} = (n_{11} + n_{21})(n_{21} + n_{22})/T$.

5.2 Diebold-Mariano Test

Harvey, Leybourne, and Newbold (1998) originally proposed a modification of the Diebold-Mariano test for differences in MSE to account for non-normal distributions of the forecast error series. The researcher also constructs the asymptotic loss differential test proposed in Diebold and Marino (1995). Using only the loss differential series and the assumption that the loss differential series is covariance stationary and short memory, the DM test has a null hypothesis that both forecasting models are equally accurate. Let $\{d_t\}_{t=1}^{T}$ be the loss differential series, then the test statistics is $DM = \bar{d}/\sqrt{2f(0)/T}$, $N(0,1)$ where $\bar{d} = (1/T)\sum_{t=1}^{T} d_t$ is the sample mean loss differential, $f(0) = (1/2\pi)\sum_{\tau=-\infty}^{+\infty}\delta(\tau)$ is the spectral density of the loss differential at frequency zero, $\delta(\tau) = E(d_t d_{t-\tau})$ the autocovariance of the loss differential at displacement τ. $f(0)$ is estimated in the usual way as a two-sided weighted sum of sample autocovariances. The loss differential series used in the analyses are $d_t = (fe_{i,t})^2 - (fe_{j,t})^2$, for the test based on MSE; $d_t = |fe_{i,t}| - |fe_{j,t}|$ for the test based on MAD; and $d_t = \frac{|fe_{i,t} - fe_{j,t}|}{FE_t}$ for the MAPE test,

where $fe_{i,t}$ and $fe_{j,t}$ correspond to the forecast error sequences from two forecast models i and j, which are being compared and FEt is $fe_{i,t} + fe_{j,t}$.

5.3 Creating Determinants of Prediction Model

Studying the variables affect on rubber price by regression for monthly time-series, the data start from May 2004 through December 2009. Those variables are: RSS3 futures price at time t-1, oil price, exchange rate (Baht per Dollar US.), quantity of consuming natural rubber in the world, quantity of imports natural rubber (Japan), and quantity of imports natural rubber (China).

Method of building the model of RSS3 futures price by multiple regression:

Step 1: Checking the relationship between dependent and independent variables by considering from coefficient in each pair of dependent and independent variable.

Step 2: Finding the best regression by constructing the possible forecasting model between dependent and independent variables, after that bring each method to compare with MSE value and pick the lowest MSE value.

Step 3: Testing hypothesis: Does dependent and independent variable in the model have the relationship?

H_0: $\beta_1 = \beta_2 = \beta_3 = \ldots = \beta_j = 0, j = 1, 2, 3, \ldots$ and H_1: at least one beta is not equal to zero by using F-test. Also, test that any $\hat{\beta}_j$ is zero by testing on hypothesis H_0: $\beta_j = 0$ and H_1: $\beta_j \neq 0$. This hypothesis tests the relationship of independent variables that "should X_i be inside the model?" by using t-statistic.

Step 4: Analyze on error term (ε_i): Using histogram tests on the normal distribution, Testing mean and variance of error term on graph between error and time, Testing correlation itself is on ACF and PACF.

Method of constructing model is as: Normalisation: it uses to adjust each variable being in the same measuring unit: Calculating percentage of monthly data of each variable by using $C_{it} = \frac{100(X_{it} - X_{it-1})}{(X_{it} + X_{it-1})/2}$ where X_{it} = data of variable i at time t, X_{it-1} = data of variable i at time t-1, C_{it} = percentage changing of X_{it}. Creating the reference graph by using monthly RSS3 is the reference graph on rubber price, Plotting histogram between price and independent variables, considering the leading variable.

The researcher will select the graph that is similar to the reference graph by using visual examination.

6. FORECAST PERFORMANCE

Table 1: Diebold-Mariano Statistics of Predictive Accuracy

	Pairwise	Model	Predictive	Accuracy
h=1	12	13	14	15
RMSE	0.195	0.169	0.179	0.210
MAE	0.190	0.131	0.155	0.180
MAPE	0.001793	0.001222	0.001448	0.001680

Note: 12 is comparing between RW and RWD. 13 is comparing between RW and VAR. 14 is comparing between RW and AR(1). 15 is comparing between RW and RWDT. Also, h=1 means 1 step ahead.

Table 2: Diebold-Mariano Test (5% level)

Diebold Mariano Test	5% level	Reject or Unable to reject
1 step ahead	Absolute S > 1.96	Reject the null hypothesis
S of 12	-0.167540167	Unable to reject
S of 13	3.153187852	Reject
S of 14	2.19018364	Reject
S of 15	0.99519309	Unable to reject

Table 3: Model Ranking By Market Timing Criterion

	Market	Timing	Criterion		
CRITERION	RW	RWD	VAR	AR(1)	RWDT
CM	-597	-510	-834	-1,096	-569
CR	0.596154	0.567308	0.644231	0.692308	0.586538
	(3)	(1)	(4)	(5)	(2)
CHI-SQUARE	2.918402	0.838801	0.723896	0.621158	0.865951

The results of the Diebold-Mariano test in Table 1 and 2 show the results that RW & RWD and RW & RWDT are unable to reject the null hypothesis of equal predictive accuracy. Statistically from Table 1, the test also shows that RW & VAR does differ in terms of their squared forecast errors, especially VAR is more accurate than RW model forecasting.

Table 3 reports that judging by the confusion rate (CR) values, it is interesting to note that most of models are actually quite accurate, correctly predict the direction of price changes of time. While RSS3 on RWD model has the lowest CR values. At 5% significance level, all of the chi-square values suggest rejecting the null hypothesis of statistical independence. In other words, most of models are useful for predicting the direction of price changes.

Lastly, finding the factors affects on the monthly rubber futures price movement by multiple regression by collecting all data of all variables from May 2004 through May 2009, totally 61 months. Defining the variables is as following: Dependent Variable: futures = monthly RSS3 futures price at AFET at time t; Independent Variables: futures(-1) = monthly RSS3 futures price at AFET at time t-1, oil = crude oil price, fx1 = exchange rate (Baht per Dollar US.), fx2 = (Yen per Dollar US.), wnc = quantity of consuming natural rubber in the world, wsc = quantity of consuming synthetic rubber in the world, imnj = quantity of imports natural rubber (Japan), imsj = quantity of imports synthetic rubber (Japan), imnc = quantity of imports natural rubber (China), imsc = quantity of imports synthetic rubber (China).

The result from bringing all independent variables analyzed by stepwise shows that exchange rate (Baht/$U.S) and crude oil price affect the monthly rubber futures price. The relationship is shown in the following model:

$$\text{dlog(futures)} = -0.013895 + 3.907749\,\text{dlog(fx1)} + 0.456859\,\text{dlog(oil)}$$
$$(2.341095)^{*} \qquad (2.967697)^{**}$$

R^2 (R-Squared) = 0.309811 $\qquad R^2$ Adjust = 0.244079

Durbin Watson = 1.663676 $\qquad$ F statistic = 4.713232

Note: the number in parenthesis is t-Statistic. ** is significant at level 0.05 and * is significant at level 0.25.

Comparing true value with forecasting value from above regression model:

Month/Year	True Value	Forecasting Value
January/2009	51.42	78.80
February/2009	51.28	56.02
March/2009	50.65	48.22
April/2009	57.20	52.91
May/2009	59.56	56.87

The paper finds that exchange rate and crude oil price can be used as leading indicator, especially crude oil price. Also, both of leading indicators show a positive relationship with futures price in AFET. According to forecasting value compares with true value, it expresses that this regression model can be used to show the direction of movement for futures true value.

SUMMARY

The results suggest that random walk with drift model performs better in shorter forecast horizons, when model is compared based on quadratic loss measures and confusion matrices. Further, by pair-wise matching between VAR and randon walk, and between AR(1) and random walk, the results show that both of forecasting models are not equally accurate. We can say that VAR is more accurate than RW model because of least forecast error series based on RMSE, MAD, and MAPE. In addition, the study on the variable that can be the leading indicator for analyzing the trend of future RSS3 futures price found that when both exchange rate (Baht/$U.S.) and crude oil price increase by change in percentage rate, the RSS3 futures price will affect in the same direction.

The positive results of this study could contribute to the skills of agents in the futures market. They would help the traders of the commodities better decisions. Also, this study aims to fill the gap with a guide to understand how the fundamental analysis method works.

Further analysis should combine market integration of all commodities in futures market.

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MANAGERIAL ROLES OF DIRECTORS OF COMMUNITY COLLEGES IN NORTHEASTERN THAILAND IN SUPPORTING AND CREATING VOCATIONAL NETWORKS IN COMMUNITIES

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Abstract

Thailand has approximately 63.4 million population as of 2009. The northeastern part of Thailand occupies the largest land area of Thailand with approximately 21.2 million population which is nearly one third of the total population of Thailand. Many people, especially the youngsters, fled from the area because of the arid land and poor economy to struggle for jobs in other parts of Thailand and send money back to support the elders and young children they left behind. This situation breaks thousands of families apart. Hence, this region is the largest pool of labor to businesses and factories throughout the country. The downward trend of the current economic condition results in shrinkage of many industries. A large percent of labor force is laid off and have no choice but to return to their home towns where there are limited job. They need to develop self-employed careers for living. These workforces need training for such purpose. The Thai government has established community colleges to provide knowledge and training with the emphasis on the development of vocations for people in local communities. These community colleges have an important role in providing short courses to offer knowledge in developing professions. The aim of this research project was to investigate the role of directors in community colleges in supporting and creating vocations' networks within and among communities. In-depth interviews were conducted with directors of community colleges in northeastern part of Thailand together with administrators of vocational programs as well as leaders in communities. Data were content analyzed and inductively interpreted. Results suggested that communities are keen in building networks with other communities but they need community colleges' assistance in linking to organizations.

INTRODUCTION AND BACKGROUND OF THE STUDY

The Institute for Population and Social Research of Mahidol University (2009) reported that the total population of Thailand as of 2009 was estimated at 63.4 million. Out of this, northeastern region housed the largest number of population, 21.2m compared to 6.7m in Bangkok, 15.3m in the central, 11.7m in the northern, and 8.4m in the southern regions. The northeastern region of Thailand consists of nineteen provinces which covers one third of the area of Thailand. The U.S. Central Intelligence Agency's world factbook (2009) reported that Thailand's GDP per capita was USD 8,500 in the year 2008 (U.S. Department of State, 2009). The northeastern region occupies the largest land area but has the lowest income among all regions (Bank of Thailand, 2009; National Statistical Office, 2009; Office of the National Economic and Social Development Board, 2009). Many people, especially the youngsters, have to migrate from the area because of the arid land and poor economy to struggle for employment in other parts of Thailand and send money back to support the elders and young children left behind. Poverty has broken thousands of families apart.

Community College

To cope with poverty and unemployment situations in the rural areas, the government initiated 10 community colleges around the country to distribute aid and introduce vocational training courses through several agencies. At present, there are 20 community colleges in all regions of Thailand. By definition, community colleges are higher education institutions that manage learning and offer certificates and diplomas to adults, to offer formal degree education and vocational training for the needy. The latter purposes coincide with the community colleges founded in other countries. For example, according to Holzer & Lerman (2007), community colleges in the US play important part in training workers for business. In Thailand, the objective of vocational training courses is to assist local people to learn skills to start their own vocations and become entrepreneurs.

The community colleges are governed by the Bureau of Community College Administration. Each college appoints a board of trustees composing of academicians and community members. The role of the college is to analyze vocational needs in the local area and create courses to satisfy those needs. Most participants requested for courses that teach skills to make handicraft products and services. Many participants earn their living through selling of handicraft products and they want knowledge to produce other products so they request the college to organize courses for them. Participants form a group of approximately 20 people and request the college to open vocational courses they need. Some participants become trainers for other communities. They have the same vocations and make similar products, hence, it is very likely that they form networks among themselves. The objective of this research project was to examine the role of community college in supporting and creating vocational networks among members in communities (Bureau of Community College Administration, 2008).

The target group was adults who incorporate their personal goals and vocational proficiency in their learning (Kegan, 1994). It is important that the planning of adult education should incorporate more direct and practical vocational knowledge rather than only theories. Training programs are flexible and adapted to each locality's needs. Community colleges were established on the belief that everybody has potential and should receive proper guidance to unleash these potentials. The focus of education was on practical knowledge so that people could build their vocations (Nong Bua Lampoo Community College, 2008).

History

The first community college in Thailand was established in 1977 in the Phuket campus of the Prince of Songkla University. The college was reverted back to the university in 1984 as the result of the educational reform during the period. In 1994, 77 specific-purpose educational institutions throughout Thailand such as agricultural college (governed by the Ministry of Agriculture), art college (governed by the Ministry of Culture), and other colleges were combined under the umbrella of community college authority. Again, the process failed and the schools were returned to the original authorities in 1996. That ended the early attempt to establish community college in Thailand (Bureau of Community College Administration, 2008).

In the year 2002, the Thai government revived the community college idea and established 10 colleges in all regions of Thailand. By the year 2009, 19 community colleges were established; four of these were in the northeastern region i.e., Burirum, Mukdaharn, Nongbua Lampoo, Yasothorn (Bureau of Community College Administration, 2008). The aims of community colleges were to provide low cost education to assist poor people in local communities to start their own occupations and provide formal degree for those who lacked opportunity to study in the childhood. Community members' opinions are surveyed in order to plan for curriculum and design appropriate teaching programs. The participation could lead to innovation and proper utilization of the community's potentials (White, Nair, & Ascroft, 1994). One of the strategies of community college was to create network with members in the community, i.e., business organizations and other government authorities such as the Local Development Authority, The Irrigation Authority, and others to find assistance in facilitating the participants' vocations.

Managerial Roles & Responsibility

Managers have to following roles and responsibilities (Bateman & Snell, 2009; Kreitner & Kinicki, 2004; Robbins & Coulter, 2009; William, 2006):

1. Plan for mission, vision, objectives, goals

and activities of organizations.

2. Organize people and organizational structure including staffing and selecting people to perform tasks in organization as well as career development plan.
3. Direct, coordinate, and motivate subordinates towards organizational goals.
4. Control and supervise activities of subordinates.

In addition, managers need to have the following skills:

1. Technical skill. This skill is related to the way to perform tasks.
2. Interpersonal skill. This is the skill managers to deal with people.
3. Conceptual skill. This is the skill to see the overall picture and understand the relationship among elements of organizations.

A manager needs to provide satisfaction to employees by putting priority on health, safety and cleanliness issues. A satisfied employee will satisfy customers by giving good quality of service or product and take care of their needs. Moreover, a manager needs to keep updated on new and different methods and technologies. As a result, he/she will be able to become the agent of positive change to the organization and thereby improve overall efficiency.

To conclude, a manager has to become an exemplary role model (Shanley, 2007). Great leaders or managers set high standards and show subordinates that they can attain those standards by examples.

Networking

King Rama IX of Thailand had introduced the sufficiency theory that promotes self-contentment and the creation of networks among members in and among communities. The sufficiency network could create strength for Thailand and help to reduce the vulnerability of dependency upon other economies (Subcommittee on Sufficiency Economy, 2005).

A network is characterized as having several nodes connecting individual and group to each other. Inter-organizational networking can increase competitiveness of organizations and the group (Morris, Bessant & Barnes, 2006). Porter (1998) suggested that a network can be categorized along the value chain into horizontal network among firms in the same level of value chain and vertical network among firms in different level of value chain. Goold & Campbell (1987) reported that Japanese firms normally network with each other to increase their competitive advantages. Exchange of information, or networking, is a popular practice among Japanese companies (Nonaka, 1990). Networking of firms can create clusters of industries which can enhance and create collective strength among members.

Thai society is characterized as a collective society (Hofstede, 2001). Although, the urbanization may drive people to be more individualistic, people in the provinces are still collectivistic. With such characteristic, networking behaviors are likely to occur, especially in less urbanized areas. Iacobucci and Zerrillo (1996) explained that network occur in the individual, dyadic, or group relationship where members connect to others. Individuals are motivated to get into relationship with each other in order to obtain needed resources (Pfeffer and Salancik, 1992). Members within the same community with similar vocations are likely to establish networks with others. Individuals and organizations in a network would exchange information for the common purpose of the network through both formal and informal communication for the benefits of the professions and societal development (Kemm & Close, 1995). Modern businesses need to pool knowledge and expertise from others (Mankin and Cohen, 2003). Clarke (2006) suggested that commitment in the network was an important contributor to overall performance of members in the network. Martin (2009) suggested that interpersonal communication is an important element for entrepreneurial success. Social network among entrepreneurs provides opportunities for social support (Hogg & Adamic, 2004). The communicative and transformational learning approaches for adult learning enhance the intimacy among members and results in strong network.

Johanson and Mattsson (1992) explained two levels in network as the network of exchange relationship and the network of production system. The network of exchange relationship refers to the resource exchange process among members while the network of production system refers to the collaboration among members for the production of goods and/or services. Members in a network possess something of value and exchange those with each other in a reciprocal manner. Blankenburg et al., (1999) argued that the exchange process would bring about the development of knowledge among members. Trust can be developed along with the exchange (Hallen & Johanson, 2004). The longer the history of exchange, the more solid the trust becomes. The collaboration could combine complementary skills which could enhance the effectiveness and efficiency among network members (Powell et al., 1996). Chiu (2009) supported that network competence resulted in innovation performance.

A developmental network aims to improve career growth and members' learning (Higgins and Kram, 2001; Lankau and Scandura, 2002). This type of network draws relationship from various individuals and groups. Whitely et al. (1991) reported that developmental network played an important role in the enhancement of individual's career advancement.

According to the Subcommittee on Education System Structure and Knowledge Network (1990), network has 4 components:

1. the transfer, exchange and dissemination of modern knowledge and local wisdom to apply and create new knowledge relating to each community.
2. the stimulation of intelligence, spirit to develop the community and participation in community development.
3. the exchange of information relating to developmental projects of private and public sectors to keep members abreast of each other's activities.
4. the co-ordination of resources, materials and equipment, facilities and budgets among various units.

METHODOLOGY

This research was designed as an exploratory research to gain an in-depth understanding of the roles of community colleges in the creation of vocational network among members of communities. The northeastern region of Thailand was selected as the location for this study. There were four community colleges in the region at the time of study.

The researcher applied for approval from the central authority, the Bureau of Community College Administration, to conduct the study. The Bureau approved and gave names and contact numbers of the directors in the four community colleges in the northeastern region. The directors were informed by the Bureau about this study. The researcher made appointments with directors to conduct in-depth interviews with director of each college. In-depth interviews were also performed with personnel who were responsible for the vocational training short-courses in each college. These personnel were the main link between the colleges and community members. They mingled with the locals to study their needs and designed programs to satisfy these needs. Leaders and members in communities were asked to participate in focus group interviews. These participants included leaders of the local administrative authorities, members of the community who were trainers, active members of the communities and local business organizations. Each focus group consisted of 4-6 members. The researcher also visited some groups' businesses such as weaving and home-stay groups. Most interviews took place at the meeting room of the community college except one which was performed at one of the community leader's orchard.

Question protocol used with directors included questions relating to curriculum development, curriculum management, assessment, general policies and practices, and roles in creating vocational networks in the community. Particular interest was about their roles in creating or supporting vocational network among members in the communities. Question protocols for community leaders and members included questions relating to degree of participation in curriculum development, needs for advice in vocation and networking, credibility of the community colleges, trust in the community colleges and their collaboration with the colleges. These question protocols were assessed for content and face validity by experts in the Ministry of Education who were knowledgeable about the operations of community colleges before the interviews.

RESULTS

Managerial roles performed by the community college directors in supporting and creating vocational networks in communities are as follows:

1. *Intermediary role between or among other related public & private agencies*

One of the colleges' chairman of the board of trustees said that "*The survival of community colleges lies in the creation of network, without network we can do nothing*". Community colleges were small organizations that did not have many resources. Hence, the director was to become a broker connecting various groups together. In the capacity of an educator, the colleges seek for academic assistance from universities, business assistance from local business organizations, and development assistance from other governmental units such as the Water Authority or Electricity Authority of Thailand. There were courses organized for a local sugar factory to train farmers in sugarcane growing and harvesting, and to train factory workers in sugar production. Participants were both workers and members in the community. In other cases, professors were invited from a university to teach in a college's computer program of study and the graduates could further their study at a university. A director asserted that "*Lay people are not able to gain access to some units, we serve as the links*". Another college had a course for managing home-stay businesses. The college acted as the link to ask for support from the Thailand Tourism Authority for the community.

2. *Analytical role to enhance quality work*

One of the roles performed by the director and other staffs of a community college is frequent visits to nearby community. The proximity to communities makes the colleges prudent in social networks. Personal visits to communities aimed specifically at surveying their needs, so that the community college could effectively fulfill those needs. In addition, the community college may as well build up a good relationship with community members. This social network provides assistance in twofolds; one is in the training need assessment process. The need assessment becomes more accurate. Members in the community can request for courses they really want. Occasionally, the personnel may suggest courses that can benefit community members and discuss with them whether they want those courses. The second advantage is in the recruitment of trainers for courses. Trainers include professors or experts from organizations and local experts depending on the characteristics of each course. Due to limited budget, some trainers could be recruited from experts in locations close to training stations to save transportation costs. Social network helps the college to identify knowledgeable local wise men for this purpose. The result is that these trainers become nodes in the community network that links several groups to each other, a horizontal network.

3. *Supporting role*

Some groups networked long before the colleges came into existence. One community leader said "*We have several active local networks going on for more than 20 years... there is no need for the college to help us in networking*". Some groups offered handicraft training courses by themselves. In such case the college assisted in making the training programs more systematic and added theoretical knowledge into the programs. The colleges helped in the application of technology to the handicraft system such as the assistance in computer graphic for the designs of weaving groups and packaging. Before a course could be opened, the program organizers had to write up proper documentation and asked for approval from the colleges' academic and the administration boards. The documents must spell out the rationale, background, material needed, formulas or recipes, budgets, and curriculum. Usually, local wise men did not have exact recipe or formulas so the personnel from the college had to talk to them and extracted their knowledge into formal documents or turned implicit knowledge into explicit knowledge. When a program organizer want to open a course for fertilizer production, they had to convert the approximate ingredients into recipes to be included in booklets and curriculum and submit the curriculum to the academic board and then to the college's board of trustees.

DISCUSSION

Currently, the colleges emphasize on the production side. Little assistance is offered for marketing of products or services. Members of several production groups participate in trade shows throughout Thailand taking with them products of members in the groups. Friendship and loyalty in the community created trust, commitment, and cooperation among members in the network (Pesamaa & Hair, 2007). The colleges were trying to link groups from different courses together such as organic fertilizers groups with rice growing groups. Those in computer classes might be asked to setup website to distribute handicraft products from several groups.

Some groups networked long before the colleges came into existence. One community leader said "*We have several active local networks going on for more than 20 years...there is no need for the college to help us networking*". Some groups offered handicraft training courses by themselves. However, these networks were limited to knowledge in production and selling of products but not modern or theoretical knowledge. In such case the college assisted in making the training programs more systematic and added theoretical knowledge into the programs. The colleges helped in the application of technology to the handicraft system such as the assistance in computer graphic for the designs of weaving groups and packaging. Before a course could be opened, the program organizers had to write up proper documentation and asked for approval from the colleges' academic and the administration boards. The documents must spell out the rationale, background, material needed, formulas or recipes, budgets, and curriculum. Usually, local wise men did not have exact recipe or formulas so the personnel from the college had to talk to them and extract their knowledge into formal documents or turn implicit knowledge into explicit knowledge as proposed by Nonaka and Takeuchi (1995) for knowledge management. When a program organizer wants to open a course for fertilizer production, he/she had to convert the approximate ingredients into recipes to be included in booklets and curriculum and submit the curriculum for to the academic board and then to the college's board of trustees.

A few participants complained that "*some of the new teachers don't know who we are and they treated us like we knew nothing*". This reflects the hierarchical nature (Hofstede, 2001) in the rural area where governmental authorities, with their higher education than laypeople, who do not have formal education during their childhood, perceive laypeople as unintelligent. Actually, these laypeople, though some could not read or write properly, possessed a lot of life and work experience. Some of them are very intelligent. This misperception created a large gap between laypeople or wise men and authorities. Those authorities are in the field long enough get to know these people and could handle them properly. It is important to have an induction program to introduce new authorities to the nature and conditions of members in the communities else they will not be able to bridge the traditional gap between government authorities and communities. Some dissatisfaction were evident during one of the interview when a government authority from other unit called one of the participant on her mobile phone and asked if she would attend a seminar. She declined right away and told us later that "*I scheduled an appointment with them already, why should he ask me again if I would go or not, it is as if he did not trust my word*".

CONCLUSION

Communities do not need community colleges to assist in forming horizontal network with other communities. Thai people have the tendency to link to each other and call each other a cousin (Komin, 1991). People in the same community are related in some way or another either as cousins, neighbor, or others. Community members have similar needs and wants. They are in similar conditions and speak the same language. Networks exist naturally even across communities. However, community members feel that they have to be submissive to government authorities due to the hierarchical nature of Thai culture (Hofstede, 2001). They feel estranged from other formal and systematic organizations. Community colleges play a significant role in the vertical networks that link communities with organizations especially government organizations that are inaccessible to communities. In this regard, directors of community college possess the capacity to create links with other public and private organizations in the areas. Community colleges should act differently from universities that emphasize academic knowledge and formal teaching and learning. They also should behave differently from governmental units that provide aid and assist in development. It would be appropriate for community college to act in between both and be closer to local people than other governmental units and bridge the gap between community and government authorities. Community college should act as a center for trainer networks and locator of academic assistance. Community members interviewed expressed their appreciation and satisfaction in the role of community colleges in supplying them with practical knowledge for their occupations. Future research should seek to identify the structure and pattern of network used by community colleges. Research into the efficient management of network by community members is warranted.

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PURCHASING BEHAVIOR OF ORGANIC FOOD CONSUMERS

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ABSTRACT

Consumers worldwide are increasingly concerned about the safety of the food they buy and consume. There have been recurrent cases of pesticide residues on fresh food and also the use of large number of additives in processed foods. Overall, organic food has been perceived as chemical-free and healthier by consumers. This paper integrates the findings of extant studies on organic food in the world context. It identifies themes that lead to the purchase of organic food and also discusses personal determinants of purchasers of organic food in terms of socio-demographics, motivations, attitudes, and values related to such purchases. The paper concludes by outlining barriers toward purchase of organic food and offers implications and suggestions for marketing practitioners, organic food growers and retailers.

INTRODUCTION

Since the 1990s, interest in organic food production and purchasing behavior of consumers has gained momentum. The major reasons attributed have been consumers' concern with the quality of life and a deeper interest in healthy lifestyles based on carefully chosen food. Consumers have become increasingly selective and are willing to invest larger amounts of money in purchasing quality and organic food products. Recent scares associated with E-Coli, Salmonella, and BSE incidences are likely to have further intensified consumers' already substantial interest in organic foods (Onyango, Hallman, and Bellows, 2007).

The purchase of organic food world wide has rapidly increased. For instance, Lampkin (1999) has predicted that the organic farming sector in the EU could increase from 10 percent in 2005 to 30 percent in 2010. In the US, increases in organic food have ranged between 17 percent and 21 percent each year since 1997, compared with total US food sales which have grown at an average rate of 2 to 4 percent a year (Scheel, 2005; Organic Trade Association, 2004). Retail sales of organic products in Australia increased from AU $ 28 million in 1990 to around AU $ 250 million in 2003 (Biological Farmers of Australia, 2003). Even in Asian countries, the demand for organic food has been growing at 15 to 20 percent over the last decade (FIBL and IFOAM, 2009). In fact, three of the top ten organic producing countries are located in Asia and the Pacific (FIBL and IFOAM, 2009).

LITERATURE REVIEW

It is very important to offer definitions of the term "organic food". Organic farming as described in the EU regulation on organic production, includes, "significant restrictions in the use of fertilizers and pesticides, which may have detrimental effects on the environment or result in the presence of residues in agricultural products (Council Regulation (EEE) No. 2092/91). A product is entitled to be labeled as organic if it conforms to the Council Regulation (EEE 2092/91) that requires food should contain a minimum 95 percent of organic ingredients, is inspected by an accredited independent inspection body, and is grown without the use of genetically modified organisms (First and Brozina, 2009).

Reasons for Buying Organic Food

As the current literature reveals, organic food is perceived as food without "chemicals" and "growth hormones" - it is food that is grown as "natural" (Soil Association, 2000; Makatouni, 1999; Davies et al., 1995). Padel and Foster (2005) argue that the development of the organic food sector in the UK has been influenced by 3 critical factors:

(1) strong interest of consumers
(2) retailers who have a major role in supporting growth, promoting products, increasing range and aiding farmers to convert, and
(3) government support available to producers (Michelson et al, 1999).

In a Thai study by Roitner-Schobesberger et al. (2008), the researcher asked 333 respondents who had purchased organic food about their motives. A total of 93% said they had bought it for positive health effects, 92% said they purchased because organic food does not contain pesticides/have lower residues, 84% said that purchasing organic products was good for the environment. Further reasons for purchasing were that they were fresher than other products (54%), because they had a better taste (29%) and because the consumer wanted to try something new (22%).

Defining the Organic Shopper

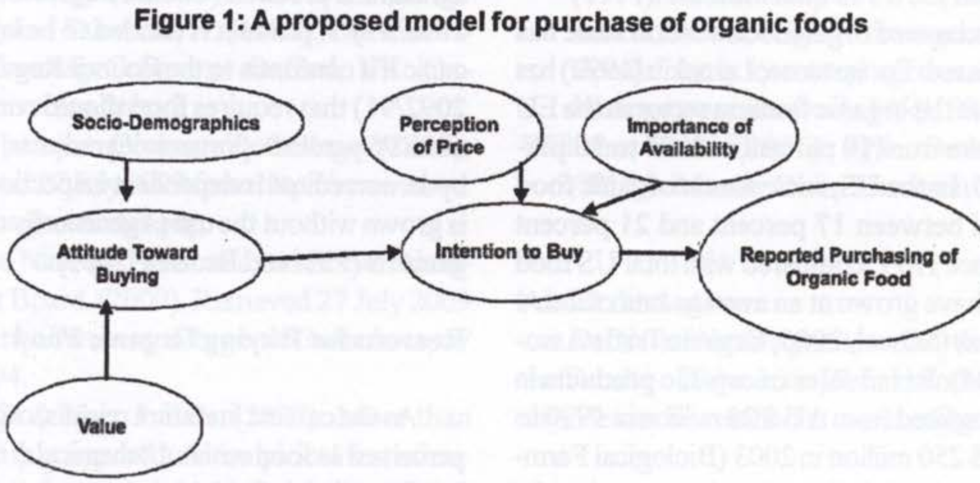
Past research on organic food buyers have studied a number of factors, such as socio-demographic aspects, motives and values, attitudes, availability and place of purchase and information about organic labels. These factors are shown in Figure 1 and summarized in the following sections:

Socio-demographic factors:

There have been inconsistent findings on the relationship between age and organic food consumption. In the UK, Geen and Firth (2006) found that organic food consumers tend to be older than the average population, however, Arbindra et al (2005) found contrary results in that older respondents were less likely to buy organic food than younger respondents. A study by Mintel (2000) claims that the most common purchasers of organic vegetables are 45-54 year olds whereas the younger age group is the least likely of all demographic groups to purchase organic vegetables. However, Magnusson et al. (2001) reported that young (18-25) years in contrast to older respondents generally had more positive attitudes toward organic food. It seems that based on the literature on the whole, age does not appear to play a role in organic food consumption (Fotopoulos and Krystallis, 2002b).

A study conducted on the Thai consumers' perception on organic food by Roitner-Schobesberger et al. (2008) divided respondents into 3 groups: those who had never heard of organic foods, those who had heard of organic food but never purchased any in the past, and those who had heard of organic food and purchased in the past. The findings showed organic buyers were older than the other two groups and in contrast to previous studies, were more likely to be men.

Figure 1: A proposed model for purchase of organic foods



Source: Adapted from Sundqvist and Tarkiainen (2006)

Many studies have also attempted to classify organic food purchasers by income and education but the findings have been mixed (Wilkins and Hilliers, 1994; Chinnici et al, 2002; O'Donovan and McCarthy, 2002). Arbinder et al. (2005) found that levels of education did not have a statistically significant influence on organic food purchase patterns.

Nevertheless, in the Thai study by Roitner-Schobesberger et al. (2008) those who had a higher income and hold a higher degree were more likely to have bought organic food in the past. Similarly, in a US study on organic food by Onyango et al. (2007), respondents with a college degree were 6 percent more likely to buy organic food regularly than those with a 2-year college education.

Several studies have also shown that families with children are more likely to buy organic food (Davies et al., 1995; Thompson and Kidwell, 1998; Yue et al, 2008). In fact, Hill and Lynchechaun (2002) argued that the purchase of organic food often starts with the arrival of a baby, with many parents buying organic baby food. In the Thai study, 54% of organic buyers reported having a child living in the house (Roitner-Schobesberger et al., 2008).

Values:

Many studies have focused on values linked with the purchase of organic food. Most of the studies have employed Schwartz (1992) for a better understanding of why people buy organic food. Rokeach (1973) argued that values in comparison with attitudes are more stable in time and are more centrally connected to a person's cognitive system. Values of security, hedonism, stimulation, universalism, benevolence, self-direction and conformity have been examined. Each of these has been discussed in the following sections:

Security: The majority of studies on security concluded that health which is linked to security is the primary reason for buying organic food. Consumers do not want pesticides which are related to long-term illnesses associated with the food they consume (Hammit, 1990). Other consumers also feel that organic food is more nutritious. While comparing health concern and concern for the environment, Magnusson et al (2003) found that health concern was a better predictor of the purchase of organic food.

Hedonism: is related to pleasure and sensuous gratification for oneself. A report by Taylor, Nelson Sofres (2004) found that taste and food safety concerns are the most important factors in encouraging people to try organic food for the first time and in encouraging spending on organic products (Organic Centre, Wales). Because organic food costs more, consumers perceive organic food has a higher quality than conventionally grown food. Zanoli and Naspetti (2002) in their report on Italian consumers of organic food found that they search for good, tasty and nourishing products because pleasure and well-being are the most important values.

Stimulation: Because organic food is new in many markets, curiosity is also a factor that motivates purchase. This is related to exploratory buying behavior in which people are triggered to learn more about organic products as new in the market and therefore purchase them.

Universalism: studies have found that propensity to behave in an environmentally friendly way is related to the value of universalism. Lea and Worsley (2005) found that personal values related to nature, environment and equality are positively related to organic food choices. Organic consumers view the pesticides and chemicals used in conventional food products as environmentally harmful while they perceive organic foods as environmentally-friendly (Ott, 1990; Jolly, 1991; Wilkins and Hilliers, 1994).

Benevolence: reports show that consumers have more favorable attitudes toward organic food because it supports the local economy. Padel and Foster's (2005) respondents stated that they like to buy organic food because it supports the local economy and makes them 'feel good'. This belief demonstrates that consumers believe organic food is locally grown, perhaps in smaller, family-owned farms.

Self-Direction: Some consumers may buy organic food to differentiate themselves from others, to give themselves a positive image and identity. Hill and Lynchehaun (2002) argued that some people now perceive organic food to be more fashionable because of the increased level of coverage in the media, especially on cooking shows.

Conformity: This value influences "subjective norm" which implies a motivation to comply with others. In terms of food choices, Vermier and Verbeke (2006) found that the desire to comply with other people could explain why consumers had strong intention to purchase food products despite weak personal attitudes. Chen (2007) and Thøgersen (2007b) also found a significant positive relationship between consumers' intention to purchase organic food and subjective norms.

Attitudes toward Organic Foods:

In the Expectancy-Value Theory, attitudes result from the multiplication of beliefs with their evaluations (Fishbein and Ajzen, 1975; Ajzen, 2001; Ajzen and Fishbein, 2008). Attitude (A) is the sum of salient beliefs (b) concerning the attributes of the objects or actions multiplied with the evaluations (e) or $A = b_i e_i$. Empirical research has established the link between values and attitudes and this is also relevant for organic and natural food purchases (Goldsmith et al, 1997; Horner and Kahle, 1988; de Boer et al., 2006; Thøgersen, 2007a). Based on a dataset of 1,113 Danish respondents, Thøgersen et al. (2007a) reported that attitudes toward organic tomatoes and tomato juice depend on belief about consequences, whereas basic values and past experience give more marginal direct contributions. Similarly, in a study by Saba and Messina (2003) a sample of 947 Italian consumers tended to hold positive attitudes toward eating organic fruit and vegetables. These consumers agreed that organic food and vegetables, as compared to conventional foods, were healthier, more environmental friendly and more tasty and nutritious. Based on these studies, attitude was found to be a significant predictor of intention of eating organic foods and vegetables. In another study, Gotschi et al. (2007) reported that for Austrian teenagers, primary socialization, which means the norms and values learnt at home, had a significant influence on the development of positive attitude toward organic food whereas the authors found that secondary socialization, e.g. the school environment, had a less impact on attitude formation. Differences in attitude have also been found between urban and rural consumers. Midmore et al. (2005) and Denver et al. (2007) found that in Denmark, consumers in urban areas had better attitudes compared with those households in western rural areas, however no such differences were found between urban and rural consumers in the UK (McEachern and Willock, 2004).

Attitude influencing Intention:

Numerous studies have confirmed what Fishbein and Ajzen (1975) and Ajzen and Fishbein (2005) reported in their theory of reasoned action (TRA) that "attitude" is an important predictor of behavioral intention. In their study, Gracia and de Magistris (2007) noted that organic food purchases are significantly and positively linked with the intention to purchase organic foods. Other studies by Saba and Messina (2003); Chen (2007) Thøgersen (2007a) and Dean et al. (2008) showed a significant positive relationship between attitude and intention to purchase organic food. Finally, Tarkiainen and Sundquist (2005) also identified a positive and significant relation between the attitude and intention to buy organic food.

Intention to Behavior: Previous studies have also found that the path from intention of buying organic food to the behavior is positive and significant (Tarkianen and Sundqvist, 2005; Thøgersen, 2007a; Saba and Messina, 2003).

Barriers to the Purchase of Organic Foods:

Some literature has shown a discrepancy between attitudes and self-reported behavior (Roddy et. al., 1996). In a study by Shepherd et al. (2005) only 4-10% of respondents who held positive attitudes said that they would choose organic food the next time and only between 8-16% of respondents stated that they always bought organic food. Magnusson et al. (2001) also found that between 46-67% of population (dependent on food category) held positive attitudes toward organic food; however only 4-10% of the same consumers intended to purchase these foods. The section below discusses some "perceived barriers" that may hamper the behavioral intention and actual purchase of organic food.

1. Perceived High Price: Organic foods cost more and are priced higher than conventionally grown food, hence high price is

found to be the main obstacle for purchase (Byrne et. al., 1991; Tregear et al., 1994; Roddy et al., 1996; Magnusson et al., 2001; Zanoli and Naspetti, 2002). As a result, willingness to pay (WTP) has been the focus of several studies. Research has found that although consumers are willing to hypothetically pay a high price for organic food, many are unwilling to pay as much as the current market price (Millock, 2002). Financial resources may also have a strong impact on performance of behavior. Income seems to play a significant role in organic food purchases in Europe but it is not significant in the US market (Onyanyo et al, 2007). Studies in Canada reported a positive relationship between income and WTP for organic products up to a given level of income (Hay, 1989; Cunningham, 2002). Reifer and Hamm (2008) reported relationships between organic food consumers and the situation of changes in income. In Thailand, the current premium for organic products is approximately 50% above the price of food with "safe" labels. However, in Thailand, it is unclear as to what extent price is really a key factor in the choice between organic and conventional products (Roitner-Schobesberger et.al., 2008). In the same study, of organic buyers, 60% did not see price as a limiting factor and only 29% of the 'non-buyers' mentioned price as a reason for not purchasing organic products. Kenanoğlu and Karahan (2002) reported that in Turkey, the limited sales of organic products are mainly due to the average low incomes and the considerably higher prices of organic products.

2. Importance of Involvement and mental processing: It has been argued that individuals tend to be habituated or automated when it comes to food purchases and therefore may not consider alternatives to what they usually buy. Vuylsteke et al. (2004) argue that individuals with positive attitude toward organic food may be restrained from buying because they are used to buying non-organic food and will not change their habits since their involvement with food is low. In Sweden, consumers who did not buy organic vegetables did so because of habit and convenience. Behavior which is shaped limits one's search for further information (Klőckner et. al., 2003). Aertsens et al. (2009) argue that some special occasion occur when individuals may abandon their automated routine, e.g. when there is a food crisis or when organizing a party. In these circumstances, individuals may be willing to consider a wider range of possibilities than they usually do.
3. Lack of availability: Research has shown that the lack of availability and/or inconvenience related to purchasing organic food may present a further obstacle to its purchase (Zanoli and Naspetti, 2002).
4. Doubts about certification and labeling: Some European studies have found that consumers tend to be skeptical about certification bodies leading them to question the genuineness of organic products (Ott, 1990; Canavari et al., 2002). In the Thai study, Roitner-Schobesberger et al. (2008) note that educating Thai consumers is made all the more difficult by the wide variety of competing 'safe' food labels. The authors state that the terms used on these labels range from 'hygienic food', 'safety food', 'quality food', 'non-toxic food', 'health food', 'chemical-free', 'pesticide-free' to 'hydroponic'. This makes consumers believe that these labels are very similar to health benefits they expect from organic food, leading 43% of the sample to state that there is 'no difference in organic and hygienic produce'.
5. Satisfaction with current food sources: Roddy et al.(1994) reported that consumers' satisfaction with conventional food purchases was the key reason for not buying organic food. In same vein, Magnusson et al. (2001) found that Swedish consumers' most important purchase criterion was 'taste' and 'organic' was the least important. Moreover, Byrne et al (1992) also found that organic criteria and food safety were not among the most important factors influenc-

ing consumer food purchasing decisions.

6. Lack of information and insufficient marketing: Another reason for low purchase of organic products is lack of information on what 'organic' means. Many urban consumers may not have detailed knowledge of agricultural practices. Consumers who have never heard of 'organic' and who are not aware of the specificities of organic farming might not purchase organic products. There is also the dearth of organic food promotion, insufficiently promoted merchandise and ineffective retailing strategies (Roddy et al., 1996). The fact that many consumers fail to see any benefits or value relating to organic food may point to a lack of information relating to organic food promotion.

CONCLUSION AND RECOMMENDATIONS

If we are to close the gap between behavioral intention and actual purchase of organic food, certain measures can be taken. First, there needs to be more studies on purchasers of organic food. Whilst we have several studies on demographic characteristics, there are an abysmal number of studies on psychographic characteristics of these consumers. Wider studies on values, attitudes and lifestyles could offer a better profile of the organic consumer than what is available at present. Second, there needs to be a clearer definition of the term 'organic' As shown in the Thai study, the main reason for not buying organic products is confusion about what "organic" means. Third, there is great potential for information on organic food via internet, print advertising, word of mouth, retailers, etc. From farming to retailing practices, organic food production and marketing is rapidly changing and it is plausible that for consumers this information would influence their attitudes and subsequent behavior toward organic food. In the Thai context, Roitner-Schobesberger et al. (2008: 119) indicate that "increasing consumers' awareness of organic farming, their trust in the rigorous inspections and organic certification system as well as increasing the availability of fresh organic vegetables may be the most effective way of increasing their market share". It is therefore the responsibility of marketers, retailers and producers to better convey relevant information, specifically on labeling, to consumers. As the global potential of organic food is likely to grow rapidly over the next decade, it is clear that marketers need to understand the organic consumer better while at the same time, create a clearer 'position' for organic food as distinct from other 'safe food' labels. Fourth, as shown in this paper, the strongest barrier for organic food is the price premiums. Improving availability and easiness to access organic food, through integration in mainstream channels and lower price premiums are important. Resulting growth of sales may lead to economies of scale that may further reduce supply costs. Thøgersen and Olander (2006) indicate that trial experience among non-users should be sufficiently rewarding to establish among such individuals a new organic purchasing routine. Finally, while there has been a substantially large body of studies using quantitative traditional survey design, these studies have not allowed a deeper understanding of the underlying motives driving purchase decisions for organic food. Hence, researchers have suggested more interpretative type of research that will allow richer insights into consumer motivations and interpretations of food purchases and the organic food consumer.

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FACTORS RELATED TO MOSCOW TEENAGERS' PURCHASE INTENTION: A CASE STUDY OF THE SUBCULTURE CLOTHING MARKET

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ABSTRACT

This study investigates the relationship between the attitude of teenagers in Moscow towards subculture apparel and their intention to purchase subculture clothes. With constant changes in teenagers' preferences a marketer needs a deeper study of the factors related to the attitudes of the teens. Based on 339 questionnaires collected via surveys in schools and internet, the researcher proved there were positive relationships between the attitude and purchase intention, as well as relationships between the product attributes, such as attractiveness of apparel, friends' and online communities' influence, and the attitude varied significantly based on age, but not gender.

INTRODUCTION

Globalisation is taking over the economies, communications and fashion industries. In such times, preserving individuality and uniqueness becomes a goal for many. Russians, having been under the Communist regime for almost 70 years (www.russia today.com, accessed on 12/08/2009), haven't had a chance to differentiate, and the newly-formed market economy offers the consumers infinite choices, especially in apparel. Young consumers in Moscow experiment with clothing more than ever and they seek ways to express themselves (Razdobreeva, 2008). A teenager's maximalist approach, the refusal to accept the banalities of an ordinary life and a desire to be different and, at the same time, accepted by the peers, makes some join a subculture, such as Goth, punk, skinhead, ska, emo and others (Gromov, 2009).

As has been proven by Ajzen and Fishbein (1980), O'Keefe (2002) and many other researchers, purchasing intention is the best predictor of actual purchases, thus their model was used throughout the study to see the factors related to teenagers intention to buy subculture clothing in Moscow.

REVIEW OF LITERATURE

Relationships between External Variables and the Attitude

Subjective norm, which is defined as the individual's consideration for the opinions of others, surrounding him/her and whether to perform or not according to those opinions (Ajzen and Fishbein, 1980), has been researched a lot in relation to attitude. This study takes three elements of possible teenager's groups of influence – parents, friends and on-line communities. Grønhøj (2007) and Sanders (1996) have proved that there exists a strong relationship between friends' influence and the buying decisions of young consumers. Hofstede (1996) has as well concluded that Russians as a whole are a collectivist culture, thus opinions of others matter.

Fashion lifestyles have been proven by Ko et al. (2007) to have a significant relationship to attitudes and the intention to buy apparel, therefore the researcher has incorporated this study into the questionnaire and the framework. Young consumers were viewed as either: "information seekers", who put a considerable effort into researching fashions, eager to try new trends first and are less concerned about the functioning of clothing; "sensation seekers" valuing aesthetic elements in clothing, such as color, design and coordination; "practical consumers" going for comfort and functionality of the clothing, valuing these above conspicuous elements, as they view clothing as necessity; "prestige / conspicuous consumers" who believe in brands, value prestige, and buy high-priced, high-prestige brands because of the acknowledgement from others.

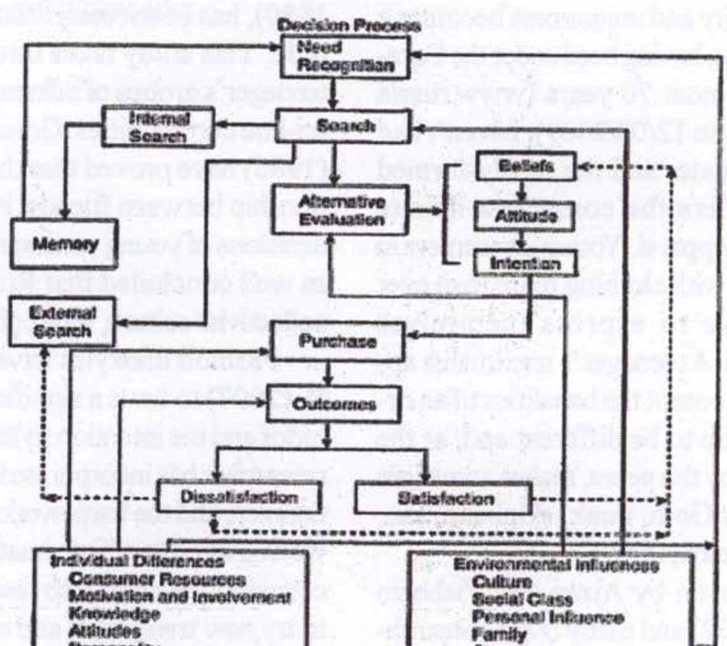
Product attributes play an important role, when selecting apparel. Phau and Leng (2008) specifically studied the teenager clothing market and looked into attitudes towards the purchasing of clothes based on the attractiveness, fashionableness, prestige of the apparel and its brand name and price. Other factors were also presented, but are not included in this study due to the specifics of the subculture apparel market.

Demographic variables are included in most studies when considering attitudes and purchase intention of consumers. Since the study focuses on a specific age group, the researcher has included only gender and age variables to investigate how different the attitudes are based on those characteristics. The teenager is defined as a person between the ages of 13 and 19 and several studies by Synovate (2005), Zornow (2003), Zollo (2000) have grouped the teens by grades in school attended. Therefore, the researcher looks into the four teenage segments: 12-13 years old, 14-15 years old, 16-17 years old and 18-19 years old.

Relationship between Attitude and Purchasing Intention

A very comprehensive model has been brought forward by Engel, Blackwell and Miniard (1990), who have covered most of the variables mentioned in this study in the model presented in Figure 1. The relationship between attitude and intention are clearly portrayed as being influenced by other factors as well.

Figure 1: EBM Consumer Behaviour Model



Source: Engel, Blackwell and Miniard (1990), Consumer Behaviour, 6th edition, Harcourt Brace, p. 482

A study made on controversial fashion items by Summers and Belleau (2006), has shown that attitude is significantly related to purchasing intention of niche products. Since subculture apparel fits into controversial goods category, the researcher has used the framework throughout the study as well.

RESEARCH FRAMEWORK

The modified framework is constructed to portray the relationships the researcher wants to examine in order to find whether the attitude towards subculture apparel of teenagers in Moscow is related to their purchasing intention and whether external factors are related to their attitude and to see how the attitude might be different based on personal variables.

The six alternative hypotheses that were drawn from the proposed framework are listed below:

H_{1a}: There is a relationship between subjective norm and the teenagers' attitude towards subculture apparel

H_{2a}: There is a relationship between product attributes and the teenagers' attitude towards subculture apparel

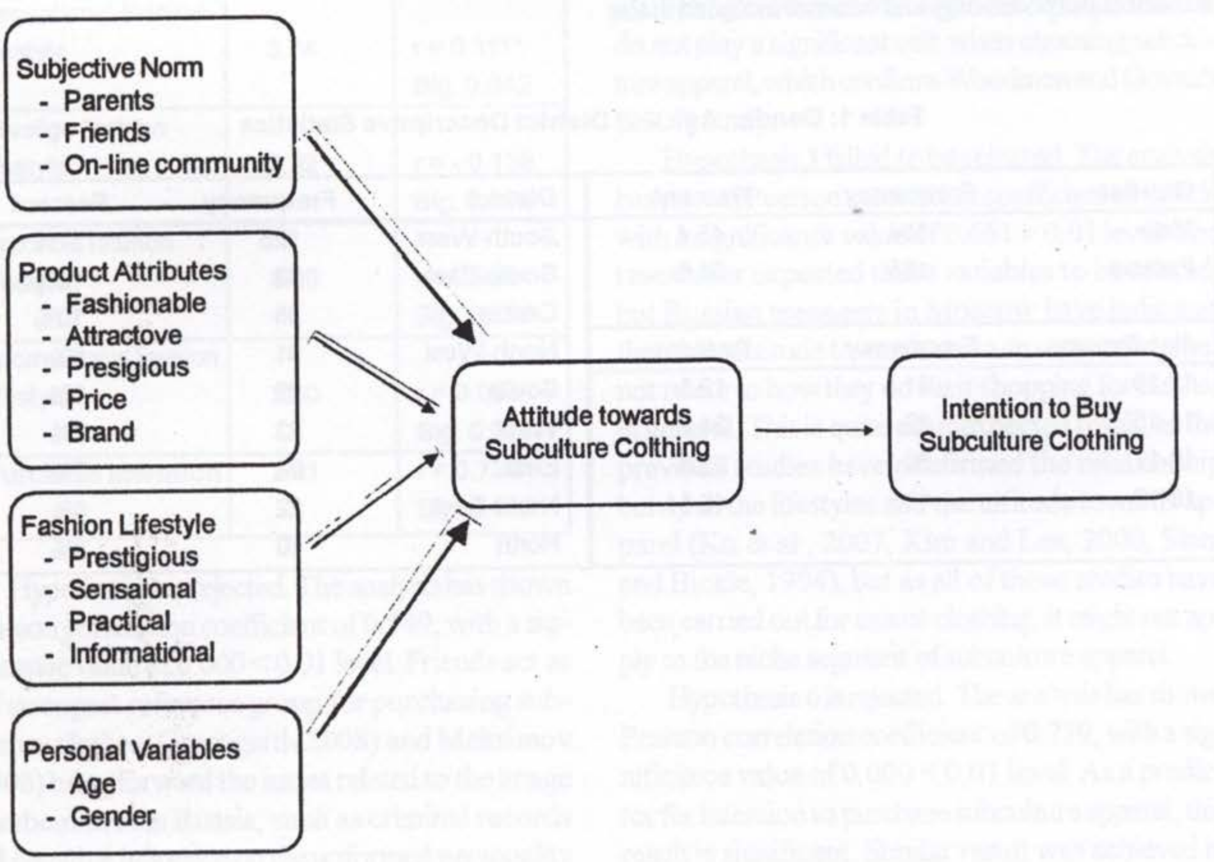
H_{3a}: There is a relationship between fashion lifestyles and the teenagers' attitude towards subculture apparel

H_{4a}: Attitude towards subculture apparel is significantly different based on age

H_{5a}: Attitude towards subculture apparel is significantly different based on gender

H_{6a}: There is a relationship between teenagers' attitude towards subculture apparel and the purchase intention

Figure 2: Research Framework



METHODOLOGY

Descriptive and quantitative research method proposed by Zikmund (2003) was used in this study, aimed at exploring the factors related to the purchasing intention of teenagers towards subculture apparel. 339 respondents of age 12 to 19 were surveyed with a help of questionnaires distributed at 3 schools in the South-Western, South and North-Western districts of Moscow and questionnaires on-line. The pre-tests were done on a small sample of teenage respondents and the Cronbach alpha figures above 0.6 have indicated the reliability of the questionnaire. The questionnaire was translated into Russian and comprised of five parts: screening for the required age groups, Likert 5-point scale questions measuring the attitude towards subculture apparel, independent variables, such as product attributes, subjective norm and the fashion lifestyles; the fourth part contained the questions about the likeliness of a subculture apparel purchase and the last part covered the demographics, such as gender and the district of residence. The latter was used for statistical purposes only and was not included in the study objectives. The Moscow market was considered as a whole, independent of the residence of the respondents.

Hypotheses 1, 2, 3 and 6 were tested using Pearson Correlation, assuming the significance level of 0.01, therefore the sig. value lower than the 0.01 would indicate a rejection of the null hypothesis. Hypothesis 4 was tested for the difference of means in four age groups, thus ANOVA test was implemented. Hypothesis 5 was tested for the difference of means in genders, thus independent samples t-test was used. For both hypotheses 4 and 5 the level of significance of 0.05 was chosen by the researcher, therefore sig. value below this level would indicate the rejection of null hypothesis.

FINDINGS & DISCUSSION

Descriptive statistics indicate majority of the respondents were girls, the 18-19 age groups made up the majority of the sample, representative of the Moscow population distribution.

Table 1: Gender, Age and District Descriptive Statistics

Gender	Frequency	Percent
Male	154	45.4
Female	185	54.6

Age Groups	Frequency	Percent
12-13	41	12.1
14-15	82	24.2
16-17	80	23.6
18-19	136	40.14

District	Frequency	Percent
South-West	125	37%
South-East	40	12%
Centre	35	10%
North-West	31	9%
South	29	9%
West	23	7%
East	24	7%
North-East	22	6%
North	10	3%

The results of the survey are presented in Table 1. Pearson correlation is indicated with letter "r", the level close to 1 indicates a strong positive correlation, and value close to 0.5 indicates a medium positive correlation. Sig. value is compared to the predefined level of significance. "*" indicates correlation is significant at the 0.05 level, and "**" indicates correlation is significant at the 0.01 level (assuming 2-tailed test).

Table 1: Correlations between Dependent and Independent Variables

Variables	Group Mean Scores	Correlation with Attitude
Attitude	3.09	-
Product attributes	2.77	r = 0.488** Sig. 0.000
Subjective norm	3.07	r = 0.549** Sig. 0.000
Fashion Lifestyle	-	r = 0.025 Sig. 0.651
Sensational fashion lifestyle	3.74	r = 0.111* Sig. 0.042
Prestige fashion lifestyle	2.92	r = - 0.136 Sig. 0.012
Practical fashion lifestyle	3.30	r = 0.008 Sig. 0.887
Informational fashion lifestyle	2.80	r = 0.098 Sig. 0.071
Purchase intention	2.81	r = 0.739** Sig. 0.000

Hypothesis 1 is rejected. The analysis has shown Pearson correlation coefficient of 0.549, with a significance value of 0.000 < 0.01 level. Friends act as the strongest reference group for purchasing subculture clothes. Greengard (2008) and Maksimov (2008) bring forward the issues related to the image of subcultures in Russia, such as criminal records and negative influence on the unformed personality of a teen. Based on this, it is clear why parents would not encourage their children to buy subculture clothes. The online communities, on the other hand, is a good means for finding people with similar interests, to share ideas and even organise events dedicated to subcultures, for example anime parties, for the followers of Japanese comics, hip hop parties, for those teenagers who enjoy rap, RnB and hip-hop music. Nowadays with the easy means of communication and media sharing, subcultures can spread over vast groups of people and capture attention easier. Another explanation for this relationship is the peer group pressure, which is very strong among the youth, the desire to be accepted in the society forces some to unwillingly adopt a subculture and differentiate, creating a sort of paradox!

Hypothesis 2 is rejected. The analysis has shown Pearson correlation coefficient of 0.488, with a significance value of 0.000 < 0.01 level. The attitude of Moscow teens will be different based on the product attributes. Those who consider subculture apparel attractive would have a better attitude towards it and, in turn, a higher purchasing intention. As price proved to be unimportant when buying subculture apparel, it can serve as a differentiation point when marketing clothes in this segment. Brands as well, do not play a significant role when choosing subculture apparel, which confirms Woodman and Govan's (2007) study.

Hypothesis 3 failed to be rejected. The analysis has shown Pearson correlation coefficient of 0.025, with a significance value of 0.651 > 0.01 level. The researcher expected these variables to be related, but Russian teenagers in Moscow have indicated that their attitude towards subculture apparel does not relate to how they do their shopping for clothes in general. This is quite an unexpected result, as the previous studies have confirmed the relationship between the lifestyles and the attitude towards apparel (Ko ėt al., 2007, Kim and Lee, 2000, Shim and Bickle, 1994), but as all of those studies have been carried out for casual clothing, it might not apply to the niche segment of subculture apparel.

Hypothesis 6 is rejected. The analysis has shown Pearson correlation coefficient of 0.739, with a significance value of 0.000 < 0.01 level. As a predictor for intention to purchase subculture apparel, this result is significant. Similar result was achieved in several studies, related to clothing and fashion items (Beaudoin et al., 1998, Casella, 2005, Summers and

Belleau, 2006). The more positive the attitude of Moscow teens towards subculture apparel, the higher is their intention to buy such clothes, other factors being constant. As has been discussed in the previous section, economic situation in the country can be one of the factors influencing the purchasing intention of the young population. Due to increased unemployment level, the parents of the teenagers might not afford to buy fashion items. In times of economic downturn, necessities, like food, become the most important items of consumption, compared to fashion items, real estate and others (Bogetic, 2009).

Table 2 presents the findings of tests of difference for the hypotheses 4 and 5. Level of significance assumed is 0.05. F value is the test statistic of ANOVA and t value is an indicator of t-test of the two groups' means difference. To see a more detailed analysis of each age group, Tukey test was also applied and the selected age group is presented in the Table 2. "*" indicates the mean difference is significant at the 0.05 level.

Hypothesis 4 is rejected. The analysis has showed F value of 3.868, with a significance value of $0.010 < 0.05$ level. Teenagers, often grouped as a separate segment of consumers, might have slight differences in attitude, depending on their age. The group of 12-13 year olds proved to be not different from the teenagers of 14-15 years old. But the attitudes of 14-15 year old teenagers are significantly different from those who are 16-17 years old, with significance value of $0.019 < 0.05$, and from the attitude of 18-19 year old teenagers, with significance value of $0.017 < 0.05$. Therefore, the researcher may view the teenager segment in two groups – younger teens and older teens, as the personality, preferences and disposable income of young people change rapidly from when they are 12, for example, to when they become 18 years old (Zornow, 2003).

Hypothesis 5 fails to be rejected. The analysis has showed the t-value of 0.304 and degree of freedom of 337, with a significance value of $0.761 > 0.05$ level. Males' attitude was proved to be similar to females' attitude towards subculture apparel. The "unisex" trend in fashion has started a long time ago, with the introduction of jeans and t-shirts, which both men and women could wear. Subculture clothing appears to be in this category.

It is important to bear in mind that due to the limitation of this research, conclusions are extended only to the teenage consumer group residing in Moscow and their intention to purchase subculture apparel. Other apparel categories and other consumer groups might have absolutely different criteria and attitude results.

Table 2: Results of ANOVA and Independent Samples t-test

Variables	Test of Attitude Difference Between Groups
Gender	t = 0.304 Sig. 0.761
Age groups	F = 3.868 Sig. 0.010
Tukey Test	
14-15 years vs. 12-13 years	Mean difference = 0.48780 Sig. 0.126
14-15 years vs. 16-17 years	Mean difference = 0.53404* Sig. 0.019
14-15 years vs. 18-19 years	Mean difference = 0.48135* Sig. 0.017

RECOMMENDATIONS

Based on the results of the study, marketers can segment their target market of teenagers into two groups – the younger teen of 12-15 years old and older teens of 16-19 years old. The approach to girls and boys will be similar, therefore, same advertisements can be placed in both magazines for girls and guys' magazines. The best way to approach this segment is to approach the influential reference groups of the teenagers – this can be done through participation and advertising at music festivals and concerts dedicated to subcultures.

Teenagers seek to stand out in a "cool" way, not in a uniform way. This can serve as an indicator for school administration whether or not to implement uniforms in Moscow schools, which was a regulation once tried and failed several years ago. It is advised for teachers to be well-informed about the different subcultures and the possible negative effects subcultures have on the unformed teenager' psyche.

FURTHER STUDY

The present study has revealed many interesting facts, but the researcher offers suggestions for future studies in this area. It may be of interest to study a particular subculture, or apply this model in another city of Russia or even another country. As subcultures bear attributes above apparel, it might be of use to cover accessories, music preferences and literature preferences of each subculture group. Longitudinal studies might also show a lot of interesting facts about teenagers in Moscow and their preference changes.

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THE RELATIONSHIP BETWEEN LEADERSHIP STYLE AND ENTRY LEVEL EMPLOYEES' COMMITMENT TO ORGANIZATIONS

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Abstract

Leadership is an important ingredient for success of organizations. A large volume of literature suggested relationships between leadership and firms' performance. The behavioral school described that leader behaviors are comparatively static. On the contrary, the contingency school suggested that effective leaders do change their styles in accordance with circumstances. Subordinates respond differently with each leadership style, particularly in their satisfaction in leaders and organizations. Among many reactions subordinates exhibit, organizational commitment is an important topic of organizational culture. Higher commitment to an organization results in positive organizational behaviors. Previous literature related to relationship between leadership style and organizational commitment shows inconclusive results. It is very likely that each leadership style relates in a different manner to each component of organizational commitment. Specifically, the current study investigates the relationship between directive, supportive, participative and achievement-oriented leadership styles and organizational commitment components, i.e., affective, continuance and normative organizational commitment. The samples in this study were working adults in Bangkok. Respondents were intercepted on Silom Road – the main business district in Bangkok.

Results revealed that directive leadership style was related to overall organizational commitment. A further investigation into the organizational component revealed different associations between leadership styles and each of the organizational components. Leadership styles were related to affective organizational commitment component but not with continuance and normative commitment components. The findings supported the contingency model of leadership and uncovered the influential role of emotional dimension in Thai workplace.

INTRODUCTION

An organization is defined as an organized group of people with common purposes (Robbins and Coulter, 2009). When people work together, there is a need for collective guidance. Leaders exist to guide, coordinate and motivate followers towards organization's common purposes. Under proper leadership, subordinates can combine their strengths to create synergy focused towards the same direction. The ways leaders interact with subordinates influence subordinates' job and personal satisfaction. Styles that leaders use affect subordinates' psychological attachment to leaders and organizations. Different leadership styles, i.e., directive, supportive, participative and achievement-oriented (House, 1996) are likely to produce different results regarding to feelings of followers. Some subordinates might feel comfortable with directive leaders while some feel restricted or suppressed.

Organizational commitment is an important concept in the study of organizational behavior. Commitment to organization has several positive results such as increasing the level of motivation and organizational citizenship behaviors (Kwon & Bank, 2004) and decreasing turnover rate (Kwon & Bank, 2004; Labatmediene, Endriulaitiene and Gustainiene, 2007). Employees commit to an organization because of various reasons. Some employees are committed to an organization because they like the organization. Some are committed because they have no choice. The organizational commitment components are classified as affective, continuance and normative commitments (Allen and Meyer, 1990).

It is very likely that each style of leadership associates more with some organizational commitment components than others. The main purpose of this research study was to examine the relationships between leadership styles and entry level subordinates' organizational commitment. The research objectives were to empirically examine whether directive, supportive, participative and achievement-oriented leadership styles were associated with affective, continuance and normative components of organizational commitment.

LITERATURE REVIEW

Leadership process is a social exchange phenomenon whereby leaders exchange physical and psychological reactions with followers. Leaders possess the power to influence and are in the legitimate position to create bonds with followers.

Leadership

Leadership is a social influence process (Yukl, 1994). Leaders motivate followers toward the organizations' objectives through social interaction whereby leaders exert influence upon followers. This process has impacts on overall variables in organizations (Rahim, 2001) and results in the creation and maintenance of organizational culture. Early studies of leadership tried to identify internal and external characteristics or traits of leaders. Then researchers turned to focus on behaviors of leaders. Contemporary leadership theories suggest leaders to adjust their behaviors in accordance to contingency factors.

Traits approach

Kirkpatrick & Locke (1991) described that the study of leadership started as a search for common traits among major leaders in the society. Early groups of researchers assumed that leaders were born-to-be. The focus of the academe was to identify those who possessed preferred traits and chose them as leaders. Results revealed that leaders came with all types of characteristics. After many studies and discussions, this approach to leadership study found some commonalities traits among leaders, not externally but internally. Leaders' common internal traits included drive, leadership motivation, integrity, self-confidence and knowledge of the business. Thus, training could be organized to create such traits, i.e. leaders can be trained. However, these traits were difficult to observe and empirical evidence was limited.

Behavioral approach

Another group of researchers turned to investigate behaviors that could be observed among leaders. Various studies suggested that leaders pursued behaviors grounded in their concern for production and concern for people (Goleman, 2000; Misumi & Peterson, 1985). The two dimensions illustrated behaviors of leaders who emphasized task results or group maintenance and some who were somewhere in between. Blake and Mouton (1964) rated each dimension on a 9-point scale. Each type of concern was rated from 1 to 9 on the scale hence created a matrix of 81 leadership styles. Four styles emerged at the corners, or extreme, of the matrix: (1, 1) low concern for both task and people; (1,9) high concern for task but low concern for people; (9, 1) low concern for task but high concern for people; and (9, 9) high concern for both task and people. These styles were named impoverished management, authority-compliance, country club management, and team management respectively. One style was at the middle of the matrix (5, 5), i.e., middle-of-the-road management. These styles differed in the degree that a leader focused on either task or relationship. Similar to trait school, behavioral leadership school assumed that leaders had a fixed style. The styles identified were on an "as is" basis. They assumed that leaders did not change their styles in any circumstances.

Contemporary perspectives

Leaders could be classified based on behavioral domains into non-leadership or laissez faire, transactional leadership, and transformational leadership (Bass and Avolio, 1993). Burn (1985, 1998) described transactional leaders as those who offered benefits to followers to perform requested tasks for organizations. Transactional leaders were involved with ongoing values and motivations of people in the organizations. The leaders' influence was generated from the exchange of resources of some values with followers. Transformational leaders were those who identify and seek to change current values and motivations. Various leaders' behaviors were modified to respond to suit situations (Seltzer and Bass, 1990). Bass (1990) suggested that transformational leaders were those who possess charisma or idealized influence, try to inspire subordinates, stimulate learning and intellectual, and pay attention to followers as individuals.

Followers in the modern world are described as heterogeneous who are more individualistic than the older generations. They do not respond in the same manner to each behavior of leaders. Transformational leaders transformed followers' perspective and motivate them to do things beyond their basic job requirements (Bass, 1998). Perspectives and interests of followers were broadened while functioning toward the missions and purposes of the organizations. Followers were stimulated to go beyond self-interest for the benefits of the group. Bass (1985) reported that transformation leadership had significant positive relationships with followers' efforts, satisfaction, job performance, and leaders' perceived effectiveness. Moreover, their visions influenced followers' attitudes (Kirkpatrick and Locke, 1996).

The exchange between leaders and followers produced better work relationship and resulted in positive performance evaluations (Northouse, 2004). Charisma that leaders possessed results from the assistance rendered to followers for the maintenance and enhancement of their self-concept (Shamir et al., 1993). Leaders should behave in congruence with followers' self-concept in order to stimulate their intellectual ability and motivation to work (Humphreys and Einstein, 2004). Lord and Brown (2001) supported that the matching between followers' needs and leaders focus created strong leadership quality. Leaders should choose a style that match leader-follower exchange relationships (Chan, 1996). Keller and Cacioppe (2001) reported that followers with different characters respond differently to leaders. Hence, leader personality theories, situational leaders and transformational leadership could not fully predict leaders' effectiveness. Ainsworth et al. (1978) identified three styles of followers, anxious-ambivalent, secure and avoidant. Followers with anxious-ambivalent and secure styles tended to attach with leaders especially when leaders use the styles appropriate to them. Hazan and Shaver (1990) reported that attachment styles are associated with work orientation. Kelly (1992) suggested that followers could be categorized based on the level of activeness and dependency on one dimension and critical thinking on the other. These styles included exemplary (active, independent and critical); conformist (active, dependent and uncritical); passive (passive, dependent and uncritical); alienated (passive, independent and critical); pragmatist (medium on both dimensions). Active-passive, dependent-independent, critical-uncritical followers would respond differently to leaders behaviors.

Situational approach

A more contemporary approach to leadership found evidence that effective leaders actually used various styles in accordance to situations. Tannenbaum and Schmidt (1958) suggested that leaders considered three situational factors before they choose an appropriate style: power of the manager, power of the subordinates and the characteristics of the problem at hand. Furthermore, Fiedler (1967) suggested three situations that leaders analyzed, before they act, which included leader-member relationship, task structure and leaders' power. Fiedler matched these situations with task and relationship oriented behaviors. Hersey and Blanchard (1984) argued that situational factors should include subordinate's job and psychological maturity. Path-goal theory included both characteristics of follower and environmental factors as the precursors of appropriate leadership styles (House, 1996). According to House, leadership styles could be classified into 4 styles based on the degrees of leaders' supervision and autonomy allowed for subordinates. These styles were directive, supportive, participative and achievement-oriented leadership styles. Vroom (2000) expanded the situational factors into 7 situations which included decision significance, importance of commitment, leader's expertise, likelihood of commitment, group support for objectives, group expertise and team competence. Vroom's (2000) leadership styles were similar to House's: decide, delegate, consult group, and consult individual. The four leadership styles based on House

(1996) provided a clear cut and relevancy to organizational goals issues. Hence, it was adopted as the framework for this study.

Leadership Styles

Among various leadership theories, path-goal theory was the most comprehensive and useful for practice (Bateman, 2009; Robbins and Coulter, 2009). It provided clear distinct styles together with the emphasis on goals which was in line with modern strategic management approach that proposed the use of vision, missions and goals to direct the whole organization. House (1996) asserts that leaders should clarify the goals to be achieved and facilitate the paths toward those goals. This fits well with the strategic management process and learning organization concepts whereby common goals and directions were important for operations. House identified four leadership styles based on path-goal setting approaches as follow:

Directive - leaders set clear goals for followers and instruct the work methods. Specific goals and objectives are provided. Leaders demonstrate the specific steps in doing the job and check frequently to keep followers on track.

Supportive – leaders set clear goals for followers, instruct the work methods and allow or respond to followers' queries and opinions. Leaders motivate with monetary and non-monetary rewards and use convincing approach rather than commanding or directing based on their power. Feedbacks are provided regularly so that followers learn their congruence with suggested path and goal.

Participative – leaders set goals and work methods by allowing followers to participate in the decisions. Leaders involve followers to make decision that affect them. Questions are attended to without criticizing or judging.

Achievement oriented – leaders set challenging goals and allow followers to autonomously function toward the goals. Leaders delegate broad responsibilities to followers and expect them to handle the details. Feedbacks are minimally given. Leaders expect followers to locate and correct their own errors.

These four leadership styles were used as the first part of the framework of this study. The other part of the framework was organizational commitment which is described below.

Organizational Commitment

Organizational culture is an area that has received attention from the scholars since 1980s because of its strategic importance to organizations (Denison, Haaland & Goelzer, 2004). Organization commitment is one of the important topics of organizational culture. Organizational commitment refers to the attachment both emotionally and functionally to an individual's workplace (Elizur and Koslowsky, 2001). It is the degree of strength that an individual identifies and involves with an organization (Gelade, Dobson & Gilbert, 2006; Mowday, Porter & Steers, 1982). Employees who are committed to an organization are aligned with their organization's values and goals and are willing to invest their efforts for the betterment of the organization (Ingersoll et al., 2000). Commitment is considered the opposite of intention to leave an organization. Those who have stronger commitment have comparatively less intention to leave their organizations than those who have less commitment. In other word, organizational commitment is an individuals' desire to remain with an organization (Cohen, 1993).

Organizational commitment is a multi-dimensional construct. Organization commitment is comprised of affective, continuance and normative components. Affective component is related to the emotional attachment that an individual has with the organization, i.e., an employee is committed to an organization because he or she wishes to. Employees have emotional attachment with an organization. Continuance component is related to the costs that an individual has to sacrifice if he leaves the organization, i.e., an employee is committed to an organization because he needs to. Employees are rationale in making decision whether they will be committed to an organization or not. They lives' routines will be interrupted and discontinued if they leave the organization. Normative component is related to the feeling of obligation to remain with the organization, i.e., an employee is committed to an organization because he must. Employees feel they are part of the team. They feel guilty if they leave their leaders and/or colleagues (Allen and Meyer, 1990; Cohen, 1993; Marchiori and Henkin, 2004; Stallworth, 2003).

Ingersoll, Krisch, Merk and Lightfoot (2000) suggested that an employee's degree of commitment is associated with job satisfaction. Organizational commitment results in increasing degree of motivation, organization citizenship behavior and organizational support, and reducing numbers of turnover (Kwon and Banks, 2004). Labatmediene, Endriulaitiene, and Gustainiene (2007) reported the significant negative relationship between organizational commitment and intention to leave. Furthermore, relationships among commitment, age, and level of education were found.

The leader-member exchange (LMX) results in higher level of trust and interaction (Dienesch and Liden, 1986). Rowden (2000) reported that clear vision that associated with organizational commitment can create organizational commitment (Rowden, 2000). Support given by leaders could create loyalty of followers and was likely to result in normative commitment (Lee, 2005). Appropriate leadership styles could create emotional attachment, life pattern, and belongingness.

The conceptual framework of this study is presented in figure 1.

Hypotheses

It is very likely that leadership styles would relate to employees' organizational commitment as described above. Hence, the first hypothesis was posed as:

H1: Leadership styles are correlated with followers' overall organizational commitment.

Furthermore, the objectives of this research were to investigate the relationship between each leadership style and components of organizational commitment. For the simplicity of tables and result discussion, the researcher investigated the relationship between each component of organizational commitment and all leadership styles. A series of hypotheses were posed to test the associations as follow:

Hypothesis 2a: Affective organizational commitment is correlated with directive, supportive, participative and achievement-oriented leadership styles.

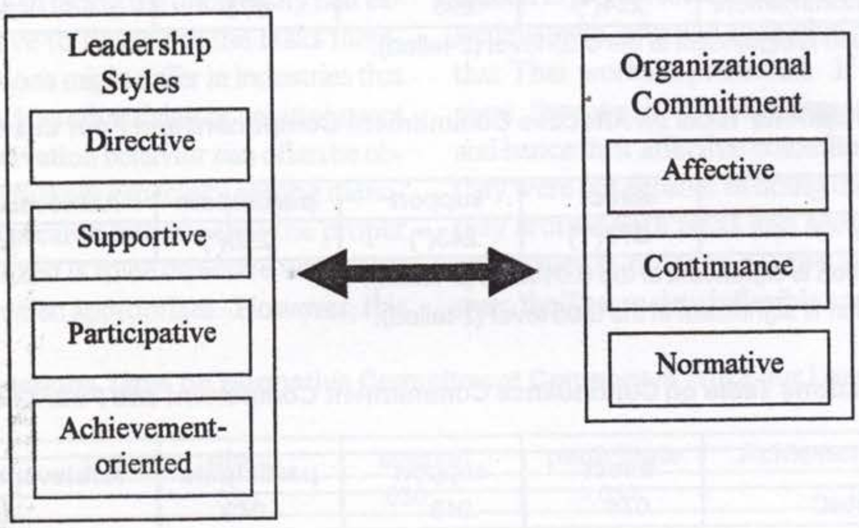
Hypothesis 2b: Continuance organizational commitment is correlated with directive, supportive, participative and achievement-oriented leadership styles.

Hypothesis 2c: Normative organizational commitment is correlated with directive, supportive, participative and achievement-oriented leadership styles.

METHODOLOGY

The respondents in this study were entry level working adults in Bangkok. Five hundred sets of questionnaire were randomly distributed on the main business street in Bangkok, i.e., Silom road. The researchers distributed the questionnaire and asked respondents to drop the completed questionnaire into a box in front of a coffee shop on the street.

Figure 1: Relationship between Leadership Styles and Organizational Commitment Components



Three hundred and twenty three sets were collected. The response rate was 64.6%.

The instrument consisted of three parts. The first part elicited demographic data. Part two of the instrument included items stating various behaviors of leaders based on House's (1996) conceptual definition of each style on a 5-point Likert rating scale ranging from 1 = strongly agree to 5 = strongly disagree. The reliability for the current test (cronbach's alpha) was .947. The third part measured the three dimensions of organizational commitment on a 5-point Likert rating scale modified from the scale developed by Allen and Meyer (1990). Previous reliabilities ranged from 0.61-0.86 (Stallworth, 2004 and Lee et al., 2001). The reliability for the current scale (cronbach's alpha) was .834. The sequence of items was randomly assigned. Some items were later reversed to maintain meaningful scores. Scores of each of the four leadership styles were averaged and input into the correlation models. Pearson correlation statistical procedures were performed to reveal the associations between each organizational commitment component and the four styles of leader.

RESULTS

H1: Leadership styles are correlated with followers' overall organizational commitment.

The Pearson's correlation coefficients revealed significant positive relationship between directive leadership style and organizational commitment ($r = 0.234$, $p < .05$). Other styles were not associated with organizational commitment. Pearson's correlation coefficient is shown in table 1.

Hypothesis 2a: Affective organizational commitment is correlated with directive, supportive, participative and achievement-oriented leadership styles.

Hypothesis 2a was supported. The Pearson's correlation coefficients revealed significant relationship between affective commitment component and all leadership styles. Affective commitment was moderately correlated with achievement-oriented style ($r = 0.435$, $p < .01$). The second highest correlation was found between affective commitment and directive style ($r = 0.373$, $p < .01$). The third highest correlation was between affective commitment and supportive style ($r = 0.243$, $p < .05$). The lowest correlation was between affective commitment and participative style ($r = 0.226$, $p < .05$), see table 2.

Hypothesis 2b: Continuance organizational commitment is correlated with directive, supportive, participative and achievement-oriented leadership styles.

Hypothesis 2b was not supported. Pearson correlation failed to reject the hypothesis. The correlations between continuance commitment and the styles of leadership were not significant. The correlation coefficient is reported in table 3.

Table 1: Correlations Table on Overall Organizational Commitment and Leadership Styles

	direct	support	participate	Achievement-oriented
Organizational Commitment	.234(*)	.095	.073	.176

*Correlation is significant at the 0.05 level (2-tailed).

Table 2: Correlations Table on Affective Commitment Component and Four Leadership Styles

	direct	support	participate	Achievement-oriented
affectiveC	.373(**)	.243(*)	.226(*)	.435(**)

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

*Correlation is significant at the 0.05 level (2-tailed).

Table 3: Correlations Table on Continuance Commitment Component and Four Leadership Styles

	direct	support	participate	Achievement-oriented
continuanceC	.074	-.048	-.049	-.072

Hypothesis 2c: Normative organizational commitment is correlated with directive, supportive, participative and achievement-oriented leadership styles.

Hypothesis 2c was not supported. Pearson correlation failed to reject the hypothesis. The correlations between normative commitment and the styles of leadership were not significant. The correlation coefficient is reported in table 4.

DISCUSSION

A very important and interesting finding was revealed. Contrary to the general beliefs, especially in the western context, that commitment should be higher when leaders use more participative style (Brooks2007) and in case of the Japanese's quality circle practices, Thai followers reported that their commitment was higher with leaders who were directive but not with leaders who use more autonomous approaches (supportive, participative and achievement-oriented). Zeffane's (1995) found that commitment in the western context was lower when rules and regulations increased. Directive leaders are those who impose rules and regulations to keep followers in line. This might be explained by the hierarchical and uncertainty avoidance nature of the Thai people (Hofstede, 2001). Thai people have the tendency to comply with authorities (Shawyun & Tanchaisak, 2005a, 2005b, 2006). Many Thai people, regardless of education level, want leaders to give instruction clearly so they can function easier. They would feel comfortable with clear rituals and protocols rather than facing the uncertainty that exists when they have to figure out the tasks themselves. The situations might differ in industries that need creativity such as advertising or entertainment industries but reservation behavior can often be observed in other industries especially among manufacturers. This research informs that the proper method to be utilized is to be directive with entry level employees when appropriate. However, this characteristic is detrimental against creativity and innovation. Future research should be performed to find approaches to induce initiative and risk-taking behaviors among Thai people toward innovation.

An examination of each component provided another interesting insight. Only affective commitment was related to leadership styles but not other components. It was suggested that affective commitment had relationship with work performance (Parish, Cadwallader & Busch, 2008). This corresponds to the expectation that leaders create emotional bonds with followers that can induce commitment to the organizations. Continuance and normative commitment components are rational rather than emotional. Followers who "need" and "must" commit have to remain with the organization because of their necessity. Any style of leadership might not be of concern to them. They have to adjust themselves to fit leaders because failure to adjust would result in quitting which cost them more than attempting to adjust.

When it comes to "wish" or affective commitment, they could bring leadership style into their consideration. The result implied that followers would commit to an organization if they were satisfied with the leaders. The analysis of the relationship between affective commitment and each leadership style revealed that followers would be most committed if leaders used delegation technique, i.e., achievement-oriented style ($r = .435$, $p < .01$) followed by directive ($r = .373$, $p < .01$), supportive ($r = .243$, $p < .05$), and participative ($r = .226$, $p < .05$) respectively. It is possible that while followers prefer direction in jobs as discussed above, it was likely that achievement-oriented style give them the leniency that Thai workers preferred. If leaders were lenient, they would have a pleasant work condition and hence their affective commitment increased. If they were not capable of doing the jobs, they could play around with tasks and seek assistance from colleagues in order to get the jobs done. Moreover, the Thai society is flexible and forgiving, if they

Table 4: Correlations Table on Normative Commitment Component and Four Leadership Styles

	direct	support	participate	Achievement-oriented
normativeC	.088	.030	-.014	.053

could not get the jobs done, they could get away somehow because of the norms in forgiving and maintaining harmony in the workplace. Colleagues would lend their support when needed. Punishment is considered the last resort among Thai people in organizations. However, when it comes down to working, they expect directions from leaders.

In conclusion, it is evident that attitudes and feelings play an important part in forming relationships between leaders and followers in the Thai society (Tanchaisak, 2005a, 2005b). Leaders who properly satisfy the expectations of followers can create good atmosphere in the workplace and induce co-operation and commitment. A skill to handle followers' emotion is an essential basic skill to develop human resources in organizations (Wattanapanit, 2006).

It is important to note, however, that the respondents in this study were entry level workers. It is possible that workers in other levels might not prefer directive leadership styles. Workers in the entry level might feel uncertain and less secure. Work according to leaders' direction could provide them security. If their works go wrong, they are not to be blamed provided they follow the leaders' instructions carefully. Moreover, they might not have enough confidence to suggest work-related matters hence they do not care to suggest or participate in work decision. Thais are relationship-driven and they do not like to lose face in front of the public (Andrew and Chompusri, 2001). Hence, they do not like to speak out and risk embarrassing themselves in front of their colleagues so they prefer to play the safe side by listening to leader's directions and follow them.

Workers in higher levels might have more confidence because of their experience or organizational power. They might want to show their potential so they might be more inclined to participate rather than just follow directive leaders. Future research can focus on employees at other than entry level to see if their commitment is related to which styles of leadership.

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