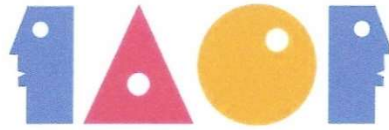


# THE INTERNATIONAL JOURNAL OF ORGANIZATIONAL INNOVATION

VOLUME 9 NUMBER 2 OCTOBER 2016

PART 2



SELECTIVE EXPOSURE AND CONSUMER BEHAVIOR -  
INTERPRETATIVE PHENOMENOLOGICAL ANALYSIS IN CONSUMER  
BEHAVIOR OF Z GENERATION ADOLESCENT ON THE AD INFORMATION  
OF SMARTPHONE SELECTION

Inge Hutagalung  
Universitas Mercu Buana, Indonesia  
*e-mail: inge\_hutagalung@yahoo.com*

Abstract

This research examines consumer behavior of the Z generation adolescent on the ad information of Smartphone selection. The method used is Interpretative Phenomenological Analysis (IPA). The results show that the audiences are not passive and have resistance in accepting ad information. The utility of information and support groups play an important role in the information selection process. The information which is contrary to one's belief may not always be rejected. An ad will still be chosen if having the benefit value. On the other way, the more contradictory the ad information to the internal reference in social group, the more it will be avoided, and vice versa.

Key words: selective exposure, belief, utility of information, social group

Introduction

Nowadays, by remarkable development in the field of information and communication media technology, people do not only live in the 'communication revolution' era, but are also still exploring what is known as the era of *communicative abundance* or *cornucopias of communication* (Neuman, 1991; John Keane, 1998).

One of the information which is necessary for attention related to the communicative abundance is Smartphone ad. Nowadays, the development of the Smartphone ad in the consumer has raised a variety of social and cultural issues, particularly regarding the sign used, the image displayed, the information submitted, the meanings obtained, and how all of these effect on the understanding perception and community behaviour.

There are often any controversies developing around the existence of the Smartphone ad related to the fact, that in the advertising, there is often a gap between what is described about the product and the reality of the product in actual. The advertisements often show the unreality of product. It shows the fake reality. Thus, there is a public lie by the ads. The ads are even caught up in the scheme of free play of signs, in order to create a false image of product, which is that the actual image is not an integral part, substantial, or functional of certain product, but by ad rhetoric, the image even becomes the reference model in consuming a product.

Given that ads are often caught up in the scheme of free play of signs and display the 'mask of reality', it is very interesting to examine how the selection process and information rejection (selective exposure) by Smartphone ads in adolescent generation Z. The researcher argumentation to choose this Z generation is because they are the fanatic social media users. Their lives are strongly affected by the technology development. This research will examine on how the Z generation adolescent conducts the selective exposure process for the Smartphone ads.

### Literature Review

One of the theories regarding to one's selection and reason in selecting and rejecting information is the cognitive dissonance theory.

At the beginning of thought, Festinger (1957) had put a belief as the cause of selective exposure. Festinger

selective exposure process (1957) was based on a number of assumptions. First, the individual is a homo sapiens, and not a creature with passive reactions on the environment. Second, humans are the cognitive consistency seekers. Humans always keep their stability and cognitive consistency. In case of cognitive inconsistency, then they will get a dissonance, namely an inconvenience psychological condition. By receiving the supporting information, it will make convenience feeling, on the other way around, by receiving the contrary information with one's belief, it will into dissonant condition. Third, humans are the information processor, namely Humans are the creatures who likes to find self-justification or defence in solving any problems (Sears, et.al, 1985:156-157; West and Turner, 2007:139-140).

Several studies support the thought of Festinger (Ehrlich et al., 1957; Mills et al., 1959; Adams, 1960; Chaffee et.al, 2001; Redlawsk, 2002; Taber and Lodge, 2006).

By the time goes by, the literature shows that the cause of selective exposure based on the perspective of cognitive dissonance theory involves three aspects, namely, the psychological, message and social aspect (see the table of selective exposure aspect causes).

Moreover, the selective exposure in simple can be defined as an individual's efforts to preferentially and intentionally seek the desired and undesired information. There is abundance information availability, and an individual will select and choose the information to

be accessed and to be not accessed (Fischer et.al, 2011:51).

The studies on the *selective exposure* focus on what to be selected and avoided when processing information, the reasons to consume certain information, and others. It is also why someone will choose certain information, and not others; Why people prefer to some news, while other people prefer to other programs on television; Why one prefer comedy film, while others prefer and love drama film. All of the questions are related to the selective exposure process.

#### Research Method

In this study, the paradigm used is post-positivistic. The research reason in selecting the post-positivistic paradigm is because that the selective exposure is a positivistic concept but to deep more in it, it is necessary for qualitative analysis. The study with post-positivistic paradigm in this study helps to explore and understand what behind the phenomenon is, the background of individual thought or the research subject involved.

The research method used in this study is *interpretative phenomenological analysis* (IPA). According to Smith and Osborn (2009:97) this interpretative phenomenological analysis aims to measure how the participants interpret the personal and social world. IPA is a suitable approach when one is trying to find out how an individual percept certain situations. When, he or she has to face on new complexity, process, or something.

The research aims to analyse how the selective exposure process is conducted by the Z generation adolescent. Thus, the researcher uses a semi-structured interview method as a data collection method. A semi structured interview is a flexible data collection instrument. This type of interview allows any researchers and informants to conduct any dialogues, and the questions which have been compiled previously can be modified according to the informant responses (Smith and Osborn, 2009:105).

#### Research Results

The informants in this study consist of eight people who are the generation Z adolescent joined in certain peer groups, such as dance group, study group, discussion group, and hobby group.

Based on the research results, it is known that the selective exposure in ad information is conducted by the informant to meet the need of information. The informants will not only look at the consonant information or based on their belief, but also at the dissonant information or contrary to their belief. The dissonant information will still be selected, if such information has its benefits or use. For example, it is useful to give useful argumentation or objection to more convince any decision, opinion or belief. The dissonant information will also be advised if such information is useful to add any knowledge, and further understanding related to a contrary matter. Meanwhile, if consonant information is considered as unqualified one, then

the information will not be selected and avoided, as it will weaken the belief.

In other words, only the useful information will be selected, even the information is the dissonant one, and vice versa. In the case of the Smartphone ads, as far as the information about the Smartphone has any benefits, then the information will be selected. The benefits related to the information can be intended as instructions (how to assess something), confirmation (reconfirmation on an attitude), and performance (how to conduct something). By other words, the selection on Smartphone ad information will be created based on certain purposeful. The more information Smartphone ads can meet the purpose, the more the information will be selected, and vice versa. In this case, the informants are considered to be able to assess the useful information or the useless one for them, and thus, the information selection process will be seen as an attempt with particular purpose related to the usefulness of an information.

The research results also show that the supporting groups effect on the selective exposure process. That is, when members of the group get any support on the selected information from other members, there will be self-assurance that the choices taken are the correct ones. The supporting group will only be meaningful if the social group is the main identity, where the group member attitude and behaviour are the relevant references for individual attitudes and behaviour getting the support.

In the case of the Smartphone ads, the informants having a sense of social identity from a group which is admired and related to oneself, they will select or reject the Smartphone ad information based on the norms of social groups where the informant is the member of the group. The information getting the group support will be the choice, while the information getting less support will be avoided or rejected. This is conducted because the informants are trying to reach the cognition balance and harmony with the social environment, as the social creature embodiment.

## Discussion

The research results show that there is a role of support groups related to the information selection or rejection process on Smartphone Ad information. This is based on the thinking of communication theoretician stating that in the information-processing system, individuals are not only affected by self-cognition system but also by outside factors, such as social environment as well as the message characteristics (Littlejohn, 2009:64; McQuail, 1996:33; Griffin, 2006).

One of the communication models related to the information processing is based on a cognitive dissonance theory perspective described by McQuail in his book of *Communication Models for The Study of Mass Communication* (1996). A major feature of communication process from the McQuail consonant and dissonant model theory indicates that the incoming messages will be observed and filtered by the message recipient, by the effects generally to lower

the chance of dissonant, and to maintain the consonant to the environment (A). If there is a new opinion or contrary opinion, so there will be dissonant (B). The dissonance will move the social process (in the form of group norm) and psychological (in the form of *ego-involvement*). In this case, there will be two possibilities, namely (1) to change the perceptions on the information sources (C), and (2) to change an opinion or attitude owned (D). The smaller the difference between messages and opinions or attitudes owned (*small differences*), so the smaller the chance of the change. If the difference is medium, then there will be an adjustment which likely will be followed by opinion or attitude revision owned. However, if the differences are considerable, then it will usually involve a group norm and self-ego (such as commitment, belief, attitudes, opinions and others), which will cause a message or resource rejection and strengthening on the opinion or attitude owned (McQuail and Windahl, 1996:33-35).

Furthermore, the researcher argues that the role of reference group is also caused by the informant environment which the majority is a collective cultural community. In the collective cultural community, selecting and rejecting information is the group responsibility and not an individual matter. The community or group plays an important role in determining which information should and should not be consumed. The collective cultural community always takes decisions by collective bargaining. The adherence to the rules (conformity) is considered as the characteristic of maturity and personal maturity. A community with a collective culture emphasizes

on the group responsibility, not on the individual.

The researcher argues that at this point, the social judgement theory can complete Festinger selective exposure process. The social judgement theory is a theory developed by Muzafer Sherif, et.al., (1965), about how an individual give judgement based on a ego-reference and ego-involvement. The internal reference or reference point always is in the individual and effects on one's way to respond on message or information. Each individual will have references or an standard.

On this study, the informant internal reference is the group norm. In other words, there is a strong ego involvement among the informants with the norm formed in the group, so that the informant behavior always refers to the group norm.

By integrating Festinger selective exposure process with the social judgement theory, the researcher argues that the dynamics and communication process to achieve the cognitive consistency can be further explained well. That is, there will be dissonance while an individual gets cognitive inconsistency. This imbalance situation will motivate individuals to achieve harmony. Referring to the internal reference or standard and paying attention to the ego involvement, so the dissonance can be minimized. The norm will play the role depending on the extent of as a reference by the individual judgement, and how strong the ego involvement is formed on the existing norm.

Table 1. Aspects of Selective Exposure Causes

| SELECTIVE EXPOSURE CAUSES |  |
|---------------------------|--|
| Psychological             | <ol style="list-style-type: none"> <li>1. <i>Belief</i>: Festinger, 1957; Ehrlich et.al., 1957; Mills et.al., 1959; Adams, 1961; Mills, 1965a; Rosen, 1961; McFarland and Warren, 1992; Chafee et.al., 2001; Redlawsk 2002; Taber and Lodge, 2006, Bobkowski, 2007.</li> <li>2. <i>Commitment</i>: Brehm and Cohen, 1962; Mills and Ross, 1964; Mills, 1965; Behling, 1971; Lawson, 1969.</li> <li>3. <i>Self-confidence</i>: Festinger, 1964; Freedman, 1965; Lowin, 1969; Thayer, 1969; Schultz, 1974.</li> <li>4. <i>Mood</i>: Zillman, 1985; Anderson et.al., 1996, Hawkin et.al., 2001, Davies, 2004.</li> <li>5. <i>Motivation</i>: Chaiken et.al., 1996; Chenet.al., 1999.</li> </ol> |
| Message                   | <ol style="list-style-type: none"> <li>1. The concept of information assurance: Mills and Ross, 1964.</li> <li>2. The concept of information relevance: Mills and Jellison, 1968.</li> <li>3. Utility of Information: Festinger, 1964; Cannon, 1964; Freedman and Sears, 1965; Freedman, 1965a, Charles Atkin, 1973; Katz, 1968; Cotton, 1985; Frey, 1986; Knobloch et.al., 2003, 2005.</li> <li>4. Utility of Social: Chaffee and McLeod, 1968.</li> <li>5. <i>Refutability</i>: Lowin, 1967; Brock and Balloun, 1967.</li> </ol>   |
| Social                    | <ol style="list-style-type: none"> <li>1. Social Norms: Sears, 1965; Klapper, 1960; David, 2005.</li> <li>2. Group Support: Schulman, 1971; Dohyun, 2010.</li> </ol>   |

The research results also show the role of utility of information. The researcher assumes that the role of utility of information on the selective exposure process is the effect of today human life in an era of abundance of information, as a result of technology and informatics progress and sophistication.

The technology and informatics development results in an explosion of information which constantly flows into private life. Anticipating this abundance of information, the individual will select the information considered to have benefits based on the interests and needs. The

selection information based on interests and needs also prove that the individual is an active creature in the information processing process.

These findings also reinforce the Atkin idea (1973) which was presented in the utility of information theory. That, one's motivation in selecting and avoiding information is not caused by whether the information creates consonance or dissonance, but rather by the utility of information for an individual. The utility of information can only be felt when someone has an orientation purpose and self-adaptability purpose to be achieved

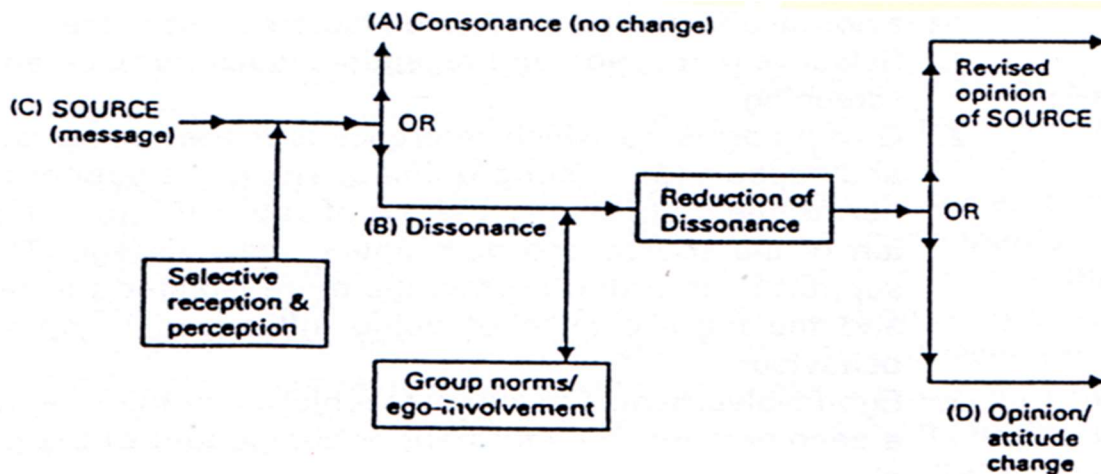


Figure 1. Model Theory Of Consonant And Dissonant

by the information acquisition, both negative and positive information (threat or opportunity), because each of the information is believed to have benefits. in the ad information (selective exposure) conducted by an individual. On the other hand, the supporting group also plays a role in determining a selection on an information, as far as the group is the group of reference. In the end, although this research is not intended to examine the media effects, but the study results show that humans are not passive in the information processing related to the mass communication effects. The development in the informatics and communication technology world has made the audiences plenty of options on the information or news, and conduct a selection based on the interests and needs. The communicative abundance or cornucopias of communication creates the audience as active creatures in selecting and rejecting information based on self-cognitive processing.

### Conclusion

Based on the research results, it is known that there is a selective process

### References

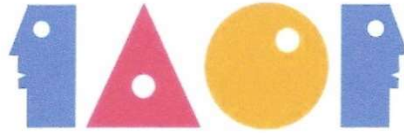
Adams, J.S. 1960. *Reduction of Cognitive Dissonance By Seeking Consonant Information*. Journal of Abnormal and Social Psychology, 62, 74-78.

Erlich, D., Guttman, I., Scho'nbach, P., & Mills, J. (1957). *Postdecision exposure to relevant information*. Journal of Abnormal and Social Psychology, 54(1), 98-102.

Fischer, Peter, et. al. 2011. *Threat and Selective Exposure: The Moderating Role of Threat and Decision Context on Confirmatory Information Search After Decisions*. Journal of Experimental Psychology, vol. 140, No. 1, 51-62.



- Festinger, Leon. 1957. *A Theory of Cognitive Dissonance*. Stanford, CA: Stanford University Press.
- Griffin, EM, 2006. *A First Look At Communication Theory, Sixth Edition*, New York: McGraw Hill Companies, Inc.
- Chaffee, S.H., Saphir, M.N., Graf, J. Sandvig., Hahn, K.S. 2001. *Attention to counter-attitudinal messages in a state election campaign*. Political Communication, 18(3), 247-272.
- John Keane, *Times Literary Supplement*, 28 August 1998, 14-16.
- Littlejohn, Stephen. W, Foss, Karen. 2009. *Theories of Human Communication*, 9<sup>th</sup> Edition, Belmont, CA: Wadsworth.
- Mills, J., Aronson, E., Robinson, H. 1959. *Selectivity in exposure to information*. Journal of Abnormal and Social Psychology, 59, 250–253.
- Neuman, W. R. (1991). *The Future of The Mass Audience*. New York: Cambridge University Press.
- Redlawsk, D. P. 2002. *Hot cognition or cool consideration?* Journal of Politics, 64(4), 1021–1044.
- Sears, David O, Freedman, Jonathan L, Peplau, Anne L. 1985. *Social Psychology*, Fifth Edition, Prentice Hall, Inc.
- Smith, Jonathan A. dan Mike Osbom. 2009. *Psikologi Kualitatif: Petunjuk Praktis untuk Metode Penelitian*. Yogyakarta: Pustaka Pelajar.
- Taber, C. S., Lodge, M. 2006. *Motivated skepticism in the evaluation of political beliefs*. American Journal of Political Science, 50(3), 755–769.
- West. Richard, Turner. Lynn H. 2007. *Introducing Communication Theory: Analysis and Application*, 3rd edition, New York: McGraw Hill.



LITERARY OVERVIEW OF NIGHT MARKET STUDIES IN SOUTHEAST ASIA:  
LOCAL TOURISTS' SELECTION CRITERIA FOR NIGHT MARKET  
VISITATION IN TAIWAN

Chih-Ling Feng

Department of Food & Beverage Management,  
Lee-Ming Institute of Technology, Taiwan

Chung-Tai Wu\*

Department of Tourism & Leisure Management,  
Lee-Ming Institute of Technology, Taiwan

\*Corresponding Author: chungtaiwu@yahoo.com

Abstract

The study provides a comprehensive literature review of night market studies in Southeast Asia. Similarities and differences of night markets across different regions are addressed with respect to night market characteristics and visitors' behavior. From 343 valid returns, four factors were identified for night market selections in Taiwan: tangibles, convenience, food, and psychological fulfillment. The findings also explored demographic differences concerning selection criteria of night market visitation in Taiwan. Managerial implication was derived from the results as basis for operational suggestions.

Keywords: night market, tangibles, convenience, food, psychological fulfillment

Introduction

With the weather being mostly hot and humid in Southeast Asia, people tend to take outdoor leisure activities after sunset. Hence, the Night City Concept is socially and economically viable based on the argument of Hillier (1996). The suitability of a night city can be evaluated through four inter-correlated domains: social behavior, night-time environment, night-time activity, and urban outdoor space (Ngesan & Karim, 2012). Perception of positive implication in the social

behavior domain may include: change of urban lifestyle, quality time for family, rejuvenate urban community, and act as socializing tools. Conversely, negative perception may include: monopoly by young generation, inclined to social problems, lack of safety and comfort, and threat of local community from tourist culture. In the night-time environment domain, positive perception may include: cooling and windy, offer unique experiences of night scenery, optimize the use of urban natural resources, and promote nocturnal flora and fauna. Its negative perception may include: high energy

use for lighting, produce more carbon footprint, contribute to the urban heat island, and threat of mosquitoes. In the night-time activity domain, positive perception may include: traditional and modern cultural performances, community practices, festival and season events, mini concerts, educational activities, passive and active leisure, wholesale night market, mobile stalls, and businesses of food and drink. Its negative perception may include: activities using alcohol and gambling, very artificial activity, shopping malls close early, limited to indoor activities, lack of activities for different age groups, and lack of proper 24-hour activities. Finally, in the urban outdoor space domain, positive perception may include: multiple usage of urban spaces (streets, parks, playgrounds, etc), and natural areas. Negative perception may include: conflict land use of night activity with surroundings, traffic congestion, and lack of night city facilities.

With a surplus of low-wage human resources, street vendors are prevalent in many Southeast Asian countries. Typically, a variety of goods can be had at relatively low cost that attracts both domestic and foreign tourists for visiting Asian night markets. The characteristics of night markets in Asia may include: outdoor open space, varieties of food, drink, and accessories to choose from, high probability of counterfeit merchandise, relatively cheap, low hygiene, high entertainment value for both children and adults, and typically crowded under limited space. Although crowding in store environments in Western societies typically contributes to negative consumer response, night market shoppers in Asia respond differently to crowding stimuli (Wu & Luan, 2007). Effective crowding stimuli can generate sales of low-involvement and non-durable goods. Examples of non-

durables are snacks and drinks while durables include T-shirt and shoes.

Motives for night market visitation may be similar to the concept of shopping value which reflects the hedonic and utilitarian benefits of a shopping experience (Babin et al., 1994; Michon & Chebat, 2004; Machleit et al., 2005). Additionally, demographic differences exist in attitude toward hygiene factors, locational convenience, and entertainment features among hedonic shopping values (Jackson et al., 2011). Price consciousness and perceived utility also appears to be important marketplace cues for tourists' willingness to return or recommend street markets (Correia & Kozak, 2016).

Due to its peculiar type of business transaction (e.g. acceptance for bargain and counterfeits), a street market or night market offers tourists a genuine experience to interact with natives. Being aware of this reality, tourism managers and researchers have been paying attention to street markets, bazaars, or night markets. Although an abundance of literatures pertaining to street markets or night markets exist, this study goes beyond the focus of foreign tourists to offer examination of locals' selection criteria for night market visitation while providing a comprehensive literary overview of street markets in Southeast Asia. The objectives of this study are to identify factors that attract local tourists to a night market and provide managerial implication for enhanced business operation.

### *Malaysia*

Night market is generally known as "Pasar Malam" in Malaysia (also in Singapore and Indonesia) where street hawkers occupy a designated part of a street to set up their stalls. The Malay night market

is based on the concept of open-air shopping and considered business incubators because the opportunity to earn a hefty income requires only a small investment with minimal risk of failure (Aziz & Yeng, 2011; Ishak et al., 2012). The overall attributes of Malay night market may include: product and food, physical settings, night market environment, and public facilities (Kamaruddin & Bakhtiar, 2014). Social-demographic factors influence customers' purchase behavior at a Malay night market with respect to ethnicity and gender (Aziz & Sapindal, 2012). On the other hand, Malay night market business traders' demographics have no bearing on sales performance except business experience (Salleh et al., 2012).

Since tropical fruits and vegetables are locally produced raw materials with minimal investment, researchers have identified perceived freshness, perceived quality, and perceived safety of fresh fruits and vegetables to be the most important shopping drivers of purchase behaviors in Malay night markets (Gindi et al., 2016). The attractiveness of any traditional (or wet) market or night market in Southeast Asia is the wide varieties and choices of fresh fruits and vegetables at affordable prices. Night markets may offer freshly cooked food and/or non-agricultural products that may be absent in traditional (or wet) markets.

### *Singapore*

Despite many changes in locational and functional details since its inception, Pasar Malam operates with palpable vitality in Singapore while being more urban than rural as compared to its neighboring Malaysian counterpart (Yeung, 1974). Within its more advanced

infrastructures than those of the nearby region, Pasar Malam belongs to the bazaar sector while shopping centre (similar to shopping mall in the U.S.) belongs to the firm-centered sector in Singapore (Ibrahim et al., 2004). The main difference is that the bazaar sector is "labor" intensive and "mobile" by organization and character while the firm-centred sector is "capital" intensive and "sedentary" (Yeung, 1973). According to McGee (1970), a country can have both of these components existing in equilibrium or with one declining and another thriving. Eventually, the firm-type sector would override the bazaar sector in an economy. Singapore is approaching the final stage of the McGee's model where the bazaar sector is almost completely subordinated by the firm-type sector. A perfect example of which is the hawker centres as a tourist attraction in Singapore that offers both inexpensive food and insights into the contemporary society and heritage of the destination (Henderson et al., 2012). The transformation may be attributed to hazardous health concerns emanated from poor hygiene and sanitation across street food vendors. Nonetheless, customers' patronage is the key success factor in any retailing regardless of the sectors.

Researchers have used a qualitative/quantitative sequential approach to examine how shoppers perceived Pasar Malam (Ibrahim & Leng, 2003; Ibrahim et al., 2004). Qualitative analysis identified attributes for shopping at Pasar Malam, by order, are: "price level", "variety of goods", "crowd level", "shopping temperature", "eating outlets", "ambience", "number of stalls", "entertainment facilities", "service quality", "noise level", "protection from weather", and "level of cleanliness". Principal component analysis identified factors for shopping at Pasar Malam to be: "comfort", "ease of travel", "entertainment", "bargaining and

price”, “crowd and noise”, “variety”, “festive shopping”, “quality”, and “traditional shopping”. Finally, weighted factor ratings for Pasar Malam are: “bargaining and price”, “variety”, “ease of travel”, “traditional shopping”, “crowd and noise”, “quality”, “comfort”, “festive shopping”, and “entertainment”. The fact that “bargaining and price” being the highest rated factor is not surprising due to less formal manner of monetary exchange between customers and vendors. Apparently, a cheap and affordable source of goods and services meets the needs of the lower income households within Singapore’s public housing estates where Pasar Malam typically resides.

### *Hong Kong*

According to Betts and McGoldrick (1994), bargaining motivation may be ascribed to two contrasting influences: acquisition utility (economy, among lower income population) and transaction utility theory (deal satisfaction, among pleasure-seekers). To obtain a lower price than what was offered could be one of the factors motivating a high visitation rate for street markets in Hong Kong. What attracts tourists to street markets of Hong Kong is not limited to a sense of value-for-money but also the associated emotional gratification from the unique shopping experience.

McGonigal (1993) described Hong Kong’s open-air markets as “*the right place for visitors to observe the unique local capitalism*”. These markets also serve as an ideal setting for cultural tourism in Hong Kong. Through shopping transactions, tourists can interact and converse with locals face-to-face while mingling with the local community and experiencing the novel local scene. Three distinct open-air

markets are popular among tourists in Hong Kong: the Ladies’ Market offers clothing, accessories, and souvenir bargains; the Stanley Market offers bargains and great eats by the sea; and the Temple Street Night Market offers various treats consumed with local gusto including nightly opera shows, fortune tellers, souvenirs, and local snacks. Tsang et al. (2011) delineated underlying dimensions of factors affecting bargaining intentions at these three markets: “value-for-money” being the most important, followed by “psycho-logical well-being” and “bargaining intensity”.

### *Taiwan*

Researchers have identified three types of motives that international tourists visit Taiwanese night market: destination oriented, travel arrangement oriented, and social contact oriented (Chang & Chiang 2006; Chang et al., 2007). In their studies, Japanese tourists were segmented into three cluster groups (enthusiastic novelty-seekers, local culture explorers, and moderate familiarity observers) while American tourists were clustered into two groups (independence-seekers and adaptable participants). The common denominator of all cluster groups is that tourists rely on friends or relatives’ referral as the traveling information source, and they use public transportation to visit night markets. Tourists mostly bought food and drink at night markets, followed by accessories. Similarly, “novelty-seeking” and “exercising and experiencing local culture and customs” are the major factors that motivate Hong Kong Chinese tourists to shop in night markets of Taiwan (Hsieh & Chang, 2006). Hong Kong tourists also perceived theft, parking, and traffic issues to be negative aspects of Taiwanese night markets.

Lee et al. (2008) conducted an interesting comparative study between

foreign tourists and temporary foreign residents. The study explored eight image factors toward night markets: food and local specialty, atmosphere, public facility, environment, products, price, bargain, and reputation. It was found that temporary residents have stronger image ratings in atmosphere than foreign tourists. Mean while, foreign tourists have stronger image ratings in local food and specialty, public facility, environment and reputation. By the country of origin, Europeans and Americans have stronger image ratings for local food and specialty, atmosphere, price, bargain, and reputation than Japanese and Southeast Asians. However, Europeans and Americans put less value on public facility and environment. Finally, the study validated the canonical function of experience and image for both foreign visitors and foreign residents.

From locals' perspective, domestic tourists patronize night markets for variety of food, killing time, and inexpensive pricing (Chang & Hsieh, 2006). The study also validated the "self-identity" theory that people visit night market for both psychological and consumption needs. Moreover, each Taiwanese night market has its own characteristic and culture (Kuo et al., 2012). Chiang (2016) showed that destination image of a night market has a direct effect on place dependence, place identify, and destination loyalty. Destination image also has an indirect effect on destination loyalty via place identify.

With respect to services, Wu et al. (2014) revealed four dimensions of service quality in a night market: interaction quality, physical environment quality, outcome quality, and access quality. In addition, the study identified the structural path relationships that behavioral intention is influenced by both visitor satisfaction

and image of the night market where the image also affects service quality which affects visitor satisfaction directly and indirectly via pleasant visitation.

Concentrating strictly on the food service, Huang (2012) studied eight dimensions of service quality in night markets: tangibles (e.g. convenient location, cleanliness, parking, and lighting), reliability, responsiveness, assurance, empathy, food quality, price, and communication. It was found that respondents in northern Taiwan have the highest regard towards communication. Respondents in central Taiwan have the highest regard towards reliability, food quality, and price. Respondents in southern Taiwan have the highest regard towards tangibles, responsiveness, assurance, and empathy. In a study of service providers, street vendors are aware of proper hygiene knowledge but rarely put it into practice because of time-constraints in their business (Sun et al., 2012).

## Methodology

A standard questionnaire was designed and used as the survey instrument. The list of statements (items) was gathered from the literatures (Lee et al., 2008; Wu, 2011; Huang, 2012; Chiang, 2016). A five-point Likert scale was used where respondents were required to indicate the extent of their agreement on each statement, with "1" being strongly disagree and "5" being strongly agree. The sampling areas were positioned at places within a well-known night market in Taipei that would attract the most visitors. Eight research assistants were divided into four groups so that each group of two people would take turns conducting the survey for 16 consecutive days (from April 6<sup>th</sup> to 21<sup>st</sup> in 2016) at the night market. Prior to the formal survey, a pre-test was done and an item analysis was used to test the items, as

well as the test of homogeneity. From a total of 800 distributed questionnaires, only 343 returns were deemed usable (43% valid rate).

### Results and Discussions

From 343 valid returns, the demographic profile of the respondents is presented in Table 1 where males represent 50.7% while females at 49.3%. Majority of the respondents are single (61.2%) and young (34.7% under 26 years old, 21.6% between 26 and 30, and 27.1% are between 31 and 40). By occupation, 35.3% are white collars and 30.3% are students. By education, 63.6% have attended college or beyond. By income, 31.8% earn less than NT\$20,000 per month and 24.2% have monthly salaries of NT\$30,000 – 40,000. It is noted that students occupied 30.3% of the total sample which coincides with the population who earned less than NT\$20,000 (at 31.8%).

The collected data were statistically analyzed using SPSS 20 for Windows. The 16-items questionnaire received a Cronbach's alpha score of 0.794, which indicates good reliability for exceeding 0.70. Among the 16 items, Q7 ("I choose this night market because it offers famous local snacks") received the highest agreement ( $M = 3.83$ ) while Q4 ("I choose this night market because it offers articles for my daily use") had the lowest mean ( $M = 3.16$ ), as shown in Table 2. Moreover, Q8 ("I choose this night market for leisure and entertainment") exhibited the highest discrepancy (standard deviation at 1.246) among the responses while Q10 ("merchandise price in this night market is reasonable") possessed the least discrepancy (S.D. = 0.822).

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was found at 0.766, while the Bartlett's test of sphericity also showed significant values ( $\chi^2 = 1698.191$ , d.f. = 120, and  $p = .000^{***}$ ). These figures suggested that the use of factor analysis was appropriate for the study. The exploratory factor analysis identified four factors that local tourists consider for the selection of a night market visitation. They are: "tangibles", "convenience", "food", and "psychological fulfillment", as shown in Table 3. These factors account 58.5% of the total variance. The eigenvalues range from 1.234 to 4.108, which exceed the minimum requirement of 1.0. The factor loadings range from 0.524 to 0.818 across the 16 items which also exceed the requirement of 0.4 or higher.

Factor 1 (tangibles) exhibited a factor mean of 3.534 from seven attributes. This factor explained the largest proportion of the total variance at 25.68%, with an eigenvalue of 4.108. The factor is associated with tangible features to the night market where the highest factor loading was found in "comfortable environment", followed by "cleanliness", "bustling atmosphere", "public security", "stall arrangement", "friendly service", and "reasonable price". Factor 2 (convenience) contains four items relating to each individual's perceived convenience to the night market, with a factor mean of 3.325.

This factor may also be considered intangible features contribute to night market visitation. The factor represents 14.97% of the total variance, with an eigenvalue of 2.396. From the highest to lowest factor loadings are attributes of "distance proximity", "public transportation", "articles for daily use", and "diverse products". Factor 3 (food) possesses the highest factor mean at 3.660 from three attributes. This factor accounts 10.14% of

Table 1. Demographic characteristics of the respondents ( $n = 343$ )

| Demographic Characteristics | Number of Respondents | Demographic Characteristics | Number of Respondents |
|-----------------------------|-----------------------|-----------------------------|-----------------------|
| Gender                      |                       | Marital status              |                       |
| Male                        | 174 (50.7%)           | Single                      | 210 (61.2%)           |
| Female                      | 169 (49.3%)           | Married                     | 133 (38.8%)           |
| Age                         |                       | Occupation                  |                       |
| 25 and under                | 119 (34.7%)           | Student                     | 104 (30.3%)           |
| 26 to 30                    | 74 (21.6%)            | Blue-collar                 | 40 (11.7%)            |
| 31 to 40                    | 93 (27.1%)            | White-collar                | 121 (35.3%)           |
| 41 to 50                    | 40 (11.7%)            | Public-service              | 35 (10.2%)            |
| 51 to 60                    | 10 (2.9%)             | Self-employed               | 43 (12.5%)            |
| 61 and over                 | 7 (2.0%)              | Monthly income              |                       |
| Education                   |                       | Less than NT\$20,000        | 109 (31.8%)           |
| High school or less         | 125 (36.4%)           | NT\$20,000 – 30,000         | 56 (16.3%)            |
| College                     | 170 (49.6%)           | NT\$30,000 – 40,000         | 83 (24.2%)            |
| Post-graduate               | 48 (14.0%)            | NT\$40,000 – 50,000         | 57 (16.6%)            |
|                             |                       | More than NT\$50,000        | 38 (11.1%)            |

Table 2. Mean and standard deviation of each item

| Questionnaire items  | Mean | S.D.  |
|--|------|-------|
| Q1. I enjoy the bustling atmosphere of this night market                   | 3.58 | 1.159 |
| Q2. I choose this night market because it is close to home                 | 3.22 | 1.204 |
| Q3. I choose this night market because of convenient public transportation | 3.33 | 1.144 |
| Q4. I choose this night market because it offers articles for my daily use | 3.16 | 1.113 |
| Q5. I choose this night market because it offers delicacies that I prefer  | 3.82 | 0.939 |
| Q6. I choose this night market because it offers diverse products          | 3.59 | 1.044 |
| Q7. I choose this night market because it offers famous local snacks       | 3.83 | 0.929 |
| Q8. I choose this night market for leisure and entertainment               | 3.19 | 1.246 |
| Q9. I choose this night market because it offers fashionable merchandise   | 3.19 | 1.139 |
| Q10. Merchandise price in this night market is reasonable                  | 3.54 | 0.822 |
| Q11. I am confident about the food hygiene at this night market            | 3.33 | 0.972 |
| Q12. This night market has excellent public security                       | 3.50 | 1.017 |
| Q13. The environment of this night market is comfortable                   | 3.44 | 1.035 |
| Q14. This night market is clean  | 3.42 | 1.020 |
| Q15. This night market's stall arrangement is neat                         | 3.59 | 1.091 |
| Q16. This night market offers friendly service                             | 3.67 | 0.921 |



Table 3. Factor analysis of night market selection criteria ( $n = 343$ )

| Factors (Attributes)                                | Factor loadings |        |        |        |
|---|-----------------|--------|--------|--------|
|   | 1               | 2      | 3      | 4      |
| Factor 1: Tangibles ( $M = 3.534$ )                 |                 |        |        |        |
| Q13. comfortable environment                        | .788            |        |        |        |
| Q14. cleanliness                                    | .785            |        |        |        |
| Q1. bustling atmosphere                             | .774            |        |        |        |
| Q12. public security                                | .714            |        |        |        |
| Q15. stall arrangement                              | .607            |        |        |        |
| Q16. friendly service                               | .593            |        |        |        |
| Q10. reasonable price                               | .557            |        |        |        |
| Factor 2: Convenience ( $M = 3.325$ )               |                 |        |        |        |
| Q2. distance proximity                              |                 | .817   |        |        |
| Q3. public transportation                           |                 | .757   |        |        |
| Q4. articles for daily use                          |                 | .621   |        |        |
| Q6. diverse products                                |                 | .559   |        |        |
| Factor 3: Food ( $M = 3.660$ )                      |                 |        |        |        |
| Q7. famous local snacks                             |                 |        | .818   |        |
| Q5. personal taste                                  |                 |        | .764   |        |
| Q11. food hygiene                                   |                 |        | .718   |        |
| Factor 4: Psychological fulfillment ( $M = 3.190$ ) |                 |        |        |        |
| Q8. leisure / entertainment                         |                 |        |        | .792   |
| Q9. fashionable merchandise                         |                 |        |        | .524   |
| Eigenvalues   | 4.108           | 2.396  | 1.623  | 1.234  |
| Variance (%)  | 25.677          | 14.973 | 10.144 | 7.713  |
| Cumulative variance (%)                             | 25.677          | 40.649 | 50.794 | 58.506 |

the total variance, with an eigenvalue of 1.623. The factor is composed of three attributes: “famous local snacks”, “personal taste”, and “food hygiene”. In spite of the expected low rating for “food hygiene” of the night market at 3.33, the high factor mean (3.660) came from the two highest items, “famous local snacks” at 3.83 and “personal taste” at 3.82. This factor concerns culinary products where local visitors reasoned their high ratings for delicacies. Factor 4 (psychological fulfillment) consists only two attributes: “leisure and/or entertainment” and “fashionable merchandise”. The factor has

the lowest factor mean (at 3.190) and covers only 7.71% of the total variance, with an eigenvalue of 1.234. Unlike the previous factor where “food” satisfies the physiological needs, people seek pleasure through leisure, entertainment, and shopping of fashionable (name-brand) products. Thus, the authors named “psychological fulfillment” for this last factor.

By one-way ANOVA of the identified factors and *post hoc* test by LSD, demo-graphic significance was exhibited in Factor 1 that respondents with high school education have significantly lower views

toward “tangible” features of a night market than those who are more educated, mean differential (*MD*) of -0.352 ( $p = .000^{***}$ ) vs. college-educated, and *MD* of -0.384 ( $p = .001^{**}$ ) vs. post-graduates. High income respondents also have significantly higher views toward “tangible” features than those with lower income, those earning “more than NT\$50,000” vs. those earning “less than NT\$20,000”, “NT\$20k–30k”, “NT\$30k–40k”, and “NT\$40k–50k” have *MD* of 0.411 ( $p = .001^{**}$ ), 0.568 ( $p = .000^{***}$ ), 0.499 ( $p = .000^{***}$ ), and 0.446 ( $p = .002^{**}$ ) respectively. In Factor 2, married respondents have significantly higher views of “convenience” as a selection criterion for night market visitation than those who are single ( $MD = 0.374$ ,  $F$ -value = 17.665,  $p = .000^{***}$ ). Conversely, students have significantly lower views of “convenience” as a selection criterion than respondents of other occupation,  $MD = -0.422$  ( $p = .004^{**}$ ) vs. “self-employed”, -0.419 ( $p = .006^{**}$ ) vs. “blue collars”, -0.323 ( $p = .041^{*}$ ) vs. “public-service”, and -0.379 ( $p = .001^{**}$ ) vs. “white collars”. Either homogeneity of variance being significant (i.e. failed homogeneity test) or insignificant *MD* contributed to insignificance of other Factors (e.g. Factors 3 and 4) and demographics (e.g. age and gender).

With respect to each attribute, it was found that males have significantly higher views toward “public transportation” than females do ( $MD = 3.45 - 3.20 = 0.25$ ,  $F$ -value = 4.432,  $p = .036^{*}$ ). Conversely, less-educated respondents (high school or less) have significantly lower views toward “comfortable environment” than their more-educated counterparts do,  $MD = -0.478$  ( $p = .000^{***}$ ) vs. college-educated, and  $MD = -0.729$  ( $p = .000^{***}$ ) vs. post-graduates. Similarly, less-educated respondents also have significantly lower views toward

“cleanliness” and “friendly service” than their more-educated counterparts do, where in “cleanliness”:  $MD = -0.395$  ( $p = .001^{**}$ ) vs. college-educated,  $MD = -0.535$  ( $p = .002^{**}$ ) vs. post-graduates, and in “friendly service”:  $MD = -0.544$  ( $p = .000^{***}$ ) vs. college-educated,  $MD = -0.385$  ( $p = .011^{*}$ ) vs. post-graduates. Married respondents have significantly higher views toward “distance proximity” ( $MD = 3.51 - 3.03 = 0.48$ ,  $F$ -value = 13.562,  $p = .000^{***}$ ), “public transportation” ( $MD = 3.53 - 3.20 = 0.33$ ,  $F$ -value = 6.739,  $p = .010^{*}$ ), and “articles for daily use” ( $MD = 3.47 - 2.96 = 0.51$ ,  $F$ -value = 17.529,  $p = .000^{***}$ ) than singles do. High income respondents (earning “more than NT\$50k”) also have significantly higher views toward “public security” ( $MD = 0.549$ ,  $p = .004^{**}$ ) vs. “less than NT\$20k”;  $MD = 0.723$ ,  $p = .001^{**}$  vs. “NT\$20k–30k”;  $MD = 0.520$ ,  $p = .008^{**}$  vs. “NT\$30k–40k”, and  $MD = 0.658$ ,  $p = .002^{**}$  vs. “NT\$40k–50k”) and “cleanliness” ( $MD = 0.527$ ,  $p = .006^{**}$  vs. “less than NT\$20k”;  $MD = 0.653$ ,  $p = .002^{**}$  vs. “NT\$20k–30k”;  $MD = 0.608$ ,  $p = .002^{**}$  vs. “NT\$30k–40k”, and  $MD = 0.465$ ,  $p = .028^{*}$  vs. “NT\$40k–50k”) than respondents of lower income.

Conversely, blue-collar respondents have significantly lower views toward “bustling atmosphere” than respondents of other occupation ( $MD = -0.790$ ,  $p = .000^{***}$  vs. “students”;  $MD = -1.059$ ,  $p = .000^{***}$  vs. “self-employed”;  $MD = -0.546$ ,  $p = .037^{*}$  vs. “public-service”, and  $MD = -0.927$ ,  $p = .000^{***}$  vs. “white collars”). On the other hand, self-employed respondents have significantly higher view toward “public security” than respondents of other occupation ( $MD = 0.369$ ,  $p = .045^{*}$  vs. “students”;  $MD = 0.482$ ,  $p = .030^{*}$  vs. “blue collars”;  $MD = 0.507$ ,  $p = .028^{*}$  vs. “public-service”, and  $MD = 0.535$ ,  $p = .003^{**}$  vs. “white collars”).

## Conclusions and Recommendations

The study has delivered some interesting results concerning local tourists' selection criteria for night market visitation. The identified four factors of night market selection are "tangibles", "convenience", "food", and "psychological fulfillment". The top factor, "tangibles", includes attributes such as "comfortable environment", "cleanliness", "bustling atmosphere", "public security", "stall arrangement", "friendly service", and "reasonable price". Convenience is the second most important factor that visitors consider, which includes attributes of "distance proximity", "public transportation", "articles for daily use", and "diverse products". Demographic significance of note has also been identified in the findings. Most notably, high income visitors value more on tangible features than those who earn less. Higher income local tourists may be motivated to visit a night market for its "comfortable environment" and "bustling atmosphere" while being confident about its "public security" and "cleanliness". Convenience is a factor that married individuals take into account more than those who are single. However, students take lesser account of convenience as a factor for night market visitation than those of other occupations.

Managerial implication of the findings suggests enhancement of "public security" and "cleanliness" at night markets that would attract more tourists who have higher income. Those who earn more may also be more educated and self-employed. These particular demographic groups also care more about "comfortable environment" and "friendly service" that night market operators should take note of. In addition, married individuals weigh highly of "convenience" for the selection of a night market, as opposed to those who are single. Meanwhile, students tend to care less of "convenience" as a selection criterion, which is logical as students tend to be younger and being single. The phenomenon implies a night market would be more family-oriented if it features dimensions that are convenience-related. In addition, "comfortable environment" and "bustling atmosphere" are perceived to be lesser of night market selection criteria by blue-collar and less-educated individuals. Less-educated local tourists also care less about "cleanliness" and "friendly service" when deciding on a night market visitation. Thus, enhancement of the aforementioned attributes would expand the demographic base of night market visitors, namely individuals with higher education and higher income.

## References

- Aziz, K.A., & Sapindal, A. (2012). Customer buying behavior at a night market. *International Journal of Contemporary Research in Business*, 3(10), 377-394.
- Aziz, K.A., & Yeng, L.W. (2011). Dynamism of a night market Taman Sri Muda, Shah Alam. *Journal of Business Studies Quarterly*, 2(4), 27-39.
- Babin, B.J., Darden, W.R., & Griffin, M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. *Journal of Consumer Research*, 20(4), 644-656.

- Betts, E.J., & McGoldrick, P.J. (1994). Consumer behavior and the retail “sales”: Modelling the development of an “attitude problem”. *European Journal of Marketing*, 30(8), 40-58.
- Chang, J., & Chiang, C.H. (2006). Segmenting American and Japanese tourists on novelty-seeking at night markets in Taiwan. *Asia Pacific Journal of Tourism Research*, 11(4), 391-406.
- Chang, J., & Hsieh, A.T. (2006). Leisure motives of eating out in night markets. *Journal of Business Research*, 59(12), 1276-1278.
- Chang, J., Min, J.C.H., Lin, Y.H.P., & Chiang, C.H. (2007). Profiling Japanese tourists visiting night markets in Taiwan. *Journal of Quality Assurance in Hospitality & Tourism*, 8(2), 25-44.
- Chiang, Y.J. (2016). Examining the relationships between destination image, place attachment, and destination loyalty in the context of night markets. *International Journal of Business and Management*, 11(2), 11-21.
- Correia, A., & Kozak, M. (2016). Tourists’ shopping experiences at street markets: Cross-country research. *Tourism Management*, 56, 85-95.
- Gindi, A.A., Abdullah, A.M., Ismail, M.M., & Nawi, N.M. (2016). Shopping drivers of generational cohorts: A comparison between night market and wet market formats for fresh fruit and vegetable purchase in Malaysia. *Australasian Marketing Journal*, Article in press  
<http://dx.doi.org/10.1016/j.ausmj.2016.05.002>.
- Henderson, J.C., Yun, O.S., Poon, P., & Biwei, X. (2012). Hawker centres as tourist attractions: The case of Singapore. *International Journal of Hospitality Management*, 31(3), 849-855.
- Hillier, B. (1996). Cities as movement economies. *Urban Design International*, 1(1), 41-80.
- Hsieh, A.T., & Chang, J. (2006). Shopping and tourist night markets in Taiwan. *Tourism Management*, 27(1), 138-145.
- Huang, C.H. (2012). Service quality of night markets in Taiwan. *International Journal of Marketing Studies*, 4(3), 36-44.
- Ibrahim, M.F., & Leng, S.K. (2003). Shoppers’ perceptions of retail developments: Suburban shopping centres and night markets in Singapore. *Journal of Retail and Leisure Property*, 3(2), 176-189.
- Ibrahim, M.F., Lim, L.Y., & Soh, K.L. (2004). Identifying the dimensions of suburban shopping centres and “Pasar Malam” (night markets) in Singapore from a shopper’s perspective. *Pacific Rim Property Research Journal*, 10(1), 79-101.

- Ishak, N.K., Aziz, K.A., & Ahmad, A. (2012). Dynamism of a night market. *Journal of Case Research in Business and Economics*, 4, 1-15.
- Jackson, V., Stoel, L., & Brantley, A. (2011). Mall attributes and shopping value: Differences by gender and generational cohort. *Journal of Retailing and Consumer Services*, 18(1), 1-9.
- Kamaruddin, N., & Bakhtiar, M.F.S. (2013). Uptown night market and tourists' satisfaction. In Sumarjan et al. (eds), *Hospitality and Tourism*, 135-139.
- Kuo, C.T., Chung, M.L., & Kuo, F.C. (2012). To explore Taiwanese night markets culture and tourism experience and behaviour. *Procedia – Social and Behavioral Sciences*, 40, 435-440.
- Lee, S.H., Chang, S.C., Hou, J.S., & Lin, C.H. (2008). Night market experience and image of temporary residents and foreign visitors. *International Journal of Culture, Tourism and Hospitality Research*, 2(3), 217-233.
- Machleit, K.A., Meyer, T., & Eroglu, S.A. (2005). Evaluating the nature of hassles and uplifts in the retail shopping context. *Journal of Business Research*, 58(5), 655-663.
- McGee, T.G. (1970). *Hawkers in Selected Asian Cities: A Preliminary Investigation*. Centre of Asian Studies, University of Hong Kong.
- McGonigal, D. (1993). Hong Kong: The ultimate urban experience. *Australian Accountant*, 63(2), 49-49.
- Michon, R., Chebat, J.C. (2004). Cross-cultural mall shopping values and habitats: A comparison between English- and French-speaking Canadians. *Journal of Business Research*, 57(8), 883-892.
- Ngesan, M.R., & Karim, H.A. (2012). Night time social behavior in urban outdoor spaces of Shah Alam. *Procedia – Social and Behavioral Sciences*, 50, 959-968.
- Salleh, F., Yaakub, N., Mohamad, M., Ghani, M., & Sulong, K.W. (2012). Demographic characteristics differences and sales performance among night market traders in Malaysia. *International Business Research*, 5(4), 25-33.
- Sun, Y.M., Wang, S.T., & Huang, K.W. (2012). Hygiene knowledge and practices of night market food vendors in Tainan City, Taiwan. *Food Control*, 23(1), 159-164.
- Timothy, D.J., & Butler, R.W. (1995). Cross-border shopping: A North American perspective. *Annals of Tourism Research*, 22(1), 16-34.
- Tsang, N.K.F., Tsai, H., & Leung, F. (2011). A critical investigation of the bargaining behavior of tourists: The case of Hong Kong open-air markets. *Journal of Travel & Tourism Marketing*, 28(1), 27-47.

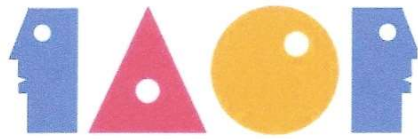
Wu, C., & Luan, C.C. (2007). Exploring crowding effects on collectivists' emotions and purchase intention of durable and non-durable goods in East Asian night markets. *Journal of International Consumer Marketing*, 20(1), 5-18.

Wu, H.C., Cheng, C.C., & Hsu, F.S. (2014). An assessment of visitors' behavioral intentions in the Taiwan tourist night market using a multilevel and hierarchical approach. *Tourism Analysis*, 19, 185-197.

Wu, J.H. (2011). A relationship study among night market tourism image, experience satisfaction, post-experience behavior toward Liouhe tourist night market in Kaohsiung City. *Journal of Commercial Modernization*, 6(2), 59-74.

Yeung, Y.M. (1973). *National Policy and Urban Transformation in Singapore: A Study of Public Housing and the Marketing System*. Research Paper No. 149, Department of Geography, University of Chicago.

Yeung, Y.M. (1974). Periodic markets: Comments on spatial-temporal relationships. *The Professional Geographer*, 26(4), 147-151.



EVALUATION OF A NEW TECHNOLOGY START-UP IN THE CZECH  
REPUBLIC: THE IMPACT OF *GIRLFRIENDS* ON BUSINESS

Lukas Masopust  
School of Business and Public Administration  
University of the District of Columbia  
Washington DC, USA  
[masopust.lukas@me.com](mailto:masopust.lukas@me.com)

Sergey Ivanov, Ph.D.  
School of Business and Public Administration  
University of the District of Columbia  
Washington DC, USA  
[sivanov@udc.edu](mailto:sivanov@udc.edu)

Abstract

Every company has problems. This study evaluates a new small start-up company located in the European Union, Czech Republic. This organization seems to have major problems. The paper describes the issues, structure of the business, and other problems to resolve to build a profitable, strong, and successful enterprise.

Key Words: Organizational Study, Start-ups, Small Business, W. Edwards Deming

Introduction

One of the authors worked for three years as an IT specialist in a small company. The name of the company is X, Inc. The company was created in 1994, one year after the Czech Republic declared independence. The company headquarters is in the north part of Czech Republic, in a city called Most.

Most is located between Prague and Dresden, Germany.

Company's Business Focus

The company's main focus is in two areas:

- 1) providing internet connection for approximately 100,000 customers.

## 2) IT service and IT shop.

### Organizational Structure

X, Inc. has roughly 30-35 employees. There is one owner of the company and four managers. The managers are responsible for:

- 1) IT service and shop,
- 2) fiber-optic internet,
- 3) radio internet, and
- 4) routing and switching department.

Five employees work in the IT service and shop. They are responsible for returns, building new computers, and repairing computers. Fiber-optic internet department and radio internet department employs the most employees. There are twenty employees, responsible for installing new technologies, cables, radios, and repairs. In routing and switching department there are five employees, who are mainly network administrators.

### Problems in the Company

As mentioned above, one of the authors worked in this company for three years and then quit. There were several reasons why he left. First, the owner of the company decreased salaries in the whole company. Administrators' salaries dropped the most. Instead of \$4,000/month, their salaries went down by \$2,000. Every administrator quit within two months. Almost half of employees quit their positions.

Second, because half of employees quit their jobs, there was a lot of work for the rest of the employees. We had to work overtime every day, including Saturdays and Sundays. Our customers were not satisfied with the

company's service and technical support. The company had a lot of unfinished orders. New customers had to wait more than one month for new internet connection to their apartments/houses to be installed.

Chaos prevailed in the company. Customers started to leave the company. In six months, the organization lost 10,000 customers. It was 1/10 customers of the company; so, the revenue went down by more than 10%.

Third, the owner of the company cut budget for new equipment: computers, tablets, cell phones, and other tools for employees. We had to use older computers, impossible to use effectively. The company was making profits, customers were mostly satisfied, employees liked their jobs until all of this occurred.

### Cause of Business Problems

There was a reason why all of this happened. The owner of the company met his new girlfriend. He divorced his wife, and appointed her to run the company. However, the wife did not have any experience running a new technology company.

The owner of the company lost all interest in the business. He spent all of corporate money on his new girlfriend.

### Recommendations for Survival

The company's reputation went down rapidly. The company could still recover, and regain good reputation. The following recommendations are most important for this company's future survival.



The owner of the business has to regain some interest in the business. He needs to hire at least fifteen new employees to handle the exponential business growth. Further, employees, who are already working in the company, should have more competitive salaries. Hiring new employees should help the company to run like in “the old times,” before the girlfriend.

Management should help employees understand the importance of their roles. Employees should be involved in decisions, and they should have opportunity to express their opinions.

The owner of the company has to review the company’s business plan having acquired a new interest in the company. He needs to review whether or not he deviated from the original idea. The original idea was, that the company would try the best to satisfy its customers.

Today, because of current problems, the company has to waste a lot of money for marketing. When the company first started, we did not have any advertising, because customers were very satisfied, and we did not need to advertise at all; word of mouth was sufficient. Every month the company got 300 new customers. It was the consequence of customer to customer recommendations.

Today, because the company lost credibility, it is necessary to advertise. X, Inc. has a big customer database, and they could try to address issues with a phone call, email, or letter to remind customers that X, Inc. is

ready to serve them again. The company should also try to win old customers.

Finally, the owner and management should review whether the company should go public, and/or possibly change ownership. There is a lot of potential in X, Inc., but not enough money for development. X, Inc. may need a strong investor. The company could also expand to other countries in the European Union than operate only in the Czech Republic.

### Deming’s *Deadly Diseases*

#### *Constancy of Purpose*

One of the biggest problems in organizations today is that they are not focusing on Deming’s *constancy of purpose* in order to get a competitive advantage, survive in the business world, and provide job opportunities (Deming, 1992, 1993), (Ivanov, 2011, 2015). Management of the organization has to innovate. Innovation is the future of the organization. Company’s product has to improve constantly. Innovation gives the organization significant competitive advantage. Innovation can help both sides, the organization and its customers.

X, Inc. should offer different service than the competitors. For example, we could provide faster internet speed for the same monthly fee. It would make a significant difference between X, Inc. and its competitors. We cannot provide the same service for the next five years. Customer satisfaction is very important, because our customers decide our reputation, and only good reputation would attract new customers.

Our customers should be the most important factor for X, Inc. X, Inc. has many opportunities to be innovative. X, Inc. could create a mobile app for the customers, where they could pay their invoices, notify of a problem with the internet connection, make an appointment with our technician, etc.

Another idea is to create organization's YouTube account and upload videos with instruction how to work on computer/laptop. There could be videos about how to work with Microsoft Word, Microsoft Office, how to set up your email account, etc. There is a need to invest in innovation, because it is the only way to gain new customers.

#### *Disease of Performance Appraisal / Evaluation*

X, Inc. has set a good example of uselessness of performance appraisal. Deming writes that performance appraisal is irrelevant because about 99% of employees' performance depends on the management of the company where people work (1992, 1993). Management provides the employees with all the necessary tools for their work performance. There is nothing employees can do in order to improve their productivity because job performance is a function of a system.

We can clearly see what happened with X, Inc. when its owner turned his back on the company and spent all of the company's money on his new girl-friend. He cut the budget for new equipment, and cut salaries (which forced a lot of people to quit).

Employees who decided to stay with the company were doing their

best in order to stay on top of things, for example, working overtime, but still were not able to complete all of the work they had on time. It led to losing more than ten percent of the customers, and growth of dissatisfied customers who were on the edge of leaving, or left.

It does not make sense to expect better performance from employees without necessary tools and resources. No matter how hard employees tried to complete their tasks, they were powerless.

#### Conclusion

X, Inc. is a company that started with a great idea, and may still have a great future. However, there are steps that X, Inc. needs to work on to achieve success.

The owner has to figure out his priorities, and if unable to commit, perhaps it would be best to sell the company than mismanage it by wife.

The company then has to focus on eliminating Deming's deadly diseases, outlined in this paper. The company should start treating employees better.

X, Inc. should be transparent to customers and open for employees' ideas. I really liked my job in old X, Inc. Even though I had to quit, it was an interesting experience to see how business can grow and fall not only because of bad business decisions, but also owner's personal problems.

In the end, the owner's new girlfriend left him, as has his business.

## References

- Deming, W. Edwards (1993). The New Economics. Cambridge, MA: Massachusetts Institute of Technology.
- Deming, W. Edwards (1992). Out of the Crisis. Cambridge, MA: Massachusetts Institute of Technology.
- Ivanov, Sergey (2006). Investigating the Optimum Manager-Subordinate Relationship of a Discontinuity Theory of Managerial Organizations: an Exploratory Study of a General Theory of Managerial Hierarchy. Washington, DC: The George Washington University.
- Ivanov, Sergey (2011). Why Organizations Fail: A Conversation About American Competitiveness. International Journal of Organizational Innovation, 4(1), 94-110.
- Ivanov, Sergey (2013). Defects in Modern Organizations: Field Findings and Discovery. International Journal of Innovation, Management and Technology, 4(2), 204-208.
- Ivanov, Sergey (2012). The Problem of Defects in Modern Organizations. International Proceedings of Economics Development and Research: Management and Education Innovation, 37(1), 42-45.
- Ivanov, Sergey (2012). Innovation Paradox or Escape from Feararchy: Exploratory Research on Why Innovation Cannot Happen in the Modern Organization. Bangkok, Thailand: International Conference of Inclusive Innovation and Innovative Management (ICIIIM 2012).
- Ivanov, Sergey (2014). Feararchy and Organizations. Melbourne, Australia: Swinburne University of Technology.
- Ivanov, Sergey (2015). Exposing Myths of Modern Management: Innovation - Identifying the Problem. Journal of Leadership and Management, 1(3), 57-66.
- Ivanov, Sergey (2015). Exposing Myths of Modern Management: Innovation - Exploring a Solution. Journal of Leadership and Management, 2(4), 29-34.
- Ivanov, Sergey (2015). The Work of Associations: A Hidden Dimension of All Managerial Hierarchies (Bureaucracies). Journal of Leadership and Management, 2(4), 41-45.
- Ivanov, Sergey (2011). U.S. Analyst Predicts a Nationwide Russian Crisis in 2035-2040: It Is Not the U.S. but Russia that May Collapse... Again!. International Journal of Humanities and Social Science, 1(15), 215-216.
- Jaques, Elliott (2002). Social Power and the CEO. Westport, CT: Quorum Books.
- Jaques, Elliott (2002). The Psychological Foundations of Managerial Systems. San Antonio, Texas: Midwinter Conference of the Society of Consulting Psychology.

Jaques, Elliott (2002). Organization of Management for a Just and Human Free Enterprise System.  
Gloucester, MA: Cason Hall & Co Publishers.

EXPLORING THE EFFECTS OF MAJOR CHARACTERISTICS ON PRICE  
DIFFERENTIATION IN MULTI-CHANNEL RETAILERS

Po-Hsien Chiu

National Kaohsiung First University of Science and Technology,  
College of Management Ph.D. Program, Taiwan.

E-mail: [etourism@seed.net.tw](mailto:etourism@seed.net.tw)

Kuo-Kuang Chu

National Kaohsiung First University of Science and Technology,  
Department of Marketing and Distribution Management, Taiwan.

E-mail: [kkchu@nkfust.edu.tw](mailto:kkchu@nkfust.edu.tw)

Yang Wu

Far East University,  
Food and Beverage Management, Taiwan.

E-mail: [wuyang@cc.feu.edu.tw](mailto:wuyang@cc.feu.edu.tw)

Abstract

This paper mainly explores the effects of market characteristics, retailer characteristics, and product characteristics on the perceived price dispersion of 3C retailers. Previous literature regarding price dispersion mostly predicted the results of retailer price dispersion according to secondary data, but seldom measured the retailers' price difference from the perspective of customer perceived value. By structured questionnaire and non-random convenience sampling, this study collected 381 valid questionnaires (for a collection rate of 82.17%) from paper-based and Web-based samples. Multiple regression analysis was adopted to probe into the relationships between market characteristics (market competition, customer involvement), retailer characteristics (ser-

vice quality, transaction channel, store image/reputation), product characteristics (product type, brand equity), and perceived price. This study found that perceived price is affected by market competition, service quality, and store image/reputation of retailers, as well as product type and brand equity. 3C retailers are suggested to integrate the multiple channels of physical stores and virtual websites, and set the selling prices of different channel products on the basis of different target customer values in order to mitigate the perceived risk of the virtual channel. Through excellent service, good store image, and added value, such as brand equity, market strategies will induce the cognition of price premiums. Different channel information can be used to gain benefits from price differences, and thus, increase consumers' purchase intention.

Key Words: Market Characteristic, Retailer Characteristic, Product Characteristic, Price Dispersion, Price Premium, Multi-Channel Retailers

### Introduction

The mature development of the internet, smart phones, and the rising tide of e-commerce and mobile commerce, have radically changed current consumption patterns and information dissemination modes. Relative to physical channels, networks provide a trade platform that saves costs in order that consumers can shop online more conveniently. Due to changed consumption patterns, consumers place value on various basic elements, such as commodity quality, function, and price; thus, how to conveniently and quickly obtain products/services becomes an important factor influencing consumers' decisions on shopping channels. Furthermore, the progress of information technology pushes enterprises to constantly innovate

their commercial modes at an affordable cost. New channel patterns emerge as well, including compound stores, smart stores that apply information and communications technology (ICT), TV and online shopping, virtual stores, and mobile stores. As such, Taiwan's retail market exhibits a trend of diversified development, and gradually evolves into multi-channel retailing that integrates physical stores and virtual websites.

The multi-channel retailing, namely, the retailers, is able to integrate multiple channels; for instance, virtual websites, physical stores, stalls, DM and catalogs, customer service centers, social media, mobile devices, game consoles, televisions, networked appliances, and door-to-door services, which indica-

tes that mobile communications and networks will be important factors that influence the multi-channel development of the retail industry. Price is the source of corporate profits; while differentiation is a corporate strategy to improve competitiveness. Only by possessing core capabilities that distinguish themselves from their rivals can enterprises be powerful enough to survive in market competition and actualize sustainable operation. Integrating physical and virtual channels is the present trend followed by retail service providers. Retailers simultaneously operate physical stores and virtual websites to sell their products/services. The so-called business model integrating both offline and online channels (bricks and clicks) is to integrate virtual and physical retailers, and thus, create a multi-channel experience superior to a single channel.

Multi-channel retailers can create different perceived values according to different target customer needs, and charge customers price premiums according to the price dispersion strategy. From the economic point of view, the adoption of price competition in the market will reduce the profits of the overall industry. If enterprises without cost advantages drop out of the market, only a small number of advantageous enterprises will remain, thus, the low price competition strategy is no longer a long-

term policy in the current industrial environment.

Therefore, enterprises must create differentiation to produce customer values that separate them from other rivals for price dispersion. In terms of channel integration, previous empirical research pointed out that, the network channel price was higher than the marginal cost, and such network channel price differences existed with frequent price fluctuation. In fact, the integration of virtual and physical channels provides enterprises a chance to implement differentiation strategies and create more customer value. Price dispersion is a pricing strategy for enterprises to gain profits. For consumers with heterogeneous preferences and a market with differentiated product price estimations, enterprises can also collect different price premiums by separating consumers and creating their different perceived values.

This study mainly aimed to explore whether or not 3C retailers' development of multiple channels exerted significant impact on price dispersion in terms of market characteristics, retailer characteristics, and product characteristics.

Literature Review

*Multi-Channel Type*

Multi-channel retailing refers to businesses where retailers provide products/services for customers through two or more different channels (Schoenbachler and Gordon, 2002). Friedman and Furey (1999) classified multi-channels into mixed channels and integrated channels. For mixed channels, each channel is independent, and provides consumers with complete values; when consumers chose a certain channel, they would remain in this channel; for channel integration, enterprises provide a blended channel, where all channels provide values complementary to one another. However, not all enterprises use channels of the same level, and their channel selection influences their pricing strategies and final profits (Chu, Chintagunta, and Vilcassim, 2007). In the current retail environment, retailers with only one single channel, such as physical stores or virtual websites, would tend to be in an inferior position (Prasarnphanich and Gillenson, 2003). The best mode for retailers is to possess multiple channels, meaning both physical and virtual, as they are complementary to each other (Yan, 2008).

Multi-channel retailers offer consumers a flexible experience at different shopping stages (Saeed, Grover, and Yu-jong, 2003). Consumers could utilize the advantages of all channels at different

shopping stages according to their personal preferences. In the multi-channel model, when information is provided online, and products or services are provided in physical stores, various values were increased for consumers. For example, the free selection of channels enhances convenience, and new complementary services are provided. When consumers are allowed to choose information collection, product purchase, and after-sales service as they please, the channels for the benefits to consumers would be simultaneously increased (Steinfeld and Whitten, 1999). As pointed out by Saeed, Grover, and Hwang (2003), making integrated information available to consumers in a multi-channel environment could help enterprises increase their popularity, avoid losing potential customers, strengthen customer trust and loyalty, create more customer value, reduce costs, and expand the market.

#### *Price Dispersion*

Price dispersion is the deviation of price distribution for the same kind of products from a certain center. From the perspective of information economics, a changing price dispersion is resulted from incomplete market information (Ancarani and Shankar, 2004; Lindsey-Mullikin and Grewal, 2006; Ancarani,



Jacob, and Jallat, 2009), and is inseparable from information search; however, the main causes of the changing market price dispersion are retailer characteristics, market characteristics, and product characteristics (Stigler, 1961). When information is incomplete, market information is non-transparent, thus, consumers would receive less information and price dispersion would become higher.

On the contrary, if the level of price dispersion is known, consumers would be more highly motivated to search for price information. Regarding the relationship between price dispersion and information search volume, more searches for information could naturally lower market price dispersion, thus, most previous studies on consumers' response to price dispersion focused on the relationship between price dispersion and the consumer behavior of information search (Grewal and Marmorstein, 1994; Zimmermann and Geistfeld, 1984).

The extent of price dispersion reflects the difference in price patterns and influences consumers' cognition regarding price information. When price dispersion is high, and with a very large range between the highest market price and the lowest price, it would be easier for consumers to distinguish the low price from the high price, as compared

with the circumstance of prices quite close to one another, and with very low dispersion (Lalwani and Monroe, 2005). Consequently, a small number of extremely high prices or low prices often emerge in a market with high price dispersion, which influences consumers' cognition and judgment regarding prices. Pan, Xing, Brian, and Venkatesh (2004) conducted a comparative study on the online and offline price dispersion of e-commerce retailers. They considered market and product characteristics as the factors that drove price dispersion. Pan et al. (2003) discovered that high price dispersion, as well as products with a high average price, were associated with a small number of competitors in the market. Venkatesan et al. (2007) found that market characteristics moderated the relationship between retailer characteristics and online price dispersion. Clay et al. (2001) analyzed the data regarding the online sale of books, and found that a larger number of competitors in the market would reduce price dispersion.

Usually, the price and transportation costs of multi-channel retailers are higher than those of pure online retailers (Ancarani and Shankar, 2004). The price sensitivity of online retailers is not higher than that of offline retailers (Shankar, Rangaswamy, and Pusateri, 2001). Online retailers' price dispersion

is continuous, and they did not provide the same service experience as physical retailers (Pan, Ratchford, and Shankar, 2002). By providing customers with extra value, multi-channel retailers indicated that they charged consumers higher price premiums than online retailers.

#### *Perceived Price -- Quality -- Value*

Perceived price includes perceived monetary and non-monetary sacrifice. The former refers to the monetary cost perceived by consumers when they purchase products; while the latter refers to consumers' non-monetary expenditures arising from product purchase, such as time cost, search cost, and psychological cost (Zeithaml, 1988). The perceived price of products to be acquired significantly influenced consumers' decisions regarding products or store selection during the process of shopping (Baker et al., 2002).

Perceived quality is consumers' expectation of quality, as based on personal experience and information gained during shopping. Consumers' expectation of quality and experience in consumption would affect their purchase decision. Consumers' perceived quality differs from objective quality; objective quality depicts the actual technological advantages or strong points of products,

can be measured and validated according to approved standards (Monroe and Krishnan, 1985); and can be compared by internal clues; on the contrary, perceived quality is a relatively vague and abstract concept, as well as a kind of overall assessment; different consumption situations could generate highly subjective views (Zeithaml, 1988). Monroe and Krishnan (1985) proposed the perceived value formation model. In their opinion, consumers' perceived price of a product is an indicator to measure perceived quality and perceived sacrifice; perceived value could be obtained simply by comparing perceived quality with perceived sacrifice. If the perceived quality is larger than the perceived sacrifice, consumers have positive perceived value regarding the product or service, which further impacts consumer purchase intention.

Previous literature delved into the influence of perceived value in the context of a single retail channel. They generally held that consumers chose the utilitarian and hedonic values of products or stores (Childers, Carr, Peck, and Carson, 2001). Consumers believed that online stores could offer the greatest value for information acquisition and price comparison; while physical stores had the greatest value for immediate possession through both channel search and

purchase frequency. However, the category of cross-channel seeking did not differ significantly. Kwon and Jain (2009) investigated the influence of utilitarian and hedonic motivations for high-level and mid-level multi-channel shopping, which depended on the number of used shopping channels, and found that hedonic (e.g. shopping value experience and impulse to buy) and utilitarian (e.g. information search and convenience shopping) motivations were the important factor to predict multi-channel shopping. This study explored the influence of multi-channel retailers on consumer price dispersion, as based on multi-channel retailers' creation of perceived values (utilitarian and hedonic values), in order to cut down customer perceived price.

## Research Method

### *Conceptual Framework and Hypotheses*

#### *Market Characteristic.*

Market competition: It refers to the number of retailers that provide the same or homogeneous multi-channel retail products or services in the market, or the popularity of such products or services (Wolk and Ebling, 2010). Lal and Villas-Boas (1998) considered that the degree of market competition influenced

retailers' pricing strategies. To overcome the challenge intensified by market competition, retailers actively expanded their service centers and strived to quickly bring innovative products or services to the market (Carrilo and Franza, 2006); in order to improve their market position and core competitive advantages, they integrated and innovated virtual and physical channels (Chesbrough, 2007). The high degree of market competition would lower consumers' perceived price of the same products and services provided by retailers, and thus, facilitate distributors' implementation of their price dispersion strategy (Drechsler and Natter, 2012).

*H1: Market competition significantly and positively impacts price dispersion in multi-channel retailers*

Customer involvement: It refers to how well customers are informed of the price and information regarding the products/services provided by multi-channel retailers (Urbany, Dickson, and Kalapurakal, 1996), including perceived risk and perceived price dispersion. Regarding the extent of price dispersion, customers acquired sufficient external information, reduced their perceived risk about retailers and products, and were willing to pay a high price. Therefore, regarding high-priced products, when customers receive detailed and complete

product information, their perceived purchase risk would decline; however, it would be unfavorable for retailers to map out the price differentiation strategy and charge a relatively higher price (Berne, Mugica, Pedraja, and Rivera, 2001).

*H2: Customer involvement significantly and negatively impacts price dispersion in multi-channel retailers*

*Retailer Characteristic.*

Service quality: It refers to the comparatively excellent or outstanding service provided by retailers for customers, including existing physical and virtual elements, such as validity, reliability, and usefulness (Parasuraman et al. 1988; Montoya-Weiss et al., 2003; Sousa and Voss, 2006). In the multi-channel retail environment, service quality could be used to explain retailers' ability in price dispersion (Cassab, 2009; Michaela and Daniel, 2007). Fernandez-Sabiote and Roman (2012) mentioned that multi-channel retailers provided more diversified services than other retailers, and could thus reduce customers' total consumption costs. Thus, the better the quality services provided by multi-channel retailers, the more willing customers were to pay for such services.

*H3: Service quality significantly and positively impacts price dispersion in multi-channel retailers*

Transaction channel: It denotes that retailers provide consumers with higher perceived values through channel integration (physical and online stores), and charged higher price premiums (Yu et al., 2011). Consumers often measure the products/services provided by retailers according to previous prices in their memory, rather than the actual price, and judge them as either inexpensive or expensive (Dickson and Sawyer, 1985; Zeithaml, 1988). When retailers satisfied customers' heterogeneous preferences (reducing customer sensitivity), or became a monopoly or oligopoly in the market, they would easily have a chance to perform price dispersion for customers (Anderson and Simester, 2001).

*H4: Transaction channel significantly and positively impacts price dispersion in multi-channel retailers*

Store image/Reputation: It consists of consumers' attitude regarding trust in store properties and benefits (Keller, 1993; Kwon and Lennon, 2009). Retailers' services, products, atmosphere, and furnishings constitute the multiple aspects of store image, which influence the overall transaction image, as based on physical and virtual integration

(Jiang and Rosenbloom, 2005; Heijden and Verhagen, 2004). Additionally, when browsing websites, customers develop different impressions and opinions of the stores (Verhagen and Dolen, 2009). Therefore, with other conditions remaining unchanged, the positive impression of a store would make consumers more affectionately dedicated, and allow them to experience consumer pleasure, and thus, reduce consumers' price sensitivity (Benito and Partal, 2011).

*H5: Store image/reputation significantly and positively impacts price dispersion in multi-channel retailers*

#### *Product Characteristic.*

Product type: Consumers search for relevant information about products through multiple channels, and assess the various properties of products; namely, it refers to consumers' preference for certain product properties (Levin et al., 2003). According to the properties or benefits, products could be categorized into two types: search goods and experience goods (Erdem and Swait, 1998). Experience goods cannot be evaluated until they are directly experienced by consumers; while search goods can be evaluated through related properties prior to purchase (Nelson, 1974). When retailers sell their products through dif-

ferent channels, and according to different product types, the price sensitivity of consumers would decline, which would facilitate the implementation of price dispersion.

*H6: Product type significantly and positively impacts price dispersion in multi-channel retailers*

Brand equity: It refers to brand equity consisting of memory nodes (brand names), as established in the mind of customers, as well as the brands they could recall or identify (brand awareness) (Aaker, 1991; Keller, 1993). The items of brand equity assessment include perceived sacrifice, perceived quality, and perceived customer preference (Suri et al., 2000; Howerd and Kerin, 2006).

When retailers sell their products through multiple channels, the most suitable brand strategy is to adopt brand dispersion -- the larger the better -- among the virtual and physical channels of the stores, especially when consumers are not sensitive to prices and the basic market scale is large (Yan, 2010). Nevertheless, brand is a signal of quality and value.

Customers would make tangible and intangible considerations according

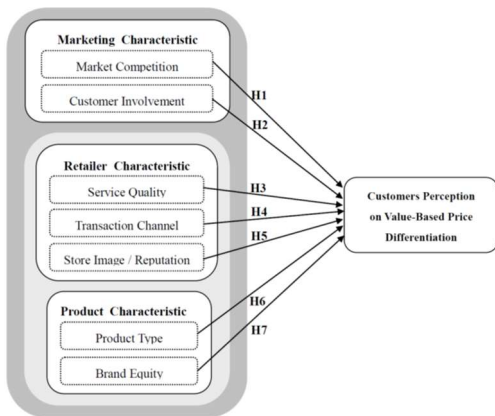


Figure 1. Structure of This Research

to perceived price, and pay price premiums for certain brands (Erdem, Swait, and Louviere, 2002). Monroe and Krishnan (1985) put forward a model of the relationships among price, perceived quality, perceived sacrifice, and perceived value, and defined the complex aspect of price. The actual price, as set by manufacturers, would be transformed into perceived price according to consumers' consumption experience. A high or low perceived price is obtained from perceived quality and perceived sacrifice (Swait et al, 2002; Howerd and Kerin, 2006). Brand equity influences customers' perceived price, which impacts their purchase decision (Keller, 2008). Hence, multi-channel retailers could set differentiated prices and charge customers different price premiums in accordance with the brand equity of different channels.

*H7: Brand equity significantly and positively impacts price dispersion in multi-channel retailers*

### *Questionnaire design and sampling*

The main subjects of this study are consumers who purchased 3C products through integrated virtual and physical channels. This study distributed 300 paper-based and 160 Web-based questionnaires, and invalid questionnaires, meaning those not answered by consumers who purchased products through integrated virtual and physical channels, or lacked authentic answers, were removed, for a valid questionnaire collection rate of 82.17%. The original four major aspects and 72 question items were designed and revised by referring to previous literature. After the pilot test and reliability and validity analysis, the original questionnaire was adjusted into a 43-item formal questionnaire, which adopted a five-point measurement Likert scale, from 5 (strongly agree) to 1 (strongly disagree). To avoid errors arising from significant differences in data sources, independent-samples t-test was conducted on the paper-based and Web-based questionnaires. The results showed no significant differences in the demographic variables or model-measured variables among the two groups of samples, and the collected data were sorted and analyzed.

## *Reliability and Validity*

To determine the formal questionnaire, the original items, as collected through pilot test, were adjusted and removed after the first exploratory factor analysis and reliability analysis of Cronbach's  $\alpha$ ; in the second factor analysis, the principal component analysis technique was applied to extract factors. Factor rotation was performed using varimax with eigenvalues larger than 1 and factor loadings larger than 0.5. Then, the aspects were named properly. Finally, (1) three factors were extracted for market characteristics: Competition Degree, Price Comparison, and Perceived Price Dispersion, and the total explanatory cumulative variance reached 69.59%; (2) five aspects were extracted for retailer characteristics: Virtual Service Quality, Physical Service Quality, Multiple Transaction Channels, Virtual Store Image, and Physical Store Image, and the total explanatory cumulative variance reached 64.00%; (3) three factors were extracted for product characteristics: Product Type, Perceived Value, and Perceived Trust, and the total explanatory cumulative variance reached 62.93%. All Cronbach's  $\alpha$  reliability coefficients exceeded 0.6 and all factor loadings exceeded 0.5, which indicates the mid-level and high reliability of the scale, as well as the consistency, stability, and accuracy of the questionnaire items.

## Results of Analysis

Male respondents were 192 (50.4%) and female respondents were 189 (49.6%). The ratio of male to female samples was approximately 1:1. Regarding educational background, most interviewees received a "University" education (52.8%). Regarding occupation, most interviewees were "Students" (50.9%). Regarding age, most interviewees were aged "Between 20 and 30" (62.2%). Regarding monthly salary, most interviewees earned "Below NTD 10,000" (48.0%). Regarding online shopping experience, most interviewees shopped online for "More than 10 Times" (34.4%). Regarding how long they browsed the shopping websites each time, most interviewees spent "1-2 Hours" (38.3%). Regarding the frequency of online surfing, most interviewees chose "Surfing Online Almost Every Day" (71.9%). After independent-samples t-test and single factor variance analysis, no significant differences were found in the demographic variables.

Through overall multiple regression analysis, this study explored the influence of 3C multi-channel retailer characteristic on price dispersion. The ANOVA results showed that the regression model was statistically significant ( $F=31.04, P<0.00$ ). The customers' per-

ceived price was significantly and positively impacted by multi-channel retailers' market competition, service quality, product type, store image, and brand equity. As seen from the regression analysis, the standardized  $\beta$  coefficients were 0.128, 0.287, 0.114, 0.117, and 0.194, respectively. "Service Quality" exerted the largest impact on price dispersion, while the influence of "Brand Equity" was the second largest. After adjustment, the overall regression variance explained ( $R^2$ ) was 35.6%. With the price dispersion theory of information economics, this study empirically investigated the influence on price dispersion, as based on customer value. As can be learned, retailers should develop multiple channels according to different product types, and deliver customer perceived values, such as excellent service quality, good image, and high brand equity, rather than pure prices. The model adopted in this study has good predictive power for expanding price dispersion with extra benefits.

### Conclusions

As consumers become more dependent on increasingly popular internet and smart phones, how to search for pri-

ces through different channels and compare prices online has become more transparent. Consumers are most likely to think "comparing the prices at three stores will protect them from losses" and "it's better to check the prices of online stores, and then, purchase the products in the physical shops". In the future, enterprises should replace their existing single distribution channel with integrated virtual and physical channels. In this way, different target customers can be distinguished according to their special needs; moreover, customer values can be maximized and the difference in price premiums can be increased by service quality and branding. Based on the research findings, the following suggestions are proposed for strategy making.

First, in terms of market characteristics, when retailers implement price dispersion in a market with a small number of rivals or high popularity of products, consumers will easily turn to their rivals. Therefore, in order to cope with the engagement of more diversified distributors or become more competitive against peers, enterprises should continuously expand their stores at a small scale, sell more unique products, spread the reputation of their



Table 1. The Coefficients of Multiple Linear Regression Analysis

| Model                    | B     | Standard Deviation | $\beta$         | Significance |
|--------------------------|-------|--------------------|-----------------|--------------|
| Constants                | -.029 | .288               |                 | .919         |
| Market Competition       | .145  | .053               | .128            | .006**       |
| Customer Involvement     | -.053 | .054               | -.045           | .328         |
| Service Quality          | .320  | .056               | .287            | .000***      |
| Transaction Channel      | .065  | .048               | .065            | .178         |
| Store Image / Reputation | .157  | .070               | .114            | .025*        |
| Product Type             | .130  | .055               | .117            | .018*        |
| Brand Equity             | .258  | .062               | .194            | .000***      |
| $R^2$                    |       |                    | 0.368           |              |
| Adjusted $R^2$           |       |                    | 0.356           |              |
| F(p)                     |       |                    | 31.040(.000***) |              |

a. Predictors: (Constant), Market Competition, Customer Involvement; Transaction Channel, Service Quality, Store Image / Reputation; Product Type, Brand Equity , Dependent Variable: Customers Perception on Value-Based

b. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .000$

brands, make small profits through quick turnover, improve price premiums with added customer values, and increase marketing and staff costs to maintain channel operations.

Secondly, in terms of retailer characteristics, consumers' evaluation regarding retailers' service quality or store image will influence their perceived price and customer benefits. Particularly, service quality can exert the greatest influence. Research has shown that service quality must be constantly perfected, and competition among enterprises is not a price war. The service principle should aim at bringing more benefits to customers, meaning if enterprises can win customers through market power, they will be more capable of high-priced perceived pricing.

Moreover, a positively perceived store image or reputation can relatively improve customers' social and economic status and personal image, and encourage customers to frequent both virtual and physical channels.

Finally, in terms of product characteristics, product types can be classified into search goods and experience goods. In the past, both physical retailers and e-retailers restricted the sales of certain product types. The reason for this was that the information provided by physical retailers was too limited to help customers fully evaluate and compare different products; while for e-retailers, customers could not go to the stores for personal experience, which generates perceived purchase risk. In contrast, multi-channel

retailers overcome the shortcomings of the above-mentioned single-channel retailers. Product differentiation and added services improve customer perceived value, and thereby, increases price dispersion to charge high price premiums. Product brand equity consists of five elements: brand loyalty, brand popularity, customer perceived quality, brand associations, and other proprietary brand assets (such as patent, registered trademark, and the relationship with circulation enterprises). It also indicates consumers' perceived value of and trust in the product. If multi-channel retailers can fully deliver brand equity to customers through integrated virtual and physical channels, the product brand equity and customer perceived price will increase along with higher loyalty behaviors, making it more favorable for retailers to implement the pricing strategy of high price dispersion.

#### Limitations and Future Studies

Regarding the research results, several potential limitations must be

considered. In this study, questionnaires were only distributed to single-channel distributors among a certain population in a limited area. Thus, this study could not obtain a comprehensive picture of consumer characteristics in other areas. The investigation into whether or not perceived values are triggered by market characteristics, retailer characteristics, and product characteristics have different effects on 3C product price dispersion, and thus, could not avoid errors in statistical inference. Additionally, this study could not measure the actual operations or financial performances of price dispersion as retailers developed multiple channels; therefore, subsequent researchers are suggested to combine other product types, compare different products and explore whether their channel characteristics have significantly different effects on customer value perception, incorporate non-monetary sacrifice as a dependent variable and examine the overall effect with SEM, or integrate monetary sacrifice and non-monetary sacrifice to further reveal the influence of price dispersion in multi-channel retailers.

#### References

A. Parasuraman, Valarie A. Zeithaml., & Leonard L. Berry. (1988).

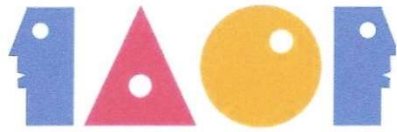
Communication and Control Processes in the Delivery of Service Quality. *Journal of Marketing*, Vol. 52. No. 2, 35-48.

- Agnieszka Wolk and Christine Ebling. (2010). Multi-channel price differentiation: An empirical investigation of existence and causes. *International Journal of Research in Marketing*, Vol. 27. No. 2, 142-150.
- Ancarani, F., and Shankar, V. (2004). Price levels and price dispersion within and across multiple retailer types: Further evidence and extension. *Journal of the Academy of Marketing Science*, Vol. 32. No. 2, 176-187.
- Ancarani, F., and Shankar, V. (2004). Price levels and price dispersion within and across multiple retailer types: Further evidence and extension. *Journal of the Academy of Marketing Science*, Vol. 32. No. 2, 176-187.
- Baker, J., Parasuraman, A., Grewal, Dhruv, G., & Voss, G. B. (2002). The influence of multiple store environment cues on perceived merchandise value and patronage intentions. *Journal of Marketing*, Vol. 66, 120-141.
- Childers, T.L., Carr, C.L., Peck, J. & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of Retailing*, Vol. 77. No. 4, 511-535.
- Chiou, J.-S., and Droge, C. (2006). Service Quality, Trust, Specific Asset Investment, and Expertise: Direct and Indirect Effects in a Satisfaction-Loyalty Framework. *Journal of the Academy of Marketing Science*, Vol. 34. No. 4, 613-627
- Clay S Karen, Ramayya Krishnan, E. Wolff ., & D. Fernandes. (2002). Retail strategies on the web: Price and non-price competition in the online book industry.
- Clay, Karen, Ramayya Krishnan and E. Wolff. (2001). Prices and price dispersion on the web: Evidence from the online book industry. *Journal of Industrial Economics*, Vol. 49. No. 4, 521-539.
- Denise D. Schoenbachler, Geoffrey L. Gordon. (2002). Multi-channel shopping: understanding what drives channel choice. *Journal of Consumer Marketing*, Vol. 19. No. 1, 42-53.
- Dodds, B.W., Monroe, K. B., & Grewal, D. (1985). The Effect of Brand and Price Information on Subjective Product Evaluation.

- Advances in Consumer Research*, Vol. 12, 85-90.
- Fabio Ancarani, Frank Jacob., & Fre'de'ric Jallat. (2009). Cross-country analysis of price levels and dispersion in online and of-fline environments\_ an empirical analysis in France and Germany. *Journal of Product and Brand Management*, Vol. 18. No.7 , 497-505.
- Fernández-Sabiote, E., and Román, S. (2012). Adding clicks to bricks: A study of the consequences on customer loyalty in a service context. *Electronic Commerce Research and Applications*, Vol. 11. No. 1, 36-48.
- Friedman, L. G. and T. R. Furey. (1999). *The Channel Advantage: Going to Market with Multiple Sales Channels to Reach More Customers*. Butterworth Heinemann, 228.
- Gefen D. and Devine P. (2001). Customer Loyalty to an Online Store: The Meaning of Online Service Quality.
- George J. Stigler. (1961). The economics of information. *The Journal of Political Economy*, Vol. 69. No. 3, 213-225.
- Grewal, D., Lyer, G. R., Krishnan, R., & Sharma, A. (2003). The Internet and the price-value-loyal chain. *Journal of Business Research*, Vol. 56, 391-398.
- J.E. Urbany, P.R. Dickson, R. Kalapurakal. (1996). Price search in the retail grocery market. *Journal of Marketing*, 91-104.
- Joan Lindsey-Mullikin and Dhruv Grewal. (2006). Imperfect information: The persistence of price dispersion on the web. *Journal of the Academy of Marketing Science*, Vol. 34. No. 2, 236-243.
- Junhong Chu, Pradeep K. Chintagunta., & Naufel J. Vilcassim. (2007). Assessing the Economic Value of Distribution Channels: An Application to the Personal Computer Industry. *Journal of Marketing Research*, Vol. 44. No. 1, 29-41.
- Khawaja A. Saeed, Varun Grover., & Yujong Hwang. (2003). Creating Synergy with a Clicks and Mortar Approach. *Communications of the ACM*, Vol. 46. No.12, 206-212.

- Kim, H. W., Xu, Y., and Gupta S. (2011). Which is more important in Internet shopping, perceived price or trust? *Electronic Commerce Research and Applications*, Vol. 24. No.1, 1-12.
- Kwon, K., and Jain, D. (2009). Multi-channel shopping through nontraditional retail formats: Variety-seeking behavior with hedonic and utilitarian motivations. *Journal of Marketing Channels*, Vol. 16. No. 2, 149-168.
- Kwon, Wi-Suk and Sharron J. Lennon. (2005). Development of an Apparel Specialty Retail Brand Image Measurement. in Proceedings of the Annual Meeting of the International Textile and Apparel Association.
- Mitzi M. Montoya-Weiss, Glenn B. Voss., & Dhruv Grewal. (2003). Determinants of Online Channel Use and Overall Satisfaction with a Relational, Multichannel Service Provider. *Journal of the Academy of Marketing Science*, Vol. 31. No. 4, 448-458.
- Monroe, K. B., and Krishnan. (1985). The Effect of Price on Subjective Product Evaluation in Perceived Quality : *How Consumer View Stores and Merchandise*. New York : McGraw-Hill Book Company.
- Noble, S. M., Griffith, D. A., & Weinberger, M. G. (2005). Consumer derived utilitarian value and channel utilization in a multi-channel retail context. *Journal of Business Research*, Vol. 58, 1643-1651.
- Pan, Xing, Brian T. Ratchford., & Venkatesh Shankar. (2002). Can price dispersion in online markets be explained by differences in E-Tailer service quality. *Journal of Academy of Marketing Science*, Vol. 30. No. 4, 433-445.
- Pan, Xing, Brian T. Ratchford., & Venkatesh Shankar. (2004). Price dispersion on the Internet: A review and directions for future research. *Journal of Interactive Marketing*, Vol. 18. No. 4, 116-135.
- Prasarnphanich, P., and Gillenson, M. L. (2003). The Hybrid Clicks and Bricks Business Model. *Communications of the ACM*, Vol. 46. No. 12, 178-185.

- Ruiliang, Yan. (2008). Profit sharing and firm performance in the manufacturer-retailer dual-channel supply chain. *Electronic Commerce Research*, Vol. 8. No. 3, 155-172.
- Shankar Venkatesh, Arvind Rangaswamy., & Michael Pusateri. (2001). *The online medium and customer price sensitivity*. Working Paper. University of Maryland. College Park.
- Steinfeld, C. and Whitten, P. (1999). Community level socio-economic impacts of electronic commerce. *Journal of Computer-Mediated Communication*, Vol. 5.No. 2, 45-50.
- Theter Bruce S. (2002). Who co-operates for innovation, and why - an empirical analysis. *Research Policy*, Vol. 31, 947-67.
- Tu"lin Erdem and Joffre Swait. (1998). Brand equity as a signaling phenomenon. *Journal of Consumer Psychology*, Vol. 7. No. 2, 131-157.
- Tu"lin Erdem, Joffre Swait., & Jordan Louviere. (2002). The impact of brand credibility on consumer price sensitivity. *International Journal of Research in Marketing*, Vol. 19. No. 1, 1-19.
- Zeithaml, V. A. (1988). Consumer Perceptions of Price, Quality and Value: A Means-End Model and Synthesis of Evidence. *Journal of Marketing*, Vol. 52, 2-22.
- Zimmermann, Linda K., & Loren V. Geistfeld. (1984). Economic Factors Which Influence consumer Search for Price Information. *Journal of Consumer Research*, Vol. 18. No. 1, 119-130



THE EFFECTS BETWEEN THE LUXURIOUSNESS OF RESTAURANT  
FURNISHINGS AND RELATIONSHIP QUALITY; MODERATED BY THE  
DEGREE OF INVOLVEMENT

Ju-Feng Shen \*

College of Management

Dayeh University;

Department of Business Administration, Cheng Shiu University

\*Corresponding Author: [jufeng@gcloud.csu.edu.tw](mailto:jufeng@gcloud.csu.edu.tw)

Shih-Jung Fang

College of Management

Hsiuping University of Science and Technology

Yin -Chin Hu

College of Hospitality Management

National Kaohsiung University of Hospitality and Tourism

Abstract

The main purpose of this paper is to examine whether the luxuriousness of restaurant furnishings affected the strength of relationship quality in business. Consumer involvement is also used as a moderating variable. 340 responses were collected for this study. Once responses that were incomplete, obviously false or failed to play the role properly were excluded, a total of 336 valid responses were received for an effective recovery rate of 98%. Two-factor analysis of variance was also used to verify the assumptions of this study. The empirical results showed that: The luxuriousness of restaurant furnishings had a positive effect on relationship quality. The effects between the luxuriousness of restaurant furnishings and relationship quality was also moderated by the degree of involvement. For luxurious restaurants, the satisfaction, trust and commitment of consumers with high involvement were significantly greater than

those with low involvement. For restaurants without luxurious furnishings, the satisfaction, trust and commitment of consumers with low involvement were significantly greater than those with high involvement. This paper then proposed a concrete theory, practical implications as well a direction for future research based on the above findings.

Keywords: Relationship quality, luxuriousness of restaurant furnishings, involvement

## Introduction

The marketing paradigm shifted from being transaction-oriented to being relationship-oriented from the 1990s onwards. Having gained the attention and favor of the academic and business communities, relationship marketing has become the core concept in corporate marketing with an emphasis on the building, development and maintaining of relationships between both parties in a transaction (Morgan and Hunt, 1994). The service industry in Taiwan is now approaching a saturation point and competition has continued to intensify. The building of close customer relationships has become the service industry's main weapon for securing a competitive advantage (Reichheld, 1993). The building of a close, long-term relationship between service providers and customers forms the foundation of a loyal customer base (Reichheld, 1993). This not only reduces defection among customers. It also boosts a company's sales, profits and repurchase intention, creates word-of-mouth advertising among customers (Zeithaml, Berry and Parasuraman, 1996) and helps to moderate threats for a volatile competition environment.

Customers expect to establish a good relationship with the service provider in order to enjoy proactive service attitude, and services tailored to

their needs and requirements. This reduces the uncertainty risk and transaction cost for the customer's future interests while generating social benefits. Relationship marketing is therefore a way of creating a mutually beneficial outcome for both the customer and service provider. The most important measure of relationship success and strength is relationship quality (Smith, 1998). Roberts, Varki and Brodie (2003) also proved that relationship quality offers a better predictor of consumer intent than service quality.

Consumers are governed by both reason and emotion during consumption. Market competition is also continuing to intensify. Quality and function are no longer sufficient to satisfy the needs of consumers nor do they generate economic value for businesses. What businesses now need is to use novel stimuli to appeal to consumers' emotions and touch their hearts through an aesthetic experience. Pleasant experiences are used to create an emotional link with the consumer and make them feel more positive about a brand or product. The furnishing of the service venue is the most important visual experience for making consumers enter a business and pay for its services. Can this kind of experience value boost the relationship quality with the consumer in a way similar to the functional value of products and services?



Despite the lack of academic research, this type of visual experience is a crucial weapon for service businesses looking to differentiate themselves from their competitors in the market and create more economic value. Existing literature on the physical environment tends to look at the stimuli from servicescapes and the emotional reactions of consumers. Emotion therefore serves as an intervening variable for influencing consumer satisfaction (Lin and Mattila, 2010; Wakefield and Blodgett, 1994); repurchase intention (Wakefield and Blodgett, 1994; Tristan and Ran, 2014), word of mouth (Tristan and Ran, 2014; Wakefield and Blodgett, 1994) as well as interaction and affinity between consumers and service personnel. Repurchase intention and word of mouth are indicators of loyalty. Loyalty represents customer commitment and trust (Samuelson and Sandvik, 1997). Other research also proved that experienced environments influence consumer perception of a business' quality (Ha and Fang, 2012), image (Ryu et al., 2008, 2012) and value (Ryu et al., 2008). The perceived quality, perceived image and perceived value all directly affect the consumer's perception of their relationship quality with the business. These suggest that the servicescape can influence the building and maintenance of business relationship quality. Very few of the literature on relationship quality attempted to verify directly how the servicescape affects relationship quality, so this was one of the motives for this study.

To gain a more complete understanding of how the servicescape influences consumer relationship quality, the level of consumer involvement dimension must also be taken into account. The level of involvement affects

attitude changes (Petty, Cacioppo, and Schumann, 1983), information processing and intention to establish a relationship (Gaby, Wulf and Schumacher, 2003). The same servicescape will generate different perceptions and deliberations for consumers with different levels of involvement. The level of involvement was therefore added as moderating variable in this study. This will give a clearer and more complete understanding on how the "servicescape" affects consumer relationship quality. Out of this came the second motive for this study.

The purpose of this paper is to examine whether the luxuriousness of furnishing affected relationship quality in the food & beverage industry. Whether such an influence varied depending on the level of consumer involvement is also dissected.

### *Servicescape*

Servicescape is a term widely used in marketing. It influences consumer judgment of tangible and intangible consumption clues (Hooper and Coughlan, 2013). Kotler (1974) was one of the earliest academics to use the servicescape as a marketing tool and gave it the following definition: the design of buying environments to produce specific emotional effects in the buyer that enhance her/his purchase probability.

Ezeh and Harris (2007) defined servicescape as: The physical environment housing the service encounter, which elicits internal reactions from customers leading to the display of approach or avoidance behaviors. As for the dimensions of the servicescape,

Kotler (1974) divided the servicescape into four dimensions based on the four human senses of sight, hearing, smell and touch: (1) Visual dimension: Such as colors and brightness. (2) Aural dimension: Such as volume and tone. (3) Olfactory dimension: Such as smells and freshness. (4) Tactile dimension: Such as temperature and hardness. Baker (1987) divided the servicescape into three main dimensions: (1) Ambient factors: Background ambiances that only affects the human subconscious such as temperature, lighting, scent and cleanliness. (2) Design factors: Refers to visual stimuli that have an obvious effect on the customer. These can be further broken down into aesthetics (such as the building's internal/external appearance, colors and materials) and function (such as layout and function). Design factors exist as stimuli that act directly on the senses to create a positive perception and promote approach behaviors in the customer. (3) Social factors: Refers to the human factor in the servicescape including the appearance, behavior and number of service personnel and other customers.

Bitner (1992) took a different approach when dividing the service -scape into three main categories: (1) Ambient condition: Such as temperature, air quality and noise; (2) Space function: Such as arrangement, equipment and furniture. (3) Signs, symbols and artifacts: Such as signs, artificial decorations and decorative style. Many academics have adopted and verified these three environmental dimension types. They are considered to be key factors for describing the physical surroundings in the service industry. This method for classifying the three envi-

ronmental dimensions have been extensively used in restaurant servicescapes as well (Ellen and Zhang, 2014).

The three environmental dimensions (ambient condition; space function; signs, symbols and artifacts) proposed by Bitner (1992) as well as the social factors in the environment can therefore completely encompass all environmental dimensions. No matter how the servicescape is classified, the effect of the environment on human beings must all first be perceived through the five senses before they can influence people's perception, emotion, attitude and behavior. The greatest effect that servicescape on human perception is through vision (Vieira, 2010). A visually elegant environment design can aid in consumer identification of the enterprise and achieve differentiation with competitors. Symbolic signs can also influence the consumer's understanding and rating of the environment. The visual atmosphere of McDonald's, for example, conveys a sense of youth and joy to consumers (Vieira, 2010). The visual aesthetics of the store influence consumer perception of the store's brand and quality. It also influences the consumer's satisfaction and loyalty to the store. The visual aesthetics of the environment have a direct and far-reaching effect on consumers. It not only influences the consumer perception but also their attitude and behavior. Lin and Mattila (2010) believed that consumers use overall environmental clues to evaluate their dining experience. Baker and Grewal (1994) believed that the store environment is a combination of different key factors (such as color and layout). Consumers combine all of the elements in their evaluation and assumptions. Rarely do they make a judgment based on

just one or two factors. This paper will therefore use the overall visual aesthetics as the visual factor in examining the environment to explore how this type of aesthetic experience influenced the relationship quality between service businesses and customers. This paper adopted the environmental dimensions proposed by Kotler (1974) but looks only at the environment's overall visual dimension and clues. The servicescape in this paper is therefore defined as: The design aesthetics (such as refinement, luxury, design, and atmosphere) of the visual surroundings that business strove to elicit the expected internal reactions from customers leading to the display of approach or avoidance behaviors.

#### *Relationship quality*

Relationship quality was first proposed by Crosby, Evans and Cowels (1990) who defined relationship quality as: the overall evaluation of the strength of buyer-seller relationship, based on the past successful or failed experience with satisfying the needs and expectations of both parties. Academics differ over what dimensions should be included in a high-order construct like relationship quality. Crosby et al., (1990) defined relationship quality in terms of satisfaction and trust. Smith (1998) however believed that commitment is the long-term orientation for maintaining relationship and represents the longevity of the relationship. Relationship quality should therefore include not only trust and satisfaction but also commitment in order to measure the ability of an enterprise to derive lifelong value from the customer. The three dimensions of satisfaction, trust and commitment were there-

fore adopted by this paper for measuring relationship quality. Satisfaction is an emotional state accumulated over time and not the product off reason. It is a subjective emotional feeling in the consumer that reflects whether the transaction or contact experience was judged to be favorable and pleasant as a customer. Trust refers to the degree of trust and good will in one party as perceived by the other. It includes ability, goodwill and honesty. Commitment is the desire to permanently maintain a relationship of value. Both parties must believe that it is important to maintain the relationship and both parties will try doing their best to maintain their mutual relationship (Morgan and Hunt, 1994).

#### *Involvement*

Involvement: "The importance of a certain matter felt by a person based on their own personal needs, values and interests." (Zaichkowsky, 1985) The level of involvement is influenced by personal factors (need, values, and interests), product factors (price, risk, social visibility) and ambiance factors (Zaichkowsky, 1985). It represents the amount of "motivation" and "ability" possessed by a subject for processing information they come into contact with. As for the classification of involvement, Zaichkowsky (1985) divided involvement into advertising involvement, product involvement and purchase decision involvement. Product involvement is the importance of a product to the consumer, or the personal subjective consciousness assigned by the consumer to the product. It is a form of consumer involvement that is more long-lasting and less easily influenced by external ambiance factors.

Product involvement is often used during theory and practice as an effective segmentation variable. Flynn and Goldsmith (1993) also proved that using product involvement as the segmentation variable is a more effective than demographic variables at predicting consumer behavior. Product involvement was therefore adopted in this paper to measure the level of consumer involvement with restaurant food as well as the ambiance variable for the attractiveness of restaurant service personnel.

### Hypothesis

According to the theoretical framework of the M-R model, physical environmental stimuli elicits emotional reactions in the consumer (joy, excitement, control) that, in turn, influences the consumer's approach or avoidance behaviors. Most existing literature on the physical environment tend to look at the stimuli from servicescapes and the emotional reactions of consumers. Emotion therefore serves as an intervening variable for influencing consumer satisfaction (Lin and Mattila, 2010; Wakefield and Blodgett, 1994), repurchase intention (Wakefield and Blodgett, 1994, 1999; Tristan and Ran, 2014), word of mouth (Tristan and Ran, 2014; Wakefield and Blodgett, 1994) as well as interaction and affinity between consumers and service personnel. Repurchase intention and word of mouth are indicators of loyalty. Loyalty represents customer commitment. Consumer emotion is affected by their experience of the servicescape. When the consumer's perceived emotional value and pleasant experience is increased, these types of value representing happiness makes the consumer feel satisfaction. The association

of this emotion with the business generates commitment. Baker, Levy and Grewal(1992) also believed that when the consumer enjoys and likes the store environment this will generate higher product value, perceived interpersonal interaction as well as lower perceived psychological cost and time/effort cost. The result is a high level of visiting intent, which is a reflection of consumer satisfaction and commitment. Consumption emotion is also a source of information used for evaluating the trustworthiness of a company. Positive emotions promote greater consumer trust in the company. Research by Franco and Cataluna (2010) showed that emotions directly influence satisfaction, trust and commitment.

The following hypotheses were therefore made by this paper based on the above rationale:

*H1: The luxuriousness of restaurant furnishings has a positive influence on relationship quality.*

The level of involvement influences consumer perception of quantity and quality. It is also an indication of consumer motivation and a decider of consumer behavior. The Elaboration Likelihood Model (ELM) developed by Petty and Cacioppo(1986) offers a useful theoretical framework for explaining the level of involvement. ELM assumes that there are two routes that influence persuasion and attitude. The first is the central route where the message recipient has the motivation and ability to process that message. The recipient will carefully and thoughtfully consider the true merits of the message and this is classified as high-level elaboration. Message involvement is one of the key precedents to

message elaboration. More involvement meant greater elaboration. The second is the peripheral route. The message recipient is less motivated to thoroughly process the message. Their change in attitude is not based on the point being made in the message but on the ease of processing that image, as well as its periphery, background, cues and source. This is classified as low-level elaboration. Those with low-involvement are more likely to process messages through the peripheral route. More consumer involvement resulted in more service experience being received. Laurent and Kapferer (1985) believed that higher symbolic value and hedonic value in the product led to greater consumer involvement. Mudie, Cottam and Raeside (2003) pointed out that greater consumer involvement meant higher satisfaction. The more luxurious a restaurant's furnishings are the higher the perceived value (Ryu et al., 2008), positive emotion (Lin and Mattila, 2010) and experience value it generates in the consumer. The higher the consumer's perceived value, emotion and experience are, the more likely it is to be perceived and elaborated on by those with high-involvement. Those with high-involvement will then become aware of more attributes, results and value. Those with low-involvement who adopt the peripheral route for processing information is less motivated and equipped to process and elaborate on messages. Changes in their attitude are not based on the content of the message but on simple elaborations based on ambiance factors such as the visual effect. The positive visual effect of luxurious restaurant furnishings may elicit a positive attitude in those with low-involvement but the strength is lower than those with high-involvement

after in-depth elaboration and understanding. By comparison, consumer's perceived value, emotion and experience of restaurants with non-luxurious furnishings are lower as well. The attributes, result and value as understood by those with high involvement are also lower, resulting in their negative attitude being higher than those with low-involvement. The following hypotheses were made by this paper based on the above rationale:

*H2: The effects between the luxuriousness of restaurant furnishings and relationship quality is moderated by the degree of involvement. For luxurious furnishings, the effect is greater on those with high-involvement than with low-involvement. For non-luxurious furnishings, the effect is greater on those with low-involvement than those with high-involvement.*

## Research Design

The experimental design of this paper used the factorial design, as it can balance multiple "main effects" and "interaction effects" in the experiment. This study contained one independent variable (luxuriousness of the restaurant furnishings; divided into high or low) and one moderator variable (consumer involvement; divided into high or low). The dependent variable was "relationship quality." The experimental setting was controlled using the scenario method of experimental design.

### 1. Pretests

In this paper, a pretest was held to select the luxuriousness of restaurant furnishings with 50 current students or

community members asked to assess 22 photos of different restaurant furnishings. Four 9-point semantic differential scales were used to measure the level of luxuriousness. "High-class/Not high-class", "Luxurious/Not luxurious", "Good atmosphere/Poor atmosphere" and "Good design/Poor design" were used to measure how luxurious the furnishings in the photos were. '9' represented very high-class, luxurious, good atmosphere and good design. '1' represented very low-class, not luxurious, poor atmosphere and poor design. Two sets of photos were then selected from restaurant furnishings rated as "high" (mean = 8.1350) and "low" (mean = 2.0450) for luxuriousness. The t-test showed that  $t = 35.683$ ,  $p < 0.001$ . The luxurious group (mean = 8.1350) was significantly larger than the non-luxurious group (mean = 2.0450) so this paper made an appropriate selection on the luxuriousness of restaurant furnishings.

## 2. Measurement of dependent variables and moderator variables

The dependent variable in this paper was relationship quality. It was measured using a questionnaire developed from Doney and Cannon (1997) and Morgan and Hunt (1994). The questionnaire was divided into three dimensions: satisfaction, trust and commitment. "Involvement" was measured using a questionnaire developed from Zaichkowsky (1985) and Varki and Wong (2003). The above questionnaires all adopted the Likert 7-point scale. A score of '7' indicated "strongly agree" while a score of '1' indicated "strongly disagree."

## 3. Testing for reliability and validity

Reliability measures the validity of a measurement tool, or the consistency of measurements. This paper adopted the Cronbach's  $\alpha$  coefficient to measure the consistency of data. The  $\alpha$  value of each dimension in this paper ranged between 0.977 ~ 0.915. All were greater than 0.7, indicating a high level of internal consistency. Validity refers to the ability of the measurement tool to measure the problem that the researcher wishes to measure. The variables in this questionnaire were compiled using foreign and domestic literature. They were also inspected by experts and academics so the measurement scales used in this study possess a certain level of content validity. A measurement dimension possesses convergent validity if it satisfies the following criteria (Hair, Anderson, Tatham and Black, 2009): (1) Factor Loading must be greater than 0.7; (2) Composite Reliability (CR) must be greater than 0.7; and (3) Average Variance Extracted (AVE) must be greater than 0.5. In this paper, the factor loading of relationship quality ranged between 0.974 ~ 0.927 while involvement ranged between 0.889 ~ 0.824. CR of relationship quality ranged between 0.977 ~ 0.964 while involvement was 0.916. AVE of relationship quality ranged between 0.933 ~ 0.873 while involvement was 0.731. All satisfied the criteria set by Hair et al. (2009) so all dimensions of this paper exhibited sound convergent validity. This paper used the bootstrap method to establish the confidence interval of Pearson correlation coefficients between dimensions. If 1 (representing complete correlation) is not included then there is

discriminate validity between the dimensions (Torkzaden, Koufteros, Pflughoeft, 2003). SEM was used to establish the confidence interval between coefficients. After 1000 repeated estimations using the bootstrap method with 95% confidence level, this study found that the confidence interval between the dimensions in both Experiment 1 and Experiment 2 did not contain 1. The dimensions of this paper therefore possess discriminate validity.

#### 4. Experimental scenarios

The "Between Subject Design" experimental design was adopted in this paper. Different subjects received different experimental treatments to ensure they cannot see the full extent to which the variables were manipulated. This helped to prevent subjects from learning about the purpose of the experiment and reacting in a biased manner. Scenario-based role-playing was used in this paper. This method gives better control over the independent variable. It also allows the cause-and-effect between independent and dependent variables to be examined with great accuracy (Smith, Bolton and Wagner, 1999), reduces the moderating effect of external variables, and avoids errors caused by memory lapse or bias in the respondent during the answering process (Smith et al., 1999).

#### 5. Experimental procedure

This study mixed the two groups of restaurant furnishing photos (luxurious and non-luxurious) together randomly then distributed them at random to respondents. Each respondent was randomly assigned one photo to

reduce the influence of other moderating factors on this experiment. Convenience sampling was used for this study with suitable subjects in crowded parts of Kaohsiung such as the subway station, business districts and schools interviewed and asked to fill out a survey. The interviewer first asked the respondent if they had previous experience with working in the restaurant industry. If yes, the respondent asked the respondent to read through the scenario description in the questionnaire, then examine the color photo showing the top half of the service provider as well as color photo of the restaurant's interior furnishings. They were then asked to fill out the questionnaire playing the role of the consumer in the given scenario. A small gift was given upon completion. A total of 340 surveys were distributed for this study and 340 responses were collected. Once responses that were incomplete, obviously false or failed to play the role properly were excluded, a total of 336 valid responses were received for an effective recovery rate of 98%.

#### 6. Manipulation checks

Two variables were manipulated in this study: luxuriousness of the restaurant furnishings and level of consumer involvement. The t-test was carried out in this paper to determine whether the luxuriousness of restaurant furnishings was successfully manipulated. The result of  $t = 31.055$ ,  $P = 0.000 < 0.001$  showed that there was significant difference. The luxuriousness of luxury restaurants ( $M_{\text{luxurious}} = 5.8367$ ) was significantly higher than non-luxurious restaurants ( $M_{\text{non-luxurious}} = 2.1973$ ). The manipulation of restaurant furnishing luxuriousness in this paper was therefore very successful.

As for involvement, this paper used the post-classification method and the average value of 5.4709 from the respondent involvement scale to differentiate between high and low involvement. Those higher than the average were treated as high-involvement while those lower than the average were treated as low-involvement. The t-test for both levels of involvement achieved significance ( $t=21.975$ ,  $p=0.0000 < 0.001$ ) with  $M_{high} = 6.4702 > M_{low} = 4.3718$ . The manipulation of involvement in this paper was therefore very successful as well.7.

### Hypothesis testing

Two-factor ANOVA was carried out in this paper to examine hypotheses H1 and H2. Table 1 shows that the luxuriousness of restaurant furnishing's main effect achieved a significant difference in all three relationship quality dimensions of satisfaction, trust and commitment. The F values were  $F=659.789$ ,  $P=0.000 < 0.001$ ;  $F=436.412$ ,  $P=0.000 < 0.001$  and  $F=401.328$ ,  $P=0.000 < 0.001$  respectively. For "Relationship Quality - Satisfaction", consumer "satisfaction" for "luxurious restaurants" ( $M_{luxurious} = 5.6610$ ) was significantly higher than those for "non-luxurious restaurants" ( $M_{non-luxurious} = 2.8694$ ). For "Relationship Quality - Trust", consumer "trust" for "luxurious restaurants" ( $M_{luxurious} = 5.5996$ ) was significantly higher than those for "non-luxurious restaurants" ( $M_{non-luxurious} = 3.2234$ ). For "Relationship Quality - Commitment", consumer "commitment" for "luxurious restaurants" ( $M_{luxurious} = 5.4328$ ) was significantly higher than those for "non-luxurious restaurants" ( $M_{non-luxurious} = 2.9473$ ). There was therefore a positive correlation between luxuriousness of

restaurant furnishings and "relationship quality". Therefore, H1 is supported. Based on Table 1, The interaction effects between luxuriousness of restaurant furnishings and involvement in the three relationship quality dimensions of satisfaction, trust and commitment both reached significant difference. The F values were  $F=30.930$ ,  $P=0.000 < 0.001$ ;  $F=24.406$ ,  $P=0.000 < 0.001$  and  $F=21.492$ ,  $P=0.000 < 0.001$  respectively. Further simple main effect analysis and examination of Table 2 shows that for luxurious restaurants,  $F=32.444$  and  $P < 0.001$  so there was significant difference. Satisfaction of those with high-involvement ( $M_{high} = 5.9435$ ) was greater than those with low-involvement ( $M_{low} = 5.1818$ ). For non-luxurious restaurants,  $F=6.294$  and  $P < 0.05$  so there was significant difference. Satisfaction of those with low-involvement ( $M_{low} = 3.0404$ ) was greater than those with high-involvement ( $M_{high} = 2.6184$ ). From Table 3, for luxurious restaurants,  $F=30.218$  and  $P=0.000 < 0.001$  so there was significant difference. Trust of those with high-involvement ( $M_{high} = 5.8594$ ) was greater than those with low-involvement ( $M_{low} = 5.1818$ ). For non-luxurious restaurants,  $F=4.540$  and  $P < 0.05$  so there was significant difference. Trust of those with low-involvement ( $M_{low} = 3.3848$ ) was greater than those with high-involvement ( $M_{high} = 2.9864$ ). From Table 4, for luxurious restaurants,  $F=21.284$  and  $P < 0.001$  so there was significant difference. Commitment of those with high-involvement ( $M_{high} = 5.6834$ ) was greater than those with low-involvement ( $M_{low} = 5.0076$ ). For non-luxurious restaurants,  $F=5.214$  and  $P < 0.05$  so there was significant difference. Commitment of those with low-involvement



Table 1. Summary of 2-Factor Analysis of Variance for Luxuriousness of Furnishings and Level of Involvement

| Moderator variable<br><br>Independent variable   | Dependent variable   |          |                |         |          |                |            |          |                |
|--|----------------------|----------|----------------|---------|----------|----------------|------------|----------|----------------|
|  | Relationship quality |          |                |         |          |                |            |          |                |
|  | Satisfaction         |          |                | Trust   |          |                | Commitment |          |                |
|  | F-value              | P-value  | Scheffe method | F-value | P-value  | Scheffe method | F-value    | P-value  | Scheffe method |
| Luxuriousness of furnishings (A)                 | 659.789              | 0.000*** | A1 > A2        | 436.412 | 0.000*** | A1 > A2        | 401.328    | 0.000*** | A1 > A2        |
| Level of Involvement (B)                         | 2.548                | 0.111    |                | 1.846   | 0.175    |                | 0.827      | 0.364    |                |
| Luxuriousness of furnishings x Involvement (AxB) | 30.930               | 0.000*** |                | 24.406  | 0.000*** |                | 21.492     | 0.000*** |                |

Note 1: \* P<0.05 difference exists; \*\* P<0.01 significant difference; \*\*\* P<0.001 very significant difference

Note 2: A1: Luxuriousness of furnishings; A2: Non-luxurious furnishings; B1: High-involvement; B2: Low-involvement (M<sub>high</sub>= 2.6771). Therefore, H2 is supported.

Table 2. Simple Main Effect Analysis - Relationship Quality - Satisfaction

|                      |                       | Luxuriousness of furnishings |                    | F-value    | Post comparison |
|----------------------|-----------------------|------------------------------|--------------------|------------|-----------------|
|                      |                       | Luxurious (A1)               | Non-luxurious (A2) |            |                 |
| Level of Involvement | High-involvement (B1) | 5.9435                       | 2.6184             | 524.681*** | A1 > A2         |
|                      | Low-involvement (B2)  | 5.1818                       | 3.0404             | 188.106*** | A1 > A2         |
| F-value              |                       | 32.444***                    | 6.294*             |            |                 |

|                 |         |         |  |  |
|-----------------|---------|---------|--|--|
| Post comparison | B1 > B2 | B2 > B1 |  |  |
|-----------------|---------|---------|--|--|

Note 1: \* P<0.05 difference exists; \*\* P<0.01 significant difference; \*\*\* P<0.001 very significant difference

Table 3. Simple Main Effect Analysis - Relationship Quality - Trust

|                      |                       | Luxuriousness of furnishings |                    | F-value    | Post comparison |
|----------------------|-----------------------|------------------------------|--------------------|------------|-----------------|
|                      |                       | Luxurious (A1)               | Non-luxurious (A2) |            |                 |
| Level of Involvement | High-involvement (B1) | 5.8594                       | 2.9864             | 346.540*** | A1 > A2         |
|                      | Low-involvement (B2)  | 5.1588                       | 3.3848             | 122.395*** | A1 > A2         |
| F-value              |                       | 30.218***                    | 4.540*             |            |                 |
| Post comparison      |                       | B1 > B2                      | B2 > B1            |            |                 |

Note 1: \* P<0.05 difference exists; \*\* P<0.01 significant difference; \*\*\* P<0.001 very significant difference

Table 4. Simple Main Effect Analysis - Relationship Quality - Commitment

|                      |                       | Luxuriousness of furnishings |                    | F-value    | Post comparison |
|----------------------|-----------------------|------------------------------|--------------------|------------|-----------------|
|                      |                       | Luxurious (A1)               | Non-luxurious (A2) |            |                 |
| Level of Involvement | High-involvement (B1) | 5.6834                       | 2.6771             | 325.071*** | A1 > A2         |
|                      | Low-involvement (B2)  | 5.0076                       | 3.1312             | 110.770*** | A1 > A2         |
| F-value              |                       | 21.284***                    | 5.214*             |            |                 |
| Post comparison      |                       | B1 > B2                      | B2 > B1            |            |                 |

Note 1: \* P<0.05 difference exists; \*\* P<0.01 significant difference; \*\*\* P<0.001 very significant difference

( $M_{low} = 3.1312$ ) was greater than those with high involvement .

### Discussion and Conclusion

In most literature on servicescape, when looking at the influence of the three relationship quality dimensions (satisfaction, trust and commitment), they generally examine how the servicescape influences consumer emotion and how consumer's behavioral intention (such as repurchase intention, word-of-mouth, and referral intention) are influenced through emotion. The relationship between the servicescape and relationship quality is only examined through indirect inference. Or they only examined the direct relationship between servicescape and a particular dimension of relationship quality (Lin and Mattila, 2010) but not how the servicescape directly influences the three dimensions of relationship quality. Consumer perception and emotion can be influenced by the luxuriousness of furnishings. Whether this visual ambient factor can influence the strength of the commercial relationship has been subjected to less examination in marketing-related literature. This paper sought to fill in this gap in relationship quality. The research findings showed the luxuriousness of restaurant furnishings had a positive effect on relationship quality.

More luxurious restaurant furnishings resulted in stronger relationship quality between the restaurant and the consumer. The effects between the luxuriousness of restaurant furnishings and relationship quality was also moderated by the degree of involvement. For luxurious restaurants, the satisfaction, trust

and commitment of consumers with high involvement were significantly greater than those with low involvement. For non-luxurious restaurants, the satisfaction, trust and commitment of consumers with low involvement were significantly greater than those with high involvement. A visual ambiance factor like the luxuriousness of restaurant furnishings can therefore be seen to have a greater influence on those with high involvement. The more luxurious it is, the more positive the attitude among the highly involved becomes. The less luxurious it is, the more negative the attitude among the highly involved becomes as well. Due to the intangible nature of service customers rely on external clues to assess the quality of service. The luxuriousness of furnishings is one of the most obvious external clues. The luxuriousness of furnishings in the service industry can provide consumers with a pleasant experience.

Managers must also use good use of these environmental clues by manipulating the interior design, colors, space, decorations, layout, cleanliness and comfort to produce a consistent sense of refinement. In this way, the strength of relationship quality between the consumer and the restaurant can be greatly enhanced. Restaurant managers can also create different market segments based on the level of customer involvement. Service personnel can differentiate between the arrangements they provide to high and low-involvement customers. Highly involved customers can be guided to seating with a better visual experience to strengthen the relationship between the customer and restaurant. The restaurant can also regularly provide information

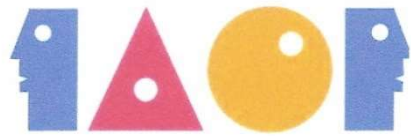
about promotions and new food and beverage products. It can also provide the cooking technique, calorie count, nutrition and the latest gourmet updates to raise the level of consumer involvement. Restaurants provide a leisure service so the servicescape is of moderate importance.

#### References

- Baker, J. (1987). The role of the environment in marketing services: the consumer perspective in the service challenge: integrating for competitive advantage, ed., Czepiel, J. A., Congram, C. A., and Shanahan, J., Chicago: American Marketing Association, 80.
- Baker, J. and Grewal, P. (1994). The influence of store environment on quality inferences and store image, *Journal of the Academy of Marketing Science*, 22(4), 328-339.
- Baker, J., Levy, M., & Grewal, D. (1992). An experimental approach to making retail store environmental decisions, *Journal of Retailing*, 68(4), 445-460.
- Bitner, M. J. (1992). Service scape: the impact of physical surrounding on customers and employees, *Journal of Marketing*, 56(2), 57-71.
- Crosby, L. A., Evans, K. R., and Cowels, D. (1990). Relationship quality in service selling: an interpersonal influence perspective, *Journal of Marketing*, 54(3), 236-245.
- Future research can make a comparison with service industries where the servicescape is of high importance (such as resorts) or of low importance (such as mini-golf courses) to provide a more clarification of how the servicescape influences relationship quality.
- Doney, P.M. & Cannon, J.P. (1997). An examination of the nature of trust in buy - seller relationships, *Journal of Marketing*, 61(2), 35-51.
- Ellen, T. and Zhang, R. (2014). Measuring the effect of company restaurant servicescape on patrons' emotional states and behavioral intentions, *Journal of Foodservice Business Research*, 17,85-102.
- Ezeh, C. and Harris, L. C. (2007). Service scape research: a review and a research agenda, *The Marketing Review*, 7(1), 59-78.
- Flynn, L. R. and Goldsmith, R. E. (1993). Application of the personal involvement inventory in marketing, *Psychology and Marketing*, 10(4), 357-366.
- Franco, M.S. and Cataluna, F.J.R. (2010). Connection between customer emotions and relationship quality in online music services, *Behaviour & Information Technology*, 29(6), 633-651.
- Gaby, O.S., Wulf, K. D., and Schumacher, P. (2003). Strengthening outcomes of retailer-consumer relationships: The dual impact of rela-

- tionship marketing tactics and consumer personality, *Journal of Business Research*, 56, 177-190.
- Ha, F. and Fang, S. (2012). The effects of dining atmospherics on behavioral intentions through quality perception, *Journal of Services Marketing*, 26(3), 204-215.
- Hair, J. F. Jr., Anderson, R. E., Tatham, R. L., and Black, W. C. (2009). *Multivariate data analysis*, 7th ed., Englewood Cliffs, N.J. Prentice Hall.
- Hooper, D. and Goughlan, F. (2013). The service scape as an antecedent to service quality and behavioral intentions, *Journal of Services Marketing*, 27(4), 271-280.
- Kotler, P. (1974). Atmospherics as a marketing tool, *Journal of Retailing*, 49(4), 48-64.
- Laurent, G. and Kapferer, J. N. (1985). Measuring consumer involvement profiles, *Journal of Marketing Research*, 22, 41-53.
- Lin, I. Y. and Mattila, A. S. (2010). Restaurant service scape, service encounter, and perceived congruency on customers' emotions and satisfaction, *Journal of Hospitality Marketing and Management*, 19, 819-841.
- Lin, I. Y. and Mattila, A. S. (2010). Restaurant service scape, service encounter, and perceived congruency on customers' emotions and satisfaction, *Journal of Hospitality Marketing and Management*, 19, 819-841.
- Morgan R. M. and Hunt, S. D. (1994). The commitment trust theory of relationship marketing, *Journal of Marketing*, 58(July), 20-38.
- Mudie, P., Cottam, A., & Raeside, R. (2003). An exploratory study of consumption emotion in-service industries, *Service Industries Journal*, 23, 84-105.
- Petty, R. E., Cacioppo, J. T., and Schumann, D. (1983). Central and peripheral routes to advertising effectiveness: the moderating role of involvement, *Journal of Consumer Research*, 10, 135-146.
- Petty, R. and Caccioppo, J. (1986). *Communication and persuasion: central and peripheral routes to attitude change*. New York: Springer-Verlag.
- Reichheld, F. F. (1993). Loyalty-based management, *Harvard Business Review*, 71(March-April), 64-73.
- Roberts, K., Varki, S., and Brodie, R. (2003). Measuring the quality of relationships in consumer services: an empirical study, *European Journal of Marketing*, 37(1/2), 169-196.
- Ryu, K., Han, H., and Kim, T. H. (2008). The relationships among overall quick-casual restaurant image, perceived value, customer satisfaction, and behavioral intentions, *International Journal of Contemporary*

- Hospitality Management*, 27, 459-469.
- Ryu, K., Lee, H. R., and Kim, W. G. (2012). The influence of the quality of the physical environment, food, and service on restaurant image, customer perceived value, customer satisfaction, and behavioral intentions, *International Journal of Contemporary Hospitality Management*, 200-223.
- Samuelson, B. and Sandvik, K. (1997). The concept of consumer loyalty, Proceedings, EMAC Conference, University of Warwick, 1122–1140.
- Smith, B.(1998).Buyer-seller relationships: Bonds, relationship management, and sex-type, *Canadian Journal of Administrative Sciences*, 15(1), 76-92.
- Smith, A K., Bolton R. N., and Wagwer, J. (1999). A model of customer satisfaction with service encounters involving failure and recovery, *Journal of Marketing Research*, Vol. XXXVI, 356-372.
- Torkzadeh, Koufteros, and Pfughoeft, (2003). Confirmatory analysis of computer self-efficacy, *Structural Equation Modeling*, 10(2),263-275.
- Tristan, E. and Ran, Z. (2014). Measuring the effect of company restaurant service scape on patrons' emotional states and behavioral intentions, *Journal of Foodservice Business Research*, 17, 85-102.
- Varki, S. and Wong, S. (2003). Consumer involvement in relationship marketing of service, *Journal of Service Research*, 6(1), 83-91.
- Vieira, V. A. (2010).Visual aesthetics in store environment and its moderating role on consumer intention, *Journal of Consumer Behavior*, Sept.-Oct., 364-380.
- Wakefield, K. L. and Blodgett, J. G. (1994).The importance of service scape in leisure service settings, *Journal of Services Marketing*, 8(3), 66-76.
- Wakefield, K. L. and Blodgett, J. G. (1999). Customer response to intangible and tangible service factors, *Psychology and Marketing*, 16(1), 51-68.
- Zaichkowsky, J. K. (1985). Measuring the involvement construct, *Journal of Consumer Research*, 12, 341-352.
- Zeithaml, L., Berry, L., and Parasuraman, A. (1996).The behavioral consequences of service quality, *Journal of Marketing*, 60(April), 31-46.



EXPLORING THE EFFECTS OF EMOTIONAL LABOR  
IN THE HOTEL INDUSTRY

Chieh-Heng Ko

Dept. of Hospitality Management, Da Yeh University, Taiwan, R.O.C.  
Email: [chko@mail.dyu.edu.tw](mailto:chko@mail.dyu.edu.tw)

Shinn-Nen Jeng

Dept. of Hospitality Management, Da Yeh University, Taiwan, R.O.C.  
Email: [jsndr@mail.dyu.edu.tw](mailto:jsndr@mail.dyu.edu.tw)

Abstract

The success of hospitality firms can rely on employees who can perform their jobs with positive emotional expression. However, very little empirical research has been conducted on the emotional labor. Therefore, the purpose of this study is to identify the role of emotional labor as a mediator between burnout and individual characteristics and job attributes. A questionnaire was developed to investigate the abovementioned relationships. A total of 223 Taiwanese hotel employees participated in this study. Data were analyzed through two hierarchical regression analysis. The results indicated that emotional labor only served as a partial mediator between burnout and individual characteristics. Therefore, hotel firms may use education and training to change employees' acting mode into a proper one.

Keywords: Emotional labor, Mediator, Hotel, Burnout

Introduction

Customer satisfaction depends on the quality of the interpersonal interaction between the customer and front-line employees. However, it is sometimes not a pleasant experience, specially when encountering demanding and difficult

customers. Emotional labor is the employee working in this kind of situation and is the performance of various forms of emotion work in the context of paid employment (Hochschild, 1983). Industry psychologists have recognized that positive emotional expression can have a fa-

avorable effect on customer service (Ashkanasy et al., 2002). Despite the fact that the success of hospitality firms relies on employees who are capable of performing their jobs with positive emotional expression, very little empirical research has been conducted on the emotional labor. Therefore, the purpose of this study is to identify (1) whether job characteristics and individual attributes predict hotel service providers' emotional labor? (2) the role of emotional labor as a mediator between burnout and individual characteristics and job attributes.

### Literature Review

During service transactions, the appropriate emotional reactions of individuals are expected. This is the origination of emotional labor (Hochschild, 1983). Service providers experience emotional dissonance when the emotions to be expressed differ from the emotions felt (Hochschild, 1983). Employees handle this dissonance either by surface acting or deep acting (Hochschild, 1983). According to her, feelings are changed from the "outside in" in surface acting (faking feelings), whereas feelings are changed from the "inside out" in deep acting (modifying inner feelings).

Brotheridge and Grandey (2002) structured emotional labor into two categories: One focuses on the characteristic of the job and the other emphasizes employees' emotion management process. The former is called "job-focused emotional labor" which includes the frequency, duration, and variety of emotional labor. The latter is named "emplo-

ye-focused emotional labor", an emotion management technique that employees use in the course of interactions with customers. This category includes surface acting and deep acting.

Brotheridge and Grandey (2002) found that frequency and variety of emotional display were positively related to surface acting and deep acting and that duration was positively related to deep acting. In the article by Brotheridge and Lee (2003), frequency and variety showed a positive relationship with surface acting and deep acting. Diefendorff et al. (2005) reported interaction characteristics (frequency, duration, and routine) were not significant predictors of surface acting but mostly related to deep acting. Specifically, duration had a positive impact on deep acting and routine showed a negative influence on deep acting. This notion suggests the possibility of frequency, variety, and duration increasing emotional labor in general (both surface and deep acting). Hence, the following three hypotheses are proposed regarding the relationships between the three interaction characteristics (frequency, duration, and variety) and emotional labor strategies.

*Hypothesis 1a. Frequency of emotional expression will have a positive relationship with hotel service employees' surface acting and deep acting.*

*Hypothesis 1b. Variety of emotional expression will have a positive relationship with hotel service employees' surface acting and deep acting.*



*Hypothesis 1c. Duration of interaction will have a positive relationship with hotel service employees' deep acting.*

Most emotional labor researchers seem to agree that service workers' emotional acting can be explained by personality traits because personal dispositions underlie much of the way that people think and behave (Ashkanasy et al., 2002). The dispositional factors frequently mentioned in their relations to emotional labor are positive affectivity (PA) and negative affectivity (NA). NA is generally positively related to surface acting and PA demonstrates a negative association with surface acting (Brotheridge and Lee, 2003; Diefendorff et al., 2005). Some scholars have operationalized PA with extraversion and NA with neuroticism because extraversion and neuroticism are strongly related to PA and NA, respectively (Diefendorff et al., 2005). Diefendorff and Richard (2003) argued that the advantage of using personality traits, instead of the direct measures of affectivity, is that since extraversion and neuroticism are linked to the dominant personality framework, researchers can make broader inferences in connection with organizational studies using those traits. Hence, utilizing the personality traits of extraversion and neuroticism, we posited the following two hypotheses with more focus on surface acting.

*Hypothesis 2a. Neuroticism will have a positive influence on hotel service providers' surface acting.*

*Hypothesis 2b. Extraversion will have a negative influence on hotel service providers' surface acting.*

Job burnout is defined as “a syndrome of emotional exhaustion, depersonalization of others, and a feeling of reduced personal accomplishment” (Lee and Ashforth, 1990, p. 743). Therefore, three factors of burnout is emotional exhaustion, depersonalization, and personal accomplishment and also are renamed exhaustion, cynicism, and professional efficacy, respectively (Schaufeli et al., 1996). Brotheridge and Lee (2003) indicated that surface acting was positively correlated with emotional exhaustion and depersonalization and negatively correlated with personal accomplishment. Grandey (2003) also hypothesized a direct, positive path from surface acting to emotional exhaustion and the result was supported. Brotheridge and Lee (2002) explored the possibility of the existence of intervening variables between emotional labor and burnout. They demonstrated surface acting had an indirect influence on emotional exhaustion and depersonalization but negative effect on personal accomplishment. Therefore, the following three hypotheses are proposed regarding the relationship between surface acting and three factors of burnout.

*Hypothesis 3a. Hotel service providers' surface acting will have a positive influence on exhaustion.*

*Hypothesis 3b. Hotel service providers' surface acting will have a positive influence on cynicism.*

*Hypothesis 3c. Hotel service providers' surface acting will have a negative influence on professional efficacy.*

Regarding the deep acting strategy, the majority of studies show that deep acting produces more favorable outcomes than surface acting. For instance, deep acting had the positive correlation with a sense of personal accomplishment among the three job burnout factors (Brotheridge and Lee, 2003). Similarly, Brotheridge and Grandey (2002) reported deep acting as a significant, positive predictor of personal accomplishment. In the path model, Brotheridge and Lee (2002) showed deep acting affected emotional exhaustion indirectly through the authenticity variable, whereas deep acting had a direct, negative impact on depersonalization and a direct, positive influence on personal accomplishment. Therefore, the following summary shows the three research hypotheses of this study about the deep acting strategy.

*Hypothesis 4a. Hotel service providers' deep acting will have a positive influence on exhaustion*

*Hypothesis 4b. Hotel service providers' deep acting will have a negative influence on cynicism.*

*Hypothesis 4c. Hotel service providers' deep acting will have a positive influence on professional efficacy.*

In Grandey's (2000) conceptual framework of emotional labor, the following process is proposed: situational clues (e.g., interaction expectations,

emotional events), individual variables (e.g., gender, emotional intelligence, affectivity), and organizational factors (e.g., autonomy, supervisor support) are input; employees soon experience an emotional regulation process (surface acting and deep acting); and emotional acting leads to individual and organizational well-being (e.g., burnout and work performance). The basic framework of this study is in line with Grandey's (2000) model with an implication of emotional acting as a mediator. Therefore, the following hypothesis is put forward in the hotel work setting.

*Hypothesis 5. The two emotional labor strategies will act as a mediator between hotel service provider's burnout and individual and job-related variables.*

#### Methodology

From previous empirical studies in the relevant literature, a questionnaire was developed to investigate (1) the relationship between job characteristics, individual attributes and hotel service providers' emotional labor and (2) the role of emotional labor as a mediator between burnout and individual characteristics and job attributes. A total 223 Taiwanese hotel employees participated in this study.

To determine the significant antecedents of emotional labor, two hierarchical regression analyses were run for employees' acting methods of surface and deep acting (dependent variables) with a set of predicted antecedents (independent variables).

Table 1. Regression of emotional labor on job characteristics, Individual characteristics, and control variables

| Independent variables           | Dependent variables |              |             |              |
|---------------------------------|---------------------|--------------|-------------|--------------|
|                                 | Surface acting      |              | Deep acting |              |
|                                 | Equation 1          |              | Equation 1  |              |
|                                 | $\beta$             | $\Delta R^2$ | $\beta$     | $\Delta R^2$ |
| I. Control variables            |                     | 0.04         |             | 0.03         |
| Age                             | -0.07               |              | -0.09       |              |
| Gender                          | 0.14                |              | -0.10       |              |
| Tenure                          | -0.11               |              | -0.02       |              |
| II. Job characteristic          |                     | 0.10**       |             | 0.26**       |
| Frequency                       | 0.01                |              | 0.03        |              |
| Variety                         | 0.11                |              | 0.18*       |              |
| Duration                        | -0.10               |              | 0.11        |              |
| III. Individual characteristics |                     | 0.08**       |             | 0.04*        |
| Extraversion                    | 0.00                |              | 0.15        |              |
| Neuroticism                     | 0.30**              |              | 0.06        |              |
| <i>F</i>                        | 3.48**              |              | 6.10**      |              |
| Total <i>R</i> <sup>2</sup>     | 0.21                |              | 0.34        |              |
| Adjusted <i>R</i> <sup>2</sup>  | 0.16                |              | 0.27        |              |

Note:  $\beta$ , standardized beta weight. \* $p < 0.05$ , \*\* $p < 0.01$

Among independent variables, control variables (gender, age, and experience) entered the regression equation first; frequency, duration, variety were grouped together as job-related variables and entered the model second; and personality characteristics (extraversion and neuroticism) were added last as another separate group.

Next, a series of regression equations with similar hierarchical steps were used to investigate the influence of the two acting modes on hotel service em

ployees' burnout and determine the extent to which the acting modes serve as a mediator between burnout (dependent variable) and personality and job-related variables (independent variables).

In the first equation, a significant relationship must exist between the predictor (independent variable) and the mediator; in the second equation, the predictor must be significantly related to the outcome (dependent variable); and last, the mediator must affect the outcome and the effect of the predictor on the outcome must be less in the third

equation than in the second. If the effect of the predictor disappears (becomes insignificant) in the third equation, the mediator is a full (complete) mediator and if the effect of the predictor still strongly exist but is reduced in the third equation, the mediator is referred to as a partial mediator.

## Results

Table 1 presents the findings on the predictors of emotional labor (equation 1). Overall, both acting models were significant (surface acting:  $F = 3.48$ ,  $p < 0.01$ ; deep acting:  $F = 6.10$ ,  $p < 0.01$ ) with a total  $R^2$  of 21% and 34%, respectively. Job-related variables made a significant  $R^2$  increment for surface acting ( $\Delta R^2 = 0.10$ ,  $p < 0.01$ ) and deep acting ( $\Delta R^2 = 0.26$ ,  $p < 0.01$ ). Among three job-related variables (frequency, variety, duration), only variety ( $\beta = 0.18$ ,  $p < 0.01$ ) were significant determinants of deep acting. Therefore, H1a (a positive relationship between frequency and both acting strategies) and H1c (a positive relationship between duration and deep acting) are rejected. H1b (a positive relationship between variety and both acting modes) is partially supported because variety was positively related to deep acting. Following the entry of dispositional variables, there were significant increments in  $R^2$  of both acting models (surface acting:  $\Delta R^2 = 0.08$ ,  $p < 0.01$ ; deep acting:  $\Delta R^2 = 0.04$ ,  $p < 0.05$ ). The analyses indicated that neuroticism is significantly associated with surface acting ( $\beta = 0.30$ ,  $p < 0.01$ ) and extraversion may be marginally related to deep acting ( $\beta = 0.15$ ,  $p = 0.061$ ). Hence, H2a regarding a positive relationship between neuroticism and surface acting is supported and

the other hypothesis (H2b) concerning a negative effect of extraversion on surface acting is rejected.

Table 2 presents the results of the regression analyses conducted to examine the role of emotional labor as a mediator and its influence on burnout. In equation 2 (without acting variables), neuroticism was positively related to exhaustion ( $\beta = 0.34$ ,  $p < 0.01$ ). The entry of emotional labor contributed unique variance ( $\Delta R^2 = 0.10$ ,  $p < 0.01$ ) to the model (equation 3) and the final model showed two variables as significant predictors of exhaustion: neuroticism ( $\beta = 0.20$ ,  $p < 0.01$ ), and surface acting ( $\beta = 0.33$ ,  $p < 0.01$ ). Surface acting displayed a positive effect on exhaustion as expected. Compared with the results of equation 2, the final model (equation 3) indicated surface acting as a possible partial mediator between neuroticism and exhaustion.

As with exhaustion, the model for cynicism (equation 2) indicated neuroticism ( $\beta = 0.31$ ,  $p < 0.01$ ) as significant determinants of cynicism. When emotional labor was entered, there was a significant increment in  $R^2$  of the model ( $\Delta R^2 = 0.12$ ,  $p < 0.01$ ). Surface acting had a significant, positive beta coefficient ( $\beta = 0.34$ ,  $p < 0.01$ ) and deep acting showed a marginally significant, negative coefficient ( $\beta = 0.15$ ,  $p = 0.057$ ). The third (final) model included neuroticism ( $\beta = 0.22$ ,  $p < 0.01$ ), surface acting, and deep acting as significant predictors of cynicism. A comparison of the results of equations 2 and 3 suggested that surface acting is a partial mediator between neuroticism and cynicism.

Table 2 Regression of burnout on job characteristics, individual characteristics, and control variables (equation 2) and acting strategies (equation 3)

| Independent variables           | Dependent variables |                 |              |                 |                 |              |                 |                 |              |
|---------------------------------|---------------------|-----------------|--------------|-----------------|-----------------|--------------|-----------------|-----------------|--------------|
|                                 | Exhaustion          |                 |              | Cynicism        |                 |              | Prof. efficacy  |                 |              |
|                                 | Equa-<br>tion 2     | Equa-<br>tion 3 | $\Delta R^2$ | Equa-<br>tion 2 | Equa-<br>tion 3 | $\Delta R^2$ | Equa-<br>tion 2 | Equa-<br>tion 3 | $\Delta R^2$ |
|                                 | $\beta^i$           | $\beta^f$       |              | $\beta^i$       | $\beta^f$       |              | $\beta^i$       | $\beta^f$       |              |
| I. Control variables            |                     |                 | 0.01         |                 |                 | 0.01         |                 |                 | 0.00         |
| Age                             | -0.03               | 0.03            |              | -0.08           | -0.06           |              | 0.11            | 0.10            |              |
| Gender                          | -0.03               | 0.05            |              | -0.09           | -0.11           |              | -0.02           | -0.02           |              |
| Tenure                          | 0.11                | 0.14            |              | 0.00            | 0.02            |              | -0.02           | -0.01           |              |
| II. Job characteristic          |                     |                 | 0.07*        |                 |                 | 0.11**       |                 |                 | 0.29**       |
| Frequency                       | —                   | —               |              | —               | —               |              | 0.30**          | 0.30**          |              |
|                                 | 0.15*               | 0.15*           |              | 0.26**          | 0.25**          |              |                 |                 |              |
| Variety                         | 0.11                | 0.13            |              | -0.10           | -0.09           |              | 0.02            | 0.02            |              |
| Duration                        | 0.09                | 0.06            |              | 0.04            | 0.01            |              | -0.12           | -0.12           |              |
| III. Individual characteristics |                     |                 | 0.15**       |                 |                 | 0.10**       |                 |                 | 0.02         |
| Extraversion                    | -0.11               | -0.11           |              | -0.05           | -0.05           |              | 0.12            | 0.11            |              |
| Neuroticism                     | 0.34**              | 0.20**          |              | 0.31**          | 0.22**          |              | 0.07            | 0.07            |              |
| IV. Acting strategies           |                     |                 | 0.10**       |                 |                 | 0.12**       |                 |                 | 0.08**       |
| Surface acting                  |                     | 0.30**          |              |                 | 0.32**          |              |                 | 0.02            |              |
| Deep acting                     |                     | -0.06           |              |                 | -0.15           |              |                 | 0.27**          |              |
| <i>F</i>                        |                     | 4.84**          |              |                 | 5.03**          |              |                 | 5.93**          |              |
| Total <i>R</i> <sup>2</sup>     |                     | 0.33            |              |                 | 0.34            |              |                 | 0.38            |              |
| Adjusted <i>R</i> <sup>2</sup>  |                     | 0.26            |              |                 | 0.27            |              |                 | 0.32            |              |

Note:  $\beta^i$ , standardized beta weight without emotional labor variables;  $\beta^f$ , final beta (standardized) coefficient after all variables have been enter. \* $p < 0.05$ , \*\* $p < 0.01$

Lastly, professional efficacy (in equation 2) was positively related to positive display rules ( $\beta = 0.36$ ,  $p < 0.01$ ) and neither personality variable was related to professional efficacy. Emotional labor explained 8% of the variance of the model (equation 3) and deep acting had a significant, positive beta coefficient as predicted ( $\beta = 0.27$ ,  $p < 0.01$ ). Based on

the above results, the following hypotheses are supported: a positive effect of surface acting on exhaustion (H3a); a positive impact of surface acting on cynicism (H3b); a negative effect of deep acting on cynicism (H4b); and a positive influence of deep acting on professional efficacy (H4c). The two hypotheses predicting a negative relationship between surface acting and professional efficacy

(H3c) and a positive effect of deep acting on exhaustion (H4a) are rejected. With regard to the mediating role of emotional labor between burnout and job and personality variables (H5), no full mediation was found. Only partial mediation was detected in the following three relationships: neuroticism → surface acting → exhaustion; neuroticism → surface acting → cynicism.

Overall, the results of this study did not successfully support the mediated effect of emotional labor. Emotional labor strategies mostly served as a partial mediator in a few, limited situations (i.e., between neuroticism and burnout). Mediators provide the mechanism behind the relation between predictors and outcomes (Frazier et al., 2004). In other words, emotional labor strategies may explain why and how neuroticism lead to the burnout factors. More specifically, the reason why hotel personnel high in neuroticism have a greater level of burnout (i.e., exhaustion and cynicism) is that in part, they are likely to rely on surface acting when dealing with guests.

### Conclusions

Emotional labor has recently received tremendous attention because of its double-edged effects: It could have a negative influence on employees' well-being, but positive impact on company success. The results of this study suggest that emotional labor may not necessarily cause hotel service agents' burnout if they choose to make sincere efforts to experience the appropriate emotions (deep acting), which shares the new outlook on the relationship between

emotional labor and burnout (Brotheridge and Lee, 2003). It sends a crucial message to hotel practitioners that education and training may be necessary to change employees' acting mode into a proper one. For example, when hotel guests are angry, service providers should learn to express a "sincere" (not superficial) apology. When customers feel that the apology is true with proper remedies, customers are likely to be satisfied, which in turn, may make employees pleased, leading to decrease in stress. As the scenario given, deep acting can benefit hotel service workers and customers alike.

The variety of emotional expression significantly resulted in deep acting. The length of service transactions varies in hotels. For instance, hotel sales personnel may speak with potential customers for a longer period of time to bring in their business to the hotel than receptionists greeting and checking in guests briefly at the front desk. Although a longer encounter may give a better chance to express a variety of emotions, it seems to be important to train hotel personnel to express various, appropriate emotions even during short encounters with customers so that employees can remain deep actors.

The result of the present research supports that emotional expression and management is dependent on individuals' dispositional factors. Therefore, it may be important to review hotel job applicants' personality profiles prior to selection. Research has shown that the detection by customers of inauthentic expression may lead to even poorer perceptions of service quality (Mann, 1999).

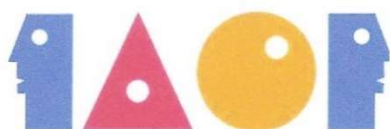
Hotel human resource managers should consider recruiting people high in extraversion and low in neuroticism because these types of applicants are more likely to increase hotel guests' perceptions of service quality and customer satisfaction through deep acting, and experience less burnout. In future research, it is recommended to consider other individual variables to find a more comprehensive personality profile of who are likely to be deep actors in the hospitality industry. For example, people high in agreeableness (one of the Big Five) are likely to exert more effort (deep acting) as these individuals strive to maintain a positive relationship and genuinely care about others' well-being.

#### References

- Ashkanasy, N.M., Hartel, C.E.J., Daus, C.S., (2002). Diversity and emotion: the new frontiers in organizational behavior research. *Journal of Management* 28 (3), 307–338.
- Brotheridge, C.M., Lee, R.T., (2002). Testing a conservation of resources model of the dynamics of emotional labor. *Journal of Occupational Health Psychology* 7 (1), 57–67.
- Brotheridge, C.M., Lee, R.T., (2003). Development and validation of the emotional labor scale. *Journal of Occupational and Organizational Psychology* 76, 365–379
- Diefendorff, J.M., Richard, E.M., (2003). Antecedents and consequences of emotional display rule perceptions. *Journal of Applied Psychology* 88 (2), 284–294.
- Diefendorff, J.M., Croyle, M.H., Gosserand, R.H., (2005). The dimensionality and antecedents of emotional labor strategies. *Journal of Vocational Behavior* 66, 339–357.
- Frazier, P.A., Tix, A.P., Barron, K.E., (2004). Testing moderator and mediator effects in counseling psychology. *Journal of Counseling Psychology* 51 (1), 115–134.
- Grandey, A.A., (2000). Emotion regulation in the workplace: a new way to conceptualize emotional labor. *Journal of Occupational Health Psychology* 5 (1), 95–110.
- Grandey, A.A., (2003). When the show must go on: surface acting and deep acting as determinants of emotional exhaustion and peer-rated service delivery. *Academy of Management Journal* 46, 86–96.
- Hochschild, A.R., (1983). *The Managed Heart: Commercialization of Human Feeling*. University of California Press, Berkeley, CA.
- Lee, R.T., Ashforth, B.E., (1990). On the meaning of Maslach's three dimensions of burnout. *Journal of Applied Psychology* 75, 743–747.
- Mann, S., (1999). *Hiding What We Feel, Faking What We Don't: Understanding the Role of Your Emotions at Work*. Harper-Collins, New York.
- Schaufeli, W.B., Leiter, M.P., Maslach, C., Jackson, S.E., (1996). The

Maslach burnout inventory: general survey (MBI-GS). In: Maslach, C., Jackson, S.E., Leiter, M.P. (Eds.), Maslach Burnout Inventory Manual, 3rd Edition. Consulting Psychologists Press, Palo Alto, CA, pp. 19–26.





U.S. STUDY OF A MAJOR MULTINATIONAL BANK:  
IS IT POSSIBLE TO IMPROVE THE WORK OF THE BRANCH?

Mojdeh Abdizadeh  
School of Business and Public Administration  
University of the District of Columbia  
Washington DC, USA  
[mojdeh.abdizadeh@gmail.com](mailto:mojdeh.abdizadeh@gmail.com)

[Sergey Ivanov, Ph.D.](#)  
School of Business and Public Administration  
University of the District of Columbia  
Washington DC, USA  
[sivanov@udc.edu](mailto:sivanov@udc.edu)

Abstract

This paper summarizes an organizational study conducted in 2015-2016 in a department of a major retail bank in the United States. The study analyzes the bank's organizational structure in terms of *complexity of work* (Elliott Jaques' *strata*), roles, and leadership. Analyzing the data, the researchers identify organizational problems, and provide recommendations to management to improve the work of bank's branches.

Key Words: Organizational Study, Banking, Elliott Jaques, *Work Stata*, Leadership

Introduction

The studied bank is a major international corporation with 7200 offices located in 89 countries and territories. There are 284,136 employees throughout the world working for this organization and it is one of the world's largest banking and financial organizations serving approximately 48 million customers.

This study focuses on the US Mid-Atlantic region (the table in the end of this paper shows the number of

employees and their different roles in 15 branches).

The research goal is to identify organizational issues applying organizational theories developed by Dr. Elliott Jaques (1996, 2002).

Methodology

One of the researchers conducted a survey among bank employees. The survey questions are designed to obtain a better understanding of dif-

ferent roles, their timespans, organizational issues, and ways to improve from employees' points of view. The survey follows the Elliott Jaques' requisite organizational theory's methods directed by Ivanov (Jaques, 1996, 2002), (Ivanov, 2006, 2011, 2012, 2013, 2014, 2015).

The total of 12 employees, from the flagship branch in the Mid-Atlantic region, responded the in-person survey questions. 58% of them have been working for the bank for more than 4 years. 40% of them have a college degree and the average age of the employee in the branch is 42 years old.

## Findings

### *Branch's Interworking*

The branch has a yearly goal to sell banking products to customers. This goal is divided among all of the branch employees. Each employee needs to contribute a certain percentage towards the yearly goals. For example, customer service representatives (bank tellers) need to refer five customers to bankers on daily basis, and the Premier Relationship Managers have quarterly goals on acquisition.

Making those sales goals are the tasks in these employees' role. The longest time they have to reach those goals is the *timespan of the role*.

Based on the answers from employees, three employees have daily tasks, one employee has monthly tasks, and the rest of the employees, including the branch manager, have quarterly tasks. The researchers, thus, find three major issues with these roles and their

timespans, as per Jaques' theory (1996, 2002), (Ivanov, 2011, 2012, 2013, 2015).

### *Issues Discovered*

First, not all employees who work in a same branch work for the branch manager. Based on the HR organizational chart, the mortgage officers and financial advisors who work in the branch, work for different managers, while they get some of their tasks and schedule from the branch manager. This causes confusion for the branch manager.

Second, among those employees who work for the branch manager, some of them get their tasks from their supervisors. This causes confusion for employees.

These two issues make employees confused and frustrated, as reported through the survey. It is not clear for them whose ideas and tasks to follow. Occasionally, there is a conflict between ideas and tasks amongst managers causing employees suffer from lack of support and ambiguity.

Third, if the timespan of the manager's role is the same or too close to the subordinate, the conflict comes up, according to the theory. This finding was verified by Ivanov's studies (2006, 2011, 2012, 2013, 2014, 2015).

When the organization's structure is too compressed, managers start micro managing, reducing the work value and preventing the organization from growing.

Based on data collected during the study, there are major issues in the

bank's branched. Employees have been struggling with those issues in their day-to-day jobs.

Almost all the employees are under the sales pressure. The fear of not making the numbers is very high, they are afraid of losing their jobs or get pre-fire warnings. They feel unsecured at their jobs that make them unable to perform well. It is difficult to perform in *feararchy*, a fear-based organizational paradigm identified by Ivanov (2011, 2012, 2013, 2014, 2015).

Additionally, a high number of employees have problems with the bank internal procedures and policies. They find the policies and procedures too complicated and not useful. Employees believe that current policies and procedures not only do not make their jobs easier, but instead, make it harder in terms of bureaucracy and wasted time.

Lack of managerial support and micromanagement are other issues that employees brought up during the survey. Employees asked for more freedom in time management and making decisions in their roles.

Further, employees believe that with more managerial support, work freedom, budget, and proper staffing they could be more successful in their jobs. For example, having more budget and staff would help them service their customers better.

Employees also asked for more marketing materials and networking events to support their sales goals.

Additionally, the survey showed that technology plays a major role in banking. Employees said that their working roles would be much easier if they used modern technologies in the branch.

### Recommendations

Based on the survey results and personal observations, we would like to make the following recommendations to the management team:

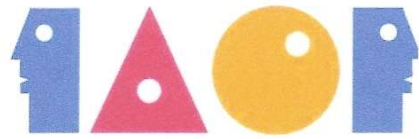
- ✓ Don't run the company on visible figures only (Deming, 1992, 1993).
- ✓ Don't emphasize short-term profits as the bank currently does (Deming, 1992, 1993).
- ✓ Build more trust and eradicate fear (Ivanov, 2011, 2012, 2013, 2014, 2015).
- ✓ Use modern technologies.
- ✓ Improve internal system, policies, and procedures.
- ✓ Improve communication and interaction among different departments.
- ✓ Train, educate, and coach employees meaningfully.
- ✓ Design better products, processes, and services for bank's customers.

These recommendations should improve the work of the bank's branches, and help the bank achieve greater success in the marketplace.

## References

- Clement, Stephen D., Clement, Christopher R. (2013). It's All About Work: Organizing Your Company To Get Work Done. The Woodlands, TX: Organizational Design.
- Deming, W. Edwards (1993). The New Economics: For Industry, Government, Education. Cambridge, MA: Massachusetts Institute of Technology.
- Deming, W. Edwards (1992). Out of the Crisis. Cambridge, MA: Massachusetts Institute of Technology.
- Ivanov, Sergey (2006). Investigating the Optimum Manager-Subordinate Relationship of a Discontinuity Theory of Managerial Organizations: an Exploratory Study of a General Theory of Managerial Hierarchy. Washington, DC: The George Washington University.
- Ivanov, Sergey (2011). Why Organizations Fail: A Conversation About American Competitiveness. International Journal of Organizational Innovation, 4(1), 94-110.
- Ivanov, Sergey (2013). Defects in Modern Organizations: Field Findings and Discovery. International Journal of Innovation, Management and Technology, 4(2), 204-208.
- Ivanov, Sergey (2012). The Problem of Defects in Modern Organizations: Preliminary Research Findings. International Proceedings of Economics Development and Research: Management and Education Innovation, 37(1), 42-45.
- Ivanov, Sergey (2012). Innovation Paradox or Escape from Feararchy: Exploratory Research on Why Innovation Cannot Happen in the Modern Organization. Bangkok, Thailand: International Conference of Inclusive Innovation and Innovative Management (ICIIM 2012).
- Ivanov, Sergey (2014). Feararchy and Organizations. Melbourne, Australia: Swinburne University of Technology.
- Ivanov, Sergey (2015). Exposing Myths of Modern Management: Innovation - Identifying the Problem. Journal of Leadership and Management, 1(3), 57-66.
- Ivanov, Sergey (2015). Exposing Myths of Modern Management: Innovation - Exploring a Solution. Journal of Leadership and Management, 2(4), 29-34.
- Ivanov, Sergey (2015). The Work of Associations: A Hidden Dimension of All Managerial Hierarchies (Bureaucracies). Journal of Leadership and Management, 2(4), 41-45.
- Jaques, Elliott (1996). Requisite Organization: A Total System for Effective Managerial Organization and Managerial Leadership for the 21st Century. Arlington, Virginia: Cason Hall & Co.

Jaques, Elliott (2002). The Psychological Foundations of Managerial Systems: A General Systems Approach to Consulting Psychology. San Antonio, Texas: Midwinter Conference of the Society of Consulting Psychology.



STRATEGIC AGGRESSITIVITY AND RESPONSE OF COMPANIES IN  
INTEGRATING ENVIRONMENTAL, HEALTH AND SAFETY MANAGEMENT  
AND ITS EFFECTS TO FINANCIAL PERFORMANCE

Dr. Agustinus Hariadi DP, Ryani Dhyhan Parashakti , Muhammad Nashar  
Mercubuana University Indonesia  
Nashar2004@gmail.com

Abstract

In responding to intense and dynamic stakeholders' demands to companies to reduce their environmental and health safety (EHS) risks, companies see necessities to apply a strategy by integrating their environmental and health safety management design and practices. The performance can be maximized when companies are capable of matching between external turbulence towards their aggressivity and responses as well as establishing adequate strategic posture. Imposed pressures also relate to the fact that implementation of environmental management or health safety management is expected to increase financial performance. This research aims to examine companies' strategic aggressiveness, responses and postures through integrating their environmental and health safety management issues in order to obtain better EHS performance. Secondly, it reviews EHS performance effects from perspective of companies' representative, third party auditor and published PROPER (*Program peringkat industri*) report to financial performance of BEJ (Bursa Efek Jakarta) listed companies. Thirdly, it examines effect of certification to financial performance. Respondents consist of 119 companies from 22 industrial sectors for integration strategy review, 8 auditors of certification bodies and 40 BEJ registered companies for financial performance effects. Analytical methods applied are chi-square, Mann-Whitney, and T test. Results show that integration to environmental and OHS management system has been applied. Secondly, EHS performances and strategy Postures are positively affected by gap of Aggressivity and of Responses. Thirdly, it reveals that EHS compliance performance increases sales, net income and ROA. However, overall EHS performance has not a relationship with Financial performance in terms of Net income and ROA based on company representative's and auditors' perception except to sales increase. Finally, certification proves to not given financial benefit to companies.

Keywords: Risk management, safety, performance

## Introduction

Occupational health safety (OHS) and environmental accidents are immediate risks faced by companies. Data reveals that number of accident has increased in 2011 at 99491 cases or 414 on average per day compared to year 2010 at 86693 and year 2009 at 96.314 cases. Detail of year 2010 accident is comprised of 1965 death, 31 total disable, 3662 functional disable, 2313 partial disable and 78.722 full recover (Pusat Data Tenaga Kerja 2013). Whilst, environmental cases reach to on average of 70 cases per year and it is estimated to increase 50 to 70 percent compared to year 2012 ([www.menlh.go.id](http://www.menlh.go.id)). In global scale, large accident results to environmental damage and fatalities are *Bhopal* (1984), *Chernobyl* (1987), *Exxon Valdez* (1990), *Piper Alpha* (1989), dan *British Petroleum* di Teluk Meksiko (2009). These cases have to be ended in court in which some companies' personnel have been sentenced to as criminals or receive administration sanctions. Other losses received by company include operation stop causing business opportunity losses and image damage.

Dynamic change and increase in environmental and OHS pressure including government regulations will be continuously happening in the future by which organization has to be able to follow and obey. Parallel with this, OHS and environmental regulations grow at the same pace because both issues are generated from the same sources of risk as mentioned at accident above. Similarities in risk sources, accident occurrence and con-

trol technique encourage companies to address environmental and OHS as one issue. In Indonesia, integration level of both risk issues is not currently known for which a research on this matter will be beneficial.

Research has been done to review effects of OHS and environmental management to Financial performance which is naturally and common interests. Stanwick and Stanwick (2000), Zhao (2006), Schneider (2008), Moneva and Ortas (2009), Bae (2009), Wingard and Vorster (2001) choose financial indicators of ROR (*Return on Revenue*), ROA (*Return on Asset*), OPR (*Operating Revenue*), ROE (*Return on Equity*), ROC (*Return on Capital*), EVA (*Economic Value Added*), Loan cost, Sales, and Stock price. To OHS and environmental indicators, researcher selects both direct specific ones such as pollutant concentration, pollution load and indirect environmental parameter such as Environmental openness level, Environmental responsibilities, CSR and EMS effectiveness. Results vary from one research to another. Some research finds positive effect of environmental performance to Financial performance (Stanwick and Stanwick 2000, Schneider 2008). On the other hand, other researcher find environmental performance reduce economical parameter (Zhao 2006) supporting to general public opinions of which EHS has only given load to companies. In between, some research has led to neutral effect or OHS and environmental performance is not certain to reduce or increase economical parameter.

## Problem Formulation

Those facts show that there is gap between stakeholders' expectation and actual EHS performance since there are still large number and degree of accidents. Some factors that might contribute are selection of reactive strategy, separating between OHS and environmental management, which results in longer and duplicated management execution. Furthermore, companies agree that managing EHS risks increases costs without a guarantee of giving back economical benefits. The condition has pushed the necessity to do a research to examine integration strategy and Financial effects.

#### Objectives

1. Analyze strategy to integrate between OHS and environmental risks of companies.
2. Analyze effects of strategic aggressiveness, responses, postures to EHS performance.
3. Analyze effects of EHS performance according company representative (Comrep) and auditor as well as independent report to Financial performance.
4. Analyze effects of certification to Financial performance.
- 5.

#### Scope

The research is part of a main research titled as Strategy to enhance competitive advantage based on OHS and environmental management. Limitation to study is given to strategy to integrate between OHS and environmental management as part of overall strategy and management of companies. Scope of study is

focused on companies having implemented management system such as EMS ISO 14001, PROPER, SMK3, OHSAS 18001.

#### Literature Review

##### *Strategic aggressivity, responses and postures*

Ansoff and McDonnell (1990) had made empirical framework of future successful companies based on their reactive and proactive responses to business environment, strategic aggressivity and response according to their own capabilities. Management of the organizations faced two key issues in directing future success: (1) ability of the management to analyze challenges, threat, and opportunities; (2) design and implementation of response needed to address the challenges. Hypotheses of strategic success declares that company's performance is optimized whenever the following condition are met: 1) strategic aggressivity behavior match with its environmental turbulence; 2) capability response match with strategic aggressivity; 3) component of the capability support each others.

Proactive or reactive strategy is dependent upon management perception on competitive forces surrounded the organization. Lorton (2006) found that proactive environmental management strategy creates high environmental performance and competitive advantage both in low turbulence and high turbulence. Proactive environmental strategic is where balancing between business environment increase and environmental performance (Russo and Fouts 1997 in Lorton 2006).



This suggests as environmental pro activity which is consistently applied along the time. The strategic, however, requires dynamic and complex capability development which connect all area in the company organization through organization and resources which is highly developed (Aragon-Correa & Sharma 2003 in Lorton 2006).

Lorton (2006) investigates variable relates to implementation of effective Environmental management system and organization strategy. The results show that environmental performance has negative relationship with Response gap, EMS strategic posture. This means that environmental performance increase is caused by alignment between turbulence and agresivity, response, and posture of strategic. In addition, the research reveals that strategic posture and turbulence have no relationship. Proactive strategic posture provides higher performance without contribution of turbulence condition. Reactive posture may relate to increased performance when strategic posture within low turbulence.

Loebakka (2008) observes factors supporting high performance of SMS with results that safety performance improves when organization close to SMS agresivity and SMS response is closer to turbulence in OHS matters. This research proves that aggressive or proactive companies by implementing safety management can reach for long-term target for which more fit than companies which is merely complied to regulations.

Hong et al (2009) make a model a relationship between green strategic orientation, integrated product development,

supply chain coordination, green performance and business unit performance. The research shows new comprehension regarding green strategic orientation and a relationship with product development practices as well as supply chain coordination. It gives lens moreover to improve environmental reputation and product to sustainable competitive advantage.

Fraj-Andres et al (2009) proposes marketing concept and environmental orientation as a business philosophy which is growing as mechanism to apply actions of sustainable environment). Marketing concept and environmental orientation are part of strategic model to enhance competitive advantage. The research reveals that implementation of ecological issues within strategy and orientation of marketing affects organization results. This also suggests that economical performance is affected by commercial and operational performance.

*Environmental management system and OHS management system (ISO 14001: 2004 and OHSAS 18001: 2007)*

Environmental management system ISO 14001: 2004 and OHS management system OHSAS 18001: 2007 is a standard issued by International Standardization Organization and worldwide certification bodies respectively. The two standards have received word wide acceptance (King et al. 2004). Companies' management systems are established on the basis of a Plan-Do-Check-Act cycle, which is introduced by W. Edwards Deming (Robson et al. 2006, Santos 2011, Labodova 2004, Kaur 2011, Farooqi 2011). These can be grouped into three

structuring sub-system or dimension according to management dimension as mentioned by Agarwal (2002) that are management commitment, process and

human resource which suggest also that EMS and OHSAS are similar to general management dimension.

Table 1. Regrouping elements of EMS ISO 14001 and OHSAS 18001 elements

| Siklus       | Klausul | Tema                                       | Dimension                 | Subsystem             |
|--------------|---------|--|---------------------------|-----------------------|
| <i>PLAN</i>  | 4. 2    | OHS & Environmental Policy                 | Human at the top position | Management commitment |
|              | 4. 3. 1 | Risk analysis                              | Process or system         | Process management    |
|              | 4. 3. 2 | Regulation identification                  | Process or system         | Process management    |
| <i>DO</i>    | 4. 3. 3 | EHS objective                              | Process or system         | Process management    |
|              | 4. 4. 1 | Authority and responsibility               | Social                    | HR management         |
|              | 4. 4. 2 | Competency, awareness, training            | Social                    | HR management         |
|              | 4. 4. 3 | Communication, participation, consultation | Social                    | HR management         |
|              | 4. 4. 4 | Documentation                              | Process or system         | Process management    |
|              | 4. 4. 5 | Document control                           | Process or system         | Process management    |
|              | 4. 4. 6 | Operational control                        | Process or system         | Process management    |
| <i>CHECK</i> | 4. 4. 7 | Emergency preparedness and response        | Process or system         | Process management    |
|              | 4. 5. 1 | Monitoring and measurement                 | Process or system         | Process management    |
|              | 4. 5. 2 | Compliance evaluation                      | Process or system         | Process management    |
|              | 4. 5. 3 | Corrective action                          | Process or system         | Process management    |
|              | 4. 5. 4 | Record control                             | Process or system         | Process management    |
| <i>ACT</i>   | 4. 5. 5 | Audit Internal                             | Process or system         | Process management    |
|              | 4. 6    | Management review                          | Human at the top position | Management commitment |

Source: ISO 14001 (2004) and OHSAS 18001 (2007)

*Integration of environmental and OHS management*

Integration of different management system, in particular environmental and OHS, are necessity to companies in

order to gain more benefit (Zutshi dan Sohal 2005) and obtain competitive advantage (Mohammad 2006). Bruce and Hollcroft (2006), Gasparik (2006) and Akpan (2011) state that integration of quality, environmental and OHS management system gives positive impacts to organization through cost reduction, enlarge profit margin, reduce frequency

and severity of accident and ensure compliance to government regulation. Implementation of the two system at the same time involve much similar managerial tasks, yet require different human resources for which companies need to adopt integration strategy between the two system and into main strategy. The integration is made possible because the two standards have similar principles and structures (Santos 2011 *et al.*; Bernado *et al.* 2012). Labodova (2004) proposes management system integration on the basis of quality, environment and OHS. Other than that, many elements of the system are in fact easily to be combined or integrated. Nonetheless, management system integration can create difficulties in particular when more than two standards are being integrated (Bernado *et al.* 2012).

The possibility for integration is elaborated as follows. Firstly, ILO (International Labour Organization) states that environmental and OHS aspects are inseparable issues as these look like two sides in one coin (Stellman 1996). Environmental media is defined as physical, chemical, biological only but include human. Secondly, there is similarity in management process and practices as seen in three condition: 1) risk analyses, 2) refer to government regulation and monitoring to ensure performance, 3) human resource who undertakes environmental and OHS functions requires special competency of education, training and experience on environmental and OHS specialty.

One single management system coordinated by multidiscipline team will

save personnel and financial (Santos *et al.* 2011). Integration can also give effect to organization culture as it breaks departmental isolation and focuses different function to one goal (Santos *et al.* 2011). Zutshi dan Sohal (2005) stress similarities in area of policy, training and procedure as the basis of integration strategy. Santos *et al.* (2011) carries out study to certification and integration of quality, environmental and OHS management system revealing benefit in the form of cost reduction, personnel training improvement and deeper regulation comprehension. Mohammad (2006) sees that integration strategy selected by companies in Malaysia is to start with one system followed by other system of which all elements are integrated at once. This study reviews integration in three forms that are documentation, personnel and operational implementation as well as its effect to Performance of environment and OHS.

#### *EHS Performance*

Some researchers define environmental performance in technical measures of pollution degree such as: amount and concentration of wastewater released to river, pollution parameter value including pH, BOD and COD, as well as ratio of released pollution load against sales. Other researchers states that environmental management as management activity alike compliance level and environmental award provided by other party (Suk 2008), five categories of PROPER (Black, Red, Blue, Green and Gold) (Ministry Regulation Number 10 year 2012) and CSR *disclosure* (Djuitaningsih R

2011). Moneva and Ortas (2009) interpret environmental performance as CEP (*Corporate Environmental Program*), reputation level, social audit and management principle value.

Varying definition is also seen in OHS sector. Cai (2005) summarizes safety performance as: 1) incident number (recorded accident, lost time, First aid and *nearmisses*) (Peraturan Pemerintah Nomor 50 tahun 2012), 2) number of safety inspection *in work-place*, 3) *Behaviour-based safety*, 4) perception survey to employees. However, safety performance has multidimension (Wallace 2004) grouped into 4 *safety performance measure*: 1) wearing PPE, 2) involve in workplace to reduce risk, 3) communicate OHS information, 4) apply rights and responsibilities of employees. Rowley (2009) does not define OHS performance as incident and cost based but qualitative ones, which are 1) bad safety performance, 2) substandard safety performance, 3) average safety performance compared to the same type and size of industry, 4) better than general organization, 5) safety performance and consistent and excellent.

#### Financial performance

Some researchers select financial performance alike *Return on Asset (ROA)*, *Return on Investment (ROI)* or *Return on Sales (ROS)* (Fernandez 2002, Betts 2011, Noh 2012, Djuitaningsih 2011, Wingard and Vorster 2001), stock price, Tobin's, COGS (*Cost of Goods Sold*)/ Sales, Sales increase, and Sales/asset (Noh 2012), EBIT (2012) and *Return on Equity* (Betts 2011). Stanwick

and Stanwick (2000) use net income divided by total asset. Moneva and Ortas (2009) select ROA, profit margin, ROE, cash flow, and operational profit in their study. Repetto and Austin (2001) adopt *revenue*, production cost, investment spending and asset value. Economical performance is always related to income and cost value (Repetto and Austin 2001) as well as Benford Jr (2008) says that high cost in accident has motivated mainly to the companies in managing their OHS risks.

Referring previous studies, this research applies indicator of Sales increase from Noh (2012) to see effect of EHS performance to customer decision in purchasing product or service, Net income increase from Stanwick and Stanwick (2000) to see contribution of reduction or Increase of EHS management cost and *Return on Asset (ROA)* from Fernandez (2002), Betts (2011), and Djuitaningsih (2011).

#### *Effects of EHS performance to Financial performance*

Studies on EHS performance to Financial performance have been carried out because these are interesting and as major interest of top management. Some research report positive impact of EHS management to economical performance (Schneider 2008; Clemens and Bakstran 2010; Oeyono *et al* 2011; Moneva dan Ortas 2011; Mc Kinley 2008; Wingard dan Vorster 2001), However other researcher find different results (Zhao 2008; Nuraini and Kawedar 2011; Djuitaningsih 2011) as well as the third

group reach to both result, reduce and increase economical performance (Zhao 2008; Watson *et al* 2004).

Research resulting in neutral effect is done by Watson *et al.* (2004). Research evaluates EMS effects simultaneously which cause organization to be more competitive and more responsible to environment. The research results reveal that EMS strategy does not give negative impact to financial performance in term of ROA and income. Zhao (2006) undertakes research on effect of EMS ISO 14001 implementation to Financial performance by comparing companies which have or have not implemented it. Financial performance is measure in three dependent variable, which are *Return on Revenue (ROR)*, *Return on Asset (ROA)*, and *Operating Revenue (OPR)*. The research results show that EMS implementation causes a decreased ROR and ROA but neutral to OPR. This is explained that cost increase is due to environmental investment and operational as well as production inefficiency. Nuraini and Kawedar (2011) study to determine impact of environmental performance and *environmental disclosure* to economical performance. Research applies a hypothetical testing to see whether there is a relationship between variable by using multiple linier regression. Data collected from annual report and *sustainability report* of companies listed in Bursa Efek Jakarta as well as 15 companies participating PROPER in the periode of 2006-2008. The research result shows that environmental performance and environmental openness has not affected economical perfor-

mance. Researcher mentions that this result is against previous research proving effect of environmental performance to economical performance. In short, a research to evaluate existence of relationship between EHS performance to Financial performance is still needed.

## Methodology

### *Location and Time*

Companies' respondents of this research operate in Java, Sumatera, Kalimantan, Sulawesi and Papua. The research starts at July 2011 by reviewing literature, secondary data collection and primary data collection in the period of July to October 2012.

### *Sample Collection Technique*

Sample collection technique is done through Non probability sampling method including Purposive sampling or Judgemental sampling by giving chances to some of population member treated as sample (Sekaran 2003). Number of companies meeting criteria of having certificate of EMS and or SMK3 is 514 companies as certified by SGS ICS, SAI Global, SICS, BVI, KMAQA and Lloyds register. Nevertheless, the author has access only to 254 and finally success to collect data from 119 companies. Number of companies being reviewed to see relationship between EHS performance and Financial performance match to number of companies which are also registered in BEJ and PROPER is 40.

### *Analysis of Data*

Analysis used in this research covers descriptive, Chi square, Mann-Whitney, and T test. The descriptive test functions to provide illustration of respondent characteristics (profile) and EHS management strategy applied. Mann-Whitney test aims to evaluate whether there is difference between Comrep and auditors regarding EHS performance and integration strategy level. The chi square aims to see relationship between Financial performance based Comrep opinions, auditor opinions and PROPER report to Financial performance based on BEJ report.

Proactive or reactive strategy is determined by management perception to competition factors within business environment. Lorton (2006) finds that proactive environmental management strategy creates high environmental performance and competitive advantage both in low and high turbulence. In general, optimum performance meets when the following conditions are provided: 1) aggressivity of strategic behavior match with environmental turbulence; 2) capability response of the company match with strategic aggressivity; 3) capability component support each other. Strategic aspect of HSE management implementation includes Aggressivity, Response, Turbulence and Posture as well as Aggressivity gap and Response gap is presented in Picture 1.

EHS performance increases whenever companies are capable to minimize gap between EHSMS Aggressivity and Environmental turbulence as well as EHS Response and Turbulence. With the above illustration, hypothesis proposed as regard to strategic issues are:

*H1: Aggressivity gap of EHS MS affects positively to its EHS performance*

*H2: Response gap of EHS MS affects positively to its EHS performance*

*H3: Posture of EHS MS affects positively to EHS performance.*

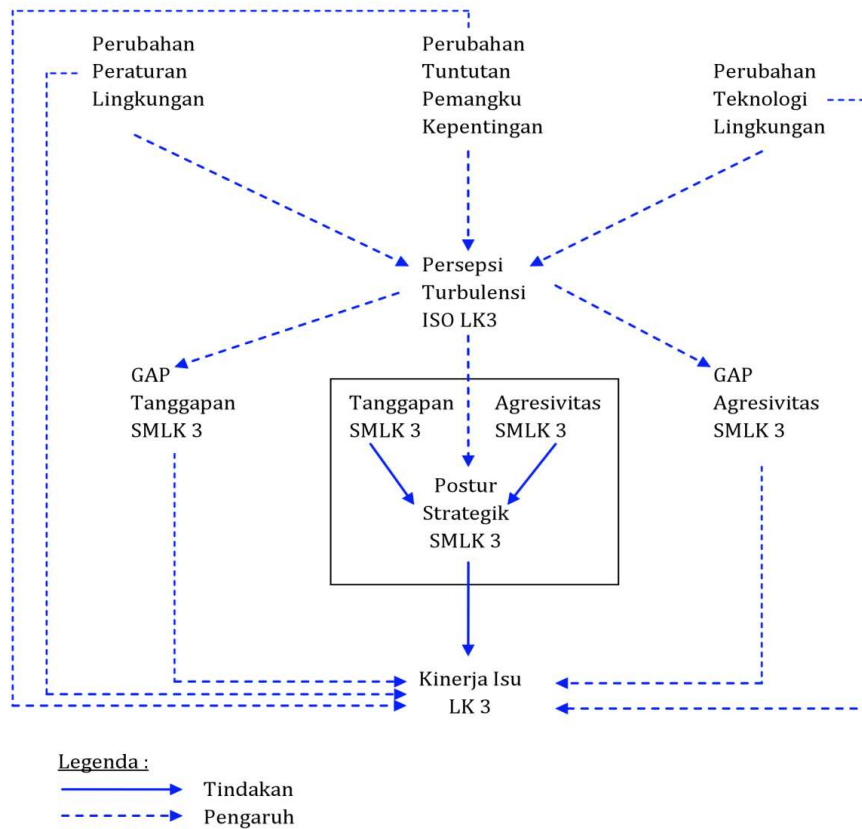
Strategic posture is influenced by Aggressivity and Response

*H4: Aggressivity affects positively to Posture*

*H5: Response affects positively to Posture*

Selection of companies in applying EMS and OHS MS integration is one of strategy. Hypothesis of the integration strategy to HSE performance:

*H6: Integration of EMS and OHS affects positively to HSE performance.*



Picture 1. Influence of strategic actions to EHS performance

*Two category freedom test*

(Chi-square test) Relationship to be tested is between Financial performance (Sales increase, Net income increase, and ROA as ones contained in BEJ report) and EHS performance (Comrep and auditor opinion). Financial performance according to ROA are completed based on category defined by Peraturan Bank Indonesia number 6/10/PBI/2004 dated 12 April 2004 and implementation guidance as accordance to Surat Edaran Bank Indonesia No. 6/23/DPNP dated 31 May 2004.

Hypothesis of the research is:

$H_0$  = There is not a relationship between EHS performance and Financial performance

$H_1$  = There is a relationship between EHS performance and Financial performance

Uji Mann-Whitney Method

Mann Whitney test is a non-parametric test used to compare between two mean value of population originated

from the same population (Daniel 1989). Testing on the difference between EHS performance and Financial performance according to Comrep and auditor is used this test. Hypothesis applied is:

H<sub>0</sub>: There is not a difference between the two value of performance (H<sub>0</sub>:  $\mu_1 = \mu_2$ )

H<sub>1</sub>: There is a difference between the two value of performance (H<sub>1</sub>:  $\mu_1 \neq \mu_2$ )

The testing criteria is

Ho is rejected when *p-value* <  $\alpha$  , selected (0.05 or 0.1)

Ho is accepted when *p-value* >  $\alpha$  , selected (0.05 or 0.1)

#### *T test Difference*

*T-test* difference (T-hitung) is used to determine whether two samples, which are uncorrelated, have different mean (Walpole 1991). The test is applied on the difference of Financial performance before EMS certification or SMK3 and Financial performance after EMS certification. Financial performance is defined as Sales increase, Net income increase and ROA. The preliminary hypothesis is that there is not difference between Financial performance before and after certification. The final hypothesis is Financial performance before certification differs from Financial performance after certification. Hypothesis to Financial performance in terms of Sales increase is as follows:

Ho: Mean of sales is similar to both before and after certification (H<sub>0</sub>:  $\mu_1 - \mu_2 = d_0$ )

H<sub>1</sub>: Mean of sales is not similar to both of Sales before and after certification (H<sub>0</sub>:  $\mu_1 - \mu_2 \neq d_0$ )

The criteria testing is:

Ho is rejected when *p-value* <  $\alpha$ , selected (0.05 or 0.1)

Ho is accepted when *p-value* >  $\alpha$ , selected (0.05 or 0.1)

#### Results

##### *Respondents*

This research involved 119 respondents of companies with composition as shown in Table 2.

##### *Integration level of EHS management*

Integration level of elements structuring EHS management is examined in this research. The integration is comprised of the following questions: 1) Integration of OHS and environmental procedures (IPR), 2) integration of OHS and environmental per-sonnel (IPE), 3) integration of OHS and environmental site operation (IPL). The difference test result on integration level between companies' representative and auditors are provided in Table 3.

The difference test to OHS and environmental procedure, personnel and implementation has given result of insignificant which suggests that there is not factual difference opinion between companies' representative and auditor.



This is due to the fact that both have and see similar information. Companies's staff makes documentation, as personnel and applied these EHS matters by which they can give a more objective perspective. Auditors on the other hand examines all these three aspects in quite detail. The descriptive results reveals that integration level can reach to 75-100% for the three aspects.

OHS and environmental management share similarities in concept, structuring elements, technical specification and executing human. The underlying concept is to minimize or avoid at all risks of activities. The element of OHS and environmental management includes risk analysis and control through implementation of operating control procedure, aware and competent personnel, direct inspection and monitoring by management. Procedure integration means working guidance or applicable standard has covered both OHS and environmental measures, yet personnel or site implementation have not been integrated. The team to execute OHS standards differ from the team for environment, when there is not personnel integration. Implementation is integrated when facilities to reduce risks (e.g. wastewater treatment, fire fighting units, etc) have been combined to address both. The total integration applies to procedure, personnel and site implementation altogether.

Number of respondent has integrated of their EHS procedure at a range of 76-100% is at 64.70% which suggest that majority selects strategy to

integrate OHS and environmental procedure in order simplify documentation and accordingly associated planning. For instance, OHS risk assessment which is based on residual approach is combined in one procedure to environmental risk assessment which is based on inherent risk. This leads to an integrated documented plan and form of risk assessment. At 57.98% of respondent has integrated their OHS and environmental personnel into one team reaching to a level of 76-100%. Strategy to integrate personnel aims to combine similar competency to similar personnel for which less number yet quicker response and decision can be improved. Although it is realized that full or total integration needs longer time to achieve. At the end, integration strategy intends to occur in implementation wise such as a wastewater treatment which is provided with instrumentation, guarding and personnel protective equipment to prevent personnel from accident. Fire suppression units function to handle safety is selected to ones do not contain Halon which destruct ozone layer. Other example of implementation is seen when joint inspection of OHS and environmental takes at the same time, personnel and form. The respondent has imple up to 75-100% level which reach to 63.87% of sample population.

Table 2. Respondent composition

| Industrial Sector based EAC | Company                                  | Regroupin           | Total Sampel |
|-----------------------------|--|---------------------|--------------|
| 1                           | Agriculture, Forestry                    | Process             | 2            |
| 2                           | Mining/ Oil and gas                      | Mining/ Oil and Gas | 20           |
| 3                           | Food                                     | Process             | 9            |
| 4                           | Textile                                  | Process             | 5            |
| 6                           | Wood and wood product                    | Process             | 3            |
| 7                           | Pulp and paper                           | Process             | 5            |
| 9                           | Printing                                 | Process             | 3            |
| 10                          | Oil refinery                             | Process             | 1            |
| 12                          | Chemical and chemical product            | Process             | 9            |
| 13                          | Pharmaceutical                           | Process             | 3            |
| 16                          | Steel and cement                         | Process             | 2            |
| 17                          | Basic metal                              | Metal               | 5            |
| 18                          | Machinery and tools                      | Metal               | 5            |
| 19                          | Electricity, electronic and optic        | Electricity         | 7            |
| 20                          | Building and ship                        | Metal               | 1            |
| 22                          | Fleet and transportation                 | Metal               | 9            |
| 25                          | Power supply                             | Electricity         | 1            |
| 28                          | Contractor                               | Others              | 9            |
| 29                          | All types, distribution, motorcycle, etc | Others              | 1            |
| 31                          | Transport, warehouse, telecommunication  | Others              | 19           |

Table 3. Difference test of integration level

| Parameter | Auditor | Companies | W    | Signifikansi ( $\alpha=0.05$ ) |
|-----------|---------|-----------|------|--------------------------------|
| IPR       | 4.00    | 4.00      | 1739 | 0.2136                         |
| IPE       | 4.00    | 4.00      | 1702 | 0.3960                         |
| IPL       | 4.00    | 4.00      | 1658 | 0.4050                         |

Note: IPR (procedure), IPE (personnel), IPL (implementation)

In short, three types of integration have been adopted by companies with benefits such as increase efficiency as duplicated procedures, personnel and operation can be minimized, easier in form of improved HSE performance. Continuous issued new requirements within Indonesia HSE regulation are faced by the organization in which the companies have necessity and capable of following the demands. Risks associated with failure to meet those requirement are one of factors driving the companies to be more aggressive and responsive.

*Strategic Agresitivity, Response and Posture*

The regression of HSE performance as dependent variable and Agresivity gap as independent variable as well to Response gap are presented in the following:

| Model      | Unstd coef |         | Std coeff | T      | Significance |
|------------|------------|---------|-----------|--------|--------------|
|            | B          | Std Err | Beta      |        |              |
| Agg Gap    | 1,368      | 0,206   |           | 6,626  | 0,000        |
|            | 0,705      | 0,071   | 0,685     | 9,942  | 0,000        |
| Res Gap    | 0,587      | 0,137   |           |        |              |
|            | 0,912      | 0,044   | 0,890     | 20,690 | 0,000        |
| Pos to Agr | 1,106      | 0,217   |           | 5,099  | 0,00         |
|            | 0,784      | 0,075   | 0,705     | 10,520 | 0,00         |
| Pos to Res | 0,286      | 0,140   |           | 2,047  | 0,043        |
|            | 0,999      | 0,045   | 0,903     | 22,195 | 0,000        |

Regression test to the four parameter shows that significance level or  $\alpha$  value is lower than 0.05 or  $H_0$  is rejected and  $H_1$  is accepted. This means

that Gap agresitivity of companies has given positive influence to HSE performance with a value of 0,705, whilst Response gap is to give an increase of 0.912. The respondents have made effort to balance their actions and response against HSE turbulence for which beneficial results are gained in the delegating EHS responsibilities to the same team which leads to comprehensive solution, increase internal and external communication skill and performance due to cross-contribution between OHS and environmental communication focuses.

With regard to Posture, as mentioned above, the Postures are affected positively by Agresitivity and Response at values of 0.784 and 0.999 respectively. The respondent of this research has gained adequately their agresivity and response to make proper strategic posture. For instance, in addressing requirement to make free of ROHS (Restricted of hazardous substances), many of manufactures have made cross-department team to ensure its compliance, even to ask for suppliers involvement as well as site audited. In short, the companies make significant changes to their HSE process management.

*Performance accordance to Auditor and Companies' representative*

Perception difference or similarities from auditor and Comrep are used to add analysis carried in this research. Comrep tends to be less objective in comparison to auditor since naturally companies' representatives value themselves to have performed well.

*EHS performance based on Comrep and Auditor.*

EHS performance is comprised of questions showed in the Table 4 and

Table 4. Result of difference test

| Parameter                         | Auditor | Respondent | W      | Significance ( $\alpha=0.05$ ) |
|-----------------------------------|---------|------------|--------|--------------------------------|
| TPIL (No environmental pollution) | 3.00    | 4.00       | 1211.5 | 0.0001                         |
| TKIK (No OHS accident)            | 3.00    | 4.00       | 1288.0 | 0.0031                         |
| SPKK (Non-compliance)             | 3.00    | 4.00       | 1230.0 | 0.0002                         |
| KIKE (Overall performance)        | 3.00    | 4.00       | 1244.0 | 0.0004                         |

given to auditors who have done an audit to the companies. Difference test of Difference test to the four parameter shows that significance level or  $\alpha$  value is lower than 0.05 or  $H_0$  is rejected and  $H_1$  is accepted. This means there is actual difference between auditor opinion and Comrep because for the four parameter of auditors have median value (3) lower than median of Comrep (4). Comrep tends to give higher score than auditors since they percept to have been working well and at the same time understanding to the term of OHS and environmental performance might be sufficient to give fair comment. On the other hand, auditors have more objective and better technical competency in answering the question.

*EHS performance and Financial performance*

Review over effects of EHS performance (compliance performance, overall performance) according to Comrep and auditor as well as environmental performance based on PROPER report to Financial performance as reported on stock market is another method to verify its influencing existence. Auditor and PROPER have given an advantage of

being objective, however it has disadvantage due to less number of sample and a partial performance measurement as PROPER limits to environmental issues.

*EHS performance and Sales increase*

Analysis result of relationship between EHS performance.

(Compliance performance and Overall performance) according to Comrep and management system auditor toward Sales increase is provided in Table 5. This reveals that chi square test having p-value lower than 0.05 for which a significant or actual relationship exists between Compliance performance and EHS performance according to auditor and Sales increase. Respondents percepts that good Compliance performance will increase number of product or service sold as customers and other stakeholders (investor, bank, insurance) consider EHS factors in undertaking purchasing transaction, both by means of selection and evaluation of suppliers' performance. Satisfied and uncomplaint customers maintain supplier into their vendor list and continue or even add purchasing volume of which it increase

Table 5. Result of Sales increase and EHS performance

|                              | Compliance performance |    |         | Overall performance |    |         | Auditor's opinion  |    |         |
|------------------------------|------------------------|----|---------|---------------------|----|---------|--------------------|----|---------|
|                              | Value                  | df | p-value | Value               | df | p-value | Value              | df | p-value |
| Pearson Chi-Square           | 76.482(a)              | 12 | .000    | 9.818(a)            | 9  | .365    | 6.387 <sup>a</sup> | 2  | .041    |
| Likelihood Ratio             | 27.556                 | 12 | .006    | 9.177               | 9  | .421    | 8.015              | 2  | .018    |
| Linear-by-Linear Association | 4.764                  | 1  | .029    | 3.597               | 1  | .058    | 1.283              | 1  | .257    |
| # Valid Cases                | 119                    |    |         | 119                 |    |         | 45                 |    |         |

sales. However, overall performance according to Comrep has not a relationship with Sales increase.

EHS performance and Net income increase. Analysis result of relationship between EHS performance (Compliance performance and Overall performance) according to Comrep and management system auditor toward Net income is provided in Table 6. This shows that Chi square test having p-value higher than 0.05 for which there is not a significant nor actual relationship between Overall EHS performance according to Comrep and auditor. Both Comrep and Auditor think that implementation of EHS management system increase operational cost regardless of increase in revenue due to higher sales value.

Cost includes investment to provide wastewater treatment, temporary

storage of wastes, measurement of risks, government permit, etc. Nonetheless, costs to meet Compliance performance are perceived as to contribute to better net income which can be explained that companies cannot sell or have to invest in order to comply.

EHS performance and ROA increase.

Analysis result of relationship between EHS performance (compliance performance and overall performance) according to Comrep and auditor is shown in Table 7. This shows that chi square test having p-value higher than 0.05 for which there is not a significant nor actual relationship between Overall EHS performance according to Comrep and auditor toward ROA. This is explained similarly as Net income increase performance discussed above since ROA represent Net income too. However,

Compliance performance has significant relationship to ROA which is caused to facts that although costs generated through efforts to comply, it gives higher

direct income rather than ratio of cost and income affected from overall EHS performance.

Table 6. Result of net income and EHS performance

| Compliance performance |    |         | Overall EHS performance |    |         | Auditor's opinion |    |         |
|------------------------|----|---------|-------------------------|----|---------|-------------------|----|---------|
| Value                  | df | p-value | Value                   | df | p-value | Value             | df | p-value |
| 86.517(a)              | 16 | .000    | 8.217(a)                | 12 | .768    | .000 <sup>a</sup> | 2  | 1.000   |
| 33.809                 | 16 | .006    | 7.645                   | 12 | .812    | .000              | 2  | 1.000   |
| .939                   | 1  | .333    | 3.748                   | 1  | .053    | .000              | 1  | 1.000   |
| 119                    |    |         | 119                     |    |         | 46                |    |         |

PROPER performance and Sales increase.

Analysis result of relationship between EHS performance according to PROPER and Sales increase is provided in Table 8. It shows that p-value of the

chi square is higher than 0.05 for which there is not significant or actual relationship between EHS performance according to PROPER and Sales increase. Increase of PROPER level, e.g. from blue to green, has not affected to Sales increase.

Table 7. Result of ROA calculation

|                    | Compliance performance |    |         | EHS performance |    |         | Auditor's opinion |   |      |
|--------------------|------------------------|----|---------|-----------------|----|---------|-------------------|---|------|
|                    | Value                  | df | p-value | Value           | df | p-value |                   |   |      |
| Pearson Chi-Square | 75.947(a)              | 12 | .000    | 5.997(a)        | 9  | .740    | .024 <sup>a</sup> | 2 | .988 |
| Likelihood Ratio   | 27.379                 | 12 | .007    | 5.881           | 9  | .752    | .018              | 1 | .893 |

|                              |       |   |      |       |   |      |                   |   |      |
|------------------------------|-------|---|------|-------|---|------|-------------------|---|------|
| Linear-by-Linear Association | 2.705 | 1 | .100 | 3.266 | 1 | .071 | 48                |   |      |
| N of Valid Cases             | 119   |   |      | 119   |   |      | .024 <sup>a</sup> | 2 | .988 |

Table 8. Result of sales increase according to PROPER

|                              | Value              | df | p-value |
|------------------------------|--------------------|----|---------|
| Pearson Chi-Square           | 3.305 <sup>a</sup> | 4  | .508    |
| Likelihood Ratio             | 3.729              | 4  | .444    |
| Linear-by-Linear Association | .376               | 1  | .540    |
| N of Valid Cases             | 40                 |    |         |

a. 6 cells (66.7%) have expected count less than 5. The minimum expected count is .30.

PROPER performance and Net income.

Analysis result of relationship between EHS performance based on PROPER and Net income is provided in

Table 9. It shows chi square test result at p value higher than 0.05 for which there is not significant or actual relationship between the two. Increase of PROPER performance does not improve net income.

Table 9. Result of net income according PROPER

|                              | Value              | df | p-value |
|------------------------------|--------------------|----|---------|
| Pearson Chi-Square           | 5.016 <sup>a</sup> | 4  | .286    |
| Likelihood Ratio             | 5.504              | 4  | .239    |
| Linear-by-Linear Association | .289               | 1  | .591    |
| N of Valid Cases             | 40                 |    |         |

7 cells (77.8%) have expected count less than 5. The minimum expected count is .25.

PROPER performance and ROA.

Analysis result of relationship between EHS performance according to

PROPER and ROA is provided in Table 9. This suggest chi square test result at p value higher than 0.05 for which there is not significant or actual relationship between EHS performance according to PROPER and ROA.

Table 10. Result of ROA according to PROPER

|                              | Value              | df | p-value |
|------------------------------|--------------------|----|---------|
| Pearson Chi-Square           | 3.285 <sup>a</sup> | 4  | .511    |
| Likelihood Ratio             | 4.753              | 4  | .314    |
| Linear-by-Linear Association | .000               | 1  | 1.000   |
| N of Valid Cases             | 40                 |    |         |

a. 6 cells (66.7%) have expected count less than 5. The minimum expected count is .30.

Relationship of certification and Financial performance.

Analysis to relationship between environmental and OHS performance toward Sales increase, Net income increase and ROA increase is carried out to add information when the relationships are seen from secondary

data. Out of 90 companies registered in BEJ having EHS risks and certified companies of ISO 14001: 2004 or OHSAS 18001: 2007 are selected. Difference test aims to see difference between Financial performance of company before and after 1 year old certification period.

Table 11. T-test result of companies financial performance before and after certification

| Parameter  | Mean Before | Mean After | P-value ( $\alpha=0.05$ ) |
|------------|-------------|------------|---------------------------|
| Sales      | 3.05E11     | 4.30E11    | 0.411                     |
| Net income | 2.61E11     | 4.28E11    | 0.691                     |
| ROA        | 0.017       | 0.023      | 0.513                     |

Based on data processing result using software analysis tools called minitab as well as T test it is found that mean of Sales, Net income and ROA

before and after EMS certification are not significant as the p value are at 0.537, 0.411 and 0.323. Sales increase, Net income and ROA has no relationship with EMS certification.

Table 12. T-test result of companies financial performance before and after certification of OHSAS

| Parameter  | Mean Before | Mean After | P-value ( $\alpha=0.05$ ) |
|------------|-------------|------------|---------------------------|
| Sales      | 6.17E12     | 9.17E12    | 0.219                     |
| Net income | 3.05E11     | 1.180E12   | 0.534                     |
| ROA        | -0.39       | 0.107      | 0.263                     |



Based on data processing result using software analysis tool minitab and T test, Sales mean, Net income and ROA before and after OHSAS implemented is not significant. The p value is 0.219, 0.219 and 0.263 respectively. Sales level, net income and ROA Sales, net income and ROA prior and after certification is not really different. Table 12 confirms that ISO 14001 and OHSAS 18001 has not effect to Financial performance. The reason is that sales increase is affected by various factors including marketing, brand, customer satisfaction from product, customer relationship and others. Contributing load of EHS performance indicator needs to be evaluated in the future research.

#### Managerial implication

Companies are encouraged to implement integrated environmental and OHS management since there similarity in concept and element of management as well as shown by companies of this research population has integrated the two risk management.

#### Research limitation

Measurement of EHS performance and Financial performance in this re-search is made on the basis of subjective perception of EHS manager or companies' top management of which it causes biases. The selection of companies which have implemented EMS ISO 14001 and OHSAS 18001 is very beneficial at one hand, it limits to select companies which are implementing other types of OHS and environmental management approach such as AMDAL, PROPER, SMK3, ISSR and other. This non certified compa-

nies has more number than the certified ones. The review using secondary data has limitation due to no formal measurement of combined environmental and OHS available in public. There is only PROPER report representing environmental performance to be used for the review, but none for OHS performance.

#### Conclusions

- Companies within research population have selected a strategy to integrate their environmental and OHS management system covering integration to procedure, personnel and site operation.
- Companies minimize Aggressivity gap and Responses gap which affects positively their EHS performance
- Companies' respondent percept that Compliance performance has relationship to Financial performance in terms of Sales increase, Net income increase and ROA increase. Whilst, overall EHS performance has not any relationship to all three Financial performance which is slightly different from auditor's perspective in which Sales increase is affected by EHS performance.
- PROPER representing environmental performance and third party certification do not affect to companies' Financial performance.

#### Recommendations

1. Undertake a research on individual sector which will provide a more specific industrial external environmental, internal risks and management capability.

2. Undertaken a research on EHS management approach beyond a management based on EMS ISO 14001 and OHSAS 18001 which are as well widely adopted by industries in Indonesia.

#### Reference

- Agarwal SK. 2002. Environmental Management New Concepts. Eco Informatics 1.
- Akpan EI. 2011. Effective safety and health management policy for improved performance of organizations in Africa. *International Journal of Business and Management*. Vol 6(3).
- Bae H. 2009. Measuring effects of the voluntary disclosure of environmental management performance: based on the US stock market [disertasi]. State University of New York, New York.
- Bernado M, Casadesus M, Karapetrovic S, Heras I. 2012. Do integration difficulties influence management system integration levels? *Journal of cleaner production*. 21:23-33.
- Benford, Benford Jr CJ. 2008. Exploratory study of construction safety culture through systems thinking [tesis].
- Brahmasrene T, Smith SS. 2009. The influence of training, safety audits, and disciplinary action on safety management. *Journal of Organisation Culture*. 3(1)
- Cai, W. 2005. The impact of safety culture on safety performance: a case study of a construction company [disertasi].
- Daniel WW. 1989. *Statistika nonparametrik terapan*. PT Gramedia. Jakarta
- Djuitaningsih R. 2011. Pengaruh kinerja lingkungan dan kepemilikan asing terhadap kinerja finansial perusahaan [tesis]. Fakultas Ekonomi dan Ilmu Sosial Universitas Bakrie, Jakarta selatan.
- Farooqui RUH. 2011. Achieving zero accidents – a strategic framework for continuous safety improvement in the construction industry [disertasi]. Florida International University, United State.
- Fernandez A. 2002. The Relationship between non-financial and financial performance measures: an empirical study in retail banking [disertasi]. Boston University, Massachusetts.
- Gasparik J. 2006. Integrated management system in construction company effective tool of quality, environment and safety level improving. Slovak University of Technology in Bratislava, Faculty of Civil Engineering.
- [ISO] International Organization for Standardization 14001. 2004. International Standard : Environmental Management Systems – Requirements with Guidance for Use. ISO/TC 207/ SC 1.
- Kaur H. 2011. Soft EMS, Hard EMS and environmental performance

- relationships: a review of the literature. *Journal of environment management and tourism*. University College Malaysia, Malaysia.
- Kementerian Lingkungan Hidup. 2012. Kerusakan Lingkungan Akan Berlanjut. [www.menlh.go.id](http://www.menlh.go.id)
- King AA, Lenox MJ, Terlaak A. 2004. The strategic use of decentralized institutions: exploring certification with the ISO 14001 management standard. NSF/EPA grant. R827819.
- Labodova A. 2004. Implementing integrated management systems using a risk analysis based approach. *Journal of cleaner production*. 12:571-580.
- Laporan Hasil Penilaian Program Penilaian Peringkat Kinerja Perusahaan Dalam Pengelolaan Lingkungan Hidup. 2011. Sekretariat PROPER Kementerian Lingkungan Hidup.
- Mohammad MB. 2006. Strategies for implementing integrated management system in the Malaysian manufacturing companies [tesis]. University of Putra Malaysia, Malaysia.
- Moneva JM, Ortas E. 2009. Corporate environmental and financial performance: a multivariate approach. *Industrial Management & Data Systems*. 110(2):193-210.
- Noh, Y. 2012. The Effect of Environmental Management on U.S. Public Firms Financial Performance and Equity Structure: A Longitudinal Analysis Using ISO14001 [disertasi]. University of Nebraska, Lincoln (US).
- OHSAS 18001. 2007. Occupational Health Safety Assessment Series. BSI.
- Repetto R and Austin D. 2001. Quantifying the impact of corporate environmental performance on shareholder value. *Environmental Quality Management*. 10 (4):33.
- Robson LS, Clarke JA, Cullen K, Bielecky A, Severin C, Bigelow PL, Irvin E, Culyer A, Mahood Q. 2006. The effectiveness of occupational health and safety management system interventions: a systematic review. *Safety science*. 45:329-353.
- Rowley, LS. 2009. The impact of executive leadership practices on organizational safety performance [disertasi]. School of Business & Technology. Capella University, Minneapolis.
- Santos G, Mendes F, Barbosa J. 2011. Certification and integration of management systems: the experience of Portuguese small and medium enterprises. *Journal of cleaner production*. 19:1965-1974.
- Schneider TE. 2008. Is there a relation between the cost of debt and environmental performance? An empirical investigation of the US Pulp and Paper Industry, 1994-2005 [disertasi]. University of Warteloo, Canada.

- Sekaran U. 2003. *Research Methods For Business A skill building approach* 4<sup>th</sup> Edition. John Wiley & Sons, New York.
- Stanwick PA, Stanwick SD. 2000. The relationship between environmental disclosure and financial performance : en empirical study of US firms. *Eco. Management and Auditing*.
- Stellman JM. 1998. *Encyclopedia of Occupational Health and Safety* 4<sup>th</sup> edition. International Labour Office, Geneve.
- Suk TH. 2008. Explaining environmental performance of Korean Firms: Why some do better than others? [disertasi].
- Wallace JC. 2004. A multilevel examination of occupational safety: regulatory focus as an explanatory link between climate, conscientiousness, and performance [disertasi]. Georgia Institute of Technology, Atlanta, Georgia.
- Walpole RE. 1991. *Pengantar Statistika*. Edisi 3. PT Gramedia Pustaka.
- Wingard HC, Voster Q. 2001. Financial performance of environmentally responsible South African listed companies. *Meditari Accountancy Research*. 9:313-332.
- Zhao J. 2006. The Effect of the ISO 14001 environmental management system on corporate financial performance [disertasi]. Graduate School of Maharishi University of Management, St Fairfield.
- Zutshi A, Sohal AS. 2005. Integrated management system: the experiences of three australian organisations. *Journal of Manufacturing Technology Management*. ABI/INFORM Complete. 16(2):211.

