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List of Editorial Peer Reviewers

It continues to be our goal to improve and enhance the quality of the articles published in the *Ritsumeikan Journal of Asia Pacific Studies (RJAPS)*, and in doing so probably nothing plays such an important role as the reviews provided by peer reviewers in related fields of study who themselves are active researchers in those fields.

We would like to formally thank them and let them know how much we appreciate the help and assistance we have received through their constructive reviews and suggestions to the editor which were then transmitted to the corresponding author and followed by the editorial team. Each article was reviewed by at least one reviewer, and some articles were reviewed by two reviewers before they were finally approved for publication.

The following academicians, listed in alphabetical order of names, provided reviews for the manuscripts submitted to the *Ritsumeikan Journal of Asia Pacific Studies*, volume 33:

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Toshitsugu Otake, Professor, APM & GSM, APU
Yasushi Suzuki, Professor, APM & GSM, APU
Yukiko Takashiba, Assistant Professor, APS & GSA, APU

Editor's Note

The 33rd volume of *Ritsumeikan Journal of Asia Pacific Studies (RJAPS)* is being published following the same principles set in year 2012 to improve both its academic quality and coverage of 'Asia Pacific Studies'. The attempt has also continued to define the mission of the journal as a platform to publish academic papers on issues related to the Asia Pacific region, particularly the peoples, societies and cultures, media studies, the environment, public health, international business and trade, economic growth and development, regional cooperation and politics, international relations and peace studies, as well as other academic areas on 'Asia Pacific'. We also recognize the in-house need for a peer-reviewed journal at Ritsumeikan Asia Pacific University (APU) to support the development of academic research skills among graduate students and other junior researchers. Many of our graduate students have followed an academic career at their home country and now send their research manuscript for publication at RJAPS.

It is now three years since we started the policy of blind peer reviews for each and every research article submitted to RJAPS. The research manuscripts submitted to the RCAPS office and/or its chief editor have been screened, sent for review and thus scrutinized by at least one academic peer with a reasonable record of research in the related field of study; most articles have been reviewed by two, and a few have been reviewed by three reviewers. The comments and suggestions of the reviewers have been transmitted to the authors and followed till implementation/resolution by the editorial desk and the chief editor. Our peer review policy is probably more stringent and vigorous for authors from outside APU, as a lot of reviews are still provided by APU faculty members. Nevertheless, we have used this connection to promote in fact a stronger supervision over graduate research work by the related faculty members. A list of the faculty members who have assisted us with the review of articles in this volume has been presented on page iii.

Another change in the journal policy starting with volume 31 and continuing in this volume has been the provision of a standard classification for the types of articles approved for publication. This is a well-recognized concept in research publishing that emphasizes the methodology and material used for research. The distinction between 'Original Research' through analysis of primary data collected by the researcher versus 'Review' of other researchers' works and using secondary data is one example. In this issue we have marked six articles as *'Original Research'*, six articles as *'Review'*, and one as a *'Film Review'*.

I would also like to attract your attention to the 'structure' of research papers published at RJAPS. Each research paper is presented as Title, Author's name and affiliation, Abstract, Keywords, Introduction, Methodology, Findings/Results and Discussion, sometimes a Conclusion, and References. I believe this structure promotes the idea of evidence based writing, with an emphasis on the research methods and how they can be the foundation of a good discussion of findings/results. Even review papers may demonstrate how the source literature was searched for, selected and analyzed for the study, thus providing a measure for the reader about potential sources of bias in the views of the author.

There are fourteen papers in the 33rd volume, and the order of appearance of the articles is as before, based on the time and order of their final approval for publication after being submitted to the RCAPS office. They have been primarily checked by the editor, sent for review to a member of the review board, reviewed, sent back for possible revision, revised by the author, and finally uploaded to the RJAPS homepage after some final editing and formatting by the chief editor. This time-linked order in the appearance of published

papers follows from our policy that an online copy of each paper is uploaded on our journal website immediately after being accepted and approved for publication. Two printed copies of every finished volume of the journal are sent to each author after the completed volume is printed in limited numbers.

The first article in volume 33, by Chalermporn Siriwichai, a PhD student at Ritsumeikan Asia Pacific University (APU) examines the innovative way that Japanese local farmers in Oita prefecture use to market their agri-food products to the health conscious consumers. This paper presents an examination of various socioeconomic factors that can help identify the target customers and thus enhance the marketing strategy of local farmers. I recommend reading this article to those interested in marketing, local agricultural initiatives and sustainability of rural livelihoods in Japan.

The second article is by Pajaree Ackaradejruangsri, another PhD student at APU who has further studied significant attributes of three types of products (electronics/IT products, automobiles, and home appliances) in the eyes of Thai consumers in the sense of the influence on their decision to buy the product. She has also examined how some demographic factors may influence the relative significance of these attributes in the buying decision by Thai customers. This research paper would be a good model for doing research on product quality and marketing.

The third article is an interesting work of econometrics by Mr. Anurag, a talented student from Indian Institute of Technology Kanpur (IITK), Kanpur, Uttar Pradesh, India who has examined the role of globalization on economic growth particularly in developing countries, and although it has found a positive influence, there is also an aggravating effect on income inequality. The details of the empirical analysis and the mathematical models used for this analysis would be of interest to economics researchers.

The fourth article is by Professor Daisuke Akimoto from Soka University Peace Research Institute at Soka University, Tokyo, Japan. He has presented a heartbreaking review of the animated film “Grave of the Fireflies” by Studio Ghibli in which the life of two children at wartime is depicted and how their innocent lives are lost to the physical, psychological, and structural violence of the war. The depth of the analysis of the events in the animated film and their relation with the actual events in the final years of the World War II in Japan is simply amazing. Professor Akimoto explains the benefits of using this animated film to teach about peace at schools, home and all around the world. Looking at the current number of wars and violent conflicts in the world and how so many innocent lives have been lost, like those in Syria, Iraq, etc., I have to agree with Professor Akimoto that anti-war movies are needed more than ever. In health psychology, ‘emotional arousal’ is a technique to enhance the effect of a message, and I can assure you of the impact of the message of this animated film especially if you read Professor Akimoto’s analysis and explanation about the responsibility of war. Let’s hope preserving peace will become one of humanity’s most desired goals.

The 5th article by Justin Rayment from Fudan University (SIRPA), Shanghai, China, also the School of Oriental and African Studies (SOAS), University of London, reviews the issue of sex trafficking in Asia and explains the worrisome trends and how it would be almost impossible to reverse the situation without regional cooperation among all the involved countries. He particularly mentions China and Japan and how they would both benefit from close cooperation to bring sex trafficking under control. Apparently, it would be difficult to understand the complexities involved in sex trafficking in Asia without analyzing the four

paradigms of migration, human rights, feminism and economics. Researchers in the field of human rights, politics, regional cooperation and peace studies may benefit from the review offered by this research work.

Professor Daisuke Akimoto has provided us with still another interesting insight into the animation film *Nausicaa of the Valley of the Wind* made by the famous Director Hayao Miyazaki, in our 6th article of volume 33. His film review of this world famous animation film provides an enjoyable reading on the relation of human with the natural environment, the value of peace, and the scares of nuclear weaponry and war which continue to haunt us even after the end of the Cold War. This animation film can also be used to help students learn about peace and coexistence with nature. The recent warnings of scientists over the impact of climate change related to human industrial activities and how it may be the biggest threat to life in the near future seem so relevant. Students and researchers in the area of media studies may also find this paper of academic interest.

The seventh article by Prof. Kozo Otsuka at the College of International Management at APU provides a critical review of the problems that have afflicted Japanese innovation, explaining that the main reason is the diminishing returns to new knowledge, and suggesting solutions that mainly consist of pursuing more scientific research and a higher level of research collaboration. His comparative study of Japanese innovation relative to that in the United States would be very useful for policy-makers who are searching for remedies to the economy of Japan in a globalized world where many strong competitors may challenge Japanese industries.

Ms. Nguyen Anh Hoang, a graduate student at APU, presents her research work on the decision making process at Vietnamese banks for lending to small & medium enterprises, as our eighth article in volume 33. Her elaborate research methodology and sophisticated analysis including principal component analysis, confirmatory factor analysis and logistic regression are admirable. I highly recommend this research paper as an almost perfect model of a comprehensive academic study to students of MBA.

Our ninth article in this volume is written by Dr. Shyamu Thapa Magar at Tribhuvan University, Kathmandu, Nepal and Professor A. Mani at APU, on identity construction among the *Magars* of Okhaldhunga District in eastern Nepal. This is an amazing sociologic study implemented through community research and fieldwork which also includes a fine literature review of the roles of the ethnic minorities in Nepal. It presents a lot of information about different ethnic groups living in Nepal, their religious affiliations, and the linguistic and cultural attributes that all together help form their unique identity. The study includes a distinction between two major groups of the Magar ethnicity and how they are using different strategies to construct their group identity. I would like to commend both authors for providing RJAPS with this fine prototype of 'Asia Pacific Studies'.

The tenth article of this volume is jointly authored by Dr. Kawsar Ahmmed, an assistant professor at the School of Business and Economics, United International University, in Dhaka, Bangladesh and Professor Nor Azila Mohd. Noor from Othman Yeop Abdullah Graduate School of Business, University Utara Malaysia. This paper examines key account management and its performance and impact on repeat order. This is a valued research paper for students and researchers of marketing that uses a theoretical model based on social exchange theory with an extensive literature review in its methodology. The implications as well as

limitations of the research have been rightfully discussed, along with recommendations on doing an empirical study to follow up with this study.

The eleventh paper comes from the mysterious country of Iran and provides a window into the mindset of Iranian society using a qualitative sociologic method based on Iranian folk testimonies along with a literature review. Dr. Jalal Peykani from Payam-e Noor University and Mr. Mostafa Khalili from University of Tabriz have presented us with an exciting paper on social epistemology as a deserving work in the brand of 'Asia Pacific Studies'. Their classification of various types of testimonies in a broad range and how they may affect the mind of a typical Iranian citizen living in Iranian society is especially useful for a sociologic interpretation of many phenomena happening in Iran. I would like to recommend reading this article to all researchers involved in a cultural as well as sociopolitical study of Iran.

The twelfth paper in this volume examines the casualties of road traffic collisions and its high toll in the world, especially in the developing country of Ghana. The fact is that Japan has been trying for many years to bring down the road casualties and is facing major hurdles in its attempts to prevent all fatal accidents. Therefore, this study by Mr. Amo Thompson, a graduate student at Ritsumeikan APU, is still relevant to the public health and safety issues in the Asia Pacific region. The need for cost-effectiveness of any potential solution has also been emphasized by the author.

Our thirteenth paper of this volume is an original study on the attitudes and beliefs of students toward bi-/multilingualism at an international university in Japan. Professor Larry Kimber from Fukuoka University demonstrates the use of powerful qualitative and quantitative research tools in a study that is very relevant to global learning and education. The dominant view among this dynamic group of international and multicultural students that English language is the main second language to learn and that Japan needs to do more in bilingual education is worth considering by policy-makers in the area of public and higher education. This study can also be a very interesting read for teachers of English as a second language, in Asia.

Finally, our 33rd volume ends with an amazing paper by Professor Asai from Graduate School of Medicine, Tohoku University, Sendai, Japan, and his colleagues Hiroko Ishimoto, and Sakiko Masaki from Kumamoto University Hospital and Kumamoto University, respectively. The article is in the form of an ethical review of the history of the production of human skeleton models from patients with Hansen's disease after they were autopsied in Kumamoto Medical School in pre-war Japan. There are many lessons on ethics that can be learned from this historical event, whether on the practice of medical doctors or the tolerance of the society at large, towards systematic discrimination against a group of people suffering from an infectious disease and needing the compassion of other human beings in their community and society. I would like to commend the authors on this brilliant piece of research and wish them well.

Finally, I would like to invite researchers, faculty members and graduate students in and outside Japan, who have an interest in Asia Pacific to contribute to us. You can submit your original manuscripts via e-mail for a primary editorial review, volunteer to assist us as a reviewer in your area of expertise, or simply provide us with constructive opinions and suggestions. Our aim is to serve the large community of academicians by disseminating quality research articles. Thank you!

Nader Ghotbi, MD, PhD
Chief Editor

ORIGINAL RESEARCH:

The influence of Japanese customers' demographics on their perceptions of cooperative agri-food retailers: the case of Konohana Garten

Chalermporn Siriwichai[1]

Abstract

Although Japan imports more than half of its food/agricultural products and there is a steady decline in Japan's domestic agricultural workforce, Japanese farmers are striving to supply domestic products to the agri-food market by differentiating their products' values and developing efficient retailing channels. This research has examined the case of Konohana Garten in the rural areas of Oyama town, Oita prefecture in order to identify the target population of customers, their perceptions of the agri-food market, and strategies to improve the marketing strategies of agri-food retailers. The study revealed that consumers' age, occupation, residence area and shopping role were strongly associated with agri-food consumption, and could be used as characteristics to idetify the target consumers of the agri-food retailers. Age and residence area were associated with the customers' perceptions such as store recognition, association and store choice, and their visiting frequency. Also, the customers' occupation, shopping role and age showed a strong association with the layout and design, and communication mix of the six retailing stores examined in the study. These results can improve marketing strategies through a better understanding of target customers and factors influencing on their purchasing behaviour.

Keywords: Agri-food products, Cooperative retailers, Demographic segmentation, Japan, Marketing strategies, Oita, Retailing mix

Introduction

Developing an effective marketing strategy in today's highly competitive food-retailing business requires an understanding of customer segmentation (Segal and Giacobbe 1994). Food retailers have to manage their marketing efforts in various dimensions simultaneously. Potent retail strategies take the target market into account, use the retailer's format to satisfy the target customers' needs, and incorporate plans to create a sustainable competitive advantage (Levy and Weitz 2009). Retail strategies can alternatively be illustrated in terms of four specific elements: target, location, retailing mix, and the retailer's value proposition (Dune et al. 2011). These retailing concepts may be applicable to any size of business.

In rural areas of Japan, most communities (depending on the geographical conditions) work in the agricultural sector. Cooperative agri-food retailers are one kind of community-based enterprise, operating as representatives of local communities and selling their agricultural products. They are private organizations founded by groups of local agriculturists, who seek mutual benefits, minimization of costs, and improvement of their community's socioeconomic well-being (Helmberger and Hoos 1962). Cooperatives are sometimes viewed as simple and traditional markets because they have fewer intermediaries and simpler product displays. The cost of logistics in the agri-food supply chain is often controlled by middle men such as wholesalers or retailers, but cooperative agri-food retailers cut across the food supply chain to retain these logistics costs for agricultural producers (Van Der Vorst 2006).

This research focuses on the demographics of Japanese customers visiting Konohana Garten, including their gender, age, occupation, residence area, marital status, parental status, shopping role, and car

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possession (after White 1992; Segal and Giacobbe 1994; LeHew and Fairhurst 2000; March 2003; Chamber of Commerce and Labor Department, Oita prefecture 2008; Sato 2011; Shirahase 2011). The survey examined the influences of store recognition and about retailer association, visiting frequency, visiting preference, competitiveness, retailer originality, and the marketing policy found in the retailing mix. The results of these analyses may contribute to the knowledge of retail segmentation and marketing strategy in Japanese agri-food retailing, of which little can be found in the existing literature. The results can also support marketers and food-retail managers in gaining a better understanding of their target customers and of the demographic characteristics relevant to the management of retail marketing, and marketers can use them as key information in generating proficient retail strategies and developing competitiveness in the food-retail business.

Cooperative agri-food retailing: Food is one of the basic physical necessities of human life (Maslow 1943) and agricultural products form the core of it. In 2010, the World Bank divided agricultural products into four main categories: (1) tropical products, (2) temperate products, (3) seafood, fruits, and vegetables, and (4) other processed products (Aksoy and Ng 2010: 18). Laroche et al. (2003) have pointed out that consumers perceive the quality of a food product to reflect its origin. Thus, where to buy products from is included in the buying decision. When Japanese consumers buy food items, they mostly go to either modern traders or conventional channels. This has been called the 'two extreme end phenomenon' (Tsunetoshi 2012).

Since the economic stagnation in the late 1990s, Japanese consumers have faced various changes in the retail industry. Japanese retailing was viewed as outdated, traditional, and inefficient in terms of its economic basis. This notion came from a large number of local small-scale grocery stores that supported daily consumption (Potjes 1993). Convenience stores and small supermarkets began to emerge in neighborhoods and served to address the lack of storage capacity in people's residences. Food retailing has since seen significant changes; new competitors from general-merchandise retailing have entered the market by extending their product assortments to include food (Zentes et al. 2011), which has increased tension in the food-retail business. Changes in the pattern of food consumption and in market power have influenced supply-chain policies (Bunte 2006); farmers may sacrifice a large proportion of the selling price of their products to middlemen who sell their product to customers.

In the Netherlands, the four major performers in the agri-food supply chain are suppliers (farmers and vegetable and fruit growers), cooperatives, wholesalers, and retailers. Each party performs its own role in moving the products to the customers. Farmers have four options for selling to customers, either directly or via one of those three channels. Thus, products may go through a short or long line of middlemen before reaching their end customers (Bijman 2006). As farmers become more specialized in agriculture, they forward their sales and marketing activity to other parties. However, one practical option is selling through their own agricultural cooperatives. Agri-food producer cooperatives can sell to retailers or operate as wholesalers by gathering community agricultural products and selling them to customers. This method has been established to both help regain market power and decrease supply-chain costs.

Kagawa Toyohiko, founder of a Japanese cooperative in Kobe in the 1920s, considered that a cooperative was not just a retail operation but also a means to improve members' lifestyles via educational and cultural activities (Grubel 1999: 311). Small-scale retailers such as Konohana Garten were established partly with these aims but primarily to decrease costs and maintain market coverage and preferences in an environment of high competition with various types of modern trade food retailers. Konohana Garten was

founded in 1990 and has since been operated by the Oyama Agricultural Cooperative in Hita city, Oita prefecture (Savitri 2008). It has been studied as the original example of community retailers and its format has been adopted throughout the Oita prefecture in the context of the efforts of the OVOP (One Village One Product) movement. In addition, it formed a prototype for the *michi-no-eki* 'roadside stations' (Yokota 2004) that have been extensively introduced all over Japan by the government in order to support rural development. As of 2010 there were 936 such stations, according to Parker (2010: 343).

There have been plenty of successful uses of the Konohana Garten model and it is expected that the dominant retail marketing strategies and the target-customer characteristics of its imitators will be similar. There are few, if any, studies focusing on this kind of food retailer because of the small size of the business capital and earnings involved. However, such retailers provide an example of self-reliant agri-food cooperative retailing that can be replicated in the form of private enterprises that engage in agricultural development and contribute to economic growth. Hence, a research question is whether this kind of retailers shows the same characteristics of customer demographics and perceptions as the other kinds of modern trade food retailers, such as convenient stores, supermarkets, or department stores.

Previous Japanese consumer surveys: After the Second World War, Japan's baby boomers successfully revived the country's economy, which reached a peak in the 1980s and 1990s. Women's roles expanded widely in politics, the economy, and society. Japanese women now have equal job opportunities and equal access to higher education. In addition, the lifestyles and reasons for expenditure of the retired population are different from those of the younger (often single) population, since the former must spend their savings, pension, and investment profits while the younger generations still work to earn money.

> "*Japanese women, particularly, housewives were increasingly viewed as knowledgeable and responsible consumers, aware of environmental issues, strong players in the development of consumer rights, and in themselves an active, identifiable, consumer group in the domestic market*" (Machnaughtan 2012: 96).

Machnaughtan (2012) highlighted a survey by the Japan External Trade Organization (JETRO) in 1981 reporting that 43% of married women had the sole responsibility for household finance and 40.7% shared this responsibility with their husbands. A mere 16.3% of women replied that their spouses controlled the family budget. It was noted that consumer purchases were primarily of domestically produced merchandise but if a household increased its purchasing power, a desire to buy imported goods appeared. The survey also commented that "the Japanese market is changing and it is not entirely coincidental that the Japanese woman-consumer and housewife - is also going through a process of evolution" (JETRO 1981: 1).

A later survey, conducted in 2003 by the Hakuhodo advertising agency, separated 'silver' consumers (Kohlbacher and Cheron 2012) into five groups according to levels of heath, social communication, and financial status: 'happy' elders, 'independent' elders, 'isolated' elders, 'cooperative' elders, and 'depressed' elders (Cheron 2011: 69). These five groups have distinct patterns of buying products and food. Meanwhile, Datamonitor (2010) indicated that the working population and productivity in Japan are shrinking and that part-time employment is replacing lifelong career-type employment. These phenomena illustrate the deeper economic stagnation of Japan. As a result of these constraints, Japanese consumers are increasingly likely to have lower disposable incomes.

The Japanese society is also confronting the NEETs ('not in education, employment, or training') phenomenon where an increasing number of young people in this category are statistically excluded from

the Japanese labor force and classified as unemployed (Genda 2011). Consequently, with the tighter family budgets, Japanese consumers are becoming more price sensitive (Haghirian and Toussaint 2011). They tend to be cautious with their spending, and save money in order to keep their quality of life (Hughner et al. 2007). However, this assumption may not be applicable to all segments of the population because the consumer price index and consumption index are still high.

In 2008, the Chamber of Commerce and Labor in Oita prefecture conducted a survey of 3,468 people, mainly in central city areas throughout the prefecture. The primary finding was that Japanese consumers chose to purchase all kinds of products locally more than 90% of the time. The most common occupations of the respondents were corporate and government employees. Of the respondents, 85.7% owned a family car and used them as the means to buy products; public transportation was used by fewer proportions but no number was given. Respondents bought fresh food products because of their good quality, variety, and cheap price. They bought other kinds of non-food products because of their cheap price, wide variety, and convenience. The most frequent retailer choices were convenience stores and supermarkets, in that order.

The outcomes of Oita prefecture's survey have provided an overview of consumers' perceptions and behavior in food purchasing. However, it focused on the abundance of modern trade retailers established by both nationally and globally gigantic corporations, and did not provide an explanation of consumer preferences and behavior in the niche market of cooperative agri-food retailers. There is no evidence yet that the target markets of these two types of retailers share characteristics or opinions. Consequently, this research identifies the target markets of cooperative agri-food retailers based on the eight demographic factors mentioned above. Moreover, it reveals the primary perceptions of customers regarding store recognition, association, and visiting frequencies, and also enumerates customers' reasons for choosing a particular store for buying agri-food and their opinions regarding the store's best and most original and competitive aspects. These various perceptions can help lead to retailer's equity by applying the same tactics of brand equity (Ailawadi and Keller 2004).

The existing literature on Japanese consumers contains plenty of studies of food-purchasing behaviors and preferences, mostly at modern trade retail stores, such as convenient stores, supermarkets, or department stores. In contrast, there is not much evidence concerning how customers' demographic factors relate to their perceptions of agri-food retail cooperatives. The results of this study will therefore point out which factors have a strong association with customers' perceptions of the store. The study also examines the major relationships between customers' demographic identities and the perceived retailing mix of local agri-food retailers. The main contribution of this study is the application of demographic segmentation in order to determine the key markets for possible market expansion. In addition, it will help managers to generate effective retail strategic planning for community agri-food retailers.

Target market: Prior to selecting target markets, the market should be divided into meaningful groups, or segments (LeHew and Fairhurst 2000). Each group may perceive the marketing efforts of retailers, or the retailing mix, differently according to their individual demographics, socioeconomics, psychographics, or lifestyles. The most basic method of forming groups is to use demographic segmentation, for example by age, gender, education, occupation, income, marital status, and so on. These characteristics are often used in targeting markets (Kotler 2003). This study adopted eight demographic aspects of Japanese consumers as used by Hackett and Foxall (1994): gender, age, occupation, residence area, marital status, parental status, shopping role, and car possession. These characteristics were considered in an attempt to identify the target market of the agri-food retail cooperative and investigate the market's attitude towards the store's retailing

mix. The research examined whether these demographic characteristics were related to the customers' perceptions and behaviors.

Retailing mix: The retailing mix, or retail marketing mix, of a store is one of the most important factors in the sustainability and success of a retail industry (Berman and Evans 2007; Levy and Weitz 2009; Dune et al. 2011). A retailer's marketing strategy consists of its store location, operating procedures, goods and services offered, pricing tactics, store atmosphere, customer service, and promotional methods (Berman and Evans 2007: 128). Pradhan (2009: 140) considered the primary retail strategies to be store location, merchandising, pricing, and marketing. She also emphasized that many experts claimed location to be the most important factor.

Levy and Weitz (2009: 21) cited six factors of the retailing mix as location, store design and display, communication mix, merchandise assortment, pricing, and customer service, whereas Zentes et al (2011: 202) gave only five: store location, merchandise and category management, pricing, in-store marketing, and customer-relationship management. Dune et al (2011: 61) suggested the six factors of location, layout and design, advertising and promotion, merchandise, price, and customer service and selling. Though Levy and Weitz and Dune et al. use different terminology, their lists are similar and both cover all marketing activities necessary to create customer satisfaction. Hence, in this study it was decided to adopt the previous scholars' concepts of the retailing mix and to study the following six factors: store location, layout and design, communication mix, merchandise, pricing, and customer service and selling.

Methodology

A quantitative method was employed in all procedures, from acquiring the raw data to analysing it and deducing meaningful outcomes. A self-constructed questionnaire was used to collect data and the SPSS computer programme was used to process the data for statistical analysis. The descriptive analysis consisted of two parts; a general description, incorporating frequency, percentile, and mode to find the measure of central tendency, which can reveal the distributed values of each variable as well as the lowest and highest values, and a bivariate analysis (Malhotra 2010). The technique used for comparing two variables in bivariate analysis was 'contingency table' or 'cross-tabulation' (Argyrous 2011). Chi-square testing was used to investigate the existence of a relationship between any two assigned variables (Vanichbancha 2012). The two variables were considered dependent if the (two-sided) significance for the Pearson Chi-square value was less than 0.05 (Kwankaew 2009).

A questionnaire was developed and adapted from earlier research on related subjects. The questionnaire had three main parts: (1) nominal scales including multiple answers and open-ended questions regarding general perception of the target retailer; (2) five-point Likert scales regarding the six factors of retailer's marketing mix; (3) an open-ended question requesting any comments on subjects not covered by the main questionnaire or the questions on respondents' demography. Next, a pilot study of 20 sets of questions was self-distributed to test the statistical reliability and validity and the respondents' understanding of the Japanese wording of the questions. There were no major issues to correct or adjust in the questionnaire (the author was present at the site to affirm each respondent's comprehension if needed). The pilot test on the Likert scale questions was found to be reliable, by using Cronbachs' alpha coefficient test with values between 0.900 and 0.989 (over the minimum threshold of 0.7) (Kwankaew 2009; Vanichbancha 2012). The questions are presented in Table 1.

Table 1- Questions used in the study questionnaire

Questions	*Reference sources*
Part I: Nominal scale	
1. Do you know Konohana Garten?	Aaker (1996), Yoo & Donthy (2001), Pappu et al. (2005)
2. How long have you known this store?	Author
3. Do you know other stores, having the same concept?	Aaker (1996), Yoo & Donthu (2001), Pappu & Quester (2006)
4. What aspects of this store do you know of?	Aaker (1996), Yoo & Donthu (2001)
5. What aspects of this store do you recognise?	Arnett et al.(1991), Aaker (1996), Pappu & Quester (2006)
6. How did you discover this store?	Lew (1989), Belch & Belch (2003)
7. How often do you visit this store?	Aaker (1991)
8. Which of the listed retailer here is your first choice of your visit?	Aaker (1996), Yoo & Donthu (2001), Pappu & Quester (2006)
9. Why is the above retailer your first choice?	Aaker (1996), Yoo & Donthu (2001)
10. What is the best aspect of this store?	Ellis & Clantone (1994)
11. Is the best aspect originality or compatibility with others?	Ellis & Clantone (1994), Aaker (1996)
Part II: Five-point Likert scale	
12. Good accessibility of public transportation	Hackett & Foxall (1994), Geuens et al.(2003) , Pappu & Quester (2006)
13. Location close to tourist attractions	Lew (1989), Weidenfeld et al. (2010)
14. Location within the city as the branch	Geuens et al.(2003)
15. The place of location is easy to find	Hackett & Foxall (1994), Pappu & Quester (2006)
16. Attractive appearance of shops as a whole	Hackett & Foxall (1994)
17. Interior and shelf design and arrangement	Ailawadi & Keller (2004)
18. Light and sound levels indoors	Ailawadi & Keller (2004), Pappu & Quester (2006)
19. Clean shopping and catering areas	Hackett & Foxall (1994), Pappu & Quester (2006)
20. Proper temperature within the places	Hackett & Foxall (1994), Ailawadi & Keller (2004), Pappu & Quester (2006)
21. Convenient parking lots	Hackett & Foxall (1994), Pappu & Quester (2006)
22. Toilet and resting areas availability	Hackett & Foxall (1994),
23. Regular advertising on products and service	Belch & Belch (2003)
24. Special advertising on shops bulletin	Belch & Belch (2003)
25. Mass media advertising such as TV, Radio, magazine	Schultz (2011)
26. Shops' signage and Banner in various places	Belch & Belch (2003)
27. Sponsorship of city events	Schultz (2011)
28. Individual info. on advertising and promotion	Belch & Belch (2003)
29. Internet website; online shopping and delivering	Belch & Belch (2003), Vanheems & Kelly (2009)
30. High quality of products	Aaker (1991, 1996), Hackett & Foxall (1994), Pappu & Quester (2006)
31. A wide choices of products and services	Hackett & Foxall (1994), Pappu & Quester (2006)
32. Healthy and safety of agricultural products	Yoo et al. (2000)
33. New products development	Aaker (1996), Salsberg (2010)
34. Worth value of money	Hackett & Foxall (1994), Aaker (1996), Pappu & Quester (2006)
35. Reasonable prices	Geuens et al.(2003), Ruiz-Molina & Gil-Saura (2008)
36. Getting bargain or discount	Hackett and Foxall (1994), Ailawadi & Keller (2004)
37. Helpful shop staffs	Hackett & Foxall (1994), Geuens et al. (2003), Ailawadi & Keller (2004), Pappu & Quester (2006)
38. Friendly shop staffs	Hackett & Foxall (1994), Geuens et al.(2003)
39. Knowledgeable staffs in answering and advising	Pappu & Quester (2006)

40. Home Delivery services	Geuens et al.(2003)
Part III: Respondent's demographic	
If you have any other comments, provide here. (open-ended)	
41. Age: (open-ended)	Hackett & Foxall, 1994; Oita Chamber of Commerce & Labour Department, 2008
42. Gender ☐ Male ☐ Female	Hackett & Foxall, 1994
43. Occupation: (open-ended)	Hackett & Foxall, 1994; Oita Chamber of Commerce and Labour Department, 2008
44. Married ☐ Yes ☐ No	Hackett & Foxall, 1994
45. Children ☐ Yes ☐ No	Hackett & Foxall, 1994; Oita Chamber of Commerce & Labour Department, 2008
46. Residence area: (open-ended)	Hackett & Foxall, 1994; Oita Chamber of Commerce and Labour Department, 2008
47. Car owner ☐ Yes ☐ No	Hackett & Foxall, 1994; Oita Chamber of Commerce & Labour Department, 2008
48. Are you the main shopper in the family? ☐Yes ☐ No	Hackett & Foxall, 1994

Procedures and measures: The questionnaire was arranged in three parts. In part II of the questionnaire, respondents were asked to answer 58 questions based on the retailing mix aspects. These questions covered importance and satisfaction and were anchored at 1 ('least important') and 5 ('most important') in the first 29 items and 1 ('least satisfied') and 5 ('most satisfied') in the second 29 items. The outcomes of two rating parts were calculated into one score of that retailing mix's indicator. For example, if the customers rated importance level in item 1 at 5 and rated the satisfaction level at 3, then the calculated score of item 1 would be equal to 15 for of that customer. The rest of 29 scores (X1-X29) for each item were calculated the same way for every respondent.

The study used purposive sampling (Babbie 2007). Konohana Garten is well known in the island of Kyushu, with a population of 13,230,000 people, as a part of Japan with a population of 128,060,000 (Kyushu Bureau of Economy 2012). Slovin's formula (Yamane 1967) was used to determine the size of the sample for the questionnaire survey:

$$n = \frac{N}{1+Ne^2} \quad , \quad n = \frac{128060000}{1+(128060000)(0.05)^2} \approx 400 \ (399.99)$$

N represents the population size, *n* is the sample size, and *e* is the standard error (0.05). Applying the Japanese population to the above formula, the sample size was found to be 400 people. Therefore, 400 complete questionnaires were collected at four locations where Konohana Garten has stand-alone shops: Oyama, Hita (103 respondents), Akeno, Oita (122 respondents), Nomaoike, Fukuoka (88 respondents), and Momochihama, Fukuoka (87 respondents). The proportion of questionnaire sets at each site was equally distributed, but the numbers of people who agreed to participate by completing the questionnaire were not parallel. The expected sample size was sufficient to proceed to analysis.

Findings and Results

Of the respondents, 89% were female and 11% male. The age group with the highest proportion was 51–60 years (25.5%). The average respondent age was 50.52, but the most frequent respondent age was 60. Almost exactly the same number of responses were received from people aged 31–40 and 41–50 (67 and 65

respondents, respectively). Most respondents (77.25%) were married and most (75%) had one or more children. Most (40.5%) were housewives and 81% were the main shopping decision-maker in their households. Respondents tended to live in the city areas in Fukuoka (26.8%) and Oita (25%). Moreover, 81.5% owned a car or vehicle, whether or not they had used it to travel to the shop. In brief, the majority of respondents were female, the main family shopper, aged between 51 and 60, married, had children, owned a car, and lived in cities. The demographic findings are presented in more detail in Table 2.

Table 2: Demographics of the respondents

Demographics	Sub-division	Freq	%	Demographics	Sub-division	Freq	%
Age	Less than 20	12	3	Marital Status	Single	92	23
	From 21 to 30	36	9		Married	308	77
	From 31 to 40	67	16.75	Car possession	Possessing of car	326	81.5
	From 41 to 50	65	16.25		No car possession	74	18.5
	From 51 to 60	102	25.5	Gender	Male	44	11
	From 61 to 70	86	21.5		Female	356	89
	From 71 to 80	27	6.75	Parental status	Yes	300	75
	More than 80	5	1.25		No	100	25
Residence area	Hita town	32	8	Shopping role	Main shopper	325	81
	Oyama town	1	0.3		Follower	75	18.75
	Akeno Minami town	5	1.3		Not answer	1	0.25
	Oita city	100	25				
	Momochihama, Fukuoka	19	4.8	Occupation	House wife	162	40.5
	Minami, Fukuoka	63	15.8		Retirement	50	12.5
	Fukuoka city	107	26.8		Employee	76	19
	Kurume town	1	0.3		Student	16	4
	Saga town	6	1.5		Business owner	22	5.5
	Yufuin town	18	4.5		Farmer	1	0.25
	Others; Tokyo, Osaka, Hiroshima, Nagasaki, etc.	48	12		Others; Gov' officer, Nurse, teacher, etc.	73	18.25

Perceptions of the store: About 92.5% of the respondents confirmed that they knew Konohana Garten store. The longest any respondent had known of the store was six or more years. However, 54.75% of respondents said that they knew other places with similar characteristics to this store. These other places were different branches of this store and other brands, such as *Michi no eki* and *Itosaisai*. The known aspects of the store (Konohana Garten) were with 'farmers' fresh vegetables and fruits products', followed by 'Oyama town', 'local agricultural products' and 'healthy food buffet', as the four dominant viewpoints regarding the store, followed by 'One Village One Product (OVOP) shops', 'natural food materials', 'healthy food materials', and 'cooperative retail store'.

Table 3: Frequency and percentile of perceptions about the store

Item	Answers	Freq.	%	Item	Answers	Freq.	%
Q1:Awareness of Konohana Garten	Yes	370	92.5	Q2: The length of time in knowing the store	Less than 1 year	51	12.7
	No	30	7.5		1-3 years	85	21.2
Q3: Do you remember other places?	Yes	219	54.7		4-6 years	84	21
	No	166	41.5		More than 6 years	157	39.2
	Did not select	15	3.75		Did not select	23	5.7
Q4: Known aspects of the store (be able to answer more than one aspect)	Oyama town	273	68.2	Q5: Recognized aspects of the store (can name more than one aspect)	Oyama town	239	59.7
	Farmer's fresh vegetables and fruits	302	75.5		Farmer's fresh vegetables & fruits	243	60.7
	Organic vegetables & fruits	167	41.7		Organic vegetables & fruits	108	27
	Healthy food materials	91	22.7		Healthy food materials	50	12.5
	Healthy food buffet	215	53.7		Healthy food buffet	165	41.2
	Fresh flowers & trees	152	38		Fresh flowers and trees	113	28.2
	Local agricultural products	238	59.5		Local agricultural products	179	44.7
	Natural food materials	117	29.2		Natural food materials	78	19.5
	One Village One Product (OVOP) shops	127	31.7		One Village One Product (OVOP) shops	88	22
	Co-operative retail store	58	14.5		Co-operative retail store	53	13.2
	Others; please specify	5	1.2		Others; please specify	10	2.5
Q6: Means of getting to know this store	Found it by chance while shopping	148	37	Q9: Chosen reason of first choice	Well known	66	16.5
	Travelled to Oyama	134	33.5		Good location	185	46.2
	Tourism advertising campaign	27	6.7		Good quality of products	178	44.5
	My friend tells me	91	22.7		Reasonable price	70	17.5
	Roadside signage	52	13		Nice layout	11	2.75
	My family member tells me	54	13.5		Good staffs' service	25	6.2
	Others; please specify	40	10		Other; please specify	36	9
Q7: Frequency of visit	Once a week	66	16.5	Q10: The best aspect of this store (open-ended) as theme	Freshness (of food & products)	138	34.5
	2-3 times per week	55	13.7		Product (quality & variety)	50	12.5
	Bi-weekly	16	4		Taste	21	5.2
	Once a month	89	22.2		Price	13	3.2
	Others; please specify	166	41.5		Health concern	63	15.7
Q8: Being the first choice of visiting to buy	Konohana Garten	322	80.5		Location	8	2
	Hibiki no Satou	8	2		Restaurant	37	9.2
	Michi no eki	72	18		Place design & layout	13	3.2
	Anonymous shops	12	3		Customer service	4	1
	Others (specify)	11	2.7		Others	14	3.5
Q11: Originality aspect (are there any other similar places?)	Yes & able to tell the name	59	14.7	Q11:Originality aspect (are there any other similar places?)	No	151	37.7
	Yes but unable to tell the name	73	18.2		Not specify	117	29.2

The analysis showed that 37% (148 people) of respondents had come to know the store by chance and 33.5% learned about the store as they had been to Oyama town. Thus we can imply that around 70% of the sample came to know the store by themselves. Conversely, 22.75% and 13.5% (respectively) of respondents primarily knew the store via friends or family members. The highest frequency of visiting the store was listed as 'other' (the open-ended option), at 41.5%, and the second-highest frequency was once a month, at 22.25%. In the 'other' option, respondents answered that it was only their first or second time of visiting or that they visited 'sometimes', 'whenever needed', 'once a year', and so on; all of these had frequencies lower than 'once a month' or 'once a week'.

Konohana Garten was the first choice for buying agri-food products for 80.5% of respondents, whereas *Michi no eki* was first choice for only 18%. The most common reason for visiting Konohana Garten as the first choice was its good location (46.25%). This was closely followed by its high quality of products (44.5%), reasonable price (17.5%) and well known (16.5%).

Respondents were asked to answer 'yes' or 'no' regarding whether the aspect they had given as their perceptions of Konohana Garten's advantage could be found at other stores. In total, 33% of respondents answered 'yes'.

Relationship between demographics and perceptions of the store: The results firstly show that the respondents' area of residence had the highest influence on most of the variables. As for perception of store recognition, out of eight variables, only two demographic factors, occupation and car possession, were significantly related. Factors such as marital status, occupation, gender, and parental status all had a weak association with the perception variables.

Relationship between demographics and the store's retailing mix: The correlation test between demographic factors and the store's retailing mix showed that occupation had a strong association with most retailing mix variables. Shopping role (as the main shopper), age, and car possession had somewhat weaker relationships with the retailing-mix aspects, ranked as the second, third and fourth, respectively. Marital status and parental status had the least number of associations with the retailing mix variables.

Discussion

The results of this research partly supported and partly contradicted the consumer survey of Oita prefecture in 2008 (in Japanese), which examined retailer type, conditions when buying goods, range of buying time (weekday or weekend), means to access retailers, and patterns behind and reasons for buying goods outside one's city of residence (including non-store buying channels such as catalogues, mail order, Internet shopping). Besides, the previous research contained no test for possible relationships between specific demographics and buying patterns or perceptions. Our research fulfils this missing element and elaborates on the complicated aspects of consumer characteristics according to a variety of demographic factors**.**

In summary, the two most important demographic variables in perception towards retailer are residence area and age, whereas the most influential demographic variables in the attitude of the retailer's retailing mix are occupation, shopping role, and age. Many of the previous researches pointed to gender and age as the key factors influencing on the variance of perception and buying behaviour. However, they influenced on some but not on all aspects of the retailer perception. For instance, occupation has no influence on store recognition and choice to visit while it influenced on the store layout and design of the retailer and its

competitiveness. Residence area of respondents was related to almost every aspect; store recognition, associated notions, means of knowing the store, frequency of visit, store choice, reason to visit, and originality, except for store competitiveness. Shopping role had no impact on the perceptions of store choice, merchandise, and communication mix, but it was strongly related to store recognition and store location. Meanwhile, age had a high impact on store recognition, associated notions, and store competitiveness, but no influence on store location, pricing, and customer service and selling. These results may be contradictory to most general studies, which cite age and gender as the key demographic factors affecting the perceived retail images and efforts.

Target market and their perceptions: The main target market of customers who buy agri-food products at local retailers are married women aged between 51 and 60 with children (representing a large family size), who are the key family decision-maker in terms of buying food, own a family car, and live around the central area of the town or city. This study found that more than 90% of respondents had known of Konohana Garten for more than six years. The store is recognized mainly for its fresh vegetables and fruits, as shown on the logo of the store.

The two dominant reasons for the store being consumers' first choice were its good location and good quality of its products. Most consumers discovered the store by chance while shopping or while visiting Oyama town for leisure. The factor most commonly mentioned as the best aspect of the store was the freshness of its agri-food ingredients and food products. Also it was not merely senior and retired people who shopped at this type of agri-food retailer as younger generations also bought agri-food items from this retailer. Their attitudes towards the retailing mix elements, especially the communication mix, were sufficiently different to affect the retailer's communication strategy, which is discussed next.

Regarding the relationship between customers' demographic factors and perceived retailing mix elements, the store layout and design, the communication mix, and the store location demonstrated fairly strong correlation with some of the customers' demographic characteristics, including occupation, shopping role, age, and car possession.

Conclusion

The findings of our empirical data and survey have shown the characteristics of the primary Japanese target market for local agri-food retailing. They may also highlight the critical issues concerning community retailing mix management. Local agricultural cooperative retailers, such as Konohana Garten, can identify opportunities to secure their target market and strengthen their competitiveness, derived from recognized and associated aspects as well as their best aspect and its originality. A good understanding of consumers and their buying backgrounds should be used to construct an effective retailing management.

The key demographic factors are age, occupation, residence area, and shopping role, as these can affect the buying decision-making and perceptions towards retail marketing strategies. Customers tend to be more individualistic and less dependent on the store choices of their peer groups.

The frequency of visiting differed based on residence area and car possession; however, most customers visited the store on a weekly or monthly basis, which indicates a strong tendency to be regular customers. The results of this customer-based retailing mix on this case confirm some of the findings of previous studies but present controversial issues concerning the current attitudes of Japanese consumers regarding their buying decisions and store selection for agricultural food products.

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ORIGINAL RESEARCH:

The effect of product quality attributes on Thai consumers' buying decisions

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Abstract

This paper presents the results of an extended study that was first published here at *RJAPS (vol. 31, 2012)* as "Defining Thai Product Quality in the 21st Century"; the research follows with a detailed examination of the effects of product quality attribute dimensions on Thai consumers' buying decisions, specifically in the three product categories of electronics/IT products, automobiles, and home appliances. Further analysis of the responses to questionnaires distributed at the point of sale (POS) in Chonburi Province, Thailand shows that the seven examined attribute dimensions overall have relatively similar weight and influence on Thai consumers' buying decisions, with 'reliability', 'function', and 'durability' being the most influential attribute dimensions and 'eco-friendliness' and 'customer satisfaction' being less influential. Other attribute dimensions that may have some effect on Thai consumers' buying decisions include 'support service', 'value for money', and 'adaptability'. In addition, a number of demographic determinants including gender, age, education and income level were associated with and appeared to influence the impact of the attribute dimensions on Thai consumers' buying decisions.

Keywords: Attribute dimension, Consumer buying decision, Demographic determinants, Product quality, Thailand.

Introduction

When wanting to buy a product, the criteria that consumers commonly point out include 'good features', 'excellent function', 'high quality', 'technology resolution', 'reasonable price', 'well-known brand', 'durability', 'after sale service' and 'user-friendliness'. With global markets growing and rapidly emerging, the existing markets increasingly develop along the globalization processes and move towards a so-called global product standard. For market efficiency and effectiveness, where maximum opportunities exist to both sellers and buyers at minimum cost, information must be collected on the buying behaviour of consumers as they may have different values and use diverse methods for product quality evaluation; this issue has recently attracted the attention of many researchers from various disciplines, and while the concept of product quality has become a well-liked topic among researchers and business practitioners in recent years, few researches have touched on the attribute dimensions of product quality that directly have an effect on customers' buying decisions (Avery and Zabel 1997).

Consumers may use a form of assessment to determine and make their purchasing decisions, especially when buying a quality product. Such assessments are particularly used when (a) there is a need to reduce the perceived risk of purchase (Jacoby, Olson and Haddock 1971; Olson 1977), (b) the consumer lacks expertise and consequently has little or no chance to assess quality (Rao and Monroe 1988), (c) the consumer involvement is very low (Celsi and Olson 1988), (d) the product quality is too complex for the consumer to assess (Allison and Uhl 1964; Hoch and Ha 1986), or (e) there is a preference or need to search for more information (Nelson 1970, 1974, 1978).

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By definition, quality attributes or product quality attributes refer to the cues that could be used by consumers to infer some expected and/or experienced (product) quality; 'experienced quality' refers to the result of physical evaluations of the product when experiencing, utilizing, or consuming the product, whilst 'expected quality' refers to the point of purchase, before experiencing or consuming the product. Although, experienced product quality and expected product quality are two different terms, however, due to their usage in perceiving different levels of product quality through both intrinsic and extrinsic cues, they are somewhat correlated and often used in the visual demonstration of product quality attributes valuations (Acebron and Dopico 1999).

Product quality attributes are also called product quality criteria by Grunert et al. (1996). They refer to the functional and psychological benefits provided by the product (Steenkamp 1990) that are hardly observable prior to consumption. Prior to consumption, benefits are unclear and sometime even unknown. For this reason, consumers may use many cues in comparing the available alternatives and rate their evaluations of the various product quality attribute dimensions before making the purchase or consumption decision (Steenkamp 1989, 1990). Accordingly, firms often modify their product attributes. Other factors such as diversities in consumer preferences, advances in technological capabilities, changes in manufacturing costs, and competitions among the brands also drive the firms to modify and improve their product quality attributes to find a more competitive position (Ofek and Srinivasan 2002).

From a theoretical point of view, several signals and product related attributes/cues could serve as assessment tools in guiding a consumer's purchasing decision. Common signals include brand name or brand advertising (Akerlof 1970; Darby and Kami 1973; Olson 1977; Ross 1988; Milgrom and Roberts 1986), product features or appearance (Nelson 1970; Olson 1977), price (Leavitt 1954; Milgrom and Roberts 1986; Olson 1972, 1977; Rao and Monroe 1989; Scitovsky 1945; Wolinsky 1983), product/retail reputation, store name, warranty, and guarantee (Cooper and Ross 1985; Emons 1988; Olson 1977; Rao and Monroe 1989). They can be categorized predominantly into intrinsic cues and extrinsic cues. Intrinsic cues involve characteristics of a product that tangibly are a physical part of the product, and cannot be changed without changing the physical product itself (Olson 1977; Olson and Jacoby 1972). For instance, flavor, color, texture, and degree of freshness are example attributes of intrinsic cues that could be used in evaluating food quality. On the other hand, extrinsic cues involve characteristics that are related to the product, but are not physically part of it (Olson 1977). Price, brand name, country of origin, type of outlet, presentation of a product, influence of store personnel, promotion, packaging, advertising, are some examples for extrinsic cues (Steenkamp 1989).

Many researches have been performed to study the relations between intrinsic/extrinsic cues and product quality evaluation and how they that lead to a consumer's buying decision (Holbrook & Corfirian 1985; Nowlis and Simonson 1996). Price, brand name, store name, and the country of origin as parts of extrinsic cues have been particularly highlighted as product quality indications. Many researches have investigated the effect of price on product quality and showed that consumers generally use price to infer product quality when price is the only available or accessible source or cue. In addition, a study by Jacoby, Olson and Haddock (1971) demonstrated that intrinsic cues also have large effects on product quality evaluation and consumer buying decision. For example, in marketing research, a blind test of a beverage product may be done in which a consumer is allowed only to taste and see the color or the texture of an unnamed drink, and decide simply based on the flavour or actual taste whether to buy or not to buy without knowing who is the producer or what the price would be.

Intrinsic cues as well as extrinsic cues are very important for product quality related attribute evaluation and studying consumers' buying decisions; it can be said that product quality is a multidimensional construct with a variety of characteristics for which consumer may exhibit a heterogeneous preference structure (Maynes 1976). Few researches have studied composite attribute dimensions that include both intrinsic and extrinsic cues on consumer buying decision in a specific country (Avery and Zabel 1997). This research takes Thailand as a case study and extends the author's previous study of *"Defining Thai Product Quality in the 21st Century"* published in this very journal (Ackaradejruangsri 2012) which attempted to identify the product quality attribute dimensions that influence Thai consumers' buying decisions. Here we further examine the effect of product quality attribute dimensions on Thai consumers' buying decisions, specifically in the three product categories of electronics/IT products, automobiles, and home appliances.

Methodology

Both secondary information, gathered through literature review and primary data, collected by the author of this study from questionnaires filled by Thai consumers were used to examine the attribute dimensions on product quality and the effect on Thai consumers' buying decisions. In a previous study questionnaires were handed out to three consumer target groups of electronics/ IT products (mobile phone, computer, laptop, and tablet), automobiles, and home appliances (television, refrigerator, washing machine, and air conditioner) at the point of sale (POS) in various stores and shopping malls in Chonburi Province (Ackaradejruangsri 2012). Questionnaires were distributed at the POS to 500 random customers in shopping malls and local stores of Chonburi, Thailand and 308 responses were collected, 144 from consumers of electronics/ IT products, 77 from buyers of automobiles and 87 from buyers of home appliances (Ackaradejruangsri 2012).

The consumers who had just bought a product from the three mentioned product categories were questioned about the attribute dimensions that influenced their buying decisions. The findings from the questionnaires were used in this research, specifically those related to the three questions of "what product(s) did you buy?", "what factors influenced your decision to buy it?" and "what factor(s) can be used to evaluate product quality?"

Regarding the second question (what factors influenced your decision to buy this product?), the respondents were requested to rank their preferences in seven given attribute dimensions. These included 'function', 'ease of use', 'reliability', 'durability', 'design', 'eco-friendliness', and 'customer satisfaction'. Thus each factor was ranked on a numerical scale from 1 up to 7. The average rank for each product category was calculated by summing up the scores collected in each attribute dimension for all products in that category and dividing it to the number of purchases made.

There were additional questions about the background of the respondents, such as gender, age, education, and monthly income, to look for possible influences of such factors on consumers' buying decisions. These will also be discussed here.

The findings of this study may be beneficial to consumers, by delivering a useful and composite set of product quality attribute dimensions, and to the business sector, by providing guidance on product design, and helping them understand consumers' needs, wants, and expectations on product quality, particularly in the area of electronics/IT products, automobiles, and home appliances.

Findings and Discussion

Responding to the question of "what factors influenced your decision in buying this product?", there were 308 responses, 144 by consumers of electronics and IT products, 77 by buyers of automobiles, and 87 by consumers of home appliances. In the electronics/IT products sector, 'function' played the most influential role in making a buying decision, followed by 'reliability', 'design', 'durability', 'ease of use', 'customer satisfaction', and 'eco-friendliness'. Automobile buyers gave slightly different responses where 'durability' had the largest effect on buying decision, followed closely by 'reliability', 'eco-friendliness', 'design', 'customer satisfaction', 'function' and 'ease of use'. The differences in the impact of these attributes were statistically insignificant. Home appliance consumers, regarded 'durability' and 'reliability' as the first and second most influential attributes, followed by 'function', 'ease of use', 'eco-friendliness', 'design', and 'customer satisfaction'.

Interestingly, demographic determinants such as gender, age, education, and monthly income of the respondents had a significant impact on consumer buying decision and seven attribute dimensions.

***Gender**:* The majority of the respondents, except for the automobile market, were female, implying the larger role of women in making buying decisions. Men and women both saw 'function', 'reliability', 'durability', and 'design' as their most important attribute dimensions in the overall three product categories; 'ease of use' had a slightly greater effect on female buying decision than males. The average point given by male and female customers to 'function' (5.42 and 5.51, respectively) was the highest score in the electronics/IT products sector. For automobiles, men gave 'reliability' at an average point of 4.73 as the highest factor whereas women gave 'eco-friendliness' at an average point of 4.58 as the highest average score. For home appliances, men gave 'function' an average point of 4.67 as the most important factor, while women gave 'durability' an average point of 5.00 as their highest average score (Table 1).

Among the three product categories, the biggest variance in data was seen in electronics/IT products, with 0.87 for men and 0.95 for women, compared with variances of 0.24, 0.21 (for automobiles) and 0.16, 0.38 (for home appliances) among men and women, respectively. The larger variance implies that different consumers evaluated the seven-attribute dimensions more diversely, for example in regard with electronics/IT products as compared with automobiles and home appliances.

Table 1: The rankings and the average ranking score of attributes associated with consumers' buying decisions, by gender. 'R' shows the rank of each attribute among the seven attributes; the mean score by respondents is also provided.

		function		ease of use		reliability		durability		design		Eco-friendly		satisfaction	
		R	Mean	R	Mean	R	Mean	R	Mean	R	Mean	R	Mean	R	Mean
Male	IT	1	5.42	5	3.90	2	4.32	3	4.16	4	4.10	7	2.26	6	3.85
	Auto	7	3.43	6	3.48	1	4.73	2	4.4	3	4.30	4	3.85	5	3.83
	Home	1	4.67	4	3.79	3	4.21	2	4.36	5	3.72	7	3.63	6	3.67
	Overal	**1**	**4.64**	**6**	**3.75**	**2**	**4.41**	**3**	**4.28**	**4**	**4.07**	**7**	**3.07**	**5**	**3.80**
Female	IT	1	5.51	4	3.94	2	4.44	6	3.77	3	4.26	7	2.26	5	3.83
	Auto	5	3.92	7	3.31	4	3.97	2	4.53	3	4.06	1	4.58	6	3.64
	Home	4	3.79	3	4.36	2	4.49	1	5.00	6	3.51	5	3.57	7	3.33
	Overal	**1**	**4.64**	**5**	**3.94**	**2**	**4.36**	**3**	**4.31**	**4**	**3.98**	**7**	**3.15**	**6**	**3.63**

Age: The respondents were allocated into eight separate age groups: those less than 20 years old, from 21-25, 26-30, 31-35, 36-40, 41-45, 46-50, and 51-and up. The respondents whose age was between 31-35 and 26-30 years old appeared to be the major target consumers on the three product categories (21.1% and 16.23%, respectively). Those under 20 years old valued 'function', 'design', and 'reliability' as their most important factors; they were predominantly customers of electronics/IT products. Among those between 21-25 years old, the overall evaluation was comparable and similar to the previous age group; however, the 'durability' attribute was also seen as a very influential factor in evaluating automobile and home appliance.

Those between 26-30 years of age ranked 'function', 'ease of use', and 'durability' as their top three attribute dimensions on buying electronics/IT products; 'reliability', 'durability', and 'design' for automobiles; and 'durability', 'ease of use', and 'reliability' for home appliances. Thus, in this age group the respondents started to take 'ease of use' into consideration when deciding to buy a product. For those between 31-35 years of age, the top three attributes were 'function', 'durability', and 'reliability'. Among those between 36-40 years old, the respondents started to weigh 'eco-friendliness' as the second important attribute dimension in buying decision, especially for automobile and home appliances. However in terms of the overall attributes in three product categories, 'function', 'reliability', and 'durability' still were the most dominant attribute dimensions in their buying decision.

For those between 41-45 years old, 'reliability', 'customer satisfaction', and 'function' were the most influential attribute dimensions in their overall buying decision. Specifically in this age group, 'customer satisfaction' was firstly raised and ranked as the second influential attribute dimension for both electronics/IT products and automobiles. Overall, 'reliability' was ranked as the most influential attribute dimension in all product categories.

For those between 46-50 years old and above, the effects of attributes on their buying decision were very much alike, especially for electronics/IT products. In these age groups, the respondents evaluated 'function', 'reliability', and 'design' as the most influential attribute dimensions in buying electronics/IT products; however, the effects of attributes for customers of automobiles and home appliances were rather different. They saw 'eco-friendliness', 'customer satisfaction', and 'durability' as the most important attributes when deciding to buy a car, whereas 'function', 'ease of use', and 'reliability' were the leading attributes for home appliance buying decision. Those at 51 years of age and above ranked 'reliability', 'durability', and 'ease of use' as their most influential attribute dimensions in buying automobiles and home appliances.

In term of average point/mean, the attribute 'function' received the greatest highest average score for electronics/IT products in nearly all age groups, except for those at 46 years of age and above. Most of respondents across all age groups ranked the 'durability' attribute as the most influential factor for home appliance buying decision. However the results for automobile purchase were varied in different age groups. In younger age groups, the respondents frequently valued 'design' as their most influential attribute, whereas in older age groups, 'durability', 'reliability', and 'eco-friendliness' attributes were held at higher average scores.

In general, the variances of three product categories were higher among younger age groups than senior age groups. The smaller variance, predominantly in home appliances, implies that consumers ranked and evaluated these seven attribute dimensions evenly and close to the average point/mean.

Accordingly, the study could draw three common trends, for the younger age group, middle age group, and older age group. The younger age group among respondents represents consumers who are young,

fresh, and fascinated with new gadgets in the market. Accordingly, 'design' and 'reliability' (which includes brand and trademark), were valued and ranked at the top for a buying decision. The middle age group of respondents, from 26-40, represents consumers who have contemporary and casual lifestyles, and like modern-ness but seek simple and stress-free lives. They recognize and evaluate 'ease of use' and 'eco-friendliness' but also praise 'design' and 'reliability' as the most influential factors in their buying decisions. The older age group, from 41 and up, represents mature consumers who generally make a buying decision according to experience of use, expectations, and overall perception. They would possibly take many attributes into consideration and their satisfaction or 'customer satisfaction' attribute also plays a major role in their buying decisions.

Education: The study divided the respondents into three education groups, respondents without a bachelor degree, those with a bachelor degree, and those with a higher degree. Respondents with a bachelor degree were the most frequent among consumers of the three product categories in the study. The result of the effects of attribute dimensions on consumer buying decision by education is illustrated in Table 2.

Table 2: Effects of attributes on consumer buying decision by education

		function		ease of use		reliability		durability		design		Eco-friendliness		satisfaction	
		R	Mean	R	Mean	R	Mean	R	Mean	R	Mean	R	Mean	R	Mean
<Bachelor	IT	1	5.94	4	4.03	2	4.29	6	3.54	3	4.2	7	2.37	5	3.66
	Auto	6	3.32	7	3.2	1	4.56	1	4.46	3	4.36	4	4.24	5	3.76
	Home	2	4.35	3	4.12	4	4.08	1	4.77	6	3.65	7	3.01	5	3.88
	Overal	**1**	**4.7**	**5**	**3.81**	**2**	**4.3**	**3**	**4.2**	**4**	**4.08**	**7**	**3.2**	**6**	**3.76**
Bachelor	IT	1	5.43	5	3.95	2	4.37	4	4.01	3	4.05	7	2.27	6	3.92
	Auto	5	3.73	7	3.46	1	4.73	2	4.6	3	4.02	4	3.83	6	3.62
	Home	4	3.85	3	4.35	2	4.39	1	4.96	6	3.54	5	3.78	7	3.15
	Overal	**1**	**4.61**	**4**	**3.95**	**2**	**4.46**	**3**	**4.4**	**5**	**3.90**	**7**	**3.04**	**6**	**3.64**
>Bachelor	IT	1	4.96	6	3.7	3	4.58	4	4.23	2	4.62	7	2.08	5	3.85
	Auto	5	3.87	6	3.47	7	3.3	3	4.07	2	4.20	1	5.07	4	4
	Home	1	4.8	4	3.67	2	4.73	3	4.07	7	3.47	6	3.6	4	3.67
	Overal	**1**	**4.63**	**6**	**3.63**	**2**	**4.29**	**4**	**4.14**	**3**	**4.10**	**7**	**3.29**	**5**	**3.84**

Among those with education under a bachelor degree, 'function', 'reliability', and 'design' were at the top for electronics/IT products buying decision. For buying a car as well as home appliances, 'reliability', 'durability', and 'design' were the most important attributes.

Among those with a bachelor degree, attributes for a buying decision were similar to the previous group, particularly in electronics/IT products and automobiles. However, they valued 'reliability' at more weight than 'function' in a buying decision for home appliances.

Those with a higher degree provided similar responses ranking 'function', 'design', and 'reliability' as the most influential attribute dimensions for electronics/IT products; however for cars, the finding was unique, with respondents strongly evaluating 'eco-friendliness' as the most influential factor in their buying decisions. In addition, smaller variances were seen across all education groups for the three product categories, which indicate that the overall impact of attributes on consumers' buying decisions is

comparable across all education groups. This simply implies that regardless of education level, 'function', 'reliability', and 'design' attributes tend to have the biggest impact on consumer buying decision for electronics/IT products, while 'durability', 'reliability', and 'eco-friendliness' are the most influential attribute dimensions in automobile buying decision, and 'durability', 'reliability', and 'function' are the most important attribute dimensions for home appliances.

Income: the study divided the respondents into five different income groups, respondents with an average monthly income less than or equal to 15,000 baht, between 15,001-25,000 baht, between 25,001-35,000 baht, between 35,001-45,000 baht, and above 45,000 baht. Respondents with an average monthly income between 15,001-25,000 baht and 15,000 baht or less were the largest groups among our respondents (32 baht was equivalent to 1 USD, as of August 2013). The result of the effects of attribute dimensions on consumer buying decision by income is illustrated in Table 3.

Table 3: Effects of attributes on consumer buying decision by income

Income (in Baht)		function		ease of		reliability		durability		design		eco-		satisfaction	
		R	Mean	R	Mean	R	Mean	R	Mean	R	Mean	R	Mean	R	Mean
≤15,000	IT	1	5.53	5	3.87	2	4.42	4	3.90	3	4.40	7	2.15	6	3.75
	Auto	6	3.50	7	3.17	1	4.42	2	4.33	2	4.33	4	4.17	5	4.08
	Home	6	3.86	5	3.89	4	4.07	1	4.54	2	4.18	3	4.11	7	3.46
	Overall	**1**	**4.82**	**5**	**3.79**	**3**	**4.32**	**4**	**4.13**	**2**	**4.33**	**7**	**2.94**	**6**	**3.71**
15,001-25,000	IT	1	5.83	3	4.10	2	4.19	6	3.74	5	3.76	7	2.60	4	3.79
	Auto	6	3.42	7	3.39	2	4.50	1	4.69	4	3.92	3	4.19	5	3.89
	Home	2	4.61	3	4.55	4	3.94	1	5.03	6	3.33	7	3.18	5	3.42
	Overall	**1**	**4.81**	**4**	**4.06**	**3**	**4.19**	**2**	**4.41**	**6**	**3.66**	**7**	**3.20**	**5**	**3.69**
25,001-35,000	IT	1	5.06	6	3.69	3	4.33	5	3.75	4	4.38	7	2.06	2	4.63
	Auto	4	4.09	6	3.36	2	4.41	2	4.41	1	4.72	5	4.05	7	2.95
	Home	3	3.85	4	3.69	1	5.77	2	5	5	3.23	5	3.23	5	3.23
	Overall	**3**	**4.33**	**5**	**3.55**	**1**	**4.76**	**2**	**4.35**	**4**	**4.24**	**7**	**3.22**	**5**	**3.55**
35,001-45,000	IT	4	3.5	4	3.5	1	5.33	1	5.33	4	3.5	7	1.67	3	5.17
	Auto	5	3.89	3	4	2	4.33	6	3.67	7	3.22	1	4.89	3	4
	Home	1	4.83	4	4.17	2	4.5	2	4.5	6	3.5	7	2.67	5	3.83
	Overall	**4**	**4.05**	**5**	**3.9**	**1**	**4.67**	**2**	**4.38**	**6**	**3.38**	**7**	**3.33**	**3**	**4.28**
>45,000	IT	1	5.45	5	4.05	3	4.4	4	4.2	2	4.5	7	2.2	6	3.2
	Auto	7	2.75	5	3	2	4.75	1	5.13	5	4.25	4	3.5	3	4.63
	Home	6	3.29	3	4.29	2	4.71	4	4	7	2.86	1	5.14	5	3.71
	Overall	**2**	**4.4**	**4**	**3.86**	**1**	**4.54**	**3**	**4.37**	**5**	**4.11**	**7**	**3.09**	**6**	**3.63**

Among those with an average monthly income less than or equal to 15,000 baht, in electronics/IT products, the respondents valued 'function', 'reliability', and 'design' as the top influential factors of their buying decisions. For automobiles, the respondents ranked 'reliability', 'durability', and 'design' as the most important attribute dimensions. For home appliances, the respondents gave 'durability', 'design', and 'eco-friendliness' as the most influential attributes. 'Design' appeared to be one of the top three important attribute dimensions in buying decisions in all three product categories.

Among those with a monthly income between 15,001-25,000 baht, 'function', 'durability', and 'reliability' were strongly praised as the most influential attribute dimensions. The respondents evaluated 'function', 'reliability', and 'ease of use' as their most important factors for electronics/IT products. In addition, 'durability', 'reliability', and 'eco-friendliness' ranked at the top in purchasing a car, while 'durability', 'function', and 'ease of use' were as the most influential factors for home appliances.

Among those with a monthly income between 25,001- 35,000 baht, 'reliability', 'durability', and 'function' were the most important attribute dimensions in overall buying decisions. However, the respondents in this income group started to add satisfaction or 'customer satisfaction' into their buying decisions, specifically when for electronics/IT products.

Those with an average monthly income between 35,001 – 45,000 baht and above, took various attributes into their consideration in making their purchasing decisions, particularly 'eco-friendliness' and 'customer satisfaction', but 'reliability' and 'durability' were still the two most influential attribute dimensions for a buying decision across three product categories.

Moreover, 'function' proved to be one of the most influential factors tin electronics/IT products buying decision. The variances of electronics/IT products were the highest among the three product categories. The bigger variances imply that the seven attribute dimensions ranked by respondent consumers of electronics/IT products were distributed far from the average point, as compared to the other two product categories.

The results clearly indicate that differences in demographic determinants, including gender, age, education, and income, have some significant influences on the seven attribute dimensions in consumers' buying decisions. Overall, 'reliability', 'function', and 'durability' had the biggest impact on consumer buying decision at various demographic determinants for electronic/IT products, automobiles, and home appliances.

Also 177 answers were received in response to the question of "what other factors can be used to evaluate product quality?" The respondents specified that they would consider 'support service', 'value for money', and 'adaptability' in evaluating product quality and making a buying decision. In addition, other potential factors might be 'product guarantee', 'feedback and review from previous users', 'product description', 'net sales in the market', as well as 'advertisement'. Both male and female respondents at an age between 31-35 and 36-40 years old who held a bachelor degree with an average monthly income of 25,000 baht or less mostly mentioned 'support service' as a significant factor in evaluating product quality. Furthermore, the majority of female respondents at the age of 26-30 years old who mostly held a bachelor degree with an average monthly income of 25,000 baht or less believed that 'value for money' had some influence on product quality evaluation and their final buying decisions.

Likewise, 'adaptability' was generally mentioned in evaluating product quality by male respondents, especially at the age of 26-30 years old with a bachelor degree and an average monthly income of 15,001-25,000 baht. Largely female respondents at various ages with or without a bachelor degree and an average monthly income of 25,000 baht or less commonly used 'advertisement', and 'review from previous users' in evaluating product quality. Therefore, the in-depth respondents/consumers' opinion poll revealed that 'support service', 'value for money', 'adaptability' and 'secondary data', such as feedbacks and reviews, performance of a product in the market, and advertisement, have some significance in the perception, decision, and product quality evaluation of customers.

'Support service' refers to all types of services provided by manufacturers and the intermediate seller/store which add extra value to a product and help increase the chance of a purchase. These include product guarantee/warranty, seller courtesy, accessibility/ availability of retail store, and etc. While 'value for money' refers to the value or the worth of a product compared with the price paid in order to obtain that product. Value of money under this context includes the original price compared with other brands or companies who provide a similar type of product, the price of repairing parts, and the price of resell as second hand. Finally, 'adaptability' basically implies that a product should be usable and adjustable disregarding the particular brand and the manufacturing company.

Conclusion

One of the aims of this study was to examine the effect of product quality attribute dimensions on the average Thai consumers' buying decisions, and that is why the sample area was selected from Chonburi province, not the capital city, Bangkok, where the average monthly incomes, expenses, and consumption levels are considerably higher. The research on attribute dimensions of product quality, and their impact on the average Thai consumers' buying decisions provided some significant results. First, 'reliability', 'function', and 'durability' are the three most important attribute dimensions that have the largest overall influence on Thai consumers' buying decisions in the three product categories examined. From the consumers' perspective, all the seven attribute dimensions have approximately comparable weight and influence on Thai consumers' buying decisions; however, 'eco-friendliness' and 'customer satisfaction' appear to have less influence on buying decisions in these three product categories. Also, 'support service', 'value for money', and 'adaptability' are additional attribute dimensions, which could be used for evaluating product quality and have an influence on buying decision.

The differences in demographic determinants including gender, age, education, and income have important effects on attribute dimensions used for Thai consumers' buying decisions. Overall, the seven attribute dimensions of 'function', 'ease of use', 'reliability', 'design', 'durability', 'eco-friendliness', and 'customer satisfaction', as well as the three additional attribute dimensions of 'support service', 'value for money', and 'adaptability' proved to have credible effects on the consumer buying decision in the case of Thailand, in that order.

This research has several limitations, which could serve as possible areas for future studies. First, the research focused on only three product categories and also the overall product quality attribute dimensions that influence on Thai consumers' buying decisions. The limited number of product categories might not be large enough to represent the overall product quality attribute dimensions' population. It would be interesting to test these product quality attribute dimensions on other types of product categories and see the effects and their validities.

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ORIGINAL RESEARCH:

Evidence of increments in economic growth and income inequality with financial globalization

Anurag [1]

Abstract

In recent decades, globalization has increased; nations are more closely inter-linked, and cross country capital flow and investment have gone up. A common hypothesis among economists is that there is a relationship between openness to capital markets and economic growth. Empirical evidences are found both in favor of and against this hypothesis. This study finds a positive relationship between economic growth and financial globalization. In today's world evidence for growth is not that significant without checking for development parameters; this study finds also a positive relationship between income inequality and financial globalization.

Keywords: Capital markets, Economic growth, Financial globalization, Income inequality.

Introduction

The globalization process has been growing steadily in developing countries since post 1980's (Kose et al. 2010). Financial globalization is a process that deepens cross border capital flows and asset holding. In short, it results in the growth of nations' capital and financial accounts and also provides a basis for transmission of global financial shocks, international risk sharing, business cycle smoothing, and reduction in macroeconomic volatility. According to the World Bank 'financial globalization' is the "integration of countries local financial systems with international financial markets and institutions" (World Bank, Global Development Finance 2010).

Economists have debated for a long time over the effect of financial globalization on economic growth. Closer financial integration strengthens domestic financial systems, increases investment, promotes efficient allocation of capital and thus increases growth (Levine 1997; Abiad et al. 2004). It affects growth through increased saving and investment and promotes on a global level an efficient allocation of capital and international risk sharing (Obstfeld 1994); however, through distortions, it can harm growth as well. Financial instability and misallocation of capital can occur because of international financial market distortions like trade barriers, weak institutions and information asymmetries (Rodrik 1998; Bhagwati 1998; Stiglitz 1999).

The impact of income inequality on financial globalization is also a debated issue. The International Labor Organization publication of "World of Work Report 2008: income inequalities in the age of financial globalization" added fuel to the debate. This report found that gains from the expansionary period of 1990-2007 had benefitted more high income groups than their medium and low income counterparts; financial globalization failed to contribute to the enhancement of global productivity and employment growth, and financial globalization intensified economic instability. In 1990's, systematic banking crises were ten times more frequent than in 1970's; such increased instability typically comes at a steep cost to low-income groups. Financial globalization has reinforced a downward trend in wage share.

The main purpose of this paper is to provide an assessment of the empirical evidence on the effects of

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financial globalization. The paper will focus upon three related questions: First, does financial globalization promote economic Growth? Second, does financial globalization promote inequality? And third, is growth accompanied by inequality?

Literature Review: Economic theories and international financial institutions suggest that countries should increase the inter-linkages with other countries and the global capital market; however, at times of global recession greater financial integration may worsen the situation of economies which are doing perfectly well. Since 1990s, we have witnessed two common topics of discussion in economics, one on inflation and the other on an increase in the frequency and severity of currency crises following the increase of capital mobility (Berg and Borensztein 2000). Advice for increasing financial openness by international monetary institutions was mainly given after the crisis of 1990s, as well as for removal of trade barriers, privatization of public enterprises, and switching of managed floating exchange rates into free floating exchange rates.

Earlier research by Quinn (1997) and Klein and Olivei (2000) supported a positive relationship between capital account openness and economic growth for developed countries. Baillu (2000), Edwards (1990, 2001), Arteta, Eichengreen and Wyplosz (2001) also found the same evidence with the latter finding that growth is more favored by capital account openness in advanced economies rather than developing economies. However, Alesina, Grilli and Milesi-Ferreti (1994), Grilli and Milesi-Ferreti (1995), Rodrik (1998), Kraay (1998), O'Donnell (2001), Chanda (2000), Fratzscher and Bussière (2004), and Mougani (2006) do not find any linkage between capital account liberalization and economic growth. Rodrik (1998) concluded that capital controls are essentially uncorrelated with long-term economic performance. Prasad et al. (2003) mentioned that theoretical models have identified a number of channels through which international financial integration can promote economic growth in developing countries. However, there is as yet no clear and robust empirical proof that this effect is quantitatively significant.

Lane (2000), and Heathcote and Perri (2004) proved that countries which are more open to trade are also financially more open. This raises a question whether there is a relationship between trade globalization and financial globalization. Feeney (1994) found a complementary relationship between trade globalization and financial globalization.

Not much research has been done to check the impact of financial globalization on income inequality. Jaumotte, Lall and Papageorgiou (2008) examined the relationship of income inequality with trade and financial globalization. They found that trade globalization had a negative relationship, and financial globalization and FDI in particular had positive relationships with income inequality. Technology has a greater positive impact on income inequality than globalization.

Methodology

This includes the empirical strategy used, definitions of variables and the data sources. This study has taken a total of 61 countries of which 21 are developed and 40 are developing countries (they are listed at the end of this section marked with *) and the period of study is 20 years, i.e. from 1991-2010. Models for economic growth and income inequality are estimated separately. The estimation technique used in both models is Arellano-Bover/Blundell-Bond estimation. This study uses Chinn-Ito index for financial inclusion as de jure measures of financial globalization. In the income inequality model, de facto measures of financial globalization such as trade, tariffs, external assets and liability are also used.

The growth model was formed as follows:

Real GDP per capita = α_0+ α_1 Financial Inclusion+ α_2 Investment Ratio + α_3 Population Growth+ α_4 Credit to Private Sector+ α_5 ICT Capital Ratio + α_6 Service Sector Employment+ ∈

Real GDP per capita was taken from World Bank GDP and GDP per capita database. GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy, plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars.

Chinn Ito index for financial openness is used as proxy for financial inclusion. The Chinn-Ito index (KAOPEN) is an index measuring a country's degree of capital account openness. The index was initially introduced by Chinn and Ito (Journal of Development Economics, 2006). KAOPEN is based on the binary dummy variables that codify the tabulation of restrictions on cross-border financial transactions reported in the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER). Investment ratio is the ratio of total investment taken from World Economic Outlook Database and GDP per capita from World Bank GDP and GDP per capita database.

Population growth (annual %) is the exponential rate of growth of midyear population from year t-1 to t, expressed as a percentage and derived from total population. Population sources used include World Population Prospects by United Nations Population Division, Population and Vital Statistics Report (various years) by United Nations Statistical Division, census reports and other statistical publications from national statistical offices, etc.

Credit to private sector is domestic credit to private sector (% of GDP) taken from World Bank credit to private sector database. Domestic credit to private sector refers to financial resources provided to the private sector, such as through loans, purchases of equity securities, trade credits and other accounts receivable that claim repayment. For some countries these claims include credit to public enterprises.

ICT capital ratio is ratio of ICT capital services and the total capital services (ICT + non ICT). It is taken from Total Economy Database where ICT capital services % means growth of capital services provided by ICT assets, and non ICT capital services % means growth of capital services provided by non ICT assets. Service sector employment data is taken from World Bank's world development indicators.

The inequality model was formed as follows:

GINI = α_0+ α_1 Export/GDP+ α_2 Import/GDP+α_3 Tariff+α_4 Ex Liabilities/GDP+α_5 Ex Assets/GDP + α_5 Financial Inclusion+ α_6 ICT Capital/Total Capital+α_7 Credit /GDP +α_8 Employment in Agriculture/Total Employment +α_9 Employment in Industries/Total Employment + ∈

Gini coefficient data was taken from Net Gini database calculated by world Income Inequality Database. Export and import here are non-oil export and import, respectively. Percent change of volume of imports/exports refers to the aggregate change in the quantities of total imports/total exports whose characteristics are unchanged; the goods and services and their prices are held constant, therefore changes are due to changes in quantities only.

Tariff is the average of weighted mean and simple mean tariff rates that were taken from World Bank Tariff rate, applied, weighted mean, all products (%) and World Bank Tariff rate, most favored nation,

simple mean, all products (%), respectively. Weighted mean applied tariff is the average of effectively applied rates weighted by the product import shares corresponding to each partner country. To the extent possible, specific rates have been converted to their ad valorem equivalent rates and have been included in the calculation of weighted mean tariffs. Import weights were calculated using the United Nations Statistics Division's Commodity Trade (Comtrade) Database.

Effectively applied tariff rates at the six- and eight-digit product level were averaged for products in each commodity group. When the effectively applied rate was unavailable, the most favored nation rate was used instead. Simple mean most favored nation tariff rate is the unweighted average of most favored nation rates for all products subject to tariffs calculated for all traded goods. External assets and liability ratio is taken from Lane, P.R. and G.M. Milesi-Ferretti, 2006, "The External Wealth of Nations Mark II: Revised and Extended Estimates of Foreign Assets and Liabilities, 1970–2004" and its 2009 update. Agricultural and industrial employment data were taken from World Bank's world development indicators. Specification for inequality model is borrowed from Jaumotte, Lall and Papageorgiou (2008).

* The estimation sample included the advanced economies of Australia, Austria, Canada, Denmark, France, Germany, Greece, Hong Kong, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Singapore, Slovak Republic, Spain, Sweden, Switzerland, United Kingdom, and the United States. The developing economies in the sample included Argentina, Bangladesh, Belarus, Bulgaria, Chad, China, Costa Rica, Ecuador, Egypt, El Salvador, Georgia, Ghana, Hungary, India, Indonesia, Israel, Jamaica, Kenya, Latvia, Macedonia, Madagascar, Malaysia, Mexico, Namibia, Pakistan, Philippines, Poland, Russia, South Africa, Sri Lanka, Sudan, Tajikistan, Thailand, Turkey, Uganda, Ukraine, Venezuela, Vietnam, Zambia, and Zimbabwe.

Results

Estimation of the growth model for the whole sample of countries shows that 3 factors have a significant impact on economic growth. Financial inclusion, investment ratio and service sector employment are significant factors for economic growth. Interestingly, credit to private sector, and ICT capital ratio do not affect economic growth significantly. Growth is increased by 619.0469 times by unit change in financial inclusion and is significant at 1%. Results are robust and confirmed at 2% significant level (Table 1 and 2).

Table 1: Growth model results

Model specification	Full model
Real GDP per capita L1	0.917 (0.034)*
Financial Inclusion	619.0469 (243.3685)**
Investment ratio	221.6758 (59.19206)*
Population growth	810.489 (768.843)
Credit to Private Sector	-24499.29 (16590.08)
ICT capital ratio	-355.043 (572.7364)
Service sector employment	224.285 (83.5017)*

Observations - 741
* = significant at 1%
** = significant at 2%
Robust Standard Errors in parenthesis

Post estimation
Sargan test statistic = 38.17
P value = 0.92

Table 2: Inequality model results

Model specification	**Full model**
Gini L1	0.9541 (0.0512)*
Non-oil Import ratio	12.2319 (9.3194)
Non-oil Export ratio	24.7067 (12.3145)***
Tariff	0.0075 (0.0028)*
External Liability ratio	-0.0037 (0.0069)
External Assets ratio	-0.0007 (0.0072)
Financial Inclusion	0.3140 (0.1758)****
ICT capital ratio	0.3149 (0.2261)
Credit to Private Sector	28.2152 (25.6979)
Agricultural employment ratio	2.8974 (4.0649)
Industrial Employment ratio	-7.6898 (4.9005)

Observations - 474
* = significant at 1%
** = significant at 2%
*** = significant at 5%
**** = significant at 10%

Robust Standard Errors in parenthesis

Post estimation
Sargan test statistic = 30.16
P value = 0.93

The estimation of inequality model for the whole sample of countries shows that three factors had a significant impact on increasing income inequality. Tariffs is significant at 1%, non-oil export ratio is significant at 5% and financial inclusion is significant at 10% level with robust standard errors. Interestingly, external assets and liability ratios decrease income inequality. Inequality is increased by 0.3140982 times by unit change in financial inclusion and is significant at 1%. Results are robust and confirmed at 10% significant level. Income inequality changes by 0.0075 times by unit change in tariff.

Discussion

Based on estimated models and previous sections, countries achieving higher economic growth may opt for deepening cross border capital flows and asset holdings by reducing restrictions on capital and financial account. If these actions are accompanied by higher investment and increment in service sector employment, they can help increase the rate of economic growth in developing countries. It is assumed that credit availability to private sector and investment in technology can foster economic growth, and of course it does, but if cross border exchange restriction distortions are abolished by countries, financial globalization can help the countries develop and achieve higher economic growth at a faster rate surpassing the effects of technology and credit availability. Technology and credit availability can help achieve further economic growth after the world gets fully globalized.

In the case of income inequality, increments in tariffs are associated with increment in income inequality which explains the Stolper-Samuelson theorem since more expensive domestic produce are purchased by consumers in place of cheaper imports. Capital that goes to other countries is more likely to be invested in highly productive sectors; thus sectors that demand higher skills and use higher technology may increase employment, and the income of those particular sectors that are already higher (in terms of skills, education and technology) may rise and thus raise the income of those who have better education and already higher incomes. Financial globalization tends to increase economic growth but a large share of increased finances goes to those who already have higher incomes; they can increase their assets, and these assets can be used further to provide more credit and thus support a further increase in income and assets.

Conclusion

The estimates suggest that the observed rise in income inequality over the past two decades is largely attributable to the impacts of tariffs and financial inclusion while in the case of economic growth it is attributable to the impacts of financial inclusion and investment ratio. This reflects two offsetting impacts of financial globalization. On one hand external assets and liability ratio reduce income inequality and on the other hand, trade, tariffs and financial inclusion increase income inequality.

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REVIEW:

Peace education through the animated film *"Grave of the Fireflies"* Physical, psychological, and structural violence of war

Daisuke Akimoto [1]

Abstract

This paper is based on a review of the animation film, *"Grave of the Fireflies"* (1988) directed by Isao Takahata and animated by Studio Ghibli. Though Takahata denied that it was an 'anti-war film', this study argues to categorize it as anti-war and useful in peace education. Analyzing the film in terms of peace research, we applied the 'typology of violence' methodology proposed by Johan Galtung (1969). The central question explored would thus be: 'Why did the children have to die?' The question of who is really responsible for their deaths is systematically examined by applying peace research methodology, and 'physical violence', 'psychological violence' and 'structural violence' in the state of war are depicted and scrutinized. The three types of violence shown in this movie help categorize it as an 'anti-war film' that conveys the memory of the Asia Pacific War and can be used for peace education.

Keywords: Anti-war films, Peace education, Physical violence, Psychological violence, Structural violence.

Introduction

This paper is based on a review of a Studio Ghibli animation film, "*Grave of the Fireflies"* (1988) directed by Isao Takahata, who has made other animation films, including "*Only Yesterday"* (1991), "*Pom Poko"* (1994), "*My Neighbors the Yamadas"* (1999), and "*The Tale of Princess Kaguya"* (2013). The making of the film was inspired by a novel of the same title, written by Akiyuki Nosaka, on the basis of his own war-experience, and published in 1968. Nosaka was born in 1930 and adopted in Kobe, but his foster father died and his foster mother was seriously burned due to the fire-bombing of Kobe in June 1945 (Nakai et al. 2012: 699). Therefore, his novel *"Grave of the Fireflies"* is categorized as 'war literature' that depicted "adolescence under the wartime" (Ibid).

This film was released on the same day with Director Miyazaki's "*My Neighbor Totoro"* (1988) and might have influenced Miyazaki's animation film, "*The Wind Rises"* (2013) that portrayed the interwar period between the two world wars and the life of Jiro Horikoshi, a designer of the Mitsubishi M6 Zero Fighter (Akimoto, 2013b). In a way, these two war-related movies animated by Studio Ghibli are connected to each other just as a cause-and-effect relationship in that the Japanese zero fighters were used in the Pacific War, especially in the attack on Pearl Harbor on 7 December 1942 that eventually led to the air-raids on Japanese mainland, including the fire-bombing of Kobe, which became a motif for "*Grave of the Fireflies"* (Table 1).

Director Takahata as well as Akiyuki Nosaka commented that this story was not an 'anti-war' work (Takahata 2013a: 22; Takahata 2013c: 140; Takahata and Nosaka 2013: 74) but played an effective role in handing down the 'memory of war' from the Second World War in Japan to the next generations. Usually, animation films are apt to be nothing more than entertainment in which truth may be portrayed from an unrealistic angle. Nonetheless, Director Takahata's film '*Grave of the Fireflies'* provides realistic details of the process in which two children, a brother and a sister, suffer and die from hunger and malnutrition because

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of war. Accordingly, as Tadao Sato (1992: 293) pointed out, the work values the realism of the war experience. Yet, more importantly, Jun Yonaha (2013: 87) pointed to the enigma of "why the children died in the film?" Yonaha stressed the importance of exploring this question so as not to forget Japan's war memory. The central question in this paper is "why did the children have to die?" In other words, the question of "who is really responsible for their deaths?" is systematically examined in a methodological application of peace research. The implications of this research in peace education will be discussed thereafter.

Table 1: Sequence of historical events related to *The Wind Rises* and *Grave of the Fireflies*

Year	Month	Historical Events
1931	Sep	The outbreak of the Manchurian Incident
1933	Mar	Imperial Japan expressed secession from the League of Nations
1937	July	Outbreak of the Sino-Japanese War
1938	Apr	National Mobilization Act promulgated (came into force in May)
1939	Mar	Military drill at school required (by Ministry of Education)
	Apr	The first flight of Zero Fighter (motif of the film "*The Wind Rises"*)
1940	Oct	The Imperial Aid Association created (by PM. Konoe)
1941	Dec	The attack on Pearl Harbor (outbreak of the Japan-US War)
1942	Feb	The air-raid on Darwin (Australia) by Japan
	Apr	The first air-raid on Japan by the US (Doolittle Air Raid)
	June	The Battle of Midway Island (Japan lost initiative in WWII)
1945	Feb	Trial of Incendiary Bombing on Kobe by the US
	Mar	Great Tokyo air raids by the US
	May	Bombing of Kawanishi aircraft factory by the US
	June	Incendiary bombing of Kobe (motif of *"Grave of the Fireflies"*)
	Aug	The end of the Asia Pacific War

Source: Chronology of the Pacific War (Nakai et al., 2012: 708-711) modified by author

Methodology

Typology of violence from the perspective of peace research

From the perspective of peace research, it can be argued that the two siblings (Seita and Setsuko) are the victims of 'physical violence' in the air-bombing of the Pacific War (in which they lost their parents), 'psychological violence' committed by their aunt, and 'structural violence' in their community and the wider society under the influence of war. These perspectives stem from the typology of violence, proposed by Johan Galtung, one of the pioneers of modern peace research, in his paper "Violence, Peace and Peace Research" (1969), *Journal of Peace Research*. The typology includes a variety of violence as shown in Figure 1.

In the application of the typology of violence proposed by Johan Galtung (1969: 173), the question of "who is responsible for the deaths of the two children?" can be answered by analyzing the physical, psychological, and structural perspectives of violence. Physical violence and psychological violence are commonly understood and comprehended, but in terms of peace research 'structural violence' is more serious; it may be explained as "denying people important rights including sociopolitical rights, economic well-being, gender equality, a sense of personal fulfillment and self-worth, and etc." A kind of violence exists when people starve to death, suffer from preventable diseases, and don't have access to education, affordable housing, and opportunities to work, play, raise a family, etc. "A society commits violence against its members when it forcibly stunts their development and undermines their well-being, whether because of religion, ethnicity, gender, age, sexual preference, or some other social reason" (Barash and Webel 2002: 7).

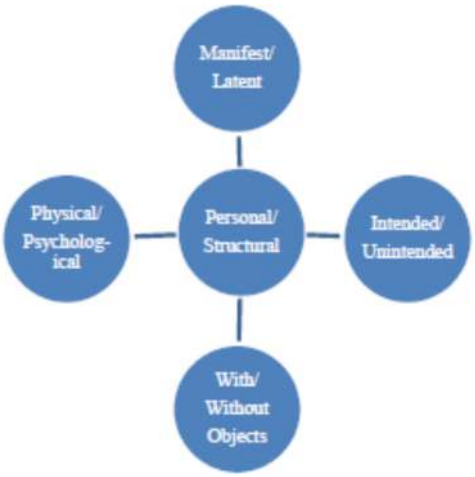

Figure 1: A simple illustration of **t**he typology of violence by Johan Galtung (1969). The concept of 'direct/indirect violence' is implied within the depicted typology.

Director Takahata (2013a: 22; 2013c: 140), as well as some other observers, such as Toshio Okada (2013: 181) argued that this animated film is not an 'anti-war film'. Indeed, they may be described as 'war film' or 'war-related film' instead of 'anti-war film' to avoid the nuance of 'anti-war propaganda'. Nonetheless, the analytical process of the physical/psychological/structural violence in this review reveals whether this film may be classified as an 'anti-war film' or not. Finally, the implication of the film for peace education at home, school, and in the world will be explored.

Findings and Discussion

Physical violence: the bombing of Kobe during the Asia Pacific War

The main character is a 14 year old boy, Seita, who tries to look after his 4 year old sister after their mother dies due to the bombing of Kobe in the middle of the Asia Pacific War. Right from the beginning, the movie lets the audience know that the main character, Seita is already dead and he starts narrating what happened to him and his sister under the war: "I died on 21 September 1945". When he passes away, fireflies, which usually die quickly, are flying around his body, symbolizing the brevity of the lives of Seita, Setsuko and other victims of the Asia Pacific War.

The dead bodies in the train station are caused by 'direct and physical violence' in the bombing of Kobe. The first air-raid attack by American B-25 Mitchel bombers on Japanese mainland was led by Lieutenant Colonel James Doolittle on 18 April 1942, about 4 months after the Attack on Pearl Harbor, also known as the 'Doolittle Raid'. The Doolittle Raid targeted not only Kobe city, but also Tokyo, Kawasaki, Yokosuka, Nagoya, and Yokkaichi on the same day (Kobe City Archives 2004). Lieutenant Colonel Doolittle received a medal of honor for his leadership "in a highly destructive raid on the Japanese mainland" (US Army Center of Military History 2013).

On 1 November 1944, American B-29 Superfortress bombers first appeared in the sky of Japan. In the first phase (early November 1944 to mid-March 1945), B-29 bombers conducted the so-called 'precision bombing' of aircraft factories as well as 'area bombing' of industrial cities. In the second phase (mid-March to 15 August 1945), indiscriminate area bombings killed a large number of civilians. At the same time, the United States dropped a mock-atomic bomb on Kobe harbor to prepare for atomic bombing. Major air-raids were conducted on 17 March, 11 May, and 5 June and killed more than 8,000 civilians. On 5 June 1945, 474 B-29 bombers conducted an air-raid on Kobe from 7:22am to 8:47am (Kobe City Archives 2004; Ministry of Internal Affairs, Japan 2010), which became a motif for "*Grave of the Fire Flies"* as shown in Table 2.

Table 2: Sequence of the Fire-Bombing of Kobe City by B-29 in the Pacific War

Date	No. of B-29	Time	Bomb weight (Ton)	Dropping altitude(m)	Target area	Purpose of bombing
4 Feb (Sun)	69	13:50-14:24	172.8	7470-8230	Kobe City	Trial incendiary bombs on a major city
17 Mar (Sat)	306	2:29-4:52	2328.1	1520-2900	Kobe City	Incendiary bombs on a major city
11 May (Fri)	92	9:53-10:03	459.5	4790-6100	Kawanishi Aircraft Factory	Daytime normal bombs on major industrial targets
5 Jun (Tue)	474	7:22-8:47	3079.1	4160-5730	Kobe City	Incendiary bombs on a major city*

***** The fire-bombing motif in *"Grave of Fireflies"* (Kobe City Archives 2004).

The United States conducted a 'trial' incendiary bombing on Kobe on 4 February, and continued the following bombings on 17 March, 11 May, and 5 June 1945. The bombing on 5 June 1945 was the largest air-raid of Kobe in terms of the number of B-29 and the weight of incendiary bombs. The United States confirmed the degree of devastation after the bombing of 5 June, and omitted Kobe city from the target list of incendiary bombing (Kobe City Archives 2004).

In the beginning of the scene of fire-bombing in the film, some keywords of war memory can be identified. On hearing the 'air-raid warning' (*kūshū keihō*), Seita carries Setsuko on his back trying to go to an 'air-raid shelter' (*bōkūgō*). Setsuko wears a hood (*bōkūzukin*) in order to protect her head in case of air-strike. They come across 'incendiary bombs' (*shōidan*) dropped by B-29 on houses burning around them. The sound of the alarm and the air-bombing describes the scene and horror of the air-raids. Due to the bombing, Seita and Setsuko lose their house, and their mother is seriously burnt and sent to a clinic at a school where she passes away shortly afterwards. Without a doubt, the first section of the film reflects the 'memory of war' with direct violence as a traumatic experience.

The Empire of Japan had conducted 'indiscriminate bombing' in the Asia Pacific War, and the United States adopted not only 'precision bombing' but also 'area bombing' that inevitably led to the death of civilians through 'indiscriminate bombing'. Toshiyuki Tanaka, also known as Yuki Tanaka (2008: 208-209) observed that the 'strategic bombing' of the United States was based on 'racial discrimination' against the Japanese and the 'area bombing' was 'indiscriminate bombing' targeting the civilians as 'labor power'. American pilots bombed targets erroneously, dropping bombs from a high altitude where Japanese anti-aircraft artilleries could not shoot them. In addition, in case of bad weather, the pilots could not perceive the targets precisely (Ibid: 218). Therefore, it is no exaggeration to say that the bombing of Kobe was 'indiscriminate bombing' and the killing of civilians (Senoo and Yoshiyuki 2013: 214). Nonetheless, 'carpet bombing' of civilians was not judged as a 'war crime' in terms of international law after the war.

Director Takahata noted (2013d: 151) that General Curtis LeMay was responsible for adopting the incendiary bombs and for shifting the bombing targets from military bases to innocent civilians in the carpet bombings. Moreover, General LeMay was a commander in the atomic bombing of Hiroshima, but the Japanese government later awarded him the Grand Cordon of the Order of the Rising Sun for his contribution to the development of the Japanese Air Self-Defense Force in 1964 (Ibid). The direct/physical violence of the air raids, therefore, needs to be remembered as a negative aspect of the war memory. The fire-bombings as physical violence drastically changed the lives of victims, survivors and their family members.

Psychological violence: Seita, Setsuko and their aunt in 'war of all against all'

The film depicts not only the terror of the war but also the ugliness of humans who used 'psychological violence'. After the death of their mother, Seita and Setsuko virtually became 'war orphans' (*sensō koji* or *sensai koji*) because their father was serving in the Japanese navy and did not drop a line to them. Seita and Setsuko were able to stay at a distant relative's house, but their aunt treated them as a nuisance. For instance, the aunt suggested that Seita and Setsuko should sell their mother's kimono in order to buy rice. When Setsuko cried at night, the aunt told Seita off for the noise. In the daytime, Seita had to take care of Setsuko but the aunt ironically told Seita that he should make a contribution to the country by going to school or work. What the aunt meant was that all the citizens should make contributions to the 'war'. In the dinnertime, the aunt did not serve rice to them, whereas her family members had better meals. In the morning, the aunt made rice balls for her family's lunch, but not for Seita and Setsuko. Setsuko complained that the rice belonged to the siblings in exchange for their mother's kimonos, but the aunt replied that they already finished the rice and suggested that they should have meals separately, that her family members contributed to the country, and hence, they deserved the rice. Again the aunt used the 'contribution' to the country (war) as excuse to mentally abuse the siblings.

Finally, Seita makes up his mind to leave the aunt's house and to live on their own. This part of the movie narrates the negative aspect of human nature rather than the horror of the Asia Pacific War. In a way, the relationship between Seita/Setsuko and the aunt can be regarded as a war among human beings, described by Thomas Hobbes (1962) as 'war of all against all', a state in which human beings are wolves to each other. Indeed, Director Takahata (2013b: 60) utilized a similar metaphor for humans and wolves in a state of war or during natural disaster in which humans can be demons to each other (Ibid: 62).

Still, the 'war' between Seita and his aunt was asymmetrical and more like 'bullying' (*ijime*). Also, it is important to note that the aunt's language and behavior are under the influence of war which makes humans insane. Clearly, this section depicts how humans conduct 'psychological violence' in order to survive and protect their own families and turn their backs on others' misery. Seita and Setsuko might not know the difficulty to live on their own, but the aunt must know what would happen if the two children tried to live by themselves in that period. The worst thing the aunt did was to 'suggest' for Seita and Setsuko to live in a shelter outside and 'deliberately' not to dissuade the siblings from leaving her house. In this respect, it can be argued that the aunt is responsible for the death of the siblings.

The author of the novel, Nosaka, as an actual figure, was not treated badly, but the story tells the memory of 'war orphans' who lost their parents as a result of the war. According to the survey conducted by the Ministry of Health and Welfare of Japan under the US occupation, the Asia Pacific War caused as many as 123,500 war orphans in Japan (Kaneda 2013: 22). In some cases, war orphans were taken care of as adopted children, but they tended to be sold for prostitution, treated like slaves, and eventually abused to death. This is the reason why many war orphans 'escaped' from the houses of their relatives or foster families just like Seita and Setsuko. However, the war orphans had no choice but to become homeless, to be called germs and to die in train stations or elsewhere (Ibid: 23). Although the film is fictionalized based on Nosaka's own experience, the aunt's psychological violence against the siblings brings back the memory of war orphans who were forsaken or abused by their relatives or foster parents.

Structural violence: who is responsible for their deaths?

Third, the film shows audience how the two children were victimized not only by the war but also by an unfair and unjust social structure under the influence of the war. Therefore, it can be argued that they were

killed by 'structural violence' that gradually killed the war orphans. At first, their new life in an air-raid shelter seemed to be adventurous and enjoyable like a camping trip, but as time passed, Setsuko started suffering from diarrhea and skin problems caused by malnutrition. To feed Setsuko, Seita started stealing vegetables from the neighbor's field and was finally caught and brutally punched by the owner. Here, the film shows an asymmetrical, 'physical bodily violence' against a 14 year old boy by a male adult representing 'war among all against all' between the weaker and the stronger. Structural violence may thus result in more direct physical violence, killing the weakest in the society.

Economic inequity stemming from structural violence undermined the health condition of Setsuko. When Seita took Setsuko to a hospital, a doctor told him to feed her with nourishing food. This scene simply indicates that there was nothing Seita could do for Setsuko without money and the doctor had to overlook the tragedy of the poor siblings. Despite Seita's desperate endeavors, Setsuko finally died of malnutrition and Seita incinerated his sister's body by himself. Eventually, Seita suffered from malnutrition and died as a war orphan at the end of the film. In this way, the social structure devastated by the war led to the deaths of the siblings, and thus 'structural violence' can be identified in the film.

Some analysts, for instance Okada (2013: 181-184), have suggested that Seita was responsible for the death of Setsuko, because he made the final decision to leave the aunt's house for his pride. It is logical to consider that if Seita tolerated humiliating words by the aunt, it was likely that Setsuko would not need to die of malnutrition. The author of the story, Akiyuki Nosaka might have felt guilty for having to let his little sister die and the sense of guilt was reflected in the story (Senoo and Yoshiyuki 2013: 219).

Nevertheless, it is fair to argue that the aunt forced the siblings to leave her house, and they were only minors who would not have sufficient knowledge, capacity for judgment, and ability to survive on their own (Saito 2013: 163). In the original novel version, Nosaka depicted that Seita had money but did not know how to buy stuff at the black market (Nosaka 2012: 620). In a live-action version of the film, the daughter of the aunt emotionally says that her mother 'killed' the siblings; still, the aunt had lost her husband and her family needed to survive at the sacrifice of the lives of children under war circumstances. In the live-action version, the war burned humans, cities, and humans' hearts are noted (NTV 2014). On account of the war devastation, the policy-makers of Imperial Japan could not take appropriate action to save 123,500 war orphans in the country (Kaneda 2013: 22-23). In this regard, the social structure was too devastated and dysfunctional for war orphans to survive under such circumstances.

Accordingly, not only Seita and the aunt, but also the owner of the field who punched Seita, the police who saw the desperate situation of the siblings, and the doctor who diagnosed Setsuko's health condition, forsake Seita and Setsuko in some way. In other words, 'structural violence' caused by war is to blame for the tragic deaths of the siblings. Needless to say, decision-makers of the Empire of Japan that started the war and those of the United States who conducted air-raids and victimized civilians were responsible in the first place.

Implications for peace education at school, at home, and in the world

As its original novel, the film "*Grave of the Fireflies"* can be utilized as teaching material in peace education, because one of the important agendas of education is to teach the war memory to children (Saito 2013: 160, 166). Some analysts (e.g. Kido 2013: 169) observe that this story is like a textbook to teach children about war. The original novel by Akiyuki Nosaka can be used as material for peace education, after watching the movie. Nosaka himself (2013: 78-81) noted that the animated version of the story was more effective than his original novel. Mitsuharu Dannno (2003) observed that the film shed light on the brother-sister love as a

four-handkerchief movie, whereas the original novel showed the nihilism of the black market where Seita died.

Compared to ordinary Japanese animation films, it is fair to argue that this work is designed not for entertainment but for education. Simply, the audience might feel that if it were not for the war, Seita and Setsuko, as innocent civilian children, did not have to die like that (Kondo 2013: 101). Just as other Studio Ghibli animation films, this film can be part of educational material at college level (Yonemura 2003: 10). For example, the author has offered an analysis on the implication of the film for war and peace in the classroom of peace education at Soka University (Akimoto 2013a).

Since there are only a few war films that focus on children in wartime (Saito 2013: 159), students at school might benefit from a feeling of closeness towards Seita and Setsuko. Although Director Takahata mentioned that the film is not an anti-war film, he also realized that this film could be accepted as an anti-war film by the audience, especially children (Takahata 2013c: 143). For instance, after watching this film, elementary school students expressed their anti-war sentiments saying that they felt sorry for Seita and Setsuko and that war is scary and tragic, and that war should never be repeated. In addition to the comments by elementary school students, it was noted that the male students of junior high school cried aloud right in front of the screen at the theater (Ibid).

Likewise, the film can be watched at home as part of domestic peace education. Special consideration and parental guidance are required for the intense and violent scenes, but it is a very important peace education material at home. In fact, this film is categorized as one of the war and peace related movies for peace education at school and home. Seiichi Ueda (2000) for example suggested that mothers and children should watch the film together at home to consider war and peace issues. Ueda (Ibid: 141-142) categorized the film *“Grave of Fireflies”* among war and peace related animation films in the same list with the famous anti-war/anti-nuclear film, “*Barefoot Gen” (Hadashi no Gen)* (1983) by Kenji Nakazawa. Indeed, *“Grave of Fireflies”* has been broadcast on TV especially in *Kinyō* Roadshow (Movies on Fridays) (Nippon Television 2013). Hisae Kido (2013: 171-172) showed her son, a nursery school toddler, this film; although her son probably could not figure out the war and peace issue, Kido learned a different angle of the film (Ibid). By watching the film, not only children, but also mothers can educate themselves so that they could remember the war and teach their children the war memory.

This film contains violence and traumatic scenes, especially dead bodies covered with maggots, and therefore, adult guidance would be necessary for younger audience at homes and schools. The author watched the film at the age of eight with a teacher and other students in the classroom of an elementary school. It may be shocking and even traumatic for elementary school students to watch animated dead bodies, but the author and other classmates found the film very educational as an anti-war animation film. There are no battle scenes in the film (Senoo and Yoshiyuki 2013: 227), and therefore, the film does not contribute to military education, but to peace education.

As a peace education material, this movie can convey the horror of war so that students can remember the Asia Pacific War. Some analysts argue that the Japanese Peace Constitution, especially Article 9 as an anti-war clause, should be protected (e.g. Yamada 2013). In the first place, Director Takahata is a strong constitutional protector. Anti-war pacifism of Takahata is much more thorough than that of Director Miyazaki who recognizes the importance of the dispatch of Japanese Self-Defense Forces to international peace operations (Miyazaki 2013: 9), whereas Takataha opposes it on the basis of the Peace Constitution (Takahata 2013a: 20). Director Takahata argues that Japan has been able to avoid militarily involvement in

US-led wars because of Article 9, and therefore, he contends that peace in Japan has been guaranteed by Article 9. Takahata moreover admits that it is natural for audience to regard his film "*Grave of the Fireflies"* as an anti-war message, hence, the utilization of the film in peace education could be politicized by educators. Nonetheless, the implication of the film is anti-war and for peace rather than a certain political message. Students might recognize the significance of Article 9 after watching this film. Regardless of the political stance of educators or parents, children are likely to understand the horror of war and the significance of peace.

This film can be utilized as peace education material everywhere, as it has been widely recognized worldwide (Suzuki 2013: 52). It has received a number of international awards and has been broadcast for more than 20 years in France (Ibid). Notably, a world-renowned American film critic, Roger Ebert (2013) observed that '*Grave of the Fireflies'* is "the most realistic animation film" he ever watched (Ibid: 178) and can be added to the list of best war films (Ibid: 180). Likewise, another film critic, Ernest Rister (1999; Ebert 2013: 175) noted that the film is the most profoundly human animated film he had ever seen: "This is to animation what *Schindler's List* was to Spielberg – both a long overdue display of artistic maturity and a bold statement of ability".

Mark Seldon (2014) also described the film as one of the "notable exceptions to the literary and artistic silencing of the firebombing". Moreover, as Illan Nguyên (2013: 184, 191) noted, the film was broadcast at the Annecy International Animated Film Festival, the world's oldest and largest animation film festival, in 1991. There are only a few educational animations other than this film (Ibid: 189), and hence, it has been broadcast at least once every two years on the national television, ARTE in France (Ibid: 188) which is similar to *Kinyō* Roadshow in Japan. Again, the film does not show audience any combat scenes of the war but the story of a family (Senoo and Yoshiyuki 2013: 227), and therefore, it is acceptable and suitable for peace education not only in Japan but also all over the world.

Conclusion

We examined the film *"Grave of Fireflies"* directed by Isao Takahata in terms of peace research and education by paying special attention to the three types of 'violence' (physical, psychological, and structural violence) in the film. First, it was clarified that the bombing of Kobe was 'direct physical violence' as well as 'indiscriminate bombing' and a 'war crime' that killed civilians including women and children. Yet, it should be noted that Japan started the war and this is a case of the 'vicious circle of violence' that needs to be discussed in peace education.

Second, it was analyzed that the aunt of the two children was responsible for the death of the siblings. Her abusive language and behavior demonstrated 'psychological violence' that made the children leave her house. The aunt's worst guilt lies in the fact that she almost forced the siblings to leave her house and did not stop them, even though she was able to do so. The aunt's language and behavior can be interpreted as a case of 'bullying' (*ijime*) that resulted in the death of the victims due to psychological violence and could be criticized and discussed in the peace education program at school and home.

Third, it was emphasized that the social structure, or 'structural violence', murdered the siblings. The government could not take appropriate measures against war orphans promptly, and hence, the aunt, the medical doctor, and the police had no choice but to forsake the suffering siblings. The economic inequity and social discrimination against the war orphans silently but surely killed the kids in the end. Simply, the

structural violence deprived the civilians of the right to live with human dignity. More fundamentally, the war itself should be blamed for the deaths of the sibling in the first place.

Despite all these negative images and results of the bombing of Kobe city, is this movie really not an ‘anti-war film’? The physical, psychological and structural violence indicate that various types of violence are responsible for the death of the siblings. The negative image of the war as ‘violence’ causes an ‘anti-war’ sentiment inside the hearts of audience, and therefore, it is fair to assume that this film can be categorized as an ‘anti-war film’. Finally, this film can be watched for the purpose of remembering the Asia Pacific War as an important historical lesson not to be repeated in the future. This animation film as well as the original novel can be utilized as teaching material for peace education at home, school, and in the world.

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REVIEW:

An integrated liberalist framework for regional cooperation to fight sex trafficking in East Asia

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Abstract

East Asian nations share the commitment to eliminate sex trafficking in the region. However, sex trafficking continues to rise in East Asia and remains poorly understood in spite of the anti-sex trafficking measures already in place. Since sex trafficking is increasingly becoming a transnational problem that involves and affects numerous nations, it therefore requires transnational solutions that emphasize full cooperation, increased levels of coordination, and a universal agreement on the roles and responsibilities to protect, prevent and prosecute domestically and internationally. This issue and the need for further regional cooperation will be discussed under an integrated liberalist framework for regional cooperation that may help devise more effective policies in the fight against sex trafficking.

Keywords: East Asia, Integrated liberalist framework, Regional cooperation, Sex trafficking.

Introduction

Sex trafficking has received an immense amount of attention over the last several decades. It is estimated to be the most common form of human trafficking (Bernat 2011: *i*) and has often been described along the lines of a grave human rights violation, one of the largest organized crimes in the world, a multi-billion dollar industry, and a form of modern day slavery (Krishnan 2009). Yet, despite the attention that sex trafficking has garnered, it continues to rise and remains poorly understood from a political perspective. Numerous anti-sex trafficking campaigns, initiatives, laws and protocols have been formulated and enacted at the national, regional and international level, but their effectiveness in combating commercial sexual exploitation is questionable. Globalization is leading to an exacerbation of the historical regional-specific factors that cause and sustain sex trafficking (Kara 2009: 25), as well as the growth of transnational criminal organizations and networks. Therefore, sex trafficking warrants increased governmental and non-governmental cooperation at the national, regional and global levels. But what are the challenges and obstacles in achieving greater cooperation? Why is more cooperation desirable? And what methodology can be made to improve cooperation on sex trafficking issues such as locating and rescuing victims, prosecuting the perpetrators, and preventing the process?

This paper aims to answer the above-mentioned questions by investigating and critically analyzing the latest trends and key issues of sex trafficking and cooperation to fight sex trafficking in East Asia. The paper firstly focuses on the lack of a clear, definitive definition of the term, followed by a presentation of the various theoretical perspectives that are often used to rationalize anti-sex trafficking measures. These theoretical viewpoints of sex trafficking countermeasures are combined together to create an integrated theoretical framework that incorporates elements of concepts from each perspective; they include the paradigms of migration, human rights, feminism, and economic cooperation. An integrated framework will be discussed to address the shortcomings that currently exist in efforts to protect victims, catch perpetrators,

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and prevent the growth of sex trafficking domestically and across national borders.

The paper will also explain the context of sex trafficking in East Asian countries with particular attention given to Japan and China in the form of national case studies. Areas of potential cooperation are discussed with an argument that contends since sex trafficking is increasingly becoming a transnational problem that involves and affects numerous nations, it requires transnational solutions that emphasize full cooperation, increased levels of coordination, and a universal agreement on the roles and responsibilities to protect, prevent and prosecute domestically and internationally. The paper also mentions possible solutions to increase cooperation and reduce the further rise of sex trafficking in the East Asian region, based on an understanding of the links between irregular migration and trafficking, formulating migration policies to reduce irregular migration, addressing the supply and demand aspect by exploring the possibility of legalizing sex industries and opening channels for sex workers to migrate legally, decriminalizing victims and working with NGOs and civil society on identification, rescue and reintegration efforts, and providing incentives to individuals for giving information and intelligence to law enforcement agencies and providing those individuals with other means of earning a living (Hugo 2005: 51).

Although no definitive definition of sex trafficking has been agreed upon universally (Segrave, Milivojevic, and Pickering 2009: 16-20), the Palermo Protocol has defined 'human trafficking' in the "United Nations Protocol to Prevent, Suppress and Punish Trafficking" supplement to the "United Nations Convention against Transnational Organized Crime":

> *"…the recruitment, transportation, transfer, harboring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labor or services, slavery or practices similar to slavery, servitude or the removal of organs"* (United Nations 2000: 2).

Based on this definition, there are three components to human trafficking i.e. the activity, the means, and the purpose (Lee 2005: 167-168). Sex trafficking, as one category of human trafficking, refers specifically to the exploitative aspect of these components for the purpose of sexual exploitation. However, the issue of sex trafficking becomes contentious in cases of willing involvement of individuals in prostitution that do not fit into the coercive component of the definition. National legislations often regard sex work as illegal and thus consider the national and international movement of people for the purpose of sex work as sex trafficking regardless of whether that person was coerced or not (for example, see the United Kingdom's Sexual Offences Act of 2003). This presents a serious problem and obstacle to addressing sex trafficking, and as Lee (2005) shows, heavily influences research on all forms of trafficking (including sex trafficking):

> *"The success in identifying indicators and measures of trafficking depends on the accurate conceptualization of the framework and definitions of trafficking. One of the factors hindering research and policy on trafficking has been the lack of definitions and clarity in distinguishing among different phenomena involving movement of people across borders"* (Lee 2005: 190).

There is a difference in the conceptualization of the term between international and national levels; the majority of sex trafficking occurs at the international level, while migration policy, law enforcement, and other policy decisions are still made at the national level and within the boundaries of nation-states. Therefore a significant amount of coordination and cooperation is needed to devise ways to effectively and efficiently deal with the problem of sex trafficking without infringing upon the sovereignty of states. As such, providing a concrete, agreed upon definition both nationally and internationally would be a starting point to achieve this.

The migration paradigm:

Interpreting sex trafficking under the migration paradigm refers to the link between irregular (illegal) migration and trafficking. This perspective emphasizes on the movement aspect of trafficking to address the problem. By attempting to stop sex trafficking by addressing irregular migration would seem to be an effective avenue for receiving countries to utilize.

Yet, solely addressing irregular migration is not entirely effective in eliminating sex trafficking, as this does not take account of situations whereby the victim legally enters a country and becomes forced or coerced into sexual exploitation later (Hugo 2005: 50-52). Furthermore, as Kara (2009) comments, although a focus on shutting down movement across borders is common:

> *"Such tactics have proved overwhelmingly futile because the modes of transport are numerous, the cost of transport is miniscule, and the sources of potential slave labor are nearly limitless. [As a result, this leads to]…little more than adjustments in routes, larger bribes to border guards, and the procurement of false travel documents"* (Kara 2009: 39).

Anti-sex trafficking measures therefore need to consider two other components to trafficking (the purpose and means), and formulate policy accordingly. The migration paradigm is useful, but incomplete in addressing sex trafficking in an era of rapid globalization.

The human rights paradigm:

The human rights theoretical framework is explained by Segrave, Milivojevic and Pickering (2009) as an approach usually taken by international human rights organizations and NGOs:

> "*…the perception of trafficking as the violation of basic human rights … can result in limiting the role of nation-states to the protection and 'restoration' (through the provision of victim services and repatriation) of women*" (Segrave, Milivojevic and Pickering 2009: 5).

Under this framework, anti-trafficking efforts should focus on maintaining a 'victim-centric' approach; it implies that sex trafficking is a violation of an individual's human rights, and human rights instruments should therefore be utilized by states to protect individuals and prevent trafficking (Segrave, Milivojevic, and Pickering 2009: 5-6).

Under this framework, the right to migrate is assumed, but the sovereignty of the state limits it with stricter migration policies that allow for irregular migration and trafficking (Segrave, Milivojevic, and Pickering 2009: 6). However, since there is still much debate over the effect of stricter or looser migration policies on (contributing to or reducing) trafficking, the human rights paradigm maintains protection of the victim as the priority (Segrave, Milivojevic, and Pickering 2009: 6).

The feminist paradigm:

Under the feminist paradigm, sex trafficking is viewed primarily in relation to sex work and the issue of consent in prostitution. Two dominant subdivisions exist. The first perspective is that of the neo-abolitionist that regards sex trafficking as a highly gendered process, and conceives prostitution as gender-based violence that dehumanizes and objectifies women (Segrave, Milivojevic, and Pickering 2009: 2-3).

From this viewpoint, anti-sex trafficking efforts should therefore focus on eliminating the demand for commercial sex and maintaining illegality in all forms of sex work (Segrave, Milivojevic, and Pickering 2009: 3). Sex trafficking is therefore believed to exist in areas where prostitution is 'tolerated' (Segrave, Milivojevic, and Pickering 2009: 4).

The second subdivision is the regulationist; according to Segrave, Milivojevic and Pickering (2009), under this perspective, "Prostitution is seen as a form of labor based on women's use of their bodies as a source of income. Sex work *per se* is not a violation of human rights: it is work, and sex workers do not have to be 'rescued' but enabled to exercise their labor rights" (Segrave, Milivojevic and Pickering 2009: 5).

Practices of sex trafficking thus arise from a regulationist perspective, as women are deprived of choice and control over their bodies, income and/or line of work (Segrave, Milivojevic, and Pickering 2009: 5). As such, the regulationist movement argues that sex work can and should be de-criminalized to avoid limiting workers' rights and creating conditions for exploitation and trafficking of women.

The economic paradigm:

Economic theory tends to view sex trafficking within the framework of supply and demand of commercial sex, and the calculations of the benefits and gains of criminals involved in the trade (Lutya and Laniety 2012: 562). Consequently, the economic paradigm for enacting anti-trafficking measures focuses on the elimination of the demand by criminalizing the consumers/customers of sexual services and instituting harsh penalties to those criminals that are associated with the operations and running of trafficking networks and establishments. Those who support this paradigm believe that the existence of sex trafficking is due to its perception as a 'low-risk, high return' activity (Kara 2009: 37). Therefore if intervention can address the demand aspect, widespread sex trafficking counter measures would not be needed, as the criminal groups would not perceive it such a profitable business worth being involved in. With continued economic globalization, however, demand has enlarged to a global scale thereby calling into question the validity and practicality of such an approach.

Methodology

This study is based on a review of literature regarding sex trafficking and the different paradigms to fight this phenomenon, as well as a short review of the dimensions of the problem in two East Asian countries of China and Japan. I will present an integrated framework that combines the four theoretical paradigms that were mentioned in the introduction, and discuss how such a framework may be more suitable in the regional fight against sex trafficking. While singularly the four theoretical paradigms already outlined do provide partial solutions and key perspectives on anti-sex trafficking measures, no one paradigm alone is entirely sufficient in achieving adequate protection for victims, prosecution of perpetrators, and prevention of further sex trafficking. For example, states must maintain control over their own migration policies; however, the human and labor rights of women and victims must also be respected and upheld.

The construction of an integrated theoretical framework thus reflects an acknowledgement of the transnational dimension of sex trafficking and the internationally coordinated response it requires (Jojarth 2009: 8). Combining the core elements of the above paradigms together and linking them with the liberalist school of international relations theory can therefore lead to the construction of a new theoretical framework in anti-sex trafficking action. The main idea behind this integrated framework is that the problem of sex trafficking cannot be solved without international cooperation. This perspective is based on the liberalists' idea that cooperation on global issues and global governance is not only possible but also highly desirable. Formulating recommendations in efforts to combat sex trafficking therefore must involve international cooperation and take into account the migration, human rights, feminist and economic paradigms of the study of anti-sex trafficking practices. The remainder of this paper attempts to do just that after examining sex trafficking in two regional examples of China and Japan in East Asia and governmental efforts to address the problem domestically.

Findings

Sex trafficking in East Asia: According to the US State Department's 2011 report on "Trafficking in Persons in East Asia and the Pacific", there are more incidences of forced labor and sex trafficking in East Asia and the Pacific than any other region worldwide (US State Department 2011). The majority of victims are likely to have been trafficked into some form of commercial sexual exploitation, and an estimated 80% of those are believed to be women and girls (US State Department 2013). These observations and findings highlight the immensity of the problem in the East Asia region.

As a region that comprises source, transit and destination countries, there is a pressing need for vigilance and coordination by a multitude of actors at the local, national, regional and international levels. This is of particular relevance today as the region continues to witness a rapid growth of market-driven intra-regional migration, economic growth and increased integration with the rest of the world (Lee 2005: 166). Progress has been made in regards to cooperation on human and sex trafficking in East Asia as Hugo (2005) states:

> *"There have been a number of initiatives involving cooperation between Asian nations to combat trafficking. In 2002 and 2003, Regional Ministerial Conferences on People Smuggling, Trafficking in Persons and Transnational Crime were held in Bali, Indonesia and represent a promising development in this area"* (Hugo 2005: 51).

However, despite the existence of a common interest and goal to eradicate human and sex trafficking in the region and around the world, countries in the region still domestically maintain different interpretations and perceptions of their role and responsibilities in contributing to and formulating of solutions (US State Department 2011). This reality, considering the emergence and development of transnational crime syndicates that operate vast networks of sex trafficking routes across many countries, shows the inadequacies in attempting to formulate individual, domestic, national policies to combat a growing transnational, rapidly globalizing problem. As Kara (2009) observes in his analysis of the link between organized crime and government policy aimed at addressing sex trafficking:

> *"While organized crime groups have globalized the crime of sex trafficking, the legal and governmental efforts to thwart them remain mired in nationalistic inertia and bureaucratic inefficiency"* (Kara 2009: 39).

This phrase can be better understood and illustrated through an investigation into the domestic conditions and national efforts by governments in the region to combat and address sex trafficking. Since China is a large developing country, regarded as a major source, transit and destination country for domestic and international sex trafficking, and Japan is a smaller, highly developed country with a large sex industry that has been noted as a major destination country for sex trafficking, these two countries provide an excellent example to compare and contrast the different domestic circumstances and respective governmental efforts that countries in the region face/have enacted before formulating agreements and cooperating further on sex trafficking.

The People's Republic of China: China is afflicted with internal trafficking, international trafficking of its citizens abroad and the arrival of trafficking victims from countries in and around Asia including North Korea, Myanmar, Vietnam, and Mongolia among others (Lagon 2008: 40). The types of trafficking that prevail are not limited to commercial sexual exploitation as labor exploitation also makes up a significant amount of trafficking cases (Lagon 2008: 40). According to Lagon (2008), who comments on sex trafficking in and from China:

> *"The trade of women and girls for sexual exploitation is…[a]…clear trafficking challenge for the Chinese government. Although prostitution is illegal, the burgeoning illicit sex industry creates a vulnerability for sex trafficking. Women and children are trafficked into the country from North Korea, Vietnam, Burma, Mongolia, and Thailand. Chinese women are also trafficked abroad for sexual exploitation"* (Lagon 2008: 40).

Sex trafficking continues due to an uneven male-to-female ratio in the population, uneven economic development across the country, and the continued involvement of criminal syndicates, most notably 'snakeheads' predominately in Fujian and Yunnan provinces that deploy highly technical global smuggling and trafficking networks around the world (Chu 2011: 45-49).

The Chinese government publicly acknowledges internal trafficking and the international trafficking of Chinese nationals overseas as a problem (Hendrix 2010: 191), and has enacted numerous laws to combat trafficking and specifically the trafficking of women and children (such laws include: the Law on the Protection of Rights and Interests of Women and Article 240 of the Criminal Code). In addition to these amendments, the government has established an Office for Preventing and Combating Crimes of Trafficking in Women and Children and has released a National Action Plan to Combat Trafficking (Hendrix 2010: 191).

These steps, along with the country's 2009 ratification of the Palermo Protocol, have been viewed positively by the international community as a sign of China's commitment to fight and stop human trafficking (US State Department 2011). However, serious problems still remain due to the government's unclear definition of trafficking, limited capacity to fully investigate and prosecute perpetrators and corrupt officials, and significant challenges in victim identification and protection services (Hendrix 2010: 192-193).

Lagon (2008) suggests that the government's main challenges include:

> "… [the] *punishment of victims, poor victim protection services, and lack of transparency in criminal law enforcement by not fully disclosing what the government is doing to enforce laws against trafficking of people*" (Lagon 2008: 40).

The case of China and the progress that has occurred in regards to policy amendments and further commitments to fight sex trafficking highlight a definite increase in understanding of the problem of sex trafficking. However, due to the challenges in addressing such a problem in a country as large and diverse as China, progress is still slow. Cooperation and knowledge transfer from other countries and civil society would therefore benefit China in its fight against sex trafficking at both the domestic and international levels and enable increased, appropriate action to be devised. In other words, further cooperation and coordination between the Chinese government and foreign governments must and should be stressed as an avenue to further fight sex trafficking in China and in the region.

Japan: Japan is regarded as a major destination (and sometimes source and transit) country for sex trafficking. In the US government's 2012 Trafficking in Persons (TIP) Report, the country was given a Tier 2 rating for its efforts to address sex trafficking (US State Department 2012). Under this rating, the report states that:

> *"The Government of Japan does not fully comply with the minimum standards for the elimination of trafficking; however, it is making significant efforts to do so"* (Ruble 2012).

Part of the reason for this rating has been cited to be the lack of a public acknowledgement on the part of the Japanese government to recognize sex trafficking as a problem that exists in Japan despite statistics showing significant instances of sex trafficking occurring in the country (Lee 2005: 186-187). As Lee (2005) highlights, "trafficking cases are not aggressively pursued and penalties are weak. Though the government has funded international programs to increase awareness in other countries, little to nothing has been done to control the growing trafficking issue in Japan" (Lee 2005: 187). It has been estimated in the past that over 100,000 foreign women are trafficked into the sex industry in Japan per year with 90% of them being from other East Asian countries (Lee 2005: 174-176). In accounting for this, Hashimoto (2008) points out that "conditions in Japan are conducive to attracting traffickers: such as limited legal opportunities for migration, increasing demand for cheap labor in some service sectors and Japan's significant economic advantage" (Hashimoto 2008: 59).

Migration policies such as the 'entertainer visa' have been regarded in the past as almost open channels for sex trafficking, and with the government's history of reluctance to publicly acknowledge the problem and the challenge to fully tackle the involvement of the *Yakuza* (Japanese mafia) in these operations, anti-sex trafficking measures have been largely lacking in Japan according to many scholars and commentators (Ruble 2012). It was not until 2004 when an Inter-Ministerial Task Force was established and a National Action Plan was instituted that the Japanese parliament ratified the Palermo Protocol (Hashimoto 2008: 58).

In the time since the Japanese government ratified the Palermo Protocol, progress on anti-trafficking has occurred thanks in large part to the efforts of international organizations such as the International Migration Organization (IMO), various NGOs, and major source countries of trafficking victims in Japan such as Thailand and the Philippines. The Japanese government has been commended in its recent efforts to amend laws and regulations on human trafficking (including policies such as the 'entertainer visa') and take a more 'victim-centric' and human rights approach to trafficking cases (Hashimoto 2008: 58-60) yet, in a

country with an immensely large sex industry that employs a significant number of foreign women (Lee 2005: 165), continued efforts to implement more comprehensive measures and frameworks that protect victims, prosecute perpetrators, and prevent sex trafficking need to be given priority as the methods and techniques used by traffickers becomes more sophisticated and difficult for authorities to detect. The significant growth in the number of empirical studies done by scholars on the experiences of non-Japanese Asian women whom were victims of sexual exploitation in Japan (for example, Jones, Engstrom, Hilliard and Sungakawan (2009), Human Trafficking between Thailand and Japan: Lessons in Recruitment, Transit and Control) show that knowledge of sex trafficking in Japan is growing and receiving more attention.

If the Japanese government and civil society can leverage this knowledge in the fight against sex trafficking domestically and in the region then much can potentially be achieved in regards to the further development of anti-sex trafficking measures. Not only would this benefit Japan significantly, but also these lessons from the Japanese experience should prove useful for other countries as well. In this sense, further cooperation and coordination would serve a pivotal role in disseminating information and moving from a domestic to regional level in the fight against sex trafficking in East Asia.

Discussion and Conclusion

Based on the integrated theoretical framework outlined above, governments must cooperate in their fight against international sex trafficking with an approach that combines concepts from the four perspectives of migration, human rights, feminism and economics. As the case studies and regional focus highlights, East Asian countries have a common interest in eradicating the problem of human and sex trafficking, yet, uncertainties in their exact roles and responsibilities due to different interpretations of definitions, differing levels of impact from sex trafficking, and different domestic policies, priorities and considerations serve as obstacles for further cooperation and coordination efforts on sex trafficking. Jojarth (2009) illustrates this point in arguing that global trafficking:

> *"…requires an internationally coordinated response. However, the necessity of international cooperation on trafficking-related issues does not mean that such cooperation is easy to achieve – far from it. Illicit flows affect countries in different ways and in varying degrees of intensity, so that international cooperation cannot rely on a natural harmony of interest. Cooperation in law enforcement and national security matters is further impeded by the fact that the control of the police and judiciary, as well as of intelligence services and military forces, are generally seen as defining features of national independence and sovereignty"* (Jojarth 2009: 8).

The sentiment that further international cooperation is critical has also been reflected by the US State Department:

> *"One of the keys to fighting trafficking in persons not just in Asia, but around the world, is increased international cooperation. As the traffickers globalize their operations and learn to cooperate with each other to increase their profits and stay ahead of their would-be prosecutors, governments must also work together and with civil society to fight trafficking"* (US State Department 2011).

Consequently, the following points can be suggested to achieve further cooperation between East Asian nations under the integrated framework presented in this paper:

1. Engagement in regional negotiations leading to the formulation of clearer, agreed upon definitions of terms and concepts in the human and sex trafficking discourse.
2. Addressing irregular migration and formulating complementary migration policies between countries to close the holes in irregular forms of migration and reduce human trafficking while protecting the rights of migrants.
3. Addressing the economic, supply and demand aspects of sex trafficking, and exploring the possibility of legalizing sex industries and allowing channels for sex workers to migrate legally.
4. Decriminalizing victims and encouraging law enforcement to work with NGOs and civil society on identification, rescue and reintegration efforts.
5. Focusing on the lowest level of trafficking networks by providing incentives to individuals for giving information and intelligence to law enforcement with the further goal of providing those individuals with other means of earning a living.

These points aim to address the exploitative nature of sex trafficking while at the same time maintaining a multi-dimensional perspective on anti-trafficking measures. They highlight that sex trafficking must be addressed at the local, national and international levels, and cooperation and coordination amongst states and non-state actors is the best and only way to achieve success in anti-sex trafficking measures.

As outlined in this paper, sex trafficking is increasingly becoming a transnational problem that involves and affects numerous nations. Therefore, it requires transnational solutions that emphasize full cooperation, increased levels of coordination, and a universal agreement on the roles and responsibilities to protect, to prevent and to prosecute domestically and internationally. Since sex trafficking is a shared problem that goes across borders with no definitive territorial boundaries, governments can and should work together positively for the overall good of humanity.

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FILM REVIEW:

Learning peace and coexistence with nature through animation: *Nausicaä of the Valley of the Wind*

Daisuke Akimoto[1]

Abstract

This paper discusses the potential educational use of Director Hayao Miyazaki's animation film, *Nausicaa of the Valley of the Wind* (1984) with an emphasis on the peace vs. war aspect of the film as well as the nuclear image of a post-apocalyptic world. There is a narrative on how the main film character, *Nausica*, resolves conflicts and confrontations between humans and with nature (insects). The nuclear image of the film, including nuclear war, nuclear winter, and nuclear meltdown, can be analyzed in the context of the Cold War politics, and the implications for peace education may be explored on the basis of the film's message for peaceful coexistence and harmony between humans and nature.

Keywords: Conflict resolution, Human versus nature, Nuclear war, Nuclear winter, Peace and war.

Introduction

This paper is based on a review of "*Nausica of the Valley of the Wind"* (*Kaze no Tani no Naushika*) an animation film by Hayao Miyazaki, the Director of Studio Ghibli, that was released on 11 March 1984. The full-length movie (116 minutes) was based on Miyazaki's animated cartoons first serialized in 1982, though only the first and second volumes of the cartoon were relevant to the film (dubbed into English as "*Nausicaä of the Valley of the Wind, Perfect Collection 1"* in 1995) and the rest of the five volumes included additional story different from the film (Miyazaki 2013). At any rate, the film reflects Miyazaki's philosophical metaphors regarding peace and war as well as environmental destruction and has had a major impact on the history of Japanese animation (Tsugata 2004: 47).

In the creation of the story, Director Miyazaki was inspired by a Japanese classic written by an unknown author, *"Princess That Loved Insects" (Mushi Mezuru Himekimi),* an episode from *"The Tales of the Past and Present" (Konjaku Monogatari)* as well as a Greek epic, *"The Odyssey"*, by Homer (Miyazaki 1995: 262-263, Studio Ghibli and Bunshun Bunko 2013: 242). Miyazaki noted that: "Unconsciously, Nausicaä and this Japanese princess became one person in my mind" (Miyazaki 1995: 263). The princess in *"Princess that Loved Insects"* and the heroine of *"Nausica of the Valley of the Wind"* both cherish insects. In Odyssey, Princess *Nausica* saves the life of *Odysseus* like Princess *Nausica* of the Valley of the Wind helps her master *Yupa*.

There are a number of earlier studies that deal with this film in terms of literature, film studies, ecology, religion and cultural studies (e.g. Nakamura 2003; Kano 2006; DeWeese-Boyd 2009; Masaki 2011; Chida 2013). Some have observed that the film is related to 'nuclear war' and 'radioactive contamination' despite the fact that the film director himself has not mentioned nuclear issues in the creation of the film (e.g. Sato 1992: 283-286; Kano 2006: 70; Kawamura 2011: 136; Masaki 2011: 233-236; Sato 2013: 233-243). Building up on earlier research, this review provides an analysis and interpretation in terms of peace research in relation with violence, conflict resolution, ecological peace, and a nuclear world. Finally, this paper explores

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the implication of the film for peace education on the basis of Director Miyazaki's message for peaceful coexistence and harmony with nature.

Methodology

This review is based on peace research methodology, and attempts to correlate the metaphors in the animation film *"Nausica of the Valley of the Wind"* with real world events to criticize and warn of the danger of nuclear weapons, nuclear war, and nuclear winter, as well as other nuclear threats (e.g. Pim 2010: 450-451; International Christian University Peace Research Institute, ed. 2013). Therefore, it is important to briefly refer to some critical points as well as nuclear threats during the Cold War as a historical and political background for this film.

This paper uses research methodology commonly applied in peace research to focus on war vs. peace, conflict resolution, and nuclear issues in an attempt to clarify the implied messages of the animation film regarding the evils of war, the significance of conflict resolution and ecological peace.

Findings and Discussion

The film *"Nausica of the Valley of the Wind"* was released in March 1984, in the midst of the Cold War during which the United States and the Soviet Union were competing in the development of nuclear weapons, followed by the United Kingdom, France, and China. Table 1 lists the timeline of some critical points and nuclear threats in the Cold War era and represents the historical and political background of the period; the threat of nuclear weapons and the possibility of a nuclear war could have influenced the creation of the film *"Nausica of the Valley of the Wind"*.

The image of nuclear war and nuclear winter: Tadao Sato (1992: 283-286) observed that the film *Nausica* deals with social and global problems such as nuclear weapons, nuclear war, and environmental destruction in an artistic way. The story of the film is about a fictionalized world 1,000 years after the end of the industrial civilization destroyed by the final war in "Seven Days of Fire" (*hi no nanokakan*). The world is ruled by gigantic mutated insects, and descendants of humans cannot live without a mask because of the poisonous air, or miasma (*shōki*) released in "Sea of Decay", or "Toxic Jungle" (*fukai*). *Nausica* in the beginning of the film describes the "Toxic Jungle" as a "forest of death" and explains that lungs are rotten in five minutes without a mask. Human beings are thus depicted powerless in relation to the nature (insects and toxic jungle).

Masaru Sato (2013: 233-243) pointed to the relationship between the "Toxic Jungle" in the film and the world affected by the so-called 'nuclear winter' where it might be difficult for humans to stay alive. According to Encyclopaedia Britannica (2014), nuclear winter is a form of environmental devastation that scientists contend "would probably result from the hundreds of nuclear explosions in a nuclear war." The impact of nuclear war and nuclear winter was calculated by several scientists including an astrophysicist, Carl Sagan:

> *"... in simulated explosions of several thousand megatons, dust and smoke are generated and encircle the earth within 1 to 2 weeks so that average light levels may be reduced to very low levels while land temperatures can reach -15℃ to -25℃."* (Turco et al. 1983: 1283)

Table 1: Sequence of historical events, including nuclear threats, in the Cold War era

Year	Month	Historical Events
1945	July	The US tested an A-bomb/Potsdam Conference (Truman, Attlee, Stalin)
	Aug	A-bombs dropped on Hiroshima and Nagasaki
1946	Mar	Churchill's 'Iron Curtain' speech
1947	Mar/Jun	Truman Doctrine announced/Marshal Plan announced
1948	Mar	Partial blockade of Berlin began
1949	Apr	The North Atlantic Treaty Organization (NATO) signed in Washington
	Aug	The Soviet Union exploded its first A-bomb
1950	Jun	The outbreak of Korean War
1952	Oct	The UK detonated its first A-bomb (in Western Australia)
	Nov	The US exploded its first H-bomb
1953	Aug	The Soviet Union exploded its first H-bomb
1955	May	West Germany admitted to NATO, Warsaw Pact signed
1957	Aug/Oct	The Soviet Union launched ICBM/Soviet launched Sputnik Satellite
1960	Feb	France exploded its first A-bomb
	Dec	The 'Vietnam War' broke out
1962	Oct	The Cuban missile crisis
1964	Nov	China exploded its first A-bomb
1967	Jun	China exploded its first H-bomb
1979	Mar	Three Mile Island Nuclear Reactor Accident (US)
	Dec	The Soviet Union invaded Afghanistan
1983	Mar	US President Reagan proposed the Strategic Defence Initiative (SDI)
	Nov	The US began deploying INF Pershing II missiles in West Germany

Note: The chronology by Nye and Welch (2011: 173-177) modified by the author.

A research team composed of 20 scientists including Sagan furthermore warned:

> *"Subfreezing temperatures, low light levels, and high doses of ionizing and ultraviolet radiation extending for many months after a large-scale nuclear war could destroy the biochemical support systems of civilization… Postwar survivors would face starvation as well as freezing conditions in the dark and be exposed to near lethal-doses of radiation… Extinction of a large fraction of the Earth's animals, plants, and microorganisms seems possible. The population size of Homo sapience conceivably could be reduced to prehistoric levels or less, and the extinction of the human species itself cannot be excluded"* (Ehrlich et al. 1983: 1293).

Of course, it is not certain whether nuclear winter will occur after the outbreak of a nuclear war. It depends on how many nuclear weapons and where they are used; some analysts predict that the result of nuclear war is a 'nuclear autumn' rather than a nuclear winter (Nye and Welch 2011: 162). Nonetheless, as Joseph Nye Jr. and David Welch noted: "The certainty is that a large-scale nuclear war would destroy civilization as we know it, at least in the Northern Hemisphere" (Ibid). In this sense, the contaminated world in the film is consistent with a situation of destroyed civilization as a result of nuclear war and nuclear winter.

From the outset of the film, *Lord Yupa* finds out that a village was contaminated to the extent that the place became completely unlivable and its people died. This is a vivid image of 'nuclear winter'. Moreover, *Nausica* comes across lots of spores falling like snow in the "Toxic Jungle" just like a 'nuclear winter' caused by the "Seven Days of Fire". Thus, although Director Miyazaki did not explicitly mention nuclear issues, the film reminds the audience of the image of nuclear war and nuclear winter.

Nausica's stance in respect to violence, and conflict resolution: The film can be analyzed from the perspective of peace research, especially the peace-loving nature of the heroine, the depiction of violence and conflict resolution. The main character, *Nausica*, is a princess of the "Valley of the Wind" (*kaze no tani*) located in the periphery and protected from poisonous air by the wind. As a charismatic and messianic heroine, *Nausica* attempts to harmonize the confrontation between human beings and nature (insects), resolve a conflict between two countries (*Tolmekia* and *Pejite*) and to explore a solution to purify the contaminated world. In a way, *Nausica*'s attractiveness represents the 'feminist' aspect of the film as an antithesis of masculinity, with the 'female principle' along the lines of anti-war/anti-nuclear philosophy as well as environmental protectionism (Yokota 2013: 190-191; Kano 2006: 70).

Nausica uses civilian equipment rather than military or fighting weapons. She prefers riding a civilian glider to a military gunship. In air battle scenes, she consistently ducks enemy's attacks rather than fighting back. Also she uses an everyday ceramic knife and a civilian pyrotechnic gun instead of deadly force (Animage 2010: 36-37). Likewise, she uses a flash bomb and an insect whistle to stop opponents' violence in a non-violent way.

From the beginning of the film, *Nausica* shows her unique, mysterious, and inquisitive nature. The people of the valley are afraid of going to the "Toxic Jungle", but *Nausica* takes pleasure in exploring the toxic areas in an attempt to discover something beneficial for the Valley. She carries a ceramic knife in her field work to collect useful materials, but not for harming or killing insects and animals.

Nausica's attempts to resolve conflicts in a peaceful way is shown in the scene in which she tries to rescue an old traveler, chased by a gigantic monster, *Ohmu*, the king of insects in the "Toxic Jungle". First, *Nausica* attempts to stop *Ohmu* by talking to it, but *Ohmu* is so furious that it would not listen to her. Then, she decides to use a flash bomb in order to stop it from attacking the traveler. Finally, *Nausica* uses an insect whistle, or a bullroarer (*mushibue*), to make *Ohmu* go home. This scene indicates *Nausica*'s personality and tendency for peaceful conflict resolution as well as her charm with soft power, as opposed to hard power (e.g. Nye 2004). It turns out that the traveler is the valley's sword master and *Nausica*'s teacher, *Lord Yupa*.

Nausica shows her self-sacrifice and non-violence pacifist characteristic in making friends with a wild animal, fox-squirrel (*kitsunerisu*). *Yupa* had confused the fox-squirrel as a human baby taken by a gigantic mutated insect and therefore discharged a gun at the insect and inadvertently agitated *Ohmu*. This can be interpreted as *Yupa* getting accidentally involved in a conflict with *Ohmu*, and therefore, trying to escape from it. The fox-squirrel captured by *Yupa* is small but aggressive, so *Yupa* advised *Nausica* not to touch it. Yet, *Nausica* kept trying to make friends with the fox-squirrel, even though it bit her finger. In seeing *Nausica*'s blood, the fox-squirrel's aggressiveness suddenly disappeared and it licked her finger trying to heal the wound. *Nausica*'s self-sacrifice is another example of non-violent conflict resolution using soft power.

Based on an animated cartoon (*manga*) the first volume of which was published in 1982, the film *Nausica* reflects the image of the Cold War politics (1945-1989) in the confrontation between the two countries of *Tolmekia* and *Pejite* (Tachibana 2013: 22); the original model of the confrontation in the story was the war between Germany and Soviet Union (Uchida 2013: 122). The kingdom of *Tolmekia* is a powerful militarist state that attempts to maximize its military power by attaining a Giant Warrior (*kyoshinhei*) that nearly devastated human civilization in the "Seven Days of Fire".

Meanwhile, after the clash of the aircraft of *Tolmekia*, *Lastelle*, princess of *Pejite* in hostage, asked Nausica to burn down the embryo of a giant warrior. Given the political background of the Cold War, the "Giant Warrior" may be the metaphor of a nuclear weapon that could also devastate human civilization

(Tachibana 2013: 22). In the scene that narrates the "Seven Days of Fire", fire giant warriors destruct the world, which could be a reference to the five nuclear weapons states at the time (the United States, the Soviet Union, the United Kingdom, France, and China).

Basically, *Nausica* prefers not to harm or kill in conflict resolution, but she is not an 'absolute pacifist' and the people of the valley also do not adopt a policy of 'unarmed neutrality' (Sato 2013: 235). For instance, *Nausica* lost her temper and killed several *Tolmekian* soldiers because they murdered her father, king of the valley. In terms of peace research, her reaction is an act of retaliation rather than legally justifiable self-defense to prevent aggressors from attacking. Therefore, *Lord Yupa* intervened in the fighting between *Nausica* and one of the *Tolmekian* soldiers with a non-lethal method. As a result, *Nausica* harmed *Yupa* with a sword, yet it put an end to the battle scene.

There are four stages of conflict resolution (preventive diplomacy, peacemaking or peace-enforcement, peacekeeping, and peacebuilding) as suggested by the former United Nations Secretary General Boutros Ghali (1992). In this perspective, as opposed to *Nausica*'s emotional response, *Yupa*'s action can be regarded as 'non-lethal peace-enforcement' to block the violence of conflicting parties. *Yupa* admonishes *Nausica* not to fight in order to save other people of the valley in hostage. Although *Nausica* uses violence to revenge, the film stresses on the importance of 'non-killing' through the act of *Yupa* who lets *Nausica* hurt his arm but stops the violence. The scene illustrates how human beings, even a peace-loving person like *Nausica*, may become insane and violent once involved in war. Later, *Nausica*'s non-violent methods turn out to be successful.

Human vs. nature and its implication for ecological peace: The implications of this film for 'ecological peace' have been highly recognized. The film was recommended by the World Wildlife Fund (WWF), the world's largest non-governmental organization for endangered species conservation, established in Switzerland in 1961 (Kano 2006: 64, 330). In the year of the release of *Nausica*, the WWF set up a nationwide campaign, "Pennies for Pandas" which collected some US$ 50,000 in the United States (WWF 2013). Panda dolls and posters to appeal for conservation of endangered species were placed at theaters in Tokyo. Just before the start of the film, a monochrome panda's picture, the symbol of the WWF, appeared to convey the ecological message of the film to the audience (Kano 2006: 64). Indeed, if nuclear winter is brought about by nuclear war, "the extinction of a large fraction of the Earth's animals, plants, and microorganisms seems possible" (Ehrlich et al. 1983: 1293). The recommendation made by the WWF implies that the film was expected to contribute to spreading the message for ecological peace.

In the film, *Nausica* realizes that the plants underground purify the air indicating that nature recovers itself even though humans pollute the soil and air. She also attempts to prevent war between humans and animals that would cause further environmental destruction. *Nasusica*'s use of soft power is also shown to help win opponents to her side.

In the end, *Nausica* sacrifices her life to make *Ohmu* realize that Nausica was helping a baby *Ohmu*, and they stop running. Without *Nausica*'s self-sacrifice, it might be impossible to calm down the army of *Ohmu*, so her non-violent method turns out to be effective in saving the valley and its people. Sato (2013: 236) analogized the self-sacrifice and resurrection of *Nausica* with that of Jesus. Moreover, Ian Deweese-Boyd (2009) described *Nausica*'s self-sacrifice in the film as 'ecological pacifism' and 'green gospel'.

David R. Loy and Linda Goodhew (2004: 67) conducted a conflict analysis of the film by focusing on a spiritual dimension and a spiritual image in terms of 'hatred/violence/evil and selfless compassion' (Ibid: 68). Conflicting groups in the human world are illustrated by various characters in the film. Humans are also

confronted with nature (lethal air in the "Toxic Jungle" and mutated giant insects, especially *Ohmu*). *Nausica* can be regarded as a conflict mediator for conflict resolution through peaceful, non-violent and self-sacrifice methods. Loy and Goodhew (Ibid: 74) observed that the film tries to emphasize the 'ancient law' that: "hatred is never overcome by hatred" just as the teachings of Christianity and Buddhism. Chida (2013: 87) has argued that the self-sacrifice of *Nausica* is related to that of a suicide mission (*tokkō*) in the Asia Pacific War. Yet the two types of self-sacrifice are different in that the former is based on 'non-violence' and the latter resorted to violence.

Wind vs. fire, and its implication for nuclear meltdown: Director Miyazaki created this film in response to Minamata disease, a neurological syndrome caused by mercury poisoning, which affected not only human body but also fishing in the area (Miyazaki and Callenbach 2013: 290). Still, as discussed in earlier research and in this review, the film has implications not only for nuclear war and nuclear winter, but also for nuclear reactor accidents (Kawamura 2011: 136; Masaki 2011: 233-236, 239-240). In fact, it can be argued that an actual incident (Fukushima nuclear disaster) has followed on the pattern seen in the "Toxic Jungle" at the film, and consequently, "Japanese people's reception of the film has shifted according to the change of the social context" (Furukawa 2012).

Indeed, Miyazaki is opposed to nuclear weapons and nuclear power plants and has consistently warned on the danger of nuclear accidents. For instance, in another work, *"On Your Mark"* (1995), Miyazaki pointed to the danger of atomic civilization and depicted the environment contaminated by radiation which reminds the audience of the 1986 nuclear reactor accident in Chernobyl (Kano 2006: 182). Whereas *"Nausica of the Valley of the Wind"* (1984) was created before the Chernobyl nuclear accident, *"On Your Mark"* (1995) is more closely related to the situation of a nuclear meltdown and the following radioactive contamination (Gossin and Hairston 1999).

Although the film *Nausica* was not meant to be an anti-nuclear power plant work, the "Toxic Jungle" where human beings cannot live without a gasmask resembles the world affected by nuclear winter after nuclear war or contaminated with radioactive materials possibly due to nuclear accidents. From the perspective of metaphors, Minato Kawamura (2011: 136) has compared *Nausica*'s world in which 'wind' needs to be blown in order to purify the toxic air, to the 'water' that is needed to cool a nuclear reactor in order to prevent a meltdown and an accident from happening. Kawamura moreover analyzed that it is likely that Miyazaki does not support using nuclear power/energy (Ibid: 138). Miyazaki has warned about the fragility of nuclear reactors, which eventually underwent 'the world's first earthquake-tsunami-nuclear disaster' (Hirose 2011). After the 2011 Fukushima nuclear incident, Miyazaki explicitly stated that he wants to create animation films without using nuclear-generated electricity (Okada 2013: 155). In international conferences of Animation Studies, it has been critically pointed out that Japan could not prevent the Fukushima nuclear accident despite the fact that many nuclear-related films, like *Nausicaa*, were made and widely distributed in the country (Studio Ghibli and Bunshun Bunko 2013: 310).

The poisonous spore discharged by toxic plants in the film is similar to plutonium which is toxic and takes some 100,000 years to detoxify its harmful radiation. Thus, this film values 'wind' over 'fire' of nuclear power plants and nuclear weapons (Masaki 2011: 233-236). Although the film and animated cartoons in general are not necessarily designed to point out the risk of nuclear reactors, but the implication for ecological peace is clear, and therefore, it is possible to argue that the film has a significant implication on the use of atomic power/energy for educational purposes. The anti-nuclear message of this film, and also the implication of the film for peace education need to be considered.

From red to blue, and its implication for peace education: In comparison with other popular animated films created by Director Miyazaki, such as *"Laputa: Castle In The Sky"* (1986), *"My Neighbor Totoro"* (1988), *"Kiki's Delivery"*(1989), and "*Spirited Away"* (2001), the film *"Nausica of the Valley of the Wind"* (1984), is difficult to understand for children and even for a mature audience. In fact, the contents of other Miyazaki animation films tend to focus on fantasized worlds with animated adorable animals. However, the content of the film *Nausica* is too serious for those who desire only entertainment rather than education and enlightenment. Therefore, despite its philosophical and educational implications, this film has been frequently ignored or 'rejected' by some audience (Hirota 2004: 29).

It is paradoxical but being esoteric is one of the reasons that the film needs to be dealt as a teaching material in the field of education. Pam Gossin and Marc Hairston (1999a), for instance, utilized the film and other animated cartoons in a literature course entitled *"Nature Wonders"* at the University of Texas at Dallas. They dealt with *Nausica* in Week 1, 2 and 3, and about 60% of their students chose the topic for the final research paper in the course. As teaching materials, they utilized the film version as well as the first and second volumes of the comic version (*Nausicaä of the Valley of the Wind: Perfect Collection 1*) (Ibid). In Week 1, Gossin and Hairston (1999b, 1999c) offered an introductory class on Miyazaki animations and provided a comparative analysis of the film and manga of *Nausica* in Week 2. In Week 3, they dealt with the nuclear issue of the story compared to another nuclear-related film by Miyazaki, *"On Your Mark"* (1995). Although their teaching focused on animation studies, it is clear that the purpose of the education is to enlighten the students for ecological peace.

Likewise, Miyazaki animation films have been utilized as teaching material in Japanese universities (Yonemura 2003: 10). The film can thus be utilized as an educational material in the course of peace education as well. The images of nuclear war, nuclear winter, and nuclear meltdown may be explained in an appropriate context to students to help them comprehend the implications of the story. Whereas Osamu Tezuka's Animation, *"Astro Boy" (Tetsuwan Atomu)* (1963-1966), was accepted by audience based on a tacit premise of the peaceful use of atomic energy, in the same line with the US President Eisenhower's speech, *Atoms for Peace* (1953), Miyazaki's *"Nausica of the Valley of the Wind"* (1984) may be recognized as an anti-nuclear animation film. Given the influence of Tezuka and Miyazaki's animations, such differences need to be clarified for peace education in terms of nuclear-related issues (e.g. tezukaosamu.net 2014; IAEA 2014). Even the implication of the change of the eye color of *Ohmu* from red (violence, hatred) to blue (peace, love) can be discussed in the class. These minor connotations and details of the film can be examined in lecture or group discussions of peace education not only in colleges but also lower educational levels.

Conclusion

This review has examined the film *"Nausica of the Valley of the Wind"* in terms of peace research. It was argued that the film visualizes three types of nuclear images: a nuclear war ("Seven Days of Fire"), a nuclear winter ("Toxic Jungle"), and a nuclear meltdown ("Melting Giant Warrior"). Although Director Miyazaki has not claimed that the film was intended to criticize nuclear weapons and/or reactors, given his anti-war/anti-nuclear stance, it is fair to interpret that the film has profound implications on those issues.

The review has also offered an analysis of conflict resolution where *Nausica* was involved either as a conflict party or a third party. It was pointed out that *Nausica* helps illustrate the use of non-violence and self-sacrifice as a peaceful method for conflict resolution. The film emphasizes the significance of love and non-

violence rather than hatred and revenge.

In conclusion, this film is not only entertaining but also has educational and philosophical aspects with profound implications for conflict resolution, the Cold War, the nuclear image, and ecological peace, i.e. harmony between humans and nature. Given the cultural, social and international influences of Miyazaki animation, this film may continue to entertain and enlighten audience in the world. More significantly, this film can be recognized and shared as a warning for humanity as a whole in the aftermath of Fukushima nuclear incident. Based on its message of anti-war/anti-nuclear ecological philosophy and for peaceful coexistence, the film can be referred to and utilized as a teaching material in peace education.

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REVIEW:

Scientific research and research collaboration may remedy slowed innovation in Japan due to diminishing returns to knowledge

Kozo Otsuka [1]

Abstract

New knowledge is an important input for innovations. The knowledge production model of innovations considers the return to knowledge to be constant because of knowledge spillover. However, some studies have found that innovations slow down over time, as the return to knowledge diminishes. A number of technological indicators, discussed here, support the proposition that scientific research and collaborative research are potential remedies for the diminishing returns to knowledge. However, differences are found in the trends of scientific research and collaborative research between Japan and the US. The widening gap in technology indicators between the two can be attributed to the relatively lower level of scientific and collaborative research in Japan.

Keywords: Japan, Innovation, Knowledge, Productivity, Scientific research.
JEL code: O31, O32

Introduction

Innovation is an essential factor for technological advancement and productivity growth. There is some evidence that innovation in Japan has been sluggish and the gap between various technology indicators in Japan compared to those in the US and other industrialized economies seems to be widening in recent years. In the late 1990s, the US enjoyed a strong recovery in productivity gain, partly due to its massive expansion in new technological fields such as information technology and biotechnology. Japan, on the other hand, appears to have kept lagging behind in these new technologies. For example, in terms of innovative activities or productivity, Japan gained little momentum throughout the same period. Some evidence suggests that innovative capacity might have even declined in Japan. Contrasting trends between Japan and the US seem puzzling: why does one suffer from sluggish technological performance, while the other enjoys a strong gain? And how can Japan accelerate the performance in innovations?

This review further proposes two potential remedies to this situation, facilitating scientific research and research collaboration. In recent years, interaction between science and technology has become more important than ever, as research and development (R&D) increasingly requires scientific knowledge. Likewise, research collaboration among firms has been a popular practice. In this study, we will focus on the role of scientific research and research collaboration in enhancing knowledge spillover. The model of knowledge production asserts that knowledge spillover is a key factor behind sustained technological advancement. We propose that scientific research and collaboration in research are the keys to enhancing knowledge spillover and strengthening innovative capacity.

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Methodology

This study is based on a review of the literature on various growth theories and innovation, delving into the theories in the fields of economic growth, innovations, and applied economics. It explores the factors that have the potential to accelerate innovative activities.

Models of semi-endogenous growth assert that innovative activities may slow down over time. The rationale behind their argument is diminishing returns to knowledge; i.e. as the economy accumulates the stock of knowledge, creation of new knowledge becomes increasingly difficult. In innovation literature, there are arguments that support the concept of diminishing returns to knowledge. However, the links between the theories in innovation literature and semi endogenous growth models have not been discussed extensively.

This review thus attempts to clarify the linkage between them, and seek for potential factors that can overcome the diminishing returns.

Findings and Discussion

Productivity and innovation in Japan: Productivity gains in many industrialised countries were sluggish throughout the 1970s and 1980s. Since the 1990s, however, this trend has been reversed in many countries. In particular, the US enjoyed a strong improvement in productivity in the late 1990s and 2000s. However, productivity in Japan did not improve during the same period (Figure 1).

Indeed, some studies point out that innovative capacity in Japan has been declining. Studies by Branstetter and Nakamura (2003), and the National Institute of Science and Technology Policy (2003) find some evidence that R&D in Japan has been less productive.

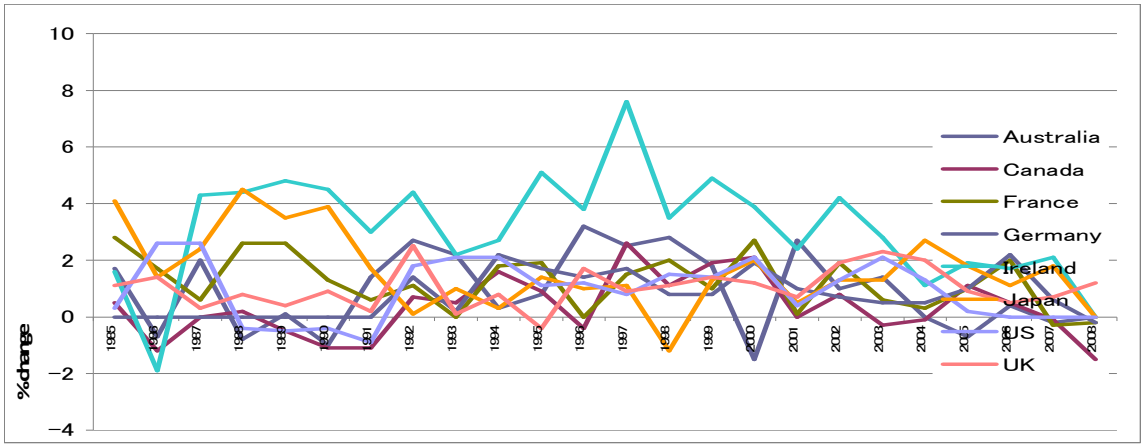


Figure 1. Multi-factor productivity in selected OECD countries (Source: stats. OECD)

Recent studies also show a worrying trend of slowing down of technological progress in Japan. Branstetter and Nakamura (2003) write with alarm that "the implications of the apparent decline in Japanese innovative capacity are potentially quite serious for Japan's long-run economic prospects." (Branstetter and Nakamura 2003, p.3)

Table 1 (a and b) shows the estimated total factor productivity (TFP) growth, which is an indicator of the overall technological change, using data from various studies. As seen in the table, most studies show a noticeable slowdown in TFP growth in the 1990s. According to growth accounting studies by Yoshikawa

(2000), TFP growth during the 1990s dropped to nearly 0%, in contrast to 3.7% in the 1960s. Sato (2002) argues that the non-manufacturing sector has suffered the most from TFP decline, with the decline in TFP in the manufacturing sector being modest. Manufacturing sector's TFP growth in 1990s was 2.2% compared to 2.6% in the 1980s. In contrast, the non-manufacturing sector's TFP growth dropped to 0.3% from 1.8% in the same period.

Table 1. Japanese and US TFP

a. Japanese TFP as reported in various studies

Author(s)	1970s	1980s	1990s
Otani *et al* (2004)	N/A	1.8	0.6
Miyakawa (2003)	N/A	1.6	0.8
Yoshikawa (2000)	0.7	1.0	0.0
Kawamoto (2004)	3.0	2.3	2.1

b. US TFP in various studies

Author(s)	1970s	1980s	1990s
Bernstein and Mohen (1994)	-0.4 (1975-79)	-2.4 (1980-1985)	N/A
Jorgenson *et al* (2003)	N/A	-0.08	0.63

The slowdown in innovations is not limited to TFP, but can also be seen in patenting. As Figure 2 shows, the gap in the number of patents per researcher widened during the 1990s. Although the gap between the US and Japan seemed to be closing in the late 1990s, there is still a considerable gap between the two countries, which suggests that innovative activity in Japan has become less productive. Kondo (1999) has analysed the effectiveness of R&D activities by estimating the 'patent production function'. The results show that the productivity of Japanese innovative activities has been deteriorating since the mid-1980s. Using a similar methodology, Branstetter and Nakamura (2003) estimated the knowledge production function using patent data between 1982 and 1997. Their results indicate a downward trend in patenting, even after controlling for R&D inputs and propensity to patent. Their results suggest that the slowdown in Japanese innovative activities is not likely to be the result of lower R&D efforts, or a shift in the propensity to patent, but rather that Japanese innovative capacity itself has been declining because of R&D becoming less productive.

Some other technological indicators also confirm this perspective. The OECD Science and Technology Database shows the widening gap in technology exports between Japan and other major industrialised countries. Compared to the US where a massive increase in technology exports started in the late 1980s, Japanese figures started to increase only after the mid 1990s. More strikingly, the exports-to-imports ratio in high-tech industries in Japan has dropped sharply in the last two decades (Figure 2).

The General Index of Science and Technology (GIST), an indicator developed by the National Institute of Science and Technology Policy (NISTEP) also suggests a slowdown in Japanese innovation performance. Figure 3 shows that the GIST output indicator for Japan has increased only modestly in the last 20 years, while the US figure shows a dramatic increase in technology outputs (NISTEP 2003). While innovation performance in Japan seems to have been slowing down in recent years, research inputs in Japan have been consistently rising. Moreover, both R&D expenditures and R&D personnel have been increasing steadily, which suggests that the slowdown in Japanese innovation, as Branstetter and Nakamura (2003) claim, is likely to be due to a decline in R&D productivity.

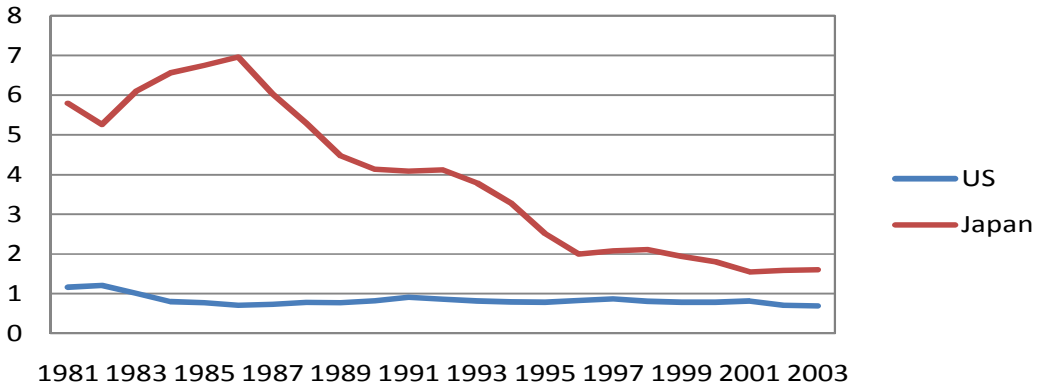


Figure 2. Export-import ratio in high tech industries. (Source: OECD Science and Technology Indicator database)

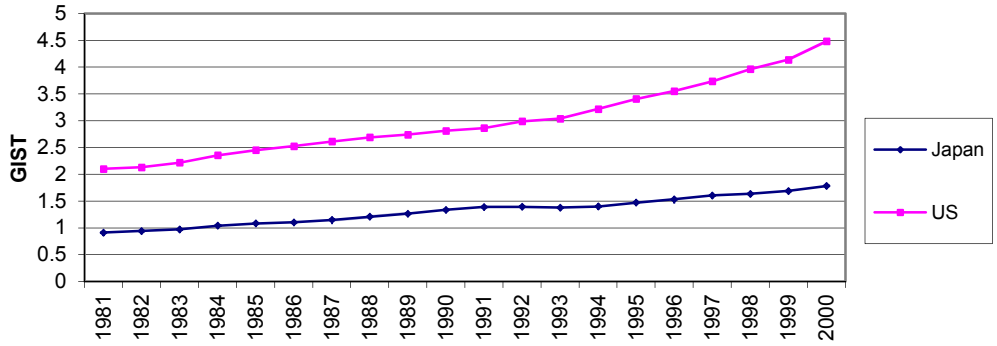


Figure 3. General Indicator of Science and Technology (GIST) (Source: NISTEP, 2003)

Knowledge production, knowledge spillover, and return to knowledge: Why has Japan been suffering from a loss in innovation capacity while the US enjoyed strong improvement in this area in the late 1990s? To answer this question, we pay particular attention to the *return to knowledge*. Knowledge created from prior research can be utilised in current research. Therefore, the cumulative stock of knowledge from prior research can be considered an important input for innovation. In turn, the return to the stock of knowledge is an important determinant of innovative capacity.

Griliches (1979), one of the pioneering researchers of *knowledge production*, argues that the aggregate output level of the economy depends on conventional inputs (such as capital and labour) plus *knowledge capital*. In other words, *knowledge capital* may be considered as another form of production input. Griliches (1979, 1990, 1992) argues that knowledge production depends not only on current R&D level, but also on cumulative knowledge from past R&D, and asserts that knowledge production is a function of cumulative stock of R&D investment. Griliches has emphasised the importance of *knowledge spillover*, i.e. the stock of knowledge has a positive external effect.

Many studies including Romer (1990) assume that knowledge production operates at a constant return to knowledge stock. This assumption is justified because of the nature of knowledge as an input. The underlying concept is the public-good nature of knowledge: non-rivalry and the (quasi) non-excludability

(Romer 1990, section II). As technological knowledge can be used by many agents simultaneously, knowledge can be accessed and utilised by anyone in the economy. Griliches (1979, 1995) also points out that knowledge can be considered as a special kind of input, in that unlike other forms of inputs, it is not subject to diminishing returns.

The public-good nature of knowledge, in turn, facilitates *knowledge spillover*. The endogenous growth theory shows that *knowledge spillover* is the key factor in achieving sustained economic growth. Due to such a spillover effect, knowledge is not subject to diminishing returns. Romer (1990, p.75) argues that knowledge (as a non-rival input) can be accumulated without a boundary and that this leads to a constant return to knowledge production.

Diminishing returns to knowledge: Jones (1995a, 1995b) has criticised the assumption that knowledge does not face diminishing returns. Jones' criticism is based on the empirical observation that technological progress (measured by TFP and the number of patent applications) in the major industrialised countries has not been accelerating despite a considerable increase in R&D efforts in most of these countries. Jones argues that knowledge spillover does not assure sustained technological progress, because knowledge spillover is offset by negative externalities. In Jones' model, the return to knowledge is less than one, indicating that accumulation of knowledge stock does not lead to a proportional increase in new knowledge.

Whether the return to knowledge is constant or diminishing is an extremely important question. If the return to knowledge is diminishing, it implies that technological advancement eventually slows down. There are several potential impediments to knowledge spillover. In the present study, we focus on two impediments which are commonly recognised in literature: fishing-out that arises from exhaustion of technological opportunities, and fragmentation of knowledge that arises from technological heterogeneity.

Fishing-out and diminishing returns to knowledge: One of the reasons why the return to knowledge may decrease is the fishing out of technological opportunities. That is, innovating new products increasingly becomes more difficult, and the opportunities for further innovations are likely to decrease. The concept of fishing out is based on a *search model* of innovation, which appeared in the 1970s. The search model implies that innovators tend to exploit their technological opportunities from innovations that are seemingly easy to produce. As the technological level rises, the technological opportunities exhaust, making consequent innovations increasingly more difficult (Evenson and Kislev 1976).

One may assume that the opportunity for creating new knowledge acts as rivalry over an exhaustible resource. In other words, knowledge production requires non-rival knowledge capital and rival technological opportunities as inputs. As the technology level rises, the opportunity for further technological progress would eventually be exhausted. Jones (1995a) has suggested that this may be due to negative externalities from fishing-out, and duplicating R&D efforts. Segerstrom (1998) and Kortum (1997) argue that the threshold quality for successful innovation rises with the technology level, and therefore the probability of successful innovation diminishes.

Diminishing returns due to fragmentation of knowledge: Another group of studies focuses on the *fragmentation* of knowledge, i.e. the heterogeneity of technology can be an impediment of knowledge spillover. Some studies including those by Peretto and Smulders (1998, 2002), Dinopoulos and Thompson (1998, 1999), and Young (1998), have focused on technological heterogeneity. These studies find that knowledge spillover takes place within an industry, but not among industries. The underlying concept is that technology is heterogeneous and path-dependent, and therefore knowledge from unrelated industries cannot

contribute. The studies mentioned above find that technological progress slows down when knowledge is divided and fragmented into small pieces. As the economy grows, the knowledge is fragmented into a number of small networks. Knowledge spillover tends to be local (within fragmented networks), and fades away with technological distance.

One of the reasons why fragmentation of knowledge occurs is tacitness of knowledge (Foray 2004; Antonelli 2001). While some knowledge is codified (e.g., patents, scientific articles, manuals etc.), many proportions of knowledge are tacit, embedded in internal experience and learning (Antonelli 2001). Foray (2004) further argues that firms may purposely leave knowledge tacit, as a way of controlling intellectual property rights. When knowledge is tacit, knowledge spillover is limited, and tends to be local, because such a communication is likely to take place within an industry (or industries with a common technology).

Another factor that influences the fragmentation of knowledge is the complementarities among technologies. Technology comprises complex systems that are related to each other, and the technological complementarities reflect such inter-relations among technologies. As Foray (2004), Carlaw and Lipsey (2002), and Lipsey, Baker, and Carlaw (1998) emphasise, technologies are rarely stand-alone, but are more often components of other technological systems. Such systems can be considered equivalent to local technological clusters (or spillover networks) wherein technological complementarities play a vital part in their formation. Lipsey *et al*. (1998) and Antonelli (2001) argue that a local network (they call it main technology) is formed by complementarities among technologies (sub-technologies in their writing).

When two technologies are apart, it is likely, though not necessarily so, that the complementarities between them are low. For example, technology in the pharmaceutical industry has little to do with the electronics industry. As technological level rises, it is likely that technology is increasingly divided into small specialised networks, and therefore the spillover effect is likely to be confined within specialised spillover networks.

Knowledge production in Japan: is the return to knowledge diminishing?

Although it is difficult to measure the return to knowledge, one can find some evidence of diminishing returns from patent data. Figure 4 shows the number of backward citations per patent. Backward citations occur whenever a patent refers to the technology used in other patents granted in the past. Therefore, backward citations can indicate how a patent has utilised the knowledge from previous innovations.

As Hall, Jaffe and Trajetenberg (2001) point out, backward citations may contain the trail for knowledge spillover. In this sense, the number of citations per patent can indicate the amount of knowledge used as input. As the graph shows, the number of citations per patent has been increasing throughout the last three decades. Assuming that the citations represent knowledge as input, it seems that more knowledge is required to invent one new patent.

Examining data on patent claims can provide further evidence because they specify the details of patented innovation that is not previously cited. The number of claims can indicate the scope of patented innovation (Hall et al. 2001), or the technological significance of the innovation. The higher the number of claims, the more new technologies the patent contains. A patent with more claims is likely to be technologically more significant. Figure 5 shows the average number of claims per dollar of R&D expenditures. As the graph shows, the number of claims per dollar has dropped since the 1980s.

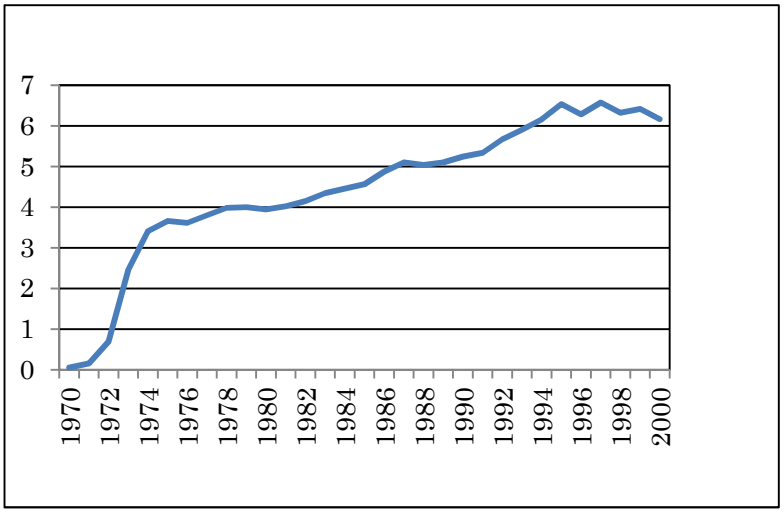


Figure 4. The number of backward citations per patent in Japan
(Source: NBER Patent Database and Source: OECD Science and Technology Database)

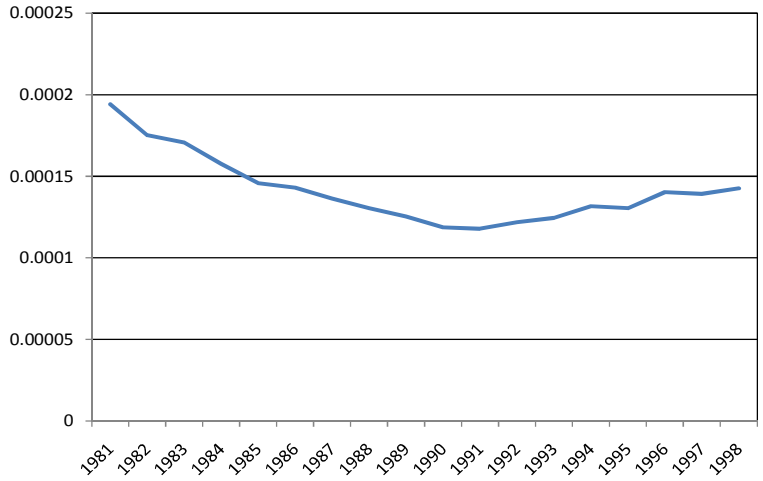


Figure 5. Average number of claims per dollar of R&D expenditures in Japan
(Source: NBER Patent Database and Source: OECD Science and Technology Database)

Overcoming diminishing returns to knowledge: In the previous section, we argued that diminishing returns to knowledge can be attributed to a fragmentation of knowledge and/or fishing out of technological opportunities. One may ask how diminishing returns could be overcome and innovation capacity rejuvenated? We shall examine how scientific research and research collaboration may be potential remedies.

Science and expansion of technological opportunities: It is commonly believed that a radical technological breakthrough is needed when innovation slows down; such a technological breakthrough can facilitate a massive wave of innovations. The recent boom in information technology (IT) and bio-technologies can be considered as typical cases. This perspective is common in a wide range of studies. Mokyr (1991)

introduces the concept of *macro-invention* (as opposed to *micro-invention*), and Rosenberg (1994) distinguishes *major innovation* from *minor innovation*. Major or macro invention is a radical breakthrough, and minor or micro innovation is a more incremental technological change. They argue that the arrival of macro innovation is followed by a rapid increase in micro innovations.

A similar concept has also been introduced to the growth theory. The model of *general purpose technology* (GPT) by Helpman and Trajtenberg (1998) incorporates a paradigm shift from radical technological breakthrough. These authors have extended the endogenous growth model, such that the arrival of new GPT creates an entirely new wave of technological advancement. When a new GPT is introduced, technological advancement accelerates, as the new GPT creates opportunities for compatible innovations. Their study shows that the economy may experience cyclical acceleration and deceleration of technological advancements.

By the same token, Olsson (2005) explicitly shows that radical innovation can expand technological opportunities and accelerate economic growth. Olsson finds that diminishing returns may be overcome by exploiting the hidden technological opportunities in scientific discoveries and that technological breakthrough occurs endogenously. When the economy suffers from diminishing returns to knowledge, economic agents try to expand technological opportunities by conducting basic research. One of the important features in Olsson's model is inclusion of basic research. He argues that basic research can expand technological opportunities by filling the gap between applied research and scientific discoveries.

The important question is the mechanism how such technological breakthrough may occur. One of the possible answers is science. Rosenberg (1994) and Mokyr (1991) argue that scientific advancement can contribute via arrival of breakthrough inventions. Foray (2004) highlights that the contribution of science can take place via: (i) a more systematic and effective base for discovery and innovation; (ii) better control (quality, impact, regulation) of the newly introduced products and processes; and (iii) creating entirely new products or processes. Evenson and Kislev (1976) find that science can improve the ability to explore potential technologies. The idea that science contributes to accelerating technological progress has been applied to growth literature too. Li (2000) and Olsson (2005) both have demonstrated that scientific knowledge is essential for overcoming diminishing returns in R&D.

The recent expansion of information technology and bio-technology are prime examples that technological innovation increasingly requires scientific knowledge. Figure 6 shows the share of basic research in business sector research expenditures (BERD). During the 1990s, industry sectors in the US expanded their efforts in fundamental scientific research. At the same time, the linkage between industry and universities strengthened. Japan has been behind in this trend. It was in early 2000s that the Japanese government started encouraging joint research between industries and universities

Figure 7 shows the 'science linkage' in the US and Japan. The science linkage measures the citations flow between patents and scientific papers. As the graph shows, the science linkage in the US has dramatically risen since the early 1990s. As the National Institute of Science and Technology Policy (NISTEP) emphasises, a strong linkage between universities and industries may provide an explanation for the surge of R&D performance in the US in the 1990s.

Figure 8 (a, b) shows the correlation between spending on basic research and the science linkage in Japan and in the US, respectively. The graphs show a clear positive relationship between basic research and science linkage, which indicates that basic research facilitates the diffusion of scientific knowledge to industries.

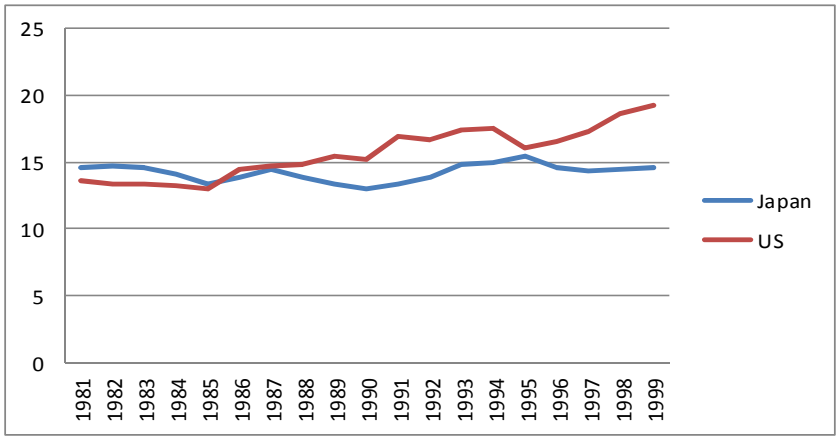


Figure 6. Percentage of basic research in business-sector research expenditures. (Source: OECD Science and Technology Database)

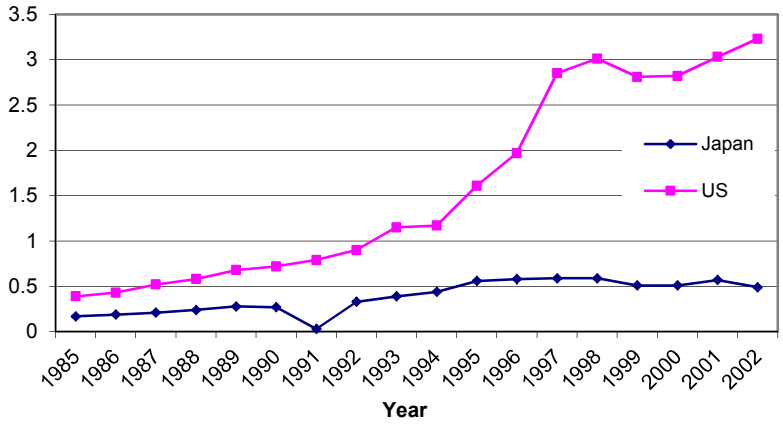


Figure 7. The science linkage. (Source: NISTEP 2004)

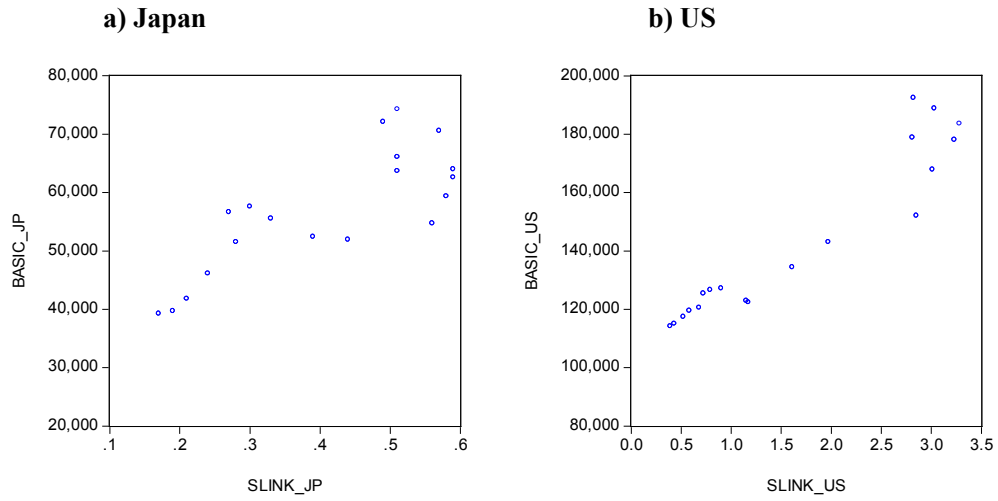


Figure 8. Basic research and science linkage (Sources: NISTEP 2004; OECD Science and Technology Database)

Research collaboration combines fragmented pieces of knowledge: Another way to overcome diminishing returns in R&D is *defragmentation* of knowledge. In other words, by exploring the hidden complementarities among seemingly-different technologies, one can enhance knowledge spillover. As discussed before, knowledge spillover is influenced by complementarities among different technologies. Knowledge spillover is absent (or very weak) across technologies that are not complementary to one other. Complementarities among different technologies lead to the appearance of modules or networks of technologies in which knowledge spillover takes place only within the network (Antonelli 2001; Perreto and Smulder 2002). Therefore, inter-firm and inter-industry knowledge spillover is likely to be limited outside of such a network.

It is argued that if an economy expands the network of knowledge-sharing, it is possible to combine fragmented knowledge and enhance knowledge spillover. By establishing collaborative relationships, fragmented knowledge can be shared and combined together. In this process, firms and industries are required to combine their specialised knowledge into more generic knowledge. Foray (2004) identifies 'coordination' or 'integration' activities, which aim to standardise specialised and localised knowledge. By the same token, various studies, including those by Morosini (2002), Antonelli (2001), and Patrucco (2004), have introduced the concept of *collective knowledge*. The studies on collective knowledge point to the importance of collaboration. Firms coordinate with each other, creating a joint research effort that works toward integrating tacit and fragmented knowledge. Antonelli (2002) argues that the efforts to create collective knowledge can lead to exploitation of implicit complementarities among localised technologies.

Collective knowledge creation is the act of converting specialised knowledge into *generic* knowledge. There have been a number of studies that suggest a similar conceptualisation. Foray (2004) argues that generic knowledge expands the complementarities among technologies and thereby rejuvenates the knowledge production process. As Foray (2004) argues, when an economy faces diminishing returns to knowledge, firms coordinate with each other and collectively create generic knowledge. By collaborating, they can convert firm/industry specific knowledge into generic knowledge which can be used in other industries. Research collaboration also helps with the diffusion of tacit knowledge. Needless to say, collaboration enables researchers across industries to communicate directly and share their knowledge and expertise, and it may thus facilitate transferring tacit knowledge from one industry to another.

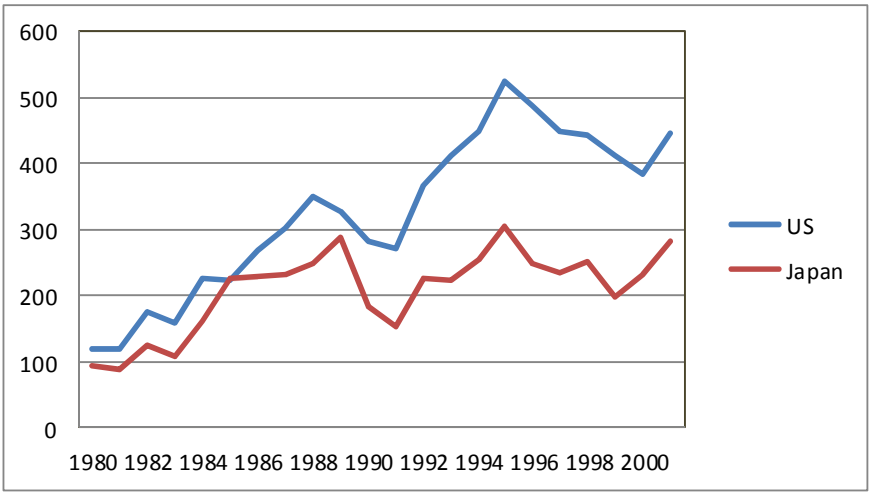


Figure 9. Number of research alliances in the US and Japan (Source: The National Science Foundation, US)

The importance of collaborative research has been rising. Firms in many industrialised countries have been increasingly engaged in joint research in one way or another. Figure 9 shows the number of research alliances in Japan and the US. As the graph indicates, US firms have been expanding the number of their alliances since early 1990s. Research collaboration seems to be taking place in fast-growing areas, including IT and biotechnology (Figure 10). The widening gap in technology between Japan and the US at least in some extent can be attributed to the fact that Japan has been lagging behind in these fast growing areas.

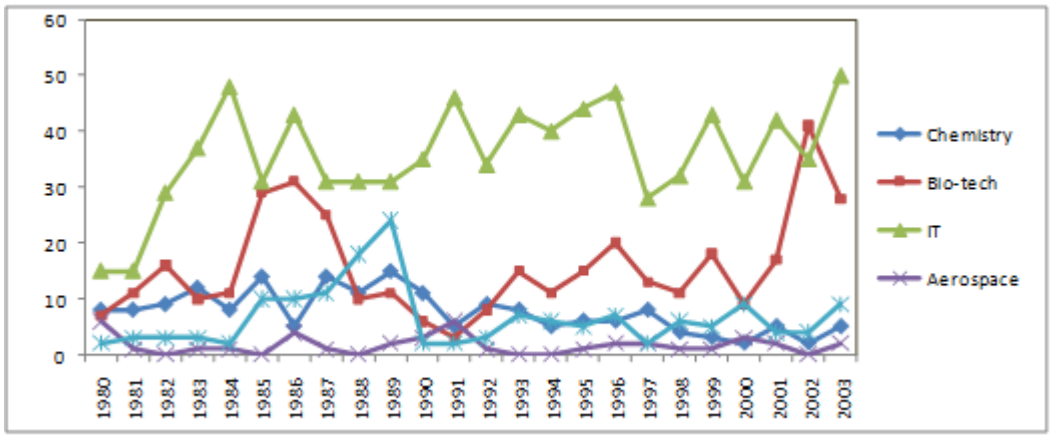
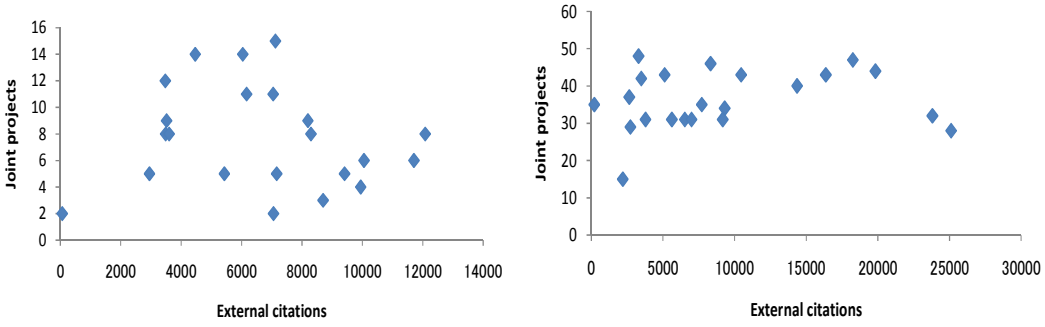


Figure 10. The number of major joint research projects (Source: National Science Foundation)



a: chemistry **b:** IT

Figure 11. The number of external citations and the number of major joint research projects

Figure 11 (a, b) includes scatter diagrams of external citations and the number of major joint projects. While some technological fields (especially IT) show a clearer relationship, other technological fields do not indicate a clear relationship between the two variables.

Conclusion

In recent years, innovations in Japan seem to be lagging behind those in the US. Why has the performance of Japanese innovations been sluggish? This paper has tried to address this question by focusing on the returns to knowledge. While the model of knowledge production assumes that return to knowledge is

constant, many studies find that the return to knowledge is likely to diminish. Many of existing studies point to fishing out of technological opportunities and fragmentation of knowledge as the reasons for this trend. This study has proposed that scientific research and collaborative research are the key factors to overcome the diminishing returns to knowledge. We have reviewed various studies on how scientific research and collaborative research influence knowledge production. Many studies find that scientific research and collaborative research can be effective remedies for diminishing returns. A number of technological indicators support our proposition. Comparing the trends of scientific research and collaborative research in Japan to those in the US provides noticeable differences. (Basic) scientific research in the US increased dramatically in the 1990s, while that in Japan was subdued. In the US, patents increasingly cite scientific papers, suggesting that scientific knowledge played a larger role in technological innovations.

Similarly, the firms' joint researches have increased considerably in the US. There seems to be a strong correlation between knowledge spillover and collaborative research; measuring knowledge spillover by patent citations clearly demonstrates that collaborative research enhances knowledge spillover. Since collaborative research takes place in fast-growing technological fields, one can argue that research collaboration has turned into an increasingly important determinant of innovative performance.

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ORIGINAL RESEARCH:

Vietnamese banks' decision making in lending to small & medium enterprises (SMEs) based on soft and hard information

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Abstract

This study explores the use of soft and hard information for bank lending decisions to small and medium enterprises (SMEs) in Vietnam. Using a unique dataset based on a survey conducted in Ho Chi Minh City, Vietnam, we investigated to what extent different types of information were used for loan approval, whether the two types of information were used in a complementary manner, and what factors determined the banks' lending decisions. The analytical methods used include descriptive statistics for overall assessment, principal component analysis and confirmatory factor analysis to establish and test the scales, and logistic regression to examine determinants of lending decisions. Research results indicate that although collateral-based lending was the most widespread method and could substitute for other lending technologies, usually a combination of lending information types were utilized in the decision making process. This suggests that both complementarity and substitutability were found in the use of the various information types by Vietnamese banks for such decision making.

Keywords: Hard and soft information, Lending technologies, Loan approval process, Small and medium enterprises (SMEs), Vietnam.

Introduction

A considerable amount of literature has been published on the important role of bank loans to SMEs in developed economies (Blackwell and Winters 2000; Aristeidis and Dimitris 2005; Rao 2010). The literature has also acknowledged the obstacles banks confront in lending to SMEs. These obstacles include a severe information asymmetry between SMEs and banks (Frame et al. 2001), high failure rates of SMEs (Levin and Travis 1987), and the complex combination of the SME representatives' personal and their companies' financial situation (Hannan and Freeman 1984). In order to alleviate these issues, bank loan officers must find a different approach and techniques to SMEs as compared with larger enterprise customers. These consist of requiring sufficient collateral, requiring audited financial statements and credit scoring, as well as building long-term relationships with SMEs.

Adequate collateral and long-term relationships between lenders and borrowers are believed to help lessen the issue of information asymmetry (Frame et al. 2001; Binks and Ennew 1997). Additionally, a solid interrelationship between banks and borrowers create trust which mitigates the problem of moral hazard. Petersen and Rajan (1994) insist that a close relationship with the bank enhances credit flow to SMEs and diminishes the interest rate offered for firms. Depending on the business environments as well as the competition in the credit market, banks pursue and develop their own lending technologies. Berger and Udell's (2006) define lending technology as "a unique combination of primary information sources".

The two main lending technologies used to finance SMEs include transaction-based lending which is based on borrowers' hard information, and relationship lending which is principally based on borrowers' soft information. Hard information is quantitative, easy to store, evaluate and transmit, and its content is

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independent of the collection process while soft information is essentially qualitative in nature, and so cannot be easily recorded in written form. Stein (2002) identified hard information as any information that is effortlessly confirmable (e.g. financial statement, payment history records) while soft information cannot be straightforwardly certified by anyone except for the agent who provides it (e.g. management skills, plans and strategy).

Regarding the role of hard and soft information, there has been no consistent agreement among scholars about whether hard and soft information are complementary or substitutive in lending activities. Mason and Stark (2004) claim that loan officers tend to emphasize on the firm's past financial records rather than information on human capital or development strategies of the firm. Similarly, Bruns and Fletcher (2008) acknowledge that the borrower's previous profitability ratio is the most significant factor, and the borrower's financial position is the second most important factor. Less imperative factors include the firm's proficiency in the business project and the firm's collateral pledgeability. In other words, the above studies emphasize more on the role of hard information or transaction technologies than that of soft information. On contrary, a number of studies analyze the importance of soft information, especially for SME financing. For example, according to Agarwal and Hauswald (2007), soft information considerably influences both credit availability and interest rates offered to SMEs. Grunert et al. (2005) observe that soft information represents an imperative component in assessing the default risk of SMEs borrowers.

Berger and Udell (2006) suggest that lending technologies are not necessarily discriminative. Commercial lenders may combine different lending technologies in loan approval process though one key lending technology may be emphasized. Similarly, Uchida et al. (2006), by creating four lending technologies indices (real estate lending, other fixed-asset lending, financial statement based lending and relationship lending), conclude that diverse lending technologies are highly complementary, although financial statement based lending technology may be the most regularly used. On the other hand, Chang et al. (2006) find that hard information and soft information act as substitutes. They suggest that while large banks emphasize on quantitative information, small banks focus more on qualitative information.

In sum, hard information is conventionally considered suitable for comparatively large and transparent corporations while soft information is viewed as best-suited for small and opaque SMEs (Diamond 1991; Petersen 2004). However, recent studies in this field have had a different viewpoint. For example, Berger and Udell (2006) disagree with the conventional view by arguing that most of the transaction-based lending technologies or some types of hard information can be employed to lend to opaque SMEs. However, this alternative has not been examined practically.

When making loan decisions based on relationship, scholar often focus on quantitative indicators such as the duration of the bank-firm relationship, the number of bank products the firm is using, and the number of lending relationships (Petersen and Rajan 1994; Ongena and Smith 2000). Thus relationship lending is assumed to be primarily based on the relationship between the bank and its existing customers. However, in practice, for potential borrowers or non-regular customers which apply for loans, loan officers also consider soft information such as the entrepreneur's management skills and integrity. Therefore, it is a serious shortcoming if we do not consider soft information when examining the types of information used for loan approval process especially in developing countries like Vietnam. In such countries, banks confront greater uncertainties and struggle to deal with collecting reliable information, stemming in part from the underdeveloped business environment and the low level of regulatory oversight (Nguyen et al. 2006). Therefore, our study contributes to the literature of lending technologies by including new measures of soft

and hard information, namely the credit history information and information on firms' social capital.

This study is also different from several previous researches in computing composite indices of information types or lending technologies, because instead of using a simple average method (Uchida et al. 2006; Bartoli et al. 2013), we used a variety of attributes obtained from experienced loan officers and bank managers and used factor analysis to achieve good scales of the information types used for loan approval. Thus we were able to construct information indices considering the level of importance of each attribute for the corresponding factor.

Although previous studies have investigated the lending technologies from the standpoint of SMEs in developed countries (Uchida et al. 2006; Francesca et al. 2013), our study attempts to address the issue of information types influencing on lending decisions from the perspective of the lender side. We believe this is a good approach to explore the bank lending technologies and corresponding information types used for loan approval process since it examines the choice of lending technologies from the standpoint of those who make the loan decision.

To the best of our knowledge, in developing countries, particularly in Vietnam, there is almost no study investigating how and which lending technologies or information types are used in lending to the SMEs. This inspired us to do an empirical research to shed a light on interactions among sources of soft and hard information and their impact on lending decisions in Vietnam.

Methodology

A survey method would be more suitable for identifying and evaluating less quantitative explanatory variables and thus we used it as the major method to collect data. Other methods and analysis techniques were also used such as descriptive method, expert consultations and econometric analysis based on Likert-scale values.

A preliminary phase of qualitative research was carried out to identify the principal attributes influencing small business lending decisions by commercial banks. The attributes were then further supplemented by unstructured interviews with two managers of Credit Committee at Asia Commercial Bank and Sai Gon Commercial Joint Stock Bank, respectively and six loan officers at SMEs Credit Department of commercial bank branches including Asia Commercial Bank, Sacombank, Vietcombank, An Binh Bank, Techcombank, Sai Gon Commercial Bank, located in Ho Chi Minh city, Vietnam.

Based on the findings of this phase, a set of 52 attributes was established as potentially influencing on bank lending decisions. This set was divided into 7 main categories: (i) business organization, (ii) the entrepreneur's financial information, (iii) collateral eligibility, (iv) the entrepreneur/owner's capability and integrity, (v) firm networks, (vi) relationship lending, (vii) credit history record on the firm and its owner.

Participants in the survey: The target respondents of the survey were loan officers working at Credit Departments for SMEs at commercial banks, including state-owned banks and joint stock banks. In order to achieve the highest response rate in a limited time and cost, we employed a convenient sampling method. We utilized our available networks in Vietnam banking system to distribute the questionnaire to approximately 250 loan officers at credit departments of commercial bank branches in Ho Chi Minh City where most of Vietnam commercial banks' head offices are located.

Ho Chi Minh City is also the most dynamic city in the financial - economic arena with the highest density of bank branches and SMEs. The survey was carried out from May 2013 to September 2013. A total

number of 218 replies were collected, achieving a response rate of 86%.

Data analysis technique: After the data was coded, examined and cleaned, the following data analysis techniques were employed in this order: reliability test of scales with Cronbanch's alpha indicator, explanatory factor analysis (EFA), confirmatory factor analysis (CFA) with testing for validity and reliability of the model, and finally logistic analysis. The statistical parameters of each step were compared with the criteria applied in the analysis of multivariate data (Nunnally 1978; Hair et al. 2010).

EFA was used to group and define major factors which affect lending decisions to SMEs. One of the topics the researchers discuss around factor analysis issues is the number of factors being retained, which is the most vital judgment to make after extracting factors. A misstep at this stage, such as extracting too many or two few factors, may cause incorrect conclusions in the analysis (Fabrigar et al. 1999; Hayton et al. 2004).

In deciding how many factors should be retained, researchers are often advised to consider several criteria: a predetermined number of factors based on research objectives and/or prior research, the percentage of variance criterion (Hair et al. 2010); Kaiser's eigenvalue-greater-than-one rule; scree plot (Hair et al. 2010) and Horn's parallel analysis (PA). Among these, PA is the most recommended method to deal with the number of factors-to-retain issue, though it is not available in commonly used statistical packages (Humphreys and Montanelli 1975; Zwick and Velicer 1986). Generally, the principal criteria for factor analysis were set as follows:

Kaiser-Meyer-Olkin (KMO): from 0.50 to 1.00;

Number of factors to retain was decided according to the result of PA;

Significant level: less than 0.01;

The cumulative percentage of variance: 60.0 % or higher

The results from EFA and CFA were then used in binary logistic regression to examine the impact of each of the factors that may influence SMEs lending decisions as well as to find out the most influential factors. The logit model was formed as follows:

Logit (ρ) = Log [$\rho i/(1- \rho i)$] = $\beta 0 + \beta 1F1 + \beta 2F2 + \beta 3F3 + \ldots + \beta nFn$, of which:

ρ i = the probability of loan application being accepted;

β 0= log odds of firms whose loan application are rejected (when all Fi = 0)

β i= log odds of firms whose loan application are approved (when Fi = 1)

Findings and Results

Attributes influencing lending decisions to SMEs:

The responses to questions about attributes influencing lending decisions to SME were structured using the 5 point Likert scale. The scale for each attribute ranged from 'very unimportant' (1) to 'very important' (5). Table 1 shows the perception of loan officers on attributes influencing their lending decisions to SMEs.

The firm's collateral eligibility was the most important attribute in bank lending decisions to SMEs with the highest mean. The next important factors influencing bank lending decisions were attributes related to information on credit history and financial performance of firms. Other relatively important factors included attributes related to social capital variables such as the entrepreneur's capability, integrity or trust and the firm's networking.

Table 1: Descriptive statistics of attributes influencing lending decisions

Attributes	Mean	Std. Deviation
A1_Firm Size	3.59	0.777
A2_Corporate brand name	3.10	0.836
A3_Information about resources of firm	3.85	0.744
A4_Management philosophy & system	3.34	0.783
A5_Promising businesses	3.82	0.837
A6_Business schedules	4.04	0.701
A7_Information on Customers, market, supplier	3.67	0.672
A8_Clear and professional accounting system and reports	4.18	0.625
A9_Sales and profit	4.41	0.625
A10_Assets & Capital Sources	4.20	0.669
A11_Liquidity Ratio	4.06	0.686
A12_Capital structure Ratios	4.17	0.665
A13_Profitability Ratios	4.27	0.714
A14_Operating Ratios	4.07	0.768
A15_Cash Flow Statement	3.74	0.808
A16_Personal assets of the SME's representative	4.50	0.537
A17_Pledgeability of real estate collateral	**4.66**	**0.512**
A18_Pledgeability of tangible assets collateral	**4.68**	**0.506**
A19_The entrepreneur has relevant background and education	3.08	0.886
A20_Experience in the field of business	3.48	0.51
A21_Experience in management	3.44	0.516
A22_Strategic Planning Ability	3.29	0.486
A23_Uses IT in managing business	2.65	0.773
A24_Good at selecting the needed resources	3.44	0.525
A25_Good at understanding market evolution	3.26	0.608
A26_Makes positive impression with bankers	3.26	0.768
A27_Shows positive learning in working with bank	3.22	0.704
A28_Positive referral on integrity	2.94	0.826
A29_Willingness to share sensitive and real information	2.97	0.839
A30_Positive experience with working with banks	3.06	0.735
A31_Adapts interests with those of commercial partners	2.86	0.707
A32_Pays attention to the needs of employees	1.99	0.826
A33_Honest during negotiations with commercial partners	3.09	0.673
A34_Consistent in behavior and decisions	3.25	0.641
A35_Strong personal network with banks	3.21	0.659
A36_Strong personal network with government officials	2.97	0.675
A37_Strong network with the entrepreneurs at other firms	3.11	0.642
A38_Relationship with customers	3.11	0.66
A39_Relationship with suppliers	2.96	0.691
A40_The length of the bank-entrepreneur relationship	3.64	0.499
A41_The entrepreneur has been borrowing your bank	4.02	0.595
A42_The entrepreneur has been borrowing other banks	4.27	0.624
A43_Your bank is main bank	3.68	0.515
A44_Number of your bank products the firm is using	2.85	0.584
A45_Positive credit information in transactions with banks	4.30	0.566
A46_Type and value of collateral securing the loan in the past	4.36	0.51
A47_Negative credit information in transactions with banks	4.62	0.548
A48_Bankruptcies of owner	4.28	0.705
A49_Ppersonal financial information on the owners	3.92	0.701
A50_Utility payment records	3.23	0.816
A51_Court judgments	3.94	0.706
A52_Credit enquiries from other lenders	4.12	0.618

The results show that hard information still plays a critical role in loan approval process of Vietnam commercial banks. Soft information is also utilized in loan application assessment but it just plays a supplementary role in this procedure. In contrast to our expectation and some studies in the literature which have shown that banks use soft information more than hard information in dealing with SMEs lending, Vietnam commercial banks make hard information a priority in SMEs loan approval process.

Testing the reliability of scale:

The reliability statistics shown in Table 2 indicated that the Cronbach's alpha of all facets reached a good level (above 0.7), while the 'business organization' facet was still acceptable (0.685). However, the Corrected Item-Total Correlation coefficients of attribute A1, A7, A10, A19, A26, A44 and A50 were low (<= 0.3), indicating that the corresponding item does not correlate very well with the overall scale and, therefore, it may be eliminated (Field A., 2005). The removal of those attributes would result in a higher Cronbach's alpha. Therefore, the attributes A1, A7, A10, A19, A26, A44 and A50 were removed in turn to ensure the highest reliability of scales.

Explanatory factor analysis (EFA):

Although common statistical packages do not offer parallel analysis (PA), we utilized the SPSS syntax created by O'Connor (2000) to run PA. According to PA results, only seven factors should be retained (Table 3).

Next, we carried out principal component analysis with seven factors extracted. Only attributes or facets which had communality value and significant factor loadings would be retained. The satisfactory communality value and significant factor loadings that may guarantee convergent validity for the analysis were 0.4 and 0.6 (or higher), respectively. Accordingly, there 10 attributes were removed alternately from the model after principal factor analysis (PCA) had been applied at the very first step, including: A2, A3, A51, A4, A5, A32, A29, A6, A15 and A46. The final PCA result is displayed in Table 4.

The results of the final analysis showed the KMO value of 0.806 which indicated a high appropriateness for the use of the principal component analysis. Furthermore, the value of Bartlett's test of sphericity at a statically significant level indicated the strength of the relationship among variables.

The results of the rotated component matrix are shown in Table 4. We can see that there are few changes in the categorization of important attributes affecting bank lending decisions. The attribute of 'Firm's outstanding loan at other banks' (A42) is associated with 'Credit History Information' despite being included in the 'Bank Relationship' category. However, in terms of empirical meaning, the recombination is still acceptable.

As the explanation of each factor is based on the variables having large loadings, seven factors were identified as follows: (1) financial Information, (2) integrity of the entrepreneur, (3) capability of the entrepreneur, (4) credit history Information, (5) information on the firm's network, (6) bank relationship of the firm, (7) collateral eligibility.

With respect to validity and reliability, the analysis satisfied the requirement of convergent validity, discriminant validity, face validity and the consistency of the item-level errors within a single factor (reliability). First, convergent validity is evident by the factor loadings. With a sample size of approximately 200, sufficient factor loadings should be at least 0.50 (Hair et al. 2010).

Table 2: Reliability statistics of Cronbach's alpha test

	Scale Mean if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Business Organization - Alpha = 0.685			
A1	***21.92***	***0.166***	***0.709***
A2	22.44	0.484	0.623
A3	21.7	0.467	0.630
A4	22.21	0.484	0.624
A5	21.71	0.453	0.633
A6	21.5	0.469	0.632
A7	*21.88*	*0.241*	*0.687*
Financial Information - Alpha = 0.88			
A8	28.65	0.581	0.871
A9	28.47	0.633	0.866
A10	***28.62***	***0.309***	***0.899***
A11	28.77	0.669	0.863
A12	28.75	0.652	0.864
A13	28.69	0.709	0.858
A14	28.9	0.714	0.858
A15	29.08	0.596	0.871
Collateral Eligibility - Alpha = 0.725			
A16	8.64	0.526	0.662
A17	8.51	0.586	0.587
A18	8.69	0.529	0.657
The entrepreneur's Capability - Alpha = 0.75			
A19	**24.76**	***0.313***	***0.763***
A20	24.17	0.493	0.717
A21	24.13	0.548	0.711
A22	24.24	0.596	0.701
A23	24.62	0.455	0.723
A24	24.32	0.598	0.699
A25	24.21	0.548	0.708
A26	**24.6**	***0.235***	***0.77***
The entrepreneur's Integrity - Alpha = 0.802			
A27	20.36	0.533	0.778
A28	20.68	0.559	0.773
A29	20.65	0.392	0.801
A30	20.53	0.576	0.771
A31	20.75	0.542	0.776
A32	21.47	0.413	0.799
A33	20.5	0.616	0.767
A34	20.33	0.545	0.778
The entrepreneur 's Network - Alpha = 0.866			
A35	12.14	0.58	0.864
A36	12.38	0.658	0.846
A37	12.26	0.809	0.808
A38	12.25	0.763	0.820
A39	12.41	0.644	0.850
Relationship Lending - Alpha = 0.77			
A40	14.8	0.579	0.718
A41	14.4	0.567	0.718
A42	14.13	0.438	0.763
A43	14.9	0.608	0.705
A44	***15.31***	***0.289***	***0.783***
Credit History - Alpha = 0.817			
A45	27.9	0.566	0.793
A46	28.09	0.434	0.809
A47	27.66	0.584	0.791
A48	27.94	0.668	0.777
A49	28.3	0.703	0.771
A50	**29.13**	***0.304***	***0.830***
A51	28.46	0.512	0.804
A52	28.14	0.583	0.790

Table 3: Parallel analysis results

	Raw data Eigenvalues	Means	Percentile random data Eigenvalues
1	8.3405	2.0346	2.1457
2	4.7796	1.9195	1.9969
3	3.3108	1.8338	1.9013
4	3.1132	1.7591	1.8182
5	2.5119	1.6978	1.7570
6	2.2240	1.6378	1.6923
7	1.8547	1.5844	1.6353
8	1.3334	1.5325	1.5789
…	…	…	…
45	0.1476	0.3791	0.4073

Table 4 shows that factor loadings on every factor were above 0.6, indicating a good convergent validity. Second, examining the rotated component matrix, all variables loaded significantly with only one factor. In other words, there was no issue of cross-loadings. Therefore, the analysis met the requirement of discriminant validity. Third, regarding face validity, it is easy to label the components since variables are generally similar in nature by loading together on the same factor. Finally, in respect of reliability, the Cronbach's alpha for each component or factor was above 0.7, revealing that the analysis was reliable.

Confirmatory factor analysis:

After PCA was used to develop scales, we moved on to CFA. Figure 1 describes the model specification and the parameter estimates. It is apparent from the model that the seven factors of lending decisions correlated with each other. The results of the CFA also indicated that the seven–factor model showed a good fit with acceptable fit indices. All coefficients are significant at $p<0.01$, comparative fit index (CFI)=0.91, root mean square error approximation (RMSEA) =0.054, adjusted goodness of fit index (AGFI)=0.80, standardized root mean square residual (SRMR) < 0.08, and the minimum fit function Chi–Square ratio degrees of freedom (CMIN/DF) =1.63

Figure 1 shows the factor loadings of the CFA. We followed the measure set by Hair et al. (2010) who suggested that factor loading should be 0.5 or higher. The minimum factor loading of our CFA model was 0.57, thus indicating that the independent variables identified a priori represented by a particular factor.

As for validity and reliability when doing a CFA, a few useful measures cab be used including 'composite reliability' (CR), 'average variance extracted' (AVE), 'maximum shared variance' (MSV), and 'average shared variance' (ASV). The measures of validity and reliability are presented in the Table 5.

To evaluate the suitability of those measures, we followed the thresholds sugessted by Hair et al. (2010), as shown in Table 6.

Except for the AVE value of the 'Integrity' factor, the CR, AVE, MSV, ASV measures of of all factors met the requirement for composite reliability, convergent validity and discriminant validity. However, since the 'Integrity' AVE was not far from the suggested threshold of AVE (0.478 and 0.5, respectively), we decided to retain this factor in the model.

Table 4: Final PCA results

	Component						
	1	**2**	**3**	**4**	**5**	**6**	**7**
Cronbach's Alpha	0.876	0.849	0.844	0.849	0.868	0.809	0.763
Eigenvalues	6.885	4.083	3.102	2.835	2.350	1.746	1.576
Cumulative variance explained (%)	11.065	21.592	31.842	41.843	51.508	58.288	64.507
A12	0.782						
A13	0.778						
A14	0.771						
A9	0.736						
A11	0.699						
A8	0.693						
A33		0.799					
A30		0.775					
A34		0.729					
A28		0.725					
A31		0.719					
A27		0.689					
A20			0.812				
A21			0.802				
A24			0.766				
A22			0.723				
A25			0.685				
A23			0.679				
A48				0.805			
A47				0.779			
A45				0.765			
A52				0.688			
A49				0.654			
A42				0.615			
A37					0.873		
A38					0.836		
A39					0.775		
A35					0.731		
A36					0.719		
A40						0.845	
A43						0.833	
A41						0.754	
A17							0.839
A18							0.783
A16							0.771

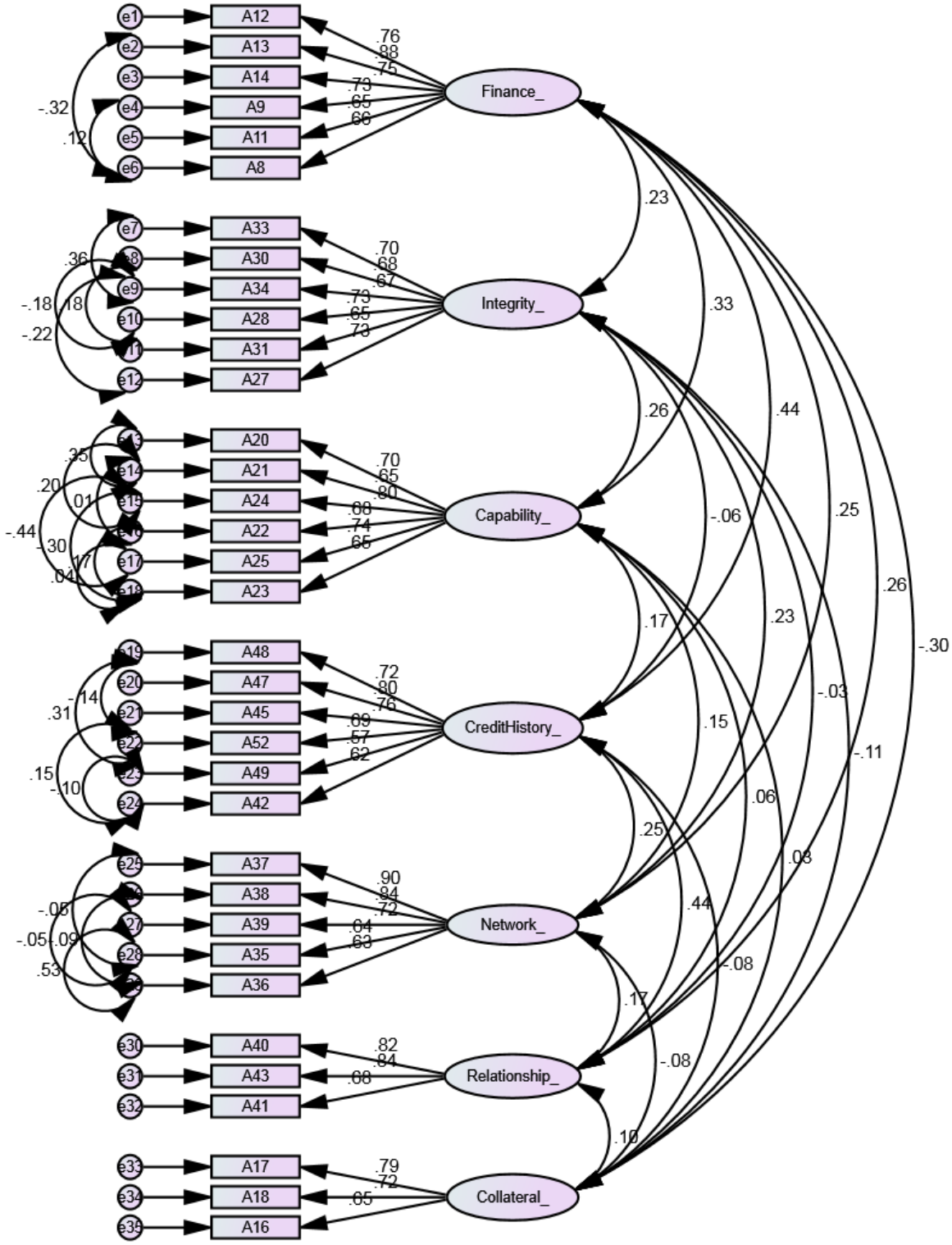

Figure 1: Standardized coefficients (factor loadings) for the seven-factor model

Table 5: Measures of validity and reliability in the data

	CR	AVE	MSV	ASV
Relationship	0.780	0.542	0.238	0.066
Finance	0.882	0.557	0.134	0.081
CreditHistory	0.858	0.548	0.238	0.073
Integrity	0.815	*0.478*	0.100	0.039
Capability	0.835	0.583	0.100	0.030
Network	0.871	0.632	0.066	0.039
Collateral	0.816	0.598	0.088	0.018

Table 6: Thresholds to evaluate reliability and validity (Source: Hair et al., 2010)

	Composite reliability	Convergent validity	Discriminant validity
Thresholds	Factor loading > 0.5 AVE > 0.5; CR > 0.7	CR > AVE AVE > 0.5	MSV < AVE ASV < AVE

In sum, CFA results confirmed that the seven-factor model with 35 attributes was a good measurement model. Therefore, factors extracted from the model can be used to estimate the importance of information facets in bank loan approval process.

Discussion

The relative importance of individual information indices:

We constructed composite scores or indices to represent to what extent loan applications were approved based on the aggregate combination of hard and soft information. The indices were constructed by utilizing the factor analysis's results in the previous part, in which factor loadings were used to compute weights of attributes or items. Factor loadings indicate how strongly the attribute influences the measured variable. The individual weight of each attribute was calculated as the square values of each factor loading divided by the sum of the squared values of the factor loadings of all the attributes (Barrios and Schaechter 2009). The information indices which represent their important level in loan approval process are shown in Table 7.

It appeared that 'Collateral' with the highest mean (4.59) played the most important role in loan approval process. This suggests that collateral lending is the most widespread lending technology used in Vietnam banks. Along with collateral, information on credit history of the firm ('CreditHistory') and financial performance ('Finance') also influenced substantially on bank lending decisions to SMEs.

It is noteworthy that these three important information indices all belong to the 'hard information' category. In other words, regardless of the fact that soft information also played a certain role in bank lending decisions (the mean values of soft information indices were above 3.0), the loan approval process in Vietnam bank system was mainly based on hard information. The descriptive statistics had already shown the relative importance of individual information indices but still the possibility existed that these information types may

not be severely dissimilar from each other and, as a consequence, some complementarity might exist among them. Thus, the analysis of interrelationships among information types was examined in the next step.

Table 7: Descriptive Statistics of information indices used in loan approval process

	Minimum	Maximum	Mean	Std. Deviation
Collateral	3.00	5.00	4.5939	0.44966
CreditHistory	3.00	5.00	4.2988	0.47473
Finance	2.98	5.00	4.1957	0.54069
Relation	2.29	4.65	3.7311	0.47549
Capability	2.24	4.14	3.2840	0.42925
Network	1.56	4.19	3.0868	0.52217
Integrity	1.84	4.00	3.0547	0.53512

Complementarity among the information indices:

Before proceeding with the analysis of the complementarity among information types, we combined the three factors of 'capability', 'integrity' and 'network' into one, for the following reasons. First, theoretically, the literature review on social capital suggests that trust (capability and integrity included) and networks are the most important components. Second, in order to ease the problem of multi-colinearity and to have the ideal sample size for multivariate regression in the following stage, it was necessary to lessen highly correlated independent variables. Therefore, integrity, capability and network were combined in a composite index, namely 'SocialCap'. The combination of three soft information indices did not change the important order of information indices.

Far beyond our expectation, some interesting results were obtained as shown in Table 8. First, there was a significant negative correlation between 'Collateral' and 'Finance', which indicated that these two types of information are not complementary but substitutive. Moreover, the 'Collateral' variable showed no association with other information indices at a significant level. It seemed that the collateral based-lending technology was used relatively independently from other lending technologies.

In other words, if a small firm can satisfy the strict requirements of collateral pledgeability by banks, it is highly likely that the bank will accept the firm's loan application without taking into account the information on financial statements, credit history reports or other information types such as the firm's relationship with banks, integrity, capability and networks. For banks, sufficient collateral was the highest guarantee for creditworthiness of borrowers. This unexpected result is also different from previous studies on the choice of lending technologies for SMEs that show collateral based lending technology is used in a complementary way with other lending technologies (Uchida et al. 2006; Francesca et al. 2013).

Second, 'SocialCap' and 'Relation' showed no statistically significant correlation with each other though both are categorized as soft information. It is possible that the firm-bank relationship was measured in a quantitative manner with attributes of 'hard information' such as the length of the firm-bank relationships, and number of bank products used by the firm, while social capital's attributes were mainly constructed from 'soft information'. There are significant differences between soft and hard information in screening and monitoring processes; therefore, these two types of information may not be used concurrently.

Table 8: Pearson correlation of the five information indices

	Collateral	Finance	CreditHistory	Relation	SocialCap
Collateral	1				
Finance	-0.236**	1			
	(0.000)				
CreditHistory	-0.062	0.415**	1		
	(0.362)	(0.000)			
Relation	0.079	0.243**	0.383**	1	
	(0.248)	(0.000)	(0.000)		
SocialCap	-0.052	0.323**	0.179**	0.076	1
	(0.449)	(0.000)	(0.008)	(0.264)	

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

A highly significant positive correlation existed between other combinations of indices,. Especially, the magnitude of correlation was very high between 'Finance' and 'CreditHistory', between 'CreditHistory' and 'Relation', 'SocialCap' and 'Finance'. This implies that these pairs of information types are highly complementary and frequently used at the same time by loan officers in the loan approval process.

Logistic Regression on Determinants of Lending Decisions:

We examined the level of firm response to important information for lending decisions. In the survey, besides asking loan officers about the importance of each type of information, we also asked them to reminisce a recently specific firm loan application which they were in charge of and then evaluated the level of firm response to the corresponding information for loan approval. The level of firm response was assumed to be represented by the firm's willingness to provide the necessary information for loan approval.

We investigated the impact of the level of firm response to required information on bank lending decisions through a binary logistic regression model. In addition, in order to integrate the importance of attributes with the level of firm response to the corresponding attributes, we used the factor loadings from the previous factor analysis result to construct composite scores of factors that appeared to have an influence on the bank loan approval process. Table 9 displays the statistics of composite scores describing the firm response level to important information.

Table 9: Composite scores of the firm response level to important information

	N	Minimum	Maximum	Mean	Std. Deviation
R-CreditHistory	218	1.12	4.88	3.40	0.91
R-Finance	218	1.31	5.00	3.26	0.78
R-Collateral	218	1.62	5.00	3.17	0.65
R-Capability	218	1.70	4.53	3.08	0.58
R-Network	218	1.00	4.24	2.89	0.66
R-Integrity	218	1.47	4.28	2.84	0.64

Among response indices, 'R-CreditHistory' had the highest mean value (3.40), followed by 'R-Finance' (3.26) and 'R-Collateral' (3.17). These indices are categorized as the firm response level to hard information required for loan approval. It is reasonable that loan officers find it easy to collect and verify hard information, especially information provided by a third party such as credit history reports from credit bureaus. Firms that have a clear and professional reporting system or sufficient fixed assets to pledge as collateral are completely confident to provide reliable hard information required by loan officers.

On the contrary, the level of firm response to soft information such as the entrepreneur's capability, integrity and networks was not very strong. It may be because loan officers have not emphasized on these types of information due to the high costs and the time needed to collect soft information. Since small businesses are often short of management skills and experience in working with banks, they may lack the ability to present themselves strongly in order to create the trust with the bank loan officers.

Logistic Regression on Determinants of Lending Decisions:

The dependent variables and predictors (independent variables) used in the logistic regression are defined and displayed in Table 10.

Table 10: Description of Variables

Code	**Description of Variables**		Variable used in the model
Dependent Variables			
Lending-De	Bank Lending Decision	1-Accept, 0-otherwise	x
Independent Variables			
R-CreditHistory	Firm Response to Credit Information	Ratio scale variable	x
R-Finance	Firm Response to Financial Information	Ratio scale variable	x
R-Collateral	Firm Response to Collateral Information	Ratio scale variable	x
R-Capability	Firm Response to Information on Capability	Ratio scale variable	
R-Integrity	Firm Response to Information on Integrity	Ratio scale variable	
R-Network	Firm Response to Information on Network	Ratio scale variable	
R-SocialCap*	Composite score of R-Capability, R-Integrity, and R-Network	Ratio scale variable	x
Rel-Years**	The length of the bank-firm relationship in years	Ratio scale variable	x
MainBank	The surveyed bank is the firm's main bank	1-Main Bank, 0-otherwise	x
ExBorrower	The firm used to borrow at the surveyed bank	1-Ex–borrower, 0-otherwise	x

Note: *The construct of R-Capability, R-Integrity and R-Network into a composite score, namely R-SocialCap is to meet the requirement of sample size for binary logistic regression.

**The last three variables measure the relationship lending of the firm

Logistic regression Results:

We used forward stepwise logistic regression to explore if the independent variables mentioned in the previous part affected the probability of loan application acceptance. The independent variables included in the model include those that had correlation with the dependent variable according to parametric and/or non-parametric tests results. Table 10 summarizes the logistic regression results at the last step.

The Hosmer-Lemeshow test which gives a measure of the agreement between the observed outcomes and the predicted outcomes showed a high p value ($p = 0.472$), indicating that the model does not adequately fit the data. The model accounted for between 60.0% and 88.3% of the variance in bank acceptance status.

As shown in Table 11, only the firm response to collateral (R-Collateral), the firm response to financial information (R-Finance), the firm response to credit information (R-CreditHistory), and 'Main-bank' factors together reliably predicted bank lending decision. The results also show that the firm response to social capital, the length of bank-firm relationship and ex-borrower status are insignificant determinants of the bank lending decision, though these variables show a significant association with the independent variable in the bivariate analyses.

Table 11: Logistic regression results - Variables in the Equation at the last step

Variables[a]	B	S.E.	Wald	Sig.	Exp(B)
R-Collateral	4.515	1.295	12.167	0.000	91.423
R-Finance	1.728	0.841	4.222	0.040	5.631
R-CreditHistory	2.151	0.776	7.677	0.006	8.596
MainBank	2.26	0.897	6.35	0.012	9.581
Constant	-24.722	5.538	19.931	0.000	0.000
Observations		218			
-2 Log Likelihood		48.509			
R-Squared		0.600 (Cox & Snell)		0.883(Nagelkerke)	

Note: a. Variable(s) tested to enter: R-Collateral, R-Finance, R-CreditHistory, R-SocialCap, Rel-Years, MainBank, ExBorrower

Based on the logistic coefficient (B), the regression model could be written as follows:

$$\textbf{Logit } (\rho) = \textbf{Log } [\rho_i/(1-\rho_i)] = -24.722 + 4.515^{*}\ \textbf{R-Collateral} + 1.728^{*}\ \textbf{R-Finance} + \\ + 2.151^{*}\ \textbf{R-CreditHistory} + 2.260^{*}\ \textbf{MainBank}$$

The value of Exp (B) in Table 11 demonstrates how raising a corresponding measure influences the odds ratio. Specifically, the value of the coefficient reveals that an increase of one unit of the firm response to collateral information is associated with an increase in the odds of acceptance by a factor of 91.4. Similarly, for each unit increase in the firm response to financial information and credit information, loan officers were approximately 5.6 and 8.5 times more likely to approve the firm loan application, respectively.

Furthermore, there was strong evidence for the influence of relationship lending factor on lending decisions. At the 95% confidence interval, the firm that applied for a loan to their main bank was approximately 9.5 times more likely to get the loan. Judging from the magnitude of coefficients, it can be said that the firm response to collateral requirement is the most important factor affecting bank lending decisions to SMEs in Vietnam. This finding also coincides with our previous conclusion that collateral-based lending is the most frequently used lending technology, and reflects the collateral principle as the lending practice in Vietnam.

Conclusion

Overall, our analysis provides empirical evidence that hard information such as financial statement, information on collateral and credit history report is superior to soft information in affecting bank lending decisions to SMEs in Vietnam. In particular, the information attributes related to collateral based lending were more frequently emphasized. Furthermore, the findings from logistic regression analysis once again

suggest that the firm response to collateral requirement was the most crucial factor which affected bank lending decisions.

There are similarities in the finding of information for lending decision to SMEs between the present study and those described by Uchida et al. (2006) and Francesca et al. (2013). These studies concluded that financial statement lending was the most widespread lending technology. They also insisted that lending technologies were complementary and that multiple lending technologies are often used at the same time. Findings in our study are also consistent with those of the two above empirical studies from the viewpoint that hard information plays a significant role in bank lending decisions and that hard information is connected with soft information to some extent. However, different from those two studies, our study found that collateral based lending was used the most.

To some extent the correlation between collateral information and other information types are not complementary but substitutive. There are several possible explanations for this result. First, this could be explained by the context of bank lending activities in Vietnam where the loan officers' ability of collecting and verifying soft information is limited due to both subjective and objective reasons. Second, the majority of Vietnam SMEs have no audited financial statements and thus loan officers cannot rely upon only financial reports provided by small firms to make lending decisions. Third, regarding credit history information, Vietnam Credit Information Center (CIC) is the only public credit bureau that provides credit reports in which negative information (e.g. information on the firm's bankruptcy, default, and late payment) accounts for a large part of the content. Moreover, CIC's database is incomplete since it has been collecting and disseminating credit information of medium and large companies with the source of information coming from the bank system.

Information from other financial institutions or non-bank institutions (e.g. financial companies, retail companies, utility companies, and courts) is still excluded from this information system. Consequently, regardless of the reliability of credit information reports, loan officers only consider credit information as an important reference source and use it along with other types of information. Fourth, the firms' humble capacity of professional management and inexperience in providing the banks with soft information is one of characteristics of SMEs in general, and Vietnam small business in particular (Nguyen et al. 2006).

Accordingly, from the perspective of lenders, collateral pledgeability is the most transparent, specific and reliable information when they assess a borrower's creditworthiness. The survey used for this study was conducted in the most dynamic city in Vietnam, Ho Chi Minh city, where many large banks and their branches are located. Under the pressure of competition among banks in achieving the target credit growth rate, assessing borrowers' creditworthiness through collecting soft information will lead to costly and time-consuming problems. In this circumstance, relying on hard information is a safer choice.

Leaving hard information aside, the firm-bank relationship is also considered by loan officers in loan approval process. This is to say, relationship lending contributes to some extent to the final lending decision, especially when hard information is insufficient. This finding is in a good match with several empirical studies of relationship lending for the financing of SMEs (Cole 1998; Angelini et al. 1998).

The findings have some implications for both banks and SMEs. From the bank perspective, they may make a choice among lending technologies and determine the trade-offs in developing their lending strategy, but they can combine several lending technologies at the same time. The competition in the credit market will become fiercer with the participation of not only domestic financial institutions but also foreign players. The currently common practice in lending activities is to use hard information, especially emphasizing on

the firm's collateral pledgeability. However, this trend may change in the direction of incorporating more soft information in order to get competitive advantages and become suitable for the majority of SMEs' that are often characterized with having insufficient collateral and unreliable financial information. Bank loan officers should be prepared to work with private businesses under uncertainty and must receive training to collect and verify valuable information through formal and informal networks.

From the entrepreneur perspective, another important implication of these findings is that they must select the bank with a lending strategy that maximizes their probability of obtaining a desired funding source. In addition, conducting a clear and professional reporting system and enhancing the relationship with the main bank will increase the opportunities of accessing bank credit. In the near future, enriching and improving management skills and the ability to provide bank loan officers with soft information need to be considered.

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ORIGINAL RESEARCH:

Identity construction among the *Magars* of Okhaldhunga District in eastern Nepal

Shyamu Thapa Magar [1] & A. Mani [2]

Abstract

Identity construction has been observed amongst various ethnic groups in Nepal since the 1990's political reform, and the *Magars* are the largest minority among the many that are constructing a distinct identity using cultural codes. The process of identification involves a declaration of having a distinct language, culture, and religion different from the dominant ethnic groups. Furthermore, they have formed social organizations to collectively articulate their identity and work on their community's development; their collective movement has thus helped form a community in which many other *Magars* have become members. Although the process of identity construction has been observed in Kathmandu as well as in other districts, as a national movement, the different feature among *Magars* of Okhaldhunga district is a lack of affiliation with the events in Kathmandu. Their efforts are not part of the process initiated by the Nepal *Magar* Association. This paper analyses the different situation in which they have been constructing their identity among others with respect to the national and local conditions.

Keywords: Community development, Ethnic groups, Identity construction, *Magars*, Nepal.

Introduction

The reforms in Nepal's political system since the people's movement of the 1990's have resulted in rapid changes amongst the more than 102 indigenous, ethnic and caste groups who speak in more than 92 languages. The right to freedom of speech and fundamental civil rights provided by the reforms also freed the mass media of many restrictions and thus helped raise awareness among all citizens of Nepal. Those who felt deprived and oppressed by the former state policies began establishing social organizations for collective action, including among *Dalits* ('scheduled castes'), women, and otherwise disadvantaged indigenous ethnic groups of Nepal. Ethnic groups that were earlier identified as tribal have now been categorized into 59 groups by the government, comprising 37 percent of the total population of Nepal (Gurung 2006). They have also been classified, based on their social and economic status, into 'highly advanced', 'disadvantaged', 'marginalized', 'highly marginalized' and 'endangered' status.

Claiming to be the indigenous ethnic groups of Nepal, the *Newar, Tamang, Gurung, Tharu, Kirats* and *Magars* initiated umbrella organizations to promote themselves collectively. The Federation of Indigenous Ethnic Groups also known as '*Janajati Mahasangh'* is one such overarching umbrella organization to bring all indigenous ethnic groups together to make collective demands. These groups were earlier known as 'tribal', 'ethnic' or '*Janajati*'. '*Jana*' denotes people and 'jati' denotes caste groups in general (Gurung 2006). With participation in the United Nations Permanent Forum on Indigenous Issues and following the UN Declaration on the Rights of Indigenous Peoples, tribal groups are now called '*Adibasi Janajati'* (indigenous ethnic groups of Nepal) and have formed the '*Adibasi Janajati Mahasang'* (Federation for Indigenous Ethnic Nationalities).

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The indigenous ethnic groups began advocacy individually as well as collectively through affiliation with the Federation. While promoting their collective rights, they also began constructing their individual group identity in distinct ways using cultural codes such as language, religion and dress codes to project themselves as being separate from the majority Hindus of Nepal. They have been reinventing traditions to make them distinct from others (Hobsbawan and Ranger 1983), demanding public holidays for their cultural festivals as well as their separate autonomous regions, and forming a movement for political rights.

The *Magars* form the largest population among all indigenous ethnic groups and the third largest group among all indigenous and caste groups in Nepal, representing 7.14 percent of the 23 million (Census 2001) people in Nepal. Like other groups, they are promoting their peculiar cultural codes such as language, religion, festivals, and dress codes and are demanding a *Magarath* Autonomous Region.

This paper presents the contemporary position of *Magars*' social, cultural and political conditions in rural Nepal. The paper argues that while *Magar* activists centered in Kathmandu focus more on *Magar* activism by constructing a pan-Nepal group identity to demand equal access to state resources and district chapters for affiliation by all *Magars*, *Magars* in Okhaldhunga district seem to act independently from the *Magar* Association at Kathmandu, trying to construct their own identity with little affiliation with the Central *Magar* Association.

Methodology

The primary data for this paper was collected at Bhadaure Village Development Committee in Okhaldhunga District, during one month of active fieldwork in the community, from February to March 2010. With no prior preparation before visiting the village, the researcher stayed in the house for the local government school teachers, and sometimes in other places such as a tea shop, fenced with bamboo, along with the house owner and his pregnant wife, eighteen months old son and an old lady.

Daily research activities involved observing the villagers, having informal discussions and conducting interviews with informants. As the research focus was on *Magars'* identity construction, the fieldwork enabled an in-depth understanding of the processes at the rural district as well as *Magars*' activism in Kathmandu.

Theoretical framework: Identity construction by a group is generally viewed as relational to others. This involves the creation of boundaries and categories by any group within a social system depending upon the cultural and social structural context that shape the groups' lives as 'us' and 'them' (Lamont 2001). Constructing identities involves defining groups through creation of symbolic boundaries, expressed through normative interdictions (taboos), attitudes, and practices through patterns of likes and dislikes. Group boundaries are constructed and their life span is shaped through cultural repertoires (discourses on solidarity) and structural conditions in which people live. Such identification process is also linked with exclusion from enjoying equal rights by other groups (Bourdieu 1984; Butler 1990; and Laclau and Mouffe 1984 in Lamont 2001:173).

An ethnic group was defined in the past as "a social group within a larger cultural and social system that claims or is accorded a special status in terms of a complex of traits (ethnic traits) which it exhibits or is believed to exhibit" (Melvin Tumin in Nathan Glazer and Moynihan 1975:4). The word ethnicity implies the existence of ethnic groups, minorities and marginal sub-groups at the edge of society, keeping their own culture and language somehow within their group (ibid:5). Class divisions among groups based on differing

tribes, languages, religions and national origins may gradually disappear or develop differently. Following a revolution, identity construction processes may appear as a form of collective resistance against unbearable oppressions, and use building materials from different sources such as collective memory, personal fantasy, from power apparatuses and religious revelations. Identity construction arises out of a sense of alienation and resentment against unfair exclusion, whether political, economic or social (Castell, 1997).

Ethnicity implies social and cultural construction; social theories explore its articulation with other social forces and various multiple manifestations that may result through deliberate social mobilization in a specific context. Ethnicity is open to negotiation, reflecting the creative choices of individuals and groups as they define themselves against others (Nagel 1994). Identity mobilization depends largely on the audience being addressed as a "chosen ethnic identity which is determined by the individual's perception of its meaning to different audiences, different social contexts, and its utility in different settings" (ibid).

Findings

Magars in historical perspective:

Magars as an ethnic group are constructing their identity mainly by using cultural codes. The 1990's movement was the first political movement that helped all indigenous ethnic groups including *Magars* to attain equal rights. Seeking equal treatment and equal opportunities for political participation, representation and equal access to the resources was the main goal of *Magars* (Shestakov 2008). The demands, however, appeared to focus more on issues of cultural symbolism along with demand for positive discrimination embedded in the constitutional framework of Nepal. These efforts were mostly targeted against high caste *parbatiya* groups who were controlling state resources (Whelpton, Gellner and Czarnecka 2008).

Hindus in Nepal follow the Hindu religion. Under this system, society is divided into four *Varna* systems. Brahmins are known as born from the mouth of god Brahma, the creator of the world, and have the highest position in the society. Second is *Chhetries* or *Kshatriyas* who are known as the warrior group controlling military power, *Vaishya* the business class group, and *Sudra* at the lowest of all representing service workers. *Magars* were traditionally placed in the caste status of the *Sudra* category within the fourfold *Varna* system (Hofer 2004: 117-118). This category not only placed them at the lowest level but also designated them for certain types of work. They were commonly recruited as army infantrymen within and outside Nepal.

Social structure based on the caste system had assimilated all indigenous ethnic groups into the four *Varna* model in Nepali society. This not only helped to assimilate them into Hindu cultural practices but also placed them into the socio-political structure. All caste and indigenous ethnic groups were brought under Hindu religious system through the declaration of "*Nepal as the only Hindu country in the world*" and " *ek bhasa, ek bhesh*" or one language (Nepali) and one dress code (*daura suruwal* for males and Sari for ladies). The Hindu population constituted 92 percent in Nepal besides Buddhists and Muslims until the 1981 census. The census was manipulated by the state (Brown 2002) to maintain Hinduism as the main religion of the country. With the 1990s movement, many indigenous ethnic groups started stating their religion as Buddhists, Kiratis and others to differentiate themselves in the 1991 census. This decreased the percentage of Hindu population to 86.51 percent in the 1991 census and it continued to decrease to 80.62 in the 2001 census (CBS 2001). The percentage of Buddhists increased from 7.78 percent to 10.74 percent in the 2001 census.

Magars had been assimilated into the Hindu social structure accepting all its' social and cultural practices in their day to day lives. Having strong physical structure and being involved in military as *Gurkha* mercenaries (Hodgson 1991), they were excluded from the state structure in the past. They are now demanding for equal participation and representation in the state. Based on their economic status, government has placed *Magars* under the 'disadvantaged category'.

Through collectiveness of groups based on cultural membership as locus of identity, *Magar* individuals are indirectly involved with the group even without physical presence (Cerulo 1997 in Lament 2001). Sometimes the community members are imagined to be within a group without being directly attached to it (Anderson 1983). This concept is also found among *Magars* who are linked with the *Magar* Association either as activists or as supporters by attending the programs or donating money to the *Magar* Association. A group identity is also maintained through their religion, culture and their participation and representation in the government.

However, a *Magar* identity based on only cultural codes is not adequate to help identify them as a separate group in the country. Their claim to be the first settlers, was not enough either because all indigenous ethnic groups claim themselves as the original inhabitants of this area. They were assimilated into Hindu social structure and they feel they have been deprived of their identity for 104 years ever since the implementation of the Legal Code called *Muluki Ain* in 1854 under the Rana Regime.

Dynamics of change in Nepal:

Since 1990, various ethnic groups in Nepal have publicly challenged the dominant Hindu cultural and religious framework of the society. The changed political conditions provided freedom of speech and helped them to express their grievances and resistance against the state. They are demanding equal rights by collectively asserting their unique cultural codes such as language, traditional dresses, and a declaration of autonomous regions. Alliance among various ethnic groups through the Nepal Federation of Indigenous Nationalities has resulted in strong collective efforts by indigenous ethnic groups. In asserting their indigenousness, they define themselves as possessing their own distinct geographical area, language, cultural rituals and traditions.

David Gellner explains that after the establishment of NEFEN (National Federation for Indigenous Ethnic Nationalities), those groups that did not follow Hindu religion enforced by the state felt subjugated in the state's political system as their culture, language and religion were in a non-dominant position and their social needs were neglected by the state. They demanded traditional egalitarian social practices other than a hierarchical system and claimed themselves to be the indigenous people of Nepal on the basis of the aforementioned characteristics (Gellner 2008)**.**

Since the 1990s people's movement, their awareness was raised about their deprived situation. It enabled them to construct and reconstruct their identity at both individual and group levels. Socio-cultural and political movements enabled them to collectively see themselves as the *Magar* community (Anderson 1983). However, *Magars'* socio-cultural practices have been highly influenced by following Hindu social and cultural practices. *Magars* in the past were conscripted to serve as military infantrymen in British, Indian and Nepal's Armies, with the rest of the males specializing in skilled labor in masonry, carpentry and mining (Bista 1991). They were less concerned about sending their children to school. In contrast, children of *Brahmins* and *Chhetris* attended school and completed their education irrespective of their parent's economic status, and filled the positions in the expanding government bureaucracy. Consequently, the majority of the positions in bureaucracy and politics are still occupied by *Brahmins* and *Chhetries* of Nepal.

Another of the ethnic groups, *Newars*, was the next major group with a sizeable number in bureaucratic positions in Nepal. Due to the *Varna* system, many indigenous ethnic groups were excluded from equal participation in the country. However, all indigenous ethnic groups participated in the twelve years of Maoist conflict. The majority of the *Magars* joined the Maoist Militia (Magar 2010) hoping to end the traditional legacy of economic and social inequalities prevalent in the society.

With the restoration of democracy, *Magars* are demanding for equal participation, representation and equal benefits from state's resources. Most of the *Magars* however are divided by political ideologies as members of different political parties. This has apparently created barriers for their unity. The Central *Magar* Association has become the platform to exercise their social and political demands. Many *Magars* have come to enjoy political appointments by obtaining a position in the central committee through the district chapters and then winning in the election. This opportunity has opened political, social and economic niches for individuals (Barth 1969) in the name of the group, and has helped a few to enjoy being a *Magar* leader among other castes and indigenous ethnic groups and among political party leaders.

The *Magars* are generally of mongoloid descent and have mixed cultural practices in religion and festivals owing to the supremacy of Hindu doctrines for centuries (Hamilton 2007; Hodgson 1874/ 1991:2; Rights 2007:37; Vansittart 1991:9; Hangen 2010). As *Magars* had been fully assimilated into Hindu religious cultural and ritual practices, currently they are in a state of confusion to identify themselves as a distinct group through culture and religion. *Brahmins* and *Chhetries* living among *Magars* have cohabited with local women and also kept their high position by marrying within their own group. This is evident from the use of *Brahmins* and *Chhetries* titles among *Magars*. The clan titles are usually bound through marriages and included into the groups by birth. There are some *Brahmins* and *Chhetries* titles commonly found among *Magars* such as *Suryabansi, Chandrabansi, Pokhrel, Regmi, Lamichane, Baral, Gharti, Rana* and *Thapa*. Such titles allow them to move upward in the caste hierarchy and to maintain their position.

Group identity is emphasized by wearing clothes that identify them as *Magar*. Language and religion have also been given more importance for group identity. *Magars* have printed school textbooks in two of the *Magar* languages for students at primary level with support from the Ministry of Education. Classes are taught in *Magar* languages in some primary schools in western Nepal. For separate religious identification, *Magars* declared themselves as Buddhists with the declaration of the General Assembly held in Jhapa district in 1998.

As all indigenous ethnic groups are claiming distinct identification by declaring separate festivals and demanding for national holidays, *Magars* too have declared *Maghesankranti* as the main festival and have demanded a national holiday from the government. The *Tharu* community too has declared the same festival as part of their identity. The *Maghesankranti* day is celebrated by all castes and indigenous ethnic groups in Nepal as the day for eating root vegetables such as yams, taro, sweet potato, and clarified butter, cooked in a thick sugarcane jam and sesame candies. It is a day to eat high calorie food for keeping oneself warm.

Besides, *Magars* are also demanding a separate *Magarath* autonomous region in west Nepal declaring Palpa district as its capital. There, *Magars* have the highest number in the population. Many other indigenous ethnic groups are also claiming for distinct autonomous regions based on their historical legacy. The Federal Republican Government of Nepal has decided to divide Nepal into fourteen states based on ethnic groups, geographical topography and on the basis of linguistic groups. Political parties do not have consensus over regions based on ethnicity.

Declaring oneself as belonging to a religion other than Hindu has become a trend among all indigenous ethnic groups in the country. *Magars* also declared themselves to follow Buddhism through their General Assembly at Jhapa district in 1998. This movement helped increase the number of *Magars* declaring themselves as Buddhists from 22,000 to 300,000 in the 2001 census. Distinction between followers of different religions among *Magars* became clear.

Moreover Islam and Christianity have also found an opportunity to flourish due to the declaration of Nepal as a secular state with conversion taking place among Hindus to Christianity along with other emerging religions such as *Kirati* followed by *Kirat* people (see Table 1). The *Tharu*, *Newars*, and *Magars* are mostly assimilated into Hinduism (See Table 2); however, 24.5 percent of the *Magars* have declared themselves as followers of Buddhism (See Table 3). The *Chantel* declared themselves as a separate group. They used to be counted within the *Magars* but are now identified as a separate indigenous ethnic group in Nepal.

Table 1. Religious affiliations in Nepal, in percentage of population, compared between 1991 and 2001.

Religion	Census 1991 %	Census 2001 %
Hindu	86.51	80.62
Buddhist	7.78	10.74
Islam	3.53	4.20
Kirat	1.75	3.60
Christian	0.17	0.45
Others	0.14	0.39
Unknown	0.10	0.00

Source: CBS, 2001

Table 2. The main indigenous ethnic & caste groups in Nepal and the proportion of them that follow Hinduism

Caste and indigenous ethnic groups	Total population of the group	Group following
Yadav	895,423	893,427 (99.8%)
Hill Brahman	2,896,477	2,887,317 (99.7%)
Chhetri	3,593,496	3,574,976 (99.5%)
Thakuri	334,120	332,107 (99.4%)
Sarki (cobbler)	318,989	312,277 (97.9%)
Damai (tailor)	390,305	381,739 (97.8%)
Tharu	1,533,879	1,497,516 (97.6%)
Kami (black smith)	895,954	866,296 (96.7%)
Newar	1,245,232	1,047,561 (84.1%)
Magar	1,622,421	1,210,276 (74.6%)
Total	13,726,296	13,003,492 (94.7%)

Source: CBS, Nepal, 2001 Census. Nepal and Population Monograph, 2002/reprinted2008

Table 3. The main ethnic groups and the proportion of them that follow Buddhism in Nepal

Indigenous ethnic groups	Total population of the group	Group percentage following Buddhism
Yehlmo	579	570 (98.4%)
Sherpa	154,622	143,528 (92.85)
Tamang	1,282,304	1,157,461 (90.3%)
Jirel	4,316	4,625 (87.0%)
Gurung	543,571	375,252 (69.0%)
Thakali	12,973	8,434 (65%)
Chantel	9,814	6,301 (64.2%)
Bhote	19,621	11,655 (60.5%)
Magar	1,622,421	397,036 (24.5%)
Newar	1,242,232	190,629 (15.3%)
Lepcha	3,660	3,250 (8.8%)
Total	4,896,753	2,298,741 (46.9%)

Source: CBS 2001. Population Monograph 2003, Vol. II

The dynamics of change in Okhaldhunga District:

Okhaldhunga district is bordered by Khotang district in the East, Ramechap District in the West, Solukhumbu District in the North and Udaypur and Sindhuli District in the South. It is situated in the Sagarmatha Zone. It has 56 Village Development Committees (VDC). The total population of this District is 156,702 people with 81,441 females and 75,361 males. More than 94 percent of the people are engaged in subsistence agriculture along with livestock husbandry for milk and protein (Village Profile 2003).

Many different castes and indigenous ethnic groups live in this district. *Brahmins, Chhetris, Newars, Gurung, Magar, Rai, Sunuwar, Sherpa, Tamang, Majhi, Sanyasi, Damai* (tailor), *Kami* (blacksmith) and *Sarki* (cobblers) are inhabitants of this district. Nepali language is spoken as the lingua franca whereas *Magar, Rai, Tamang, Sherpa* and *Sunuwar* speak their own mother tongue besides Nepali, but *Newars* and *Gurungs* do not speak their mother tongue at all.

Magar activism in Kathmandu has been able to form sixty seven district chapters as its affiliates in the Central Magar Association. Okhaldhunga, on the contrary, remained a district unreached by the Nepal *Magar* Association, and the *Magars* in the district are unaffected by the identity movements in Kathmandu. *Magars* form the fourth largest group in the district and are 10 percent of the total population.

Not being associated with the Nepal *Magar* Association and their activities, *Magars* in this District are mainly unaware of the *Magar* identity movement. For them, cultural and ritual practices are the main attributes to be identified as *Magars* in the district. Awareness of being a distinct group has been rising among them. Unity among them is mostly visible during social events but political changes after the 1990s have made them members of several political parties. The social activities, however, are performed collectively despite their political orientations and preferences to different political parties.

Discussion

A number of factors help explain why the process of identity construction in the district diverges from that of the processes observed among Magars in Kathmandu. These variables can be identified as education, economic conditions, and social, cultural and political identities, as follows:

Education: District Education Office (DEO) in Okhaldhunga district is a government institution to promote formal and informal education. Not a single *Magar* has ever come to work as a District Education Officer (DEO) from 1959 to 2010 in the district. The data shows the weak position of *Magars'* educational status in the country, where not a single *Magar* Education Officer was appointed or was ever able to reach this position in the district. The total number of teachers working in this district is 330 including both males and females but it is not known how many *Magars* are working as teachers in the District.

After the 1990s, access to information and political participation has helped to increase the level of awareness among *Magars* of this district. They have started to send their children to schools rather than confining them to the household chores to support the family labor. The chairperson of the School Management Committee in Bhadaure VDC, said:

> *"Magar children used to work in the house of Brahmins, Chhetris and others as helpers for grazing goats, cows and ploughing the field but these days, they have stopped working for them and started going to the school instead".*

The educational system, following the aim of education for all, has helped to minimize their economic problems by providing free books up to grade ten and waiver of tuition fees except paying for the examination fees. Geographical location however plays a crucial role as children should walk four hours daily to get to higher education after graduating from grade ten. Due to transport difficulties in reaching the district school, Nishanke has been chosen as the center for all students to attend college for higher education. All students have to walk more than two hours to reach the school from their house every day. This also determines whether the students want to continue their education or their parents are able to pay for their children's fees while forgoing income from their children's labor.

Most youth who had passed School Leaving Certificate Examinations (SLC) and were studying in grade ten, expressed preference to marry a girl from their own *Magar* community, saying that, if they marry girls from outside, they would not be acceptable by their ancestors. Many of them also end up marrying the person they like or with a person arranged by their parents. Girls from grade ten in the VDC blame their destiny for being born in this area where they are deprived of education. They do not enjoy life as urban people. They claim:

> *"Your destiny was to be born and die here; your destiny is strong so you were born and brought up in Kathmandu, able to study and reach this position".*

A difficult choice awaits any girl who pursues higher education. By the time they finish their education all the males of their age group would have been married. As marriage is still endogamous in Nepal, it is difficult for these girls to get married. It would be very difficult to find an educated and unmarried man in the district. Many boys and girls marry while they are studying in grade eight or above the age of fifteen. Very few continue their study and the rest become farmers, whereas the youth in urban areas go to schools, colleges and universities for better opportunities.

The majority of the school teachers are *Brahmins*. Science and mathematics teachers are from Terai. Only one *Magar* who had not completed his twelfth grade is working as a permanent teacher. The majority of the students in higher secondary school are from *Magar* and *Rai* communities.

Economic conditions: Livelihood of *Magars* in this district is dependent on subsistence economy besides some small petty businesses, services in government and nongovernmental organization and doing social services when needed. *Magars* in this district live in clusters in some VDCs and are mixed with other castes and ethnic groups in other VDCs. Most *Magars* in these areas used to work as porters carrying heavy loads from Katari (Udaypur district) to Okhaldhunga district and other nearby districts. Transportation was limited due to the lack of graveled roads on which trucks could carry the goods to the village. These *Magars*, retired from British, Indian and Nepali Armies have better economic status than other *Magars* in the village. They have a regular pension as their economic security. Seasonal migration to work in Kathmandu, Malaysia and Arab countries is common for male youths in the district.

Magar youth are focused in getting enlisted in the British Army followed by Indian and Nepal's Armies. They feel proud to be *Magars*. A young man, aged 20 years, said that if he does not get enrolled in any of the armed services, the other options will be to go to Malaysia or an Arab country to work as a laborer. A youth, aged 17, named Ram, is working on his own small tea and snack shop in the center of the Bhadaure VDC in the ninth ward. He left school after getting a pass in the eighth grade. He expressed regret for not joining the school later:

> *"My brain did not work during that time. My anger increased and I did not want to join. But I realize now that I made a mistake. Now if I go searching for a job, I can hardly get work even as an office assistant (peon). It is the lowest level job in the government bureaucracy".*

His father prefers the business rather than giving attention to the education of his sons. The poor socio-economic conditions in the village do not allow the family to give preferences to education. If they are not able to continue their education, they cannot work abroad, and so they stay in the village and work in their field to support their family.

Social Identity: *Magars* of Okhaldhunga District have been affected by the twelve years of armed conflict. The level of awareness about their social, economic, cultural and political conditions has risen among all indigenous ethnic groups in this VDC. The importance of education has increased among the parents and is reflected in the increased enrollment of students at school. All *Magar* children are sent to school no matter what they learn. The awareness of *Magars* regarding their social position has increased in comparison to other castes and ethnic groups. They do not accept humiliation from other groups in the village. They have stopped sending their children to other peoples' houses to do labor.

Confidence and awareness have increased among *Magar* regarding their group identity. Objection is shown immediately when they perceive non-*Magars* as insulting them by using verbal abuses. Some *Brahmins* who lived in highly homogenous *Magar* clusters have migrated to the plain (*Terai*) by selling their land. Previously, they were controlling all social and economic power in this village.

A *Brahmin* woman, working as community maternity attendant expressed that she used to have four to five young *Magar* and *Rai* youths working in her fields for ploughing, carrying manure, cutting fodder and taking livestock for grazing. She summarized the changed situation as "*Ahile kunai Magar le terdaina*" (no *Magars* follow our orders these days). She mentioned in a distressed voice that it is difficult to tell them anything.

Concerned with purity and pollution, the *Brahmin* woman was critical about *Magar* community's practices. This was reflected in her agony over having to wait in the queue like others to fill up her water jar from piped water every morning. The *Brahmin* woman expressed her dissatisfaction about *Magars* on the queue to fill their water pots before her. She said that she could no longer tell them not to touch the water pipe as she needed the water for drinking, cooking food and offering to god. She said:

> *"They are not pure; they do not follow the purity practices while they are menstruating. They eat pork and buffalo meat and drink alcohol. I have tried to protect my rituals of purity and pollution practices. I manage to take the pure untouched water early in the morning. These days, it is very difficult to tell them. Everybody has become thulo manche (big person)"*

A young Maoist age 23, said, due to ignorance and not having education, *Magars* had to depend on high caste people like *Brahmins* and *Chhetris* for official procedures in the past. *Magars* had to negotiate on an individual basis with those high caste people with exchange of free labor to get support on legal procedures. This kind of negotiating labor exchange placed *Magars* below them. Besides the social structure of belonging to a lower caste (*tallo Jat*) than *Brahmins* and *Chhetris*, they were always looked down in the district.

Culturally and socially *Magars'* participation in every social and cultural event has brought them social cohesion in the Bhadaure VDC. Marriage also plays an important role for maintaining their cohesion in the VDC. Cross cousin marriage is prevalent among them leading to a cohesive kinship. They address each other with their kinship terms from marriage to death. They use the proverb, "*Jeu da ko Janti Marda ko Malami"* (participation in marriage procession while you are alive and in the funeral procession after your death) to express their closeness. Rituals at marriage and death are essential for kinship bonding, and enhance community relationship and social dependency. Marriage is forbidden within the same gotra. If the girl is not from the *Magar* community, she is not taken to the *kul* for the acceptance. The girl is never accepted in all those rituals and customs if she comes from a community other than *Magar*.

Cultural identity: *Magars* living in different locations, speaking different languages also have different ways of worshipping their ancestors. Besides national festivals, *Magars* celebrate their ancestral worship with full belief and devotion. They explain their original place and migratory route from the far west crossing the border of Nepal to India. *Magars* in Okhaldhunga express their original place as the western part of Nepal but no one can say distinctly which district they have come from. Ancestral worship defines their separate identity within the *Magar* community as a separate clan. The different ways of worshipping their ancestors helps in projecting their individual and group identities within the *Magar* community.

Differences of the sacrificial animal also define their clan identity within the *Magar* community. There are also variations in the taboo of consuming the meat of certain animals. Offering of sacrificial pork, alcohol, beer, rice and different types of cooked vegetables to their ancestors are common. Among the *Rana Magar*, fish and banana leaves are compulsory for offering to their ancestors while singing melodiously requesting them to return to their original place.

Ancestral worship is performed only by males. Women are not allowed to enter the place during the worship although women participate in managing and arranging the required materials. Sacrificial items are cooked and eaten by males inside the room where worship and offerings take place. Women are perceived as impure in both *Rana* and *Thapa* clans during ancestral worshipping. Pigs and local beer are essential for worshipping ancestors. The sacrificial work is performed mainly by kin members. Ancestral worship is

continued collectively by the family. Unless the elder son with his wife wants to separate from the family, *kul* can be worshipped collectively. Accepting food cooked from the new bride by elders and their ancestors symbolizes the admission into the *kul*.

Maintaining *Magar* identity through marriage and speaking *Magar* language has helped them maintain their *Magar* identity. In comparison with other caste groups, *Magar* girls have much freedom to move around from a very young age and choose their life partners. Language has more importance in being identified as *Magars*. Due to not being associated with the Nepal *Magar* Association, maintaining distinct dress codes has not become an issue amongst them.

They address each other by kinship titles. These *Magar* clans are similar to the *Magars* of Barhamagarath area. *Magars* of Athara Magarath, Buda, Gharti, Roka and Jhakri are not found in Okhaldhunga district. Due to the impact of modernization, globalization, assimilation into the Hindu social structure, and migration to the present place over many generations, *Magars* do not have any distinct cultural identity despite their marriage and ancestral worship. The wearing of *Magar* dresses that the *Magar* Association has invented, declaring them as Buddhists, has not reached to the *Magars* of this district.

Political identity: Without any link to the Kathmandu *Magar* Association, *Magars* of Okhaldhunga District have only maintained their social and cultural identity as *Magars* of the district. Their affiliation with political groups, however, has helped them to construct their individual political identity in their village. The influence of *Magar* leaders in the village can be seen through their political affiliation. The majority of *Magars* in Bhadaure VDC are affiliated with the United Marxists and Leninist (UML) party. Supporters of Maoist and Nepali Congress are fewer in number.

Politics in Nepal plays a crucial role to unite members affiliated to similar political ideologies as well as separating them from those with different political orientations in the community. The division of *Magars* based on their political affiliations has brought some disequilibrium in the society. People are judging each other on the basis of their political orientation. Suspicion appears whenever group work is required. 'Ours' and 'others' are commonly expressed terms indicating affiliation to some political orientation.

The majority of the *Magars* are with the Communist Party UML and a few are following Maoist political party in the VDC. Judging others based on political ideology is prevalent not only at the local level but also at the national level. Work becomes easy when a person is identified as the follower of a similar political ideology (Cohen, 1974). Political affiliation makes a person achieve work, jobs, and affiliation. *Magars* are thus divided due to following different political ideologies, and are not politically united into a *Magar* community. However, all informants showed interest in establishing links with the District *Magars* Association.

Conclusion

Magars of Okhaldhunga district are not associated with the *Magars*' movement occurring in Kathmandu. They are only aware about their *Magar* identity in relation to the caste and other indigenous ethnic groups. They mostly focus on language, culture, kinship and social status in defining their identity in the district. Kinship through cross cousin marriage has helped them to be united and bound together. *Magar* youth in the village are also maintaining their *Magar* identity by following their social and cultural practices.

Constructing individual group identity is more important in the district though, individual political identity is constructed through membership based on their political affiliation. Social and cultural bonding plays an important role in providing social cohesion as a community despite the existence of various political parties. The movement among Kathmandu *Magars'* claiming about not being Hindu and declaring themselves to be a Buddhist in religious vocation has not reached the *Magars* of this district. Thus the *Magars* of this area are constructing their *Magar* identity through their social and cultural practices. Strengthened social relations have brought unity and cohesion within their *Magar* community.

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REVIEW:

Hypothesizing the impact of internal alignment and perceived risks to key account management performance

Kawsar Ahmmed[1] and Nor Azila Mohd. Noor[2]

Abstract

Key account management is a relationship marketing approach initiated by the supplier company, targeted at the most important customers to solve their complex requirements with special treatment. It eventually ensures both parties' financial and nonfinancial objectives, and thus has been regarded as a strategic weapon of many companies' sales efforts. Based on the social exchange theory, the researchers have theorized and hypothesized the conditions under which operational factors including internal alignment and perceived risks influence the performance of key account management and its impact on repeat order. We have also theorized the moderating role of the length of relationship on the relation between key account management performance and repeat order. Several theoretical and practical implications are provided and there are also suggestions on how to develop a platform for future research.

Keywords: Key account management, Length of relationship, Operational variable, Repeat order, Social exchange theory.

Introduction

According to the Pareto principle 80 percent of revenue comes from 20 percent of marketer's customers (Bunkley 2008). This notion is the basis for the key account management (KAM) approach as the best way of ensuring repeat purchase, additional purchases and referral to other good customers. Napolitano (1997) mentions that key account customers are characterized by a centralized, coordinated purchasing organization with multi-located purchasing influences, a complex, diffuse buying process, very large purchases and a need for special services; serving these customers requires focused effort and dedicated resources.

Efficient customer management with endless efforts helps strengthen the marketer's position in the marketplace, make its position impregnable and ensure a sustained competitive advantage. The situation is more critical when the customers have strategic importance for the organization. In this regard, Workman, Homburg and Jensen (2003) suggest the execution of added functions and/or designation of special executives aimed at the organization's most significant customers. Zupancic (2008) calls key account management as systematic choice, examination and management of the most important present and future customers of the company with the needed set up and maintenance of infrastructure. Brehmer and Rehme (2009) define key account management as the organization that provides for the management and building of relationships in a more or less formal arrangement.

Among academics, definitions of key account management differ significantly. In the present study we define KAM as a supplier company initiated approach targeted at the most important customers to solve their complex requirements with special treatment that eventually ensures both parties' financial and nonfinancial objectives (Ahmmed and Noor 2012).

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Performance relates to the assurance of efficiency and effectiveness in completion of a particular task which results in the expected level of outcomes. In the field of marketing, usually sales volume, profit margin and return on investment by a marketer determine performance (Ofek and Sarvary 2003). In addition, choice of customers among brands (Meyvis and Janiszewski 2004), attitude towards brand and repeat sales, and in case of nonprofit marketing, donations and promotions in non-profits are also used to measure performance. Sherman et al. (2003) mention that key account management performance is the undertaking of firm-wide initiatives by which firms systematically and proactively deliver strategic solutions to multiple contacts at targeted accounts with the purpose of capturing a dominant share over time.

Napolitano (1997) explains the significance of selecting an account manager with conceptual and analytical abilities including high-level selling skills along with superior relationship skills to understand the profit and productivity goals of key account customers and to provide solutions based on their company's ability and creativity. Workman, Homburg and Jensen (2003) found that building *esprit de corps* among those involved in key account management, initiating proactive activities in intensive ways, assurance of key account manager's access to key resources of marketing, and sales and top management involvement are the key determinants of key account management performance.

From the above discussions, it is evident that various factors have a significant impact on key account management performance. But to the best of our knowledge, studies are scant that integrate operational factors and theorize their relationship with key account management performance, thus supporting our first study objective. Jackson (1985) and Levitt (1981) mention that in business-to-business relationships, anticipated levels of performance are likely to have an important effect on the stay-or-leave decision. Hence buyers' likelihood of future repeat order can be predicted by the performance of key account management strategy. Shi et al. (2010) opine that the success of suppliers in coordinating the activities and marketing approach with their global account customers can lead to a greater sales volume to the customers and their satisfaction with the GAM relationship.

So far, the primary emphasis of research studies has been on the impact of key account management performance; these studies have reported several positive outcomes including a higher revenue, improving the present market image, customer referrals, expectation of continuity, transfer of market knowledge, improving internal supplier operations, competitive advantage, shareholder value creation and joint action (Gosselin and Bauwen 2006; Selnes and Sallis 1999; Workman, Homburg and Jensen 2003). Although it is apparent that KAM performance influences the customer satisfaction levels in the form of repeat orders, existing literatures ignore this vital aspect. Thus, our second objective is on theorizing the impact of key account management performance on repeat order.

Social psychology literatures report that individuals in early stages of a relationship may have less confidence in their evaluation of their partners than in later stages of that relationship (Swann and Gill 1997). This is because the effect of such evaluations on behavior is enhanced in later stages of the relationship (Verhoef, Franses and Hoekstral 2001). Bolton (1998) and Rust et al. (1999) argue that the same process might also hold for customers' confidence in their satisfaction judgments as an outcome of KAM performance. Wagner (2011) mentions that the nature of the buyer-seller relationship is dynamic where the relationship life-cycle might moderate the relationship between supplier development and firm performance in the buyer-seller relationship dyad. Workman, Homburg and Jensen (2003) suggest that future studies should take into account the influence of moderators between key account management performance and its outcomes.

Surprisingly, to our knowledge, no research has examined the length of relationship as a variable that may moderate the relationship between key account management performance and repeat order. Eventually, we endeavor to study the moderating role of length of relationship on the relation between key account management performance and repeat order.

Therefore, to theorize our research objects, the following research questions are addressed:

1. Does key account management performance influence the repeat order outcome?
2. What are the operational factors that influence the key account management performance?
3. To what extent does the length of relationship moderate the relationship between key account management performance and repeat order?

Methodology

This study is mainly based on a detailed review of literature, plus an analysis of a number of hypotheses that result from the primary discussions. In a previous article (Noor and Ahmmed 2013), we proposed a research framework without an in-depth discussion on variables; however, here we examine the relationships among variables with extensive literature support and an in-depth discussion of individual variables. We isolate and discuss several dimensions of individual variables that can be used to measure the impact of those variables on dependent variable, and also develop several propositions that open the research work for further exploration.

The current study introduces repeat order as the outcome of key account management performance. Two operational variables namely internal alignment and perceived risks are taken as independent variables of key account management performance. In addition, the length of relationship is introduced as a moderating variable that may moderate the relationship between account management performance and repeat order. On the basis of literature review on key account management, the following framework (Figure 1) has been developed to incorporate the influence of key account management performance on the repeat order behavior and the influence of two operational factors such as internal alignment and perceived risks on key account management performance.

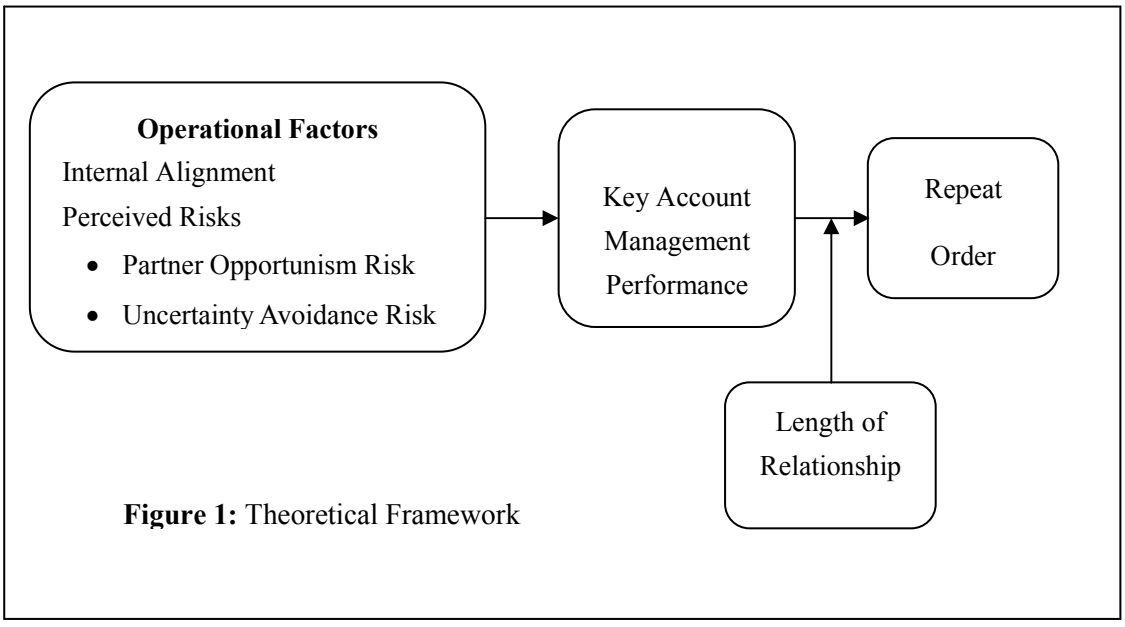

Figure 1: Theoretical Framework

In addition, the length of relationship is taken as a moderating variable on the relationship between key account management performance and repeat order. The basic idea of the proposed framework is that KAM performance has a considerable positive impact on the key account's repeat order behavior, while KAM performance is influenced by operational factors. Also the relationship between KAM performance and repeat order is moderated (enhanced) by the length of relationship. Boles, Barksdale and Julie (1997) explain that when a seller keeps a customer it makes it easy to ensure more business from buyers and it also lets the seller to serve a buyer better and, possibly, boost sales to that key account. Usually key customers who want to realize these benefits from the suppliers are expected to maintain the relationship for a long time as benefits are supposed to increase in the longer relationship.

The conceptual foundation of the present study is derived from the social exchange theory (SET) that views the relationship between key account customers and supplying companies as "actions contingent on rewarding reactions from other" (Blau 1964). The major proposition behind the social exchange theory is that persons behave in such a way which adds value to the outcomes that impact positively, and refrain from behaviors that impact negatively, on the relationship (Rodríguez and Wilson 2002). The risk of opportunism is apparent in the exchange relationship, but it can be avoided with the parties' openness and integrity (Lee, Mohamad and Ramayah 2010). Because the social exchange theory explains and predicts relationship maintenance through relational governance (Trenholm and Jensen 2003), to reduce uncertainty attempts should be made on part of organization to foster mutual cooperation and control through enhancing the parties' commitment to the relationship (Moore and Cunningham III 1999).

Findings: variables of the model and their theoretical relationships

Repeat Order: Repeat order refers to the continuation of purchasing goods and services from an organization (Molinari, Abratt and Dion 2008) by key account customers. By the key account management approach, suppliers become more aware of the customers' requirements and are better able to meet those requirements with a customized attention that eventually ensures the repeat order. Boles, Barksdale and Julie (1997) examine how retaining a customer by a supplier makes it easier to ensure more business from buyers and allows the supplier to serve the customer better and thus increase sales to that account. Noordewier, John and Nevin (1990) explain that as transactions become more relational, in a long-term relationship there is a greater expectation of repeat business with the exchange partner.

The theory of reasoned action suggests that if a buyer receives superior service, increased salesperson attention to their needs and best prices, positive intentions toward continuing business with this salesperson and firm will increase (Ajzen and Fishbein 1980). This implies that key account management performance influences customer satisfaction levels expressed in the form of repeat purchase from the suppliers and thus makes the relationship last. The anticipated level of performance is likely to have a big influence on the stay-or-leave decision (Jackson 1985; Levitt 1981). Similarly, Kellerman (1987) has identified "anticipation of future interaction" (repeat order) as an outcome goal of dyadic encounters. The buyers' likelihood of future repeat order behavior can be predicted by the performance of key account management strategy. From the perspective of a salesperson, (Crosby, Evans and Cowles 1990) the best predictor of a customer's likelihood of seeking future contact is the quality of the relationship to date.

Key account selling is one type of relational selling activity, and successful "relationship selling" is correlated with increased trust, enhanced loyalty, enhanced purchase intentions and greater likelihood that

the buyer will recommend the supplier to other firms (Foster and Cadogan 2000). Capon and Senn (2010) explored the increased chances of firm's business success from the relationship. Homburg, Giering and Menon (2003) argue that in general if a customer's expectations for the required attributes are met by the seller, the customer will be less likely to search for a replacement alternative, thus ensuring a repeat purchase.

In their study, Brehmer and Rehme (2009) mention key account management as a way for companies to develop existing relationships and increase sales. Colletti and Tubridy (1987) report on retaining large customers, increased sales to current customers and enhanced working relationships with customers as the result of successful major account sales management. In sum, it appears that a supplier company may adopt key account management approach to serve their most important and strategic customers and thus realize fruitful outcomes in the form of repeat orders.

Key account management performance: Performance in the strategy of key account management refers to the attainment of goals for both key buyers and the seller over a long period of time in the key account relationship. In the field of marketing, this performance is measured with the sales volume, profit margin and return on investment (Ofek and Sarvary 2003). Proper customer orientation helps the suppliers to know key customers properly and to serve key customer needs well which in turn ensures the performance of key account management and organizational outcome. In the business arena, the perception of customers over the key account management approach affects its performance; a positive perception influences them to be receptive, as long as the relationship does not create any disadvantage for them, and develops commitment toward the program (Pardo 1997).

Al-Husan and Brennan (2009) realized that the most important factors to facilitate an efficient and successful management of accounts were swift access to top management, authority to communicate with any level in the organization, authority to make decisions, as well as teamwork and training. Similarly, Workman, Homburg and Jensen (2003) found that building esprit de corps among those involved in the key account management program, initiating proactive activities and performing them in an intensive way, assurance of key account manager's access to key resources of marketing and sales, and top management involvement are the key determinants of the key account management program.

As the performance of key account management depends on account managers, Napolitano (1997) explains the need to account managers with conceptual and analytical abilities for key account success; they should have strong salesmanship skills and relationship skills, understand the account's key profit and productivity goals, and provide solutions on the basis of their ability and creativity.

Operational factors in key account management: In the key account management program, management faces a variety of operational factors which impact on the performance of key account management strategy. Operational factors include those linked to the systems, measures, routines of the institutions and knowledge of risks and uncertainties which may facilitate operations. More specifically, operational factors facilitate the flow of functions and processes between the firms and aid in the flow of products or information. Leugers (1997) argues that information is an operational factor that has an impact on performance. He mentions that with complete assimilation of data and information, the leader is empowered with a clear perception of the situation and has the essential knowledge to support an appropriate and timely use of the proper mix and quantity of resources.

In the field of business-to-business relationships these factors help with the task of ensuring that business operations are efficient in terms of using the minimum resources needed for effectively meeting customer demands. At the organizational level application of the appropriate technical and strategic skills and experience is ensured by these factors. McDonanls, Millman and Rogers (1997) explain that the field of key account management is broadening and becoming more compound, and thus professional skills at strategic and operational arenas require to be continuously modernized and developed.

Apart from the factors discussed earlier, this study focuses on other operational factors namely internal alignment and perceived risks in serving the key account as potential antecedents of key account management performance. Justifications for the incorporation of these variables are explained in detail in the following sub-sections.

Internal Alignment: Internal alignment is necessary among the people participating in the key account management program (Workman, Homburg and Jensen 2003) and can influence the performance of key account management strategy (Guesalaga and Johnston 2010). Sisco and Wong (2008) define internal alignment as "the set of commitments, policies, strategies, procedures, behaviors and systems that support integrated customer decision making based on suppliers' commercial and ethical commitment and performance".

Internal alignment focuses on the similarities and differences among jobs within an organization and the relative contribution of jobs to company objectives and tries to make a strategic fit among various layers (Kathuria, Joshi and Porth 2007). According to Boyer and McDermott (1999) strategic consensus or alignment is an agreement of employees of various levels on the organization's most important goals. They define strategic consensus or alignment in relation to the relative significance of quality, delivery, flexibility and cost to the organization's operational goals. Jaworski and Kohli (1993) relate it with interdepartmental connectedness that ensures a level of prescribed and casual direct contact among personnel across different divisions and in turn ensures more exchange of market intelligence and response to it in a concerted fashion.

Sisco and Wong (2008) mention that executive commitment and support, integrated policies, strategy and structure, steady in-house communication, important information, metrics and reporting, and motivations and accountability for expected behavior are the key components to ensure internal alignment. Literature distinguishes between two categories of alignment in the organization which are vertical alignment and horizontal alignment. In the organization, vertical alignment shows the lines of reporting and accountability from the chief executive officer (CEO) level to the factory floor whereas horizontal alignment refers to coordination across organizational boundaries (Sisco and Wong 2008).

Storbacka and Harald (2007) and Sullivan (2006) suggest that development of skills and capabilities and availability of management processes and systems as well as organizational matrix ensure the achievement of internal alignment. O'Regan and Ghobadian (2004) conclude that an organizational performance will be at higher level when alignment is ensured between generic capabilities of the organization and its strategic planning and Ojasalo (2001) mentions that operational and strategic capabilities are essential elements for key account management performance. Thus, people feel an obligation to common goals and to each other in the key account management team (Workman, Homburg and Jensen 2003). When sound internal alignment is present, having multiple relationships and a suitable alignment with the firm's strategy and market environment (Jones et al. 2005) may contribute to internal alignment in key account management and can influence the level of key account management performance (Guesalaga and Johnston 2010).

Generally, it can be concluded that internal alignment influences organization to be more customer focused and sensitive and responsive to key customer needs and requirements.

Perceived Risks: The other individual variable which is the focus of this study is perceived risks in serving a key account. Perceived risks in serving a key account can be defined as the risk of getting and/or not getting the predicted business or earnings from the key accounts and the risk of unanticipated events in current business that would result in unexpected expenses incurred on the seller (Woodburn, Holt and McDonald 2004). The study of Workman, Homburg and Jensen (2003) shows that serving the key accounts effectively can be a critical as well as a risky task.

In describing the hidden risks in strategic account management, Piercy and Lane (2006) highlight organizational strategic weakness, uncertainty in long-term profit from key accounts, misunderstanding about customer relationship requirements, misreading customer loyalty and challenging competition regulations. Woodburn, Holt and McDonald (2004) divide the customer risks into two categories: probability of customer forecast and risk of the customer. They mention the risk of achieving or not achieving forecasted business or revenues. On the other hand the risks of the customer include unanticipated events in current business that would result in unexpected expenses being incurred by the seller (Woodburn, Holt and McDonald 2004). In the organizational context, McDonanls, Millman and Rogers (1997) refer to global/local organizational issues, assurance of process excellence, and difficulties in designing, adequate training and the development of a program for key account managers.

Ryals (2006) cited financial risk as the most common form of risk in the key account relationship context. In addition, misunderstandings of customer requirements, project overruns, and changes in customer requirements are critical and may impact on the key account management approach (Ryals 2006). McDonald (2000) suggests that both internal short-term crisis and long-term uncertainties and external risks may happen. Cardozo Shipp and Roering (1987) discuss the risk of opportunity loss related to key account management, meaning the risk of concentrating limited resources on a few key buyers which may be vulnerable to competition and a prospective new customer may be ignored leading to lower expansion of customer base (Al-Husan and Brennan 2009). As suppliers invest in the relational assets, opportunism from the buyer's side may become an issue (Lambe and Spekman 1997; Piercy and Lane 2006). In the buyer-supplier relationship, buyers' opportunistic behavior refers to their self-interest seeking behavior. In the key account relationship, opportunism is very harmful in the form of dishonesty and deceitful behavior as well as more subtle forms of deceit, like uncovering less information than necessary or breaking provisions of an agreement (Rindfleisch and Heide 1997).

McDonald (2000) states the vital opportunities for profit improvement in buyer and seller market information sharing, greater flexibility in response and leveraging market influence for a collaborative relationship that in turn can reduce the external risks. In serving the key customers it is beneficial for the supplier to know the risks associated with the key account management approach because it will help the supplier to take contingent decisions. Supplier should know the consequences of dissolution of the relationship because it is beneficial for the organization to terminate the relationship to avoid risks under certain circumstances (Purinton, Rosen and Curran 2007).

Moderating the role of length of relationship: The Length of relationship refers to the duration that a relationship exists between a buyer and a supplier (Palmatier et al. 2006) as well as how the parties regard each other as they pass through various phases (Dwyer, Schurr and Oh 1987). The present study uses the

length of relationship as a moderator related to key account management performance and key customer repeat order behavior. Wotruba and Castleberry (1993) refer to the impact of the length of time an account management program is in existence with older programs showing higher performance.

A longer relationship develops confidence between buyers and sellers (Bolton 1998; Buvik and Haugland 2005; Rust et al. 1999; Weiss and Kurland 1997). Social psychology research shows that individuals in early periods of a relationship rely less on their evaluation of their partners than in later stages of the relationship (Swann and Gill 1997). This is because at the subsequent stages of relationships the impact of such assessment on behavior increases (Verhoef, Franses and Hoekstral 2001). In this regard Bolton (1998) and Rust et al. (1999) argue that a similar principle might also hold for customers' reliance on their assessment of satisfaction as an outcome of key account management performance. Bolton (1998) shows how the level of satisfaction becomes stronger in lengthy relationships.

Gill, Swann and Silvera (1998) noted that parties in lengthy relationships have higher reliance on their appraisals. Even though buyers with long-lasting relationships may have incorrect assessments of the seller, they rely more on these estimations, while in the introductory phases of a relationship buyers have minimum reliance on their assessment of the seller (Verhoef, Franses and Hoekstra 2002). Therefore, in lengthy relationships the customer knowledge gained from exchanges with seller acts as a more powerful driver (Jap 1999).

Verhoef, Franses and Hoekstra (2002) consider the duration of a relationship to be an interesting area of study in the field of relationship marketing. Wagner (2011) mentions that the nature of buyer-seller relationship is a dynamic one. The present study theorizes the impact of the length of relationship as a moderating variable on the link between key account management performance and repeat order.

Discussion

Propositions of the study:

The theory of reasoned action proposes that when a buyer gets better services, more attention from salesperson to meet its requirements and better price dealings, it is natural that that buyer will show positive behavior to continue doing business with that seller (Ajzen and Fishbein 1980). Hence buyers' likelihood of future repeat order behavior is predicted by the performance of key account management strategy. Crosby, Evans and Cowles (1990) have mentioned that the best driver of a customer's probability of looking for future business is the excellence of the relationship to date. This means that key account management approach leads to higher key account's satisfaction which in turn ensures business continuation in the form of repeat order. Therefore, the present study proposes that:

Proposition 1*: Key account management performance is positively related to repeat order.*

Internal alignment influences the organization to be more customer-focused and sensitive and responsive to key customer needs and requirements. Alignment among the operational and strategic capabilities is essential and is positively associated with the performance and thus meets the interest of the key account and helps sustain the relationship (Ojasalo 2001). Jaworski and Kohli (1993) relate internal alignment with interdepartmental connectedness that refers to the level of prescribed and casual direct contact among personnel across different divisions.

To serve the key account customers' purposes effectively organizational excellence is required; Peters and Waterman (1982) suggest that it depends on the congruence among organizational strategy, systems, style, structure, shared values, staff and skills. Therefore, internal alignment among various units and layers within the organization is likely to increase organization knowledge about customers which in turn will help the supplier to realize the customers' needs and serve them properly, resulting in key account management performance. Thus, we propose that:

Proposition 2: *Internal alignment is positively related to key account management performance.*

Serving the key account successfully is critical as well as a risky task for the organization because it demands the performance of additional activities (Workman, Homburg and Jensen 2003) the lack of which make the program a fruitless one. McDonald (2000) states that key account management can offer vital chances for expanding profit levels for both buyers and suppliers if the program is run with utmost integrity and care both at the strategic and operational level. He further suggests that market information sharing, greater flexibility in responses and leveraging market influence are necessary for a collaborative relationship that can reduce the external risks. In serving the key customers it is beneficial for the supplier to know the risks associated with the KAM approach because it will help the supplier to take contingent decision. That means knowledge of serving the key account helps the marketer in operating its key account management activities smoothly.

Cardozo, Shipp and Roering (1987) discuss the risk of opportunity loss related to key account management, by engaging limited assets on a small number of key accounts; broadening the customer base may be hindered which may lead to minimum expansion of customer number (Al-Husan and Brennan 2009). As suppliers invest in relational assets, the issue of opportunism may affect the key account relationship (Lambe and Spekman 1997; Piercy and Lane 2006). In the key account relationship, key customers may pursue their self-interest by providing wrong information, breaking promises, and exaggerating their needs (Wuyts and Geyskens 2005). Thus, this study proposes that:

Proposition 3a: *The risk of partner opportunism in serving the key account is negatively related to key account management performance.*

Proposition 3b: *Uncertainty risk aversion in serving the key account is negatively related to key account management performance.*

The length of relationship is defined as the extent of the relationship between a buyer and a seller where they pass through various phases and how the parties regard each other (Dwyer, Schurr and Oh 1987). Several studies reveal that a longer duration of relationship results in greater buyer profitability (Reinartz and Kumar 2003), maintenance (Bolton 1998), quantity of services bought (Verhoef, Franses and Hoekstra 2002), continuous museum patronization (Bhattacharya 1998; Bhattacharya, Rao and Glynn 1995) as well as intention to repeat order and loyalty (Seiders et al. 2005). Bolton (1998) shows how the level of satisfaction increases in lengthy relationships.

Verhoef, Franses and Hoekstra (2002) explain that the buyer-seller relationship passes through different stages. Dwyer, Schurr and Oh (1987) explain that at different phases of a buyer-seller relationship both parties treat each other differently and various factors play a key role to influence the relationship. As the relationship is established in the key account management dyad, both supplier and customer invest in relational resources making them mutually dependent on each other (Buvik and Haugland 2005; Heide and

John 1988; Sharma 2006; Weiss and Kurland 1997; Williamson 1985) and when the parties are interdependent, a lengthy relationship results in more clear and better interactions, higher trust, superior elasticity and better commitment (Anderson and Weitz 1989; MacNeil 1978; Ouchi 1979). Thus, in the long-run the supplier's experiences from recurrent interactions with the customer exert a powerful influence on outcomes (Jap 1999). Wagner (2011) mentions that the nature of buyer-seller relationship is dynamic where the relationship life-cycle might moderate the relationship itself.

Thus, the effect of key account management performance on organizational outcome performance is enhanced by the length of relationship between key account customers and suppliers (Baron and Kenny 1986). Therefore, we propose that:

Proposition 4: *Length of relationship moderates (enhances) the positive relationship between key account management performance and repeat order outcome.*

Conclusion

Implications of the study:

From this proposed theoretical model several implications can be suggested. First and foremost is the assembling of operational factors that influence the key account management performance. Secondly, the theoretical framework incorporates the repeat order as the outcome of key account management performance and the moderating effect of length of relationship on the key account management performance-repeat order relationship. Knowledge about the individual influence of these categories on key account management performance, its resulting impact on repeat order as well as the moderating effect of length of relationship helps us to uplift our understanding of this emerging field of relational selling. Thirdly, the theoretical framework that is provided creates a platform for future empirical studies. This study sheds light to the application of social exchange theory (SET) in the context of key account management approach where 'relationship' acts as a governing mechanism between key accounts and the supplier.

In addition, several managerial implications may be concluded from this study. In applying the key account management approach at the organizational level, management should have the knowledge about which factors influence this approach. However, the factors mentioned in this paper are not all inclusive, and management should be vigilant in applying all concerned variables. Cooperative and coordinated actions can be promoted to avoid from uncertainty in the key account management relationship. Management should emphasize on long-term orientation as the length of relationship has a positive impact on the outcome of key account management performance.

Implications of the study:

Several limitations in our study may be identified. Although we suggested factors that may influence the key account management performance, we don't know which variable exerts more influence as compared with others. Thus future empirical research can look into this question and search for evidence about the level of influence of each variable which may be critical for decision making. Also, we examined 'repeat order' as the consequence of key account management performance. Future research can introduce other dyadic outcomes and also negative consequences of key account management like dissolution or customer switching behavior. Finally, empirical research can provide evidence on whether the length of relationship moderates the link between key account management and repeat order in various industrial settings.

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REVIEW:

The role of testimonies in Iranian folk epistemology

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Abstract

Testimonies are the most social source of knowledge, entirely dependent on local cultural elements. Iran is in a transitional state with its contemporary culture including both traditional elements and symptoms of modernity. Testimonies still have a significant influence in Iran in accordance with its cultural peculiarities. This paper adapts an interdisciplinary approach based on social epistemology and sets out to investigate the testimony instances which on the one hand, somehow play major roles in shaping the Iranian culture, and on the other hand, demonstrate the transition and the uncertainty between traditions and modernity. Religious testimonies are still of unquestionable credibility for most Iranians. However, their views of Western testimonies have controversial aspects to them, just as there seem to be controversies in their views of common law and the testimonies resulting from it. The significance and status of the testimonies of the old and the wise has been declining, while the testimonies of the women have acquired a higher status and reputability. Spiritual guides are still favored by a sector of society; however, they have witnessed some changes in the contemporary approach. Cultural diversity in Iran has heated the debates over historical, nationalistic, and even mystical testimonies, which still remain as challenging hot topics.

Keywords: Episteme, Iranian culture, Modernity, Social epistemology, Testimony.

Introduction

The new age we live in is vastly different from the past with regard to the value ascribed to knowledge. That is why sociology and anthropology both study knowledge as a basic component of human social life. Epistemology, a branch of modern analytical philosophy, explores knowledge and cognition from a philosophical perspective. In recent decades some epistemologists focus on the social aspect of knowledge, which has instigated rich studies and explorations on the subject, the result of which has come to be known as 'social epistemology', roughly equivalent to 'sociology of knowledge'. Social epistemology is concerned with social components which have a role in the generation of knowledge.

In social epistemology, folk epistemology is a very important item. In every culture, there are certain epistemic elements and mechanisms that may be employed as legitimate instruments to acquire knowledge, known as 'folk epistemology'. In other words, epistemic folkways are epistemic concepts and norms based on common sense, i.e. principles which people hold concerning knowledge. In fact, some cultural differences are due to differing epistemic folkways. In the early years of the emergence of a systematic study of epistemology, epistemologists generally belittled the subject and ascribed little epistemological value to it. In the last few decades, however, some distinguished epistemologists (Bishop 2005) have reconsidered the significance of folk epistemology, referring to it as the starting point of human epistemic, from which a lot can be learned. According to Alvin Goldman, ordinary epistemic concepts and principles play important roles in epistemology, and epistemology should be based on epistemic folk ways, and that is why there is no other starting point for epistemology (Goldman 1992).

Therefore, every culture can have a folk epistemology, bearing the mark of that culture. Folk

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epistemology itself is composed of elements, mechanisms and methods, an important one of which is the testimony. Although, in contemporary epistemology, the epistemic status of testimony as an epistemological resource is controversial (Audi 2002), at least a part of folk epistemology is largely based on testimonies. Therefore, one may acquire knowledge on folk epistemology by exploring testimonies.

Testimonies as a source of knowledge are constructed by the epistemological system of every person and every nation; we know about our birth date, identity, history of our family and nation, our heroes and myths, religious propositions, reliability of commodities and foods, etc. on the basis of testimonies. Thus, every belief we hold because of the sayings of other people, is a case of testimony (Audi 2005: 129).

The Iranian culture, like other cultures, is strongly linked to its folk epistemology based on testimonies and there are some items in its testimonies that have unique characteristics peculiar to Iranian culture. In this paper we want to explain the role and mechanism of testimonies and their peculiar characteristics in contemporary Iranian culture. Some subcultural differences about testimony will also be explored. There are superfluous testimonies and thus we will only explore the most important ones.

Methodology

The research methodology follows a combination of fieldwork, naturalistic observations, and literature review. The approach used in the fieldwork was based on conducting interviews with a group of citizens in the Iranian capital, Tehran, as well as with the local people of diverse Iranian subcultures such as the Azeri, Kurd, Baloch, etc.

The research also included a large number of participant observations as well as a register of the authors' own data and information based on the experiences of life in Iran. The literature review was focused on anthropological and socio-religious books and academic papers discussing Iranian folk culture as well as ethno-scientific articles. We shall provide the collected testimonies in categories that are analyzed and discussed in their context.

Findings and Discussion

The various categories of analyzed testimonies in contemporary Iranian culture and subcultures can be presented as follows:

Religious testimonies: In societies that most people are strongly affiliated with a religion, religious testimonies become an important source of knowledge. Different versions of religion lead to different religious testimonies. Iran is the largest society of people believing in *Shia* in the world and therefore Iranians generally view *Shia* as the true religious source for testimonies. It is a branch of Islam that regards Ali as the legitimate successor to Prophet Mohammed and considers the traditions of the twelve Imams as well as the Prophet Mohammad and his daughter *Fatima* to be true and the most reliable religious proof for Muslims. The twelve Imams were spiritual and temporal leaders regarded by *Shia* as descendants of Mohammad and divinely appointed to guide Muslims after his death. In many fields, these testimonies suggest the way of life for *Shia*. There are popular religious books in Iran in which one can find many testimonies about how to eat, how to behave with family and children, how to sleep, how to judge, how to trade, etc. (Majlesi 1987). Religious testimonies can be formulated as follows:

> *"Everything said by Prophet Mohammad or Imams and documented as such, is a proof for the Shia and if there is a contradiction between religion and other sources such as science, the priority will be with the religious testimony."*

Iranian scholars, who believe in *Shia*, commonly cite 'scientific' testimonies in Holy Quran as miracles. In Quran, about 300 verses are cited as 'miraculously' describing the essence of certain scientific phenomena such as gravity, the sun, parity, etc. (Guessoum 2008; Shaker 2004:392-396). Mahdi Bazargan, a famous Iranian politician and religious scholar (Jahanbakhsh 2001), greatly extended the studies on the agreement and compatibility of religion and science in Iran. He would appeal to mathematical, chemical and physical rules and formulas in order to establish the truth and benefits of certain religious commands such as *Ghusl* (Islamic ablution ritual washing entire body) as well as other Islamic laws and/or instructions concerning spiritual purity (Bazargan 1943: 81-90).

Because of the great confidence in religious testimonies, when *Shia* encounter contradictions between religious testimonies and scientific ones, they may opt for religious testimonies and take the wisdom of divine commands as sacred wisdom unknown to humans, and then consider the contradiction to have resulted from human imperfection and the limitations of science. Science is considered imperfect as it can potentiality be falsified, while religious laws issued through divine knowledge should be true and thus must be followed. For example, for *Shia*, the promised Imam *Mahdi* is considered to be alive since 1,200 years ago and observing the world affairs waiting for the time when God allows him to appear and realize justice in the world. This belief is a central belief for *Shia* in Iran.

In *Shia*, although the jurisprudential aspect of religion is dominant, religious authorities or clerics pay attention to scientific knowledge too and therefore when issuing a decree, they may consider what science would say on the subject. In other words, scientific testimonies have some influence on jurisprudential testimonies, though this influence is prone to some exceptions. For example, according to Shi'ites, in every lunar year, the beginning and the end of the month of *Ramadan*, the time of fasting for Muslims, could be determined only by seeing the moon by naked eyes, whether by a person himself, or by two just witnesses. Religious authorities generally don't approve of seeing the moon by astronomical instruments and don't grant permission for that. Thus, in this case, the scientific testimony has no influence on religious testimony.

Another religious judgment among Muslims is the order to Jihad, which is a holy war to defend Islam as a sacred duty under certain conditions (Mohammad 1985; Najafi 1981: 322). Based on this judgment, it was required of all Iranians to join the defense against Iraqi army forces that waged a war against Iran in 1981. This type of Jihad would be obligatory for every Muslim (Mansouriye Larijani 1998: 25-31). After Ayatollah Khomeini (1902-1989), the Iranian leader at the time, asserted this, many people joined the combat forces and would not doubt in accepting his testimony. His testimony had a strong influence on many Iranians and thus they fought bravely, based on their belief in Islam and Khomeini's testimony concerning Jihad. He had said:

> *"Iranian people, being independent, are religiously obliged to defend their sovereignty upon the order of their own logic and nous even if clergies do not order it, while in fact they are ordering it too."* (Ayatollah Khomeini 1996: 216).

Historically, clergies have had a strong influence on large masses of people and in certain cases their testimonies led to important events in Iran's history. For example, when Grand Ayatollah Mirzaye Shirazi (1815-1894) banned the usage of tobacco, to protest a contract between a British company and the

government of Iran, people obeyed his religious decree (Teymouri 1982: 27; Mirbagheri 2004) and followed his verdict as a true testimony and divine command:

"Today the usage of tobacco, whatever the method of usage, is as war with promised Mahdi" (Karbalaiee 1965: 117-118)

Because of his authority, Iran's king at the time, Naser-al-din Shah Qajar, was forced to cancel the contract (Etemadosaltaneh 1971: 117-118). This historical case shows that religious testimonies, especially those issued by well-known religious authorities could dominate other testimonies in Iran.

Testimonies of common law: The Iranian society has preserved many of its old traditional customs and individualism is not as strong as in Western societies. Therefore, Iranian people try to behave more and more in accordance with the common law, although there are certain complicated cases that may be regarded as exceptions. In Iranian culture, the manners of wearing clothes and men's hairstyle form a testimony and could be considered as a manifestation of a person's beliefs and ideology (Koutlaki 2010). For instance, if a man has extraordinary dressing or long hair, he may be condemned by most people, especially older generations. Common law may be contradictory in some cases and thus lead to contradictory testimonies. For example, common sense is not fixed on manners of wearing jeans and therefore the following contradictory statements: "wearing jeans is not suitable for a man" and "jeans are stylish and fashionable clothes for a man" are both 'common law' testimonies.

Also, to select a field of study or a job is a matter of common law testimonies rather than a matter of person's desires and tastes; common law decrees that technical as well as medical disciplines are the best ones and humanities are the worst. Therefore, the young may not necessarily prioritize the field of study of their choice according to their own individual desire. For example, a study has reported that 76% of students in the field of library science had chosen their major as their 20th choice in the annual universities entrance exams. Besides, 70% of students said that family, relatives and friends had influenced their choices. Furthermore, 60% of the students of psychology believed that they had little hope of getting a good job through studying psychology (Bigdeli, Abam 2003). But in recent years, especially in major cities, common law is changing and people's personal desires are beginning to surface and exert influence on choosing a field of study and career. A gradual change in common law has resulted in a situation where humanities and arts are recently being selected by more students in universities.

Broad social and economic conditions have also had an influence on common law testimonies. For example, during the war with Iraq, many Iranians praised a simple life away from formalities, but today the common law testimonies are very different.

Western testimonies: The attitude of Iranians towards Western testimonies is contradictory, composed of admirations and condemnations. This may be because Iranians accept what comes from the West passively and sometimes, there is a kind of suspicion about the intentions of the West. For example, a common law may ascribe good quality and reliability to a Western product. Even counterfeit commodities are commonly offered in the market with English labels and brand names. Recently, the government is attempting to improve the purchase and use of domestic products and goods through the use of mass media to promote testimonies such as: "Iranian made products! Buy Iranian merchandise".

Iranians have always admired the lifestyle, discipline and orderly administration and accountability observed in the West. During the interviews, we encountered exaggerated accounts of security and

prosperity about life in European and American societies and realized that many Iranians living in the West commonly exaggerate on such aspects.

However, moving from the realm of the goods to the realm of sociopolitical thoughts, suspicion arises. Many Iranians consider the colonization by the West, especially by Great Britain, as evidence for suspicion; their belief in a spirit of paganism among Western intellectuals may also intensify this suspicion. It's not only the Iranian masses who think of the West as atheistic; even influential intellectuals, such as the Western educated philosopher, Ahmad Fardid (1909-1994), ascribed to this view in his thinking. His school of thought trained many disciples who consider the West as a place of destruction of humanity and morality and religion (Boroujerdi 1996). He founded a school in which everything coming from the West would be viewed with suspicion. For Fardid, humanism, human rights and modern reason had a sense of decadence to them that could lead mankind to absurdity. He believed that the modern picture of the world and its derivatives would eventually lead to the destruction and decline of humanity and morality (Boroujerdi 1996: 4-63).

Nevertheless, Fardid managed to create a powerful movement in contemporary Iran, where lots of elites and thinkers have an unwavering belief in the above mentioned ideas and notions, which in turn has been very influential in the evolution of Iranian society by constructing powerful testimonies. But other social groups present a relatively moderate conception of the West. Their main thesis is that:

> *"The West is a combination of good and evil and, therefore, Iranians must select the good and drop the evils."*

Such suspicions might epistemologically be justifiable, as there are contradictions and contrasts between the fundamental principles of Iranian *Shia* and the modern and relatively secular West which has been influenced more by Christianity.

Moreover, the history of Western colonialism in the form of negative historical testimonies is commonly referred to by Iranians and plays a large role in the formation of such suspicions. For example, the role of the United States in a coup in Iran in 1953 and the role of Great Britain in the institution and survival of Pahlavi's dynasty may be mentioned (Amanat and Vejdani 2012).

Testimonies of the elderly and the wise: Iranian culture considers that a person's vision evolves over time and such a vision might be incomprehensible for the young. The proverb: *"what the old see in brick, the young don't see in the mirror"* confirms this judgment. So, in Iranian tradition and culture, age alone may guarantee the validity of a testimony. Even the term 'old' brings along connotations of great value, and 'old' and 'wise' could be considered as synonymous. The Iranian culture thus implies surrender to the testimonies of the old.

However, this may be linked to an important component of Eastern culture, i.e. Eastern patriarchy (Inhorn 1996: 30). Because of the unique status given to the aged and their testimonies, Iran's Judiciary has successfully used it to settle minor disputes and disagreements through establishing Dispute Resolution Councils which operate on the basis of the judgment of the old (and thus trusted members) with a good reputation.

Testimonies of spiritual guides (Sheikh): The term 'old' is also well recognized in the rich mystical tradition of Sufism in Iran. One of the immutable principles of Sufism is an absolute fellowship and respect to the commands and sayings of the old and wise, also called a '*Sheikh*' (spiritual guide) (Renard 1996:

186). *Hafiz*, the most famous Persian poet says: "Do not traverse alone, without a spiritual guide." Such testimonies are taken seriously by Iranians.

Although modernization has somehow suppressed mystical manifestations of culture, it has such deep roots in Iranian culture that still today many people find Sufism of great appeal and many such fellowships are still found in Iran. An interesting feature is that many of the highly educated people in modern science are also attracted to such groups and may passively yield to anything said by *Sheikh*, though they are supposed to follow strong reason and evidence. This loyalty has a psychological cause; in the modern age, with few sacred things and the domination of science, floating on the Sufism's river may give a pure and unique pleasure. This is similar to the growing interest in the West to old traditions such as Buddhism, Yoga and other traditions (Radha 2011).

In Iran, mysticism has two forms: traditional and modern. *Dervish* is a Sufi Muslim that follows austerity on the ascetic path. Traditional forms, such as Gonabadi *Dervishes* and Kermanshahi *Dervishes*, insist on discipline and austerity, while the modern forms, such as "mysticism of link" use modern and academic methods with less emphasis on adherence to *Sheikh*. In the latter form, the importance and the centrality of *Sheikh* and his testimonies are diminished.

Testimonies of women: The relation between men and women in Iranian culture is complex and the common law dictates certain rules in this regard. Traditionally, women's testimonies were generally regarded as suspicious. Wrong interpretations of verses in the holy text may have also resulted in a religious testimony, e.g. based on the verse in Quran which says: "truly, their (women's) trickery and deceits are very great". Some religious authorities have been trying to change this wrong conception by highlighting the historical context of the verse.

But the status of the testimonies of women has improved over time. Women's education and economic independence have been increasing over time, which has led to the enhancement of their position. In other words, their enhanced social position has elevated the validity and dependability of their testimonies. Jurgen Habermas (1929 -) a German sociologist and philosopher, emphasizes on the importance of the role of Iranian women in cultural promotion and development (Kayhan newspaper, No. 20,117, dated 2012/08/01, page 8).

However, one may discover the paradoxical aspects of women's testimonies in Iran which could inspire both praise and contempt. In fact, two different views of women manifest themselves in two different approaches to women's testimonies. The first approach is purely traditional and the second one belongs to the new generation and results from the dialogue between common law and modernization.

Testimonies of physicians: Doctors everywhere have credibility and authority, and their authority is mostly valid only in the field of medicine. But in Iran, physicians have occupied the highest position so that the scope of their authority exceeds the boundaries of medicine. For this reason, physicians, in general, tend to act bossy, giving commands and orders and making demands as if they were political leaders. Only rarely they bother to provide explanations concerning their diagnosis and when they don't disdain to provide such accounts, they may frown and make faces.

There are also physicians who take advantage of their titles and social positions in virtually every field, from investment in real estate to shopping at a supermarket. That's why many Iranians like to use the title of 'doctor'. Their lifestyle, political attitudes, and prestige, as a testimony, are favorable to people so that sometimes they are highly regarded with awe and their actions serve as examples in every field.

Common law maintains that "physicians are some of the most knowledgeable people and everything that they do and say must be correct." But this case, too, has some paradoxical aspects to it. Loss of ethics and professional commitment among physicians, which in certain cases has led to major medical blunders (Iranian News Website Tabnak in Persian http://www.tabnak.ir/) has seriously undermined the doctors' validity and credibility. Therefore, in recent years these testimonies have grown to be also common: "Do not listen too much to what doctors say", "Doctors are just looking to make money", etc. For this reason, there are doubts about the validity of the physicians' medical testimonies. Nowadays, because of this paradoxical position, some people are gradually returning to traditional medicine.

Testimonies concerning Iranian calendar: The Iranian culture marks certain dates on the calendar based on various sources, including Islamic events, events in ancient times before Islam, and the local history of its subcultures. Sometimes there are inconsistencies between several sources of a date. For example, the Iranian calendar involves 365 days in every year, known as *Jalali* Calendar. However, the Islamic lunar calendar (AH) includes 354 days. When two historical events or ceremonies in these two calendars overlap, many times the result is two inconsistent historical testimonies which originate from different calendars.

According to *Jalali* calendar, the Iranian New Year starts on April 21 and therefore celebration is expected around this time of the year. But sometimes, it coincides with the *Moharram* month in AH calendar which for Shi'ite is the month of mourning because of the martyrdom of Imam *Hossein*. The result is that in some years, late April days are a time for both carnival and mourning.

Another example is that Iranians celebrate 'Women's Day' according to the AH calendar based on the birthday of Fatima, the daughter of Prophet Mohammad; rarely does someone celebrate March 8 which is the International Women's Day. However, the Labor Day is celebrated in Iran following the international date on May 1st.

Nationalistic testimonies: What ones' predecessors say about the world, their nation, language, religion, etc. constructs a major part of one's identity. Geographical and cultural parameters too help determine nationalistic attitudes. The Middle East includes people from many different ethnicities, and in Iran every ethnic group makes a subculture. Thus, we see different nationalistic testimonies that belong to different subcultures. For example, most people brought up in *Kurdish* ethnicity learn to fight discrimination as the first and foremost duty in their lives. This duty is the most important testimony of the Kurdish subculture.

Our observations and interviews confirmed that many Iranians hold stereotypical views about various cities, regions and ethnic groups; even educated people ascribe to this and therefore citizens of certain cities may be known as stingy, lazy, valorous, etc. These ascriptions are not merely a joke, but many people hold them as important testimonies. Therefore, we came to a general rule concerning testimonies of subcultures as the following:

> *"If I belong to the a certain ethnic group in Iran, then values and customs of that ethnicity and its testimonies concerning history, language, politics, etc. would be respectable; what is inscribed in its texts would be reliable testimonies for me and any opposing testimonies coming from other subcultures and ethnicities will, thus, be suspicious."*

Ethnic nationalism in Iran cannot be fundamentally different from that observed in other cultures. What sticks out in the Iranian culture, however, is the dispersion of views and interpretations regarding a single phenomenon or historical event. Thus the polarity of subcultures may result in a variety of inconsistent historical testimonies. There are many contradictory historical testimonies on Persian civilization and its

history. That's why its history becomes controversial; for example "Persepolis" as an ancient masterpiece of architecture represents the ancient Persian culture and history, but today some scholars claim that "Persepolis" was never really completed and thus essentially ancient Persian civilization is a fiction (Iranian News Website Tabnak in Persian http://www.tabnak.ir/).

Mythical testimonies and modern changes: The 21th century has been the age of returning to myths. Iranians are generally known to be pretty emotional and can get carried away easily and negligent characters are not so favored among them. Every subculture has its own myths. For example, *Aryo Barzan* is the symbol of resistance and justice for the '*Larry*' subculture, but '*Azeri*' subculture admires *Koroghlu* as a symbol of bravery, justice and fight against tyranny. Also, *Kaave*, the blacksmith is such a symbol for the Persian subculture.

Not only do Iranians live by ancient myths, but also they show deep dependence on their contemporary heroes. Some of the heroes that are said to have had a great deal of influence on Iranians subconscious are: Sadegh Hedayat, Dr. Shariati, Mahdi Bazargan, Professor Hesabi, Allameh Tabatabaie, Sattar Khan, etc.

What these heroes and myths say and do, are likely to be taken as a confident testimony for people. This makes the testimonies of a hero reliable and valuable even in the fields over which he may have little expertise. In recent years, Prof. Majid Samii (1937 ~) who is one of the world's greatest brain surgeons is considered as a hero by many Iranians especially the educated and the middle class. But it seems many people want to make him an absolute hero in all fields, far from the operating room, and consider him a wise man in all fields. We can see signs of this new attitude. (Iranian News Website Khabar Online in Persian http://khabaronline.ir/).

Of course everywhere in the world people might tend to look up to celebrities, especially to actors and football players. Nonetheless, with Iranians the situation looks markedly different; Iranians actually want to create a hero to set an example for the masses, with everyone trying to follow up and match their lives with the hero's life, rather than doing anything in opposition or venturing to mark their own paths. For Iranians, fundamental changes and reforms may not be possible, unless initiated by the heroes and champions. Even for the young and new generation, such testimonies seem to be very important. If one takes a glance at most of Iranians' Facebook pages, it seems like most of them are philosophers or at least a young wise man. But this might be more of a habit than love for wisdom, because to recite and excessively repeat the famous quotations might actually take away from their effectiveness.

Conclusion

A gradual change in the validity and reliability of testimony resources and creation of new ones: Iranian society is continuously changing approaches and criteria regarding the reputability of various epistemological sources, including the credibility of testimonies; the testimonies which used to have high reputability are now losing ground and status. On the contrary, new testimonies are becoming reputable.

On the other hand, the confusion and suspicion usually associated with Western testimonies seem to have spread to traditional testimonies as well. A case in point might be traditional medicine the testimonies of which are treated with caution. The testimonies of fortune tellers and magicians seem to be evoking similar reactions. While people usually scoff at such testimonies, deep down, they do give some credit to them to some degree; yet, there are also shreds of doubt.

But the most controversial case is the uncertainty surrounding testimonies of tradition vs. modern science. Such uncertainty is common in many developing countries. For instance, today the position and status of testimonies of the wise and the elders has decreased and they may themselves admit that the educated must be referred to for counseling and advice. There has been a gradual change in arranged marriages, and pre-marriage acquaintance is becoming popular; the girls have more freedom in choosing their spouses. These are all examples indicative of common law testimonies losing ground.

Although testimonies of religion are assumed to be the deepest ones, capable of causing considerable social and political changes in critical times, it seems that religion and common law today are still consistent and co-existent. As an instance, consider the pilgrimage to Mecca (*Hajj*) which is one of the important religious duties for every Muslim. Religious texts emphasize on staying away from luxury in *Hajj*. Therefore, when Muslims circulate around the shrine of *Ka'abe* during *Hajj*, they must quite simply wear a white dress regardless of class, color and ethnicity. In principle, simple life is an important religious virtue. But after returning home, pilgrims commonly get caught up in the pomp and show of a celebrity. Another example is the funeral ceremony that has also become a luxurious one.

On the one hand, according to religious instructions, people maintain that "simplicity is beauty", yet on the other hand common law implicitly testifies that "your social status depends on your clothing and its brand". The brand clothing market is hot, especially in the capital city of Tehran (Iranian News Website in Persian http://www.vivannews.com).

In recent years, even in small towns and villages, the young wear fashionable clothes, though this was quite rare in the past. But in certain subcultures, such as *Kurdish* and *Balochi* (living in *Balochestan* of Iran) traditional clothing is still of appeal and continues to hold value. In those areas, having a high social class and economic status does not normally lead to different clothing.

Subcultural differences and testimony: As it was said before, Iran is a vast land with a variety of subcultures. What we said above does not apply to all subcultures equally. For example, the status of old testimonies in *Balochi* subculture is higher than its status in Tehran and other large cities. Sunni subcultures, because of their small population, consider religious rituals as a means to maintain their identity. Among *Balochi* and *Larry* subcultures which follow tribal livelihoods, common law and testimonies of the elderly, the wise, are prevalent and dominant. In *Balochistan*, there are some tribes with more than 5,000 members all of whom have the same last name. In *Kurdish* areas, women have better status compared with other subcultures and are very active and influential in social life.

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REVIEW:

The aggravating trend of traffic collision casualties in Ghana from 2001-2011

Amo Thompson[1]

Retracted upon the author's request in April 2018.

ORIGINAL RESEARCH:

Attitudes and beliefs of students toward bi-/multilingualism at an international university in Japan

Larry Kimber[1]

Abstract

This study examines the topic of bi-/multilingualism from the perspective of Japanese as well as non-Japanese students at an international university in Kyushu, Japan. In order to understand their attitude toward learning second/foreign (or additional) languages and what values are placed on it, a questionnaire was designed and administered to a group of 122 students. Comparisons were made between responses offered by Japanese and non-Japanese students with respect to factors such as age and self-rated second language (L2) ability. In addition to the overall findings of a primarily quantitative study, the results of a qualitative analysis of written comments from the survey are also presented. Overall, participants tend to view bi-/multilingualism in a positive light, both in a personal sense and with regard to its broader influence within Japanese society. A tendency was also discovered in which bi-/multilingualism is valued more as 'additional language' ability increases. Most participants believe a bi-/multilingual person speaks English; this is contrasted with a relatively small number who associate the languages of 'Japanese' and 'Chinese' with their image of bi-/multilingualism. The analysis of comments on the question "when may a person call himself/herself bilingual?" reveal that key ingredients of their definitions include: 'speaking,' 'communicating' and 'using;' mentioned with somewhat less regularity is the ability to 'understand' the L2 from both linguistic and cultural perspectives. The connection between bi-/multilingualism and global society, with its persistent need for language skills in business and international relations, was strongly voiced by respondents, many of whom suggest it is in Japan's interests to pursue bi-/multilingualism seriously.

Keywords: Bilingualism, Japan, Multilingualism, Second language (L2) and Additional language (L2+).

Introduction

Young people in Japan and other parts of Asia who, for whatever purposes, desire to build skills in a second and/or additional language, quite simply, need help. Most are, from the outset, straight-jacketed by the system, where instructors adhere to difficult-to-oppose assumptions about how a language ought to be taught. The target language, which in Japan is of course, predominantly English, ends up being 'learned' from a purely linguistic standpoint. It becomes an object of study, not all that different from subjects like math or science, where memorizing formulas and focusing on rubrics are primary to mastering the content and thus achieving a high score on highly weighted paper tests. This issue will not work itself out overnight; second language researchers and teachers have been lamenting the flawed system for decades (Yoshida 2001; Reedy 2001; Takahashi 2000; McVeigh 2004). As Seargeant states,

> "*Indeed, one of the most frequently voiced opinions about English in Japan is that the high profile of, and immense interest in the language is not matched by an equally high level of communicative proficiency among the population*." (2009, p. 3)

In order to offer help, it is advantageous to acquire a better understanding of the perceived benefits among students themselves of becoming bilingual or multilingual. These 'benefits' are not always self-evident. Students normally have little choice – they must study a second and/or foreign language to meet academic requirements, so it is quite possible many do not see positives at all – only a 'necessary evil.' But

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L2 learners do not start out this way. Primary school aged children, who first begin to learn an additional language, are motivated by the freshness of the endeavor. It is usually 'fun' or 'cool' to be able to communicate in a totally different language, but how long does this sentiment last?

After 20 years of experience teaching English in Japan in conversation schools, junior high schools, and universities, and as a result of interactions with language instructors of all persuasions, I have come to the inescapable conclusion that many, though not all students, in a matter of time, lose this vitality, which is replaced by a sense of extreme urgency to pass tests and further their academic and career goals. Some, however, it would seem, either maintain a strong affinity to the language, or revive their initial attraction to it within themselves as a new truth comes to light – the realization: "this language is actually very useful!" This point lies at the heart of language learning.

The primary purpose of Foreign Language Acquisition (FLA) in schools should be to first of all instill within young people an innate interest in learning a language so that they may then *use* it in their daily lives, whether for personal reasons (e.g. socially, academically), or for the sake of enhancing future career options. This requires an empowering strategy to help learners visualize L2 mastery more in terms of 'process.' In one sense, becoming 'bilingual' may be seen as a natural *goal* for language learners. However, expanding the term 'bilingual' so that it encompasses more than just a 'goal,' but what students now *are* and will continue to become, is advantageous. Anyone, who begins to develop effective skills in a second/foreign language and can see the usefulness of doing so, is unlikely to lose motivation to continue studying the language for the purpose of developing higher levels of fluency.

Do foreign and domestic students at an international university in Japan believe bi-/multilingualism is an objective or a pathway? Is it highly valued on individual and social planes, or is bilingualism considered nonessential within what is traditionally considered to be monolingual/monocultural Japan? With these thoughts in mind, the present study attempts to uncover new insights on students' perceptions of bilingualism and multilingualism in Japan.

History of bilingualism/multilingualism in Japan: When we consider the topic of bilingualism or multilingualism in Japan, it may first be noted that Japanese speakers have historically used Chinese, Dutch and presently English to interact with outsiders. A deeper analysis, however, reveals that multilingualism characterized Japan centuries ago, when speakers of numerous dialects were required to find means by which to communicate. The gradual rise of the earliest form of Japanese came about as migrants from the north (e.g. Korea, Russia) and south (e.g. Malaysia, Polynesia) interacted culturally and linguistically over centuries. Starting from about the fifth century A.D., Chinese acquired a degree of prominence much different than what it has today. It was more than just a foreign language for promoting commerce between Japan and its neighbor. Chinese was necessary for various higher functions in society such as record keeping, religious literature and other forms of higher writing while Japanese was the language of the commoners (Loveday 1996). As we approach modern times, Spanish, Portuguese and Dutch were all part of the mix as Japan made industrialization its goal, so as not to fall behind and become another colony of one or some of the European imperial powers. Along the way of Japan's nation-building agenda, English became and still is the first and foremost language being used to help Japan keep in step with the outside world.

Throughout the history of bi-/multilingualism in Japan, languages were acknowledged and appropriated out of necessity. At the dawn of the Meiji Era, new foreign language education policies were initiated, which in 1871 led to adding English as a subject tested in the university entrance examination system. Interestingly, as early as then, there had been calls to elevate English and even to have it essentially replace Japanese (Hagerman 2009). This idea was of course not followed up on, nor was the suggestion to grant English official status in a report posted during the administration of former Prime Minister Obuchi in 2000, taken seriously. The issues surrounding the status English ought to be given are complex, with rather passionate voices representing both sides. There is a strong desire among policy makers of all persuasions, it seems, to

use English for the purpose of making Japan stronger, but how far they ought to take the country down that path is still hotly debated (Matsuura et al. 2004). One might say, on an individual basis, Japanese-English bilingualism in not discouraged, although it is not promoted as a goal in a universal sense since fluency in English is not considered necessary for all citizens (Hashimoto 2007). The importance of English learning, not necessarily bilingualism, remains.

Current issues: This paper explores the phenomenon of bilingualism in Japan as indicated by the title, but also uses the more inclusive term, 'multilingualism.' There are various reasons for doing so, but most salient is a need to include and appreciate those who have developed a linguistic repertoire of more than one additional language or dialect. The term is also understood to express the linguistic state of all human beings, as Weber & Horner claim:

> *"Multilingualism is a matter of degree, a continuum, and since we all use different linguistic varieties, registers, styles, genres, and accents, we are all to a greater or lesser degree multilingual"* (2012, p. 3).

This is a useful way to approach multilingualism, although the evidence gathered from this study and from personal experiences suggest university students in Japan gravitate to the standard and literal "many *languages*" designation.

Following the assumption that 'multi' differs from 'bi' primarily in terms of number we will attempt to offer a definition for bilingualism. It is regularly noted, however, that there simply is no agreement on a common definition (Baker 2006; Myers-Scotton 2006). In fact, Yamamoto devotes an entire study to assessing how the term bilingualism is perceived in the minds of Japanese university students (2001). Perhaps the fuzziness associated with 'bilingual' or 'bilingualism' and the precise meaning conveyed has to do with the fact that a continuum exists. In other words, subjectivity abounds. If it were possible to rank one's true language proficiency on say, a scale from one to one hundred, what number would be necessary to reach the 'bilingual' threshold?

Other questions arise, such as the necessity of possessing all four skills (reading, writing, speaking, listening), or some more than others. Recognizing that many factors, whether apparent or unforeseen, require us to be flexible in selecting a definition, the present study will for the most part, follow the lead of Myers-Scotton who define bi-/multilingual as: "*the ability to use two or more languages to sufficiently to carry on a limited casual conversation"* (2006, p. 44). However, in light of comments made earlier regarding the utilitarian nature of languages, Myers-Scotton's expression, "limited casual conversation" will be replaced by: "meaningful and purposeful communication." My argument is, as long as the meaning of words normally *spoken* and/or *written* between two parties using a second/foreign language is understood and the purpose of communication is achieved, then the interlocutors should consider themselves 'bilingual/multilingual.' However, since varying perceptions of what 'sufficient' is may pull this definition into the murkiness of subjectivity, limitations remain.

The term 'bilingual', a loan word pronounced *bairingaru* in Japanese, undoubtedly carries a meaning different from the purely linguistic definitions discussed above. The predominant assumption within the nation of Japan, as evidenced in a study by Yamamoto (2001), is that a bilingual person speaks Japanese first, followed by the language used to communicate with the world outside (at present, English). This prevalent viewpoint overlooks the wide spectrum of linguistic diversity within a country not as monolithic as many assume it to be (Noguchi 2001; Kanno 2008). Indigenous cultural-linguistic minority groups, immigrant workers, and 'returnees' (Japanese nationals who have grown up overseas and return to Japan with a first language other than Japanese) all factor into the equation. The truth is that this atypical minority is growing. More and more young people who live in Japan do not speak Japanese as their first language and/or do not

speak English as their second. However, it appears that the majority maintains the mindset that *bairingaru* equals Japanese plus English.

Methodology

Design: The themes examined in this study spring from the foundational question of "What attitudes and/or beliefs do both Japanese and foreign students attending an international university in Kyushu, Japan hold toward bi-/multilingualism?" Based on the earlier discussion pertaining to general attitudes in society toward English language learning in Japan, and in light of the rather unique environment the participants of this study are in, it is hypothesized that all students will demonstrate positive attitudes and beliefs toward bi-/multilingualism, and agree that in general, bi-/multilingualism ought to be valued and possibly promoted within Japanese society. It is also hypothesized that compared to foreign students, Japanese students will perceive bi-/multilingualism to be more of a 'goal' than a 'process,' based on the fact that the context is Japan where the necessity of using an L2 or L2+ is less severe for L1 = Japanese students.

Insights were gathered through the administration of a questionnaire (N=122) about how bilingualism is defined and what the perceived values are of being able to communicate in additional languages, with particular focus placed on how English is weighted in proportion to other tongues. Through mostly quantitative but also qualitative methods, data were collected for analysis. The questionnaire included 24 likert-scale items and two open-ended comment boxes, and was first piloted on third-year English majors at a university in Western Japan. Discussion of the results with another researcher led to further refinements in order to enhance face validity. Using SPSS software, a statistical check for reliability produced favorable results regarding conceptually similar items on the questionnaire. The final version of the questionnaire was prepared and administered in the fall of 2013; its items appear in Table 1.

The participants were from an opportunity sample, selected in accordance with a cooperating teacher's classes and their size and cultural/linguistic make-up. With regard to the quantitative data, the means of the responses for each item were first studied, and then correlation tests were made among a variety of factors. The open ended comments on the questionnaire were examined qualitatively; themes that stood out were categorized and explored all within the interpretive framework of grounded theory (Strauss & Corbin 1998).

Table 1: Questionnaire items (bil/mul stands for bilingual-multilingual)

#1. A bil/mul person is internationally-minded	#13. A bil/mul person is good at translating
#2. A bil/mul person is intelligent	#14. A bil/mul person speaks Chinese
#3. A bil/mul person speaks Japanese	#15. Bil/Mul Japanese people are respected in Japan
#4. A bil/mul person has lived in more than one country	#16. I am a bil/mul person
#5. Typically, a bil/mul person is not Japanese	#17. (r) I do not want to be a bil/mul person
#6. A bil/mul person travels abroad a lot	#18. Bil/Mul Japanese people are necessary in Japanese society
#7. A bil/mul person is a good at communication	#19. Japanese students in Japanese universities should be bil/mul
#8. A bil/mul person is cool	#20. Bil/Mul Japanese university students in Japan will be successful
#9. A bil/mul person has parents who speak multiple languages	#21. Japanese who graduate from Japanese universities are bil/mul people
#10. A bil/mul person speaks English	#22. From primary school in Japan, producing bil/mul students should be a main goal
#11. A bil/mul person is a foreigner	#23. A bil/mul society would be beneficial for Japan
#12. A bil/mul person studies hard	#24. Japanese high school students want to enter a university where they can become bil/mul people

Table 2. Linguistic diversity of sample (N=122).

Language	**No. of L1 speakers**	**No. of L2+ advanced learners** (self-rated '8-10')	**No. of L2+ intermediate learners** (self-rated '4-7')	**No. of L2+ beginning learners** (self-rated '1-3')
Japanese	25	9	64	17
Korean	17	0	2	9
Thai	17	0	0	0
Indonesian	12	0	2	2
Chinese	10	2	7	20
Vietnamese	9	0	0	1
English	8	74	33	3
Nepali	5	0	0	0
Uzbek	5	0	0	1
Sinhala	3	2	1	0
Bangla	2	0	0	0
Burmese	1	0	0	0
Icelandic	1	0	0	0
Khmer	1	0	0	0
Mongolian	1	0	0	0
Tamil	1	1	0	0
Tagalog	1	0	0	0
Russian		4	1	1
French		2	4	0
Hindi		2	1	0
Norwegian		1	1	0
Cantonese		1	0	0
Tadjik		1	0	0
Spanish		0	5	6
German		0	1	6
Portuguese		0	1	1
Arabic		0	1	1
Italian		0	1	0
Danish		0	1	0
Greek		0	0	1

Sample: The 122 participants speak 17 different first languages and 30 additional languages at varying levels of proficiency. Students were asked to state their mother tongue and list all other languages they speak and self-rate their proficiency in these additional languages on a scale of one to ten. Table 2 lists the language groups and frequency of usage by the participants in the study. Their self-ratings were separated into three groups: 8-10 (advanced), 4-7 (intermediate), and 1-3 (beginner).

To briefly offer a synopsis of the data found in Table 2, this sample is composed of university students from a wide variety of linguistic backgrounds and interests; they mostly come from East Asian countries and on average speak English at an advanced level, have intermediate skills in Japanese, and are pursuing additional language studies, the more popular ones being Chinese, Korean and Spanish.

Findings, Results and Discussion

Quantitative: This section will begin with the presentation of mean scores for the likert-scale items on the questionnaire (the items are listed in Table 1), to be followed by the results of independent T-sample tests for correlations between factors. Table 3 compares the means of all 24 items on the survey. Since the Japanese sub-sample is relatively large (N=25), the means of Japanese-only participants (Table 4), followed by non-Japanese participants (Table 5) are posted as well for sake of comparison. Shaded in and underlined areas on the charts become the focus of discussion in the pages that follow.

Table 3. Mean scores of Likert-scale items – whole sample.

Item#	N	Minimum	Maximum	Mean	Std. Deviation
1	120	1.00	5.00	3.8333	.975303
2	119	1.00	5.00	3.3697	.91007
3	118	1.00	5.00	2.3814	1.18336
4	120	1.00	5.00	3.2750	1.07658
5	120	1.00	5.00	2.9000	1.13315
6	121	1.00	5.00	3.5207	.97553
7	120	2.00	5.00	3.8667	.85929
8	120	1.00	5.00	3.5000	1.10004
9	121	1.00	5.00	3.1488	1.13035
10	120	1.00	5.00	4.0667	.91425
11	120	1.00	5.00	2.9583	1.11065
12	121	1.00	5.00	3.3471	1.05444
13	119	1.00	5.00	3.1681	1.05219
14	121	1.00	5.00	2.4091	1.02470
15	121	1.00	5.00	3.5289	1.04940
16	120	1.00	5.00	3.7333	1.22806
17 (r)	118	1.00	5.00	4.5339	.91224
18	121	1.00	5.00	3.9256	1.02604
19	120	1.00	5.00	3.6417	1.00248
20	121	1.00	5.00	3.6529	.94614
21	121	1.00	4.00	2.3140	.83699
22	121	1.00	5.00	3.2975	1.12283
23	121	1.00	5.00	4.0248	.93508
24	120	1.00	5.00	3.2417	.91666

Overall the sample scored high on the following three items: #17: "I do not want to be a bi-/multilingual person" (note: values reversed), #10: "A bi-/multilingual person speaks English" and #23: "a bilingual society would be beneficial for Japan." These high rankings of #17 and #23 support the main hypothesis of the study. The lowest scored item is #21: "Japanese who graduate from Japanese universities are bi-/multilingual" followed closely by #3: "A bi-/multilingual person speaks Japanese" and #14: "A bi-/multilingual person speaks Chinese." This would seem to inform us that English, not Japanese or Chinese is equated with the loaded term 'bilingual' which students understand to mean much more than simply the ability to speak (any) two languages.

Separating the sample into sub-groups (Japanese and non-Japanese) serves the purpose of comparing the attitudes of Japanese students with their international counterparts. Although the next point may be explained partly by the small sample size, the Japanese group (Table 4) is characterized by a few items with low standard deviation values. Please note the highlighted values for items #6, #10, and #14. We will first address #10: "A bi-/multilingual person speaks English" and #14: "A bi-/multilingual person speaks Chinese." The high mean score for #10 is contrasted with the low mean score for #14, which supports our claim that Japanese adhere to the '*bairingaru*' loan word definition of bilingual, which is firmly set within the Japanese psyche. A typical bilingual person speaks English (and Japanese), not Chinese and Japanese – as Yamamoto also noted in her study (2001).

The other standard deviation value we have mentioned is #6 "A bi-/multilingual person travels a lot." We are compelled to interpret this result as being due to the fact that the island nation of Japan views bilingualism as something foreign, not naturally occurring at home. Thus, those who desire to become bilingual normally travel to locations where bilingualism can be better achieved.

Since the two sub-groups are 'Japanese' and 'all the rest,' the limitations for comparison are obvious. The data can tell us something about L1 = Japanese speakers, not the others, which are lumped together.

What stands out immediately from the non-Japanese group (Table 5) is #16: "I am a bi-/multilingual person." With a mean score of 4.0211, it is one of the most highly ranked items. Indeed, having come from a foreign country to study in both English and Japanese at an international university in Japan, it might seem obvious that these foreign students ought to think of themselves this way.

The point to be made is that the Japanese students, on average, have a much different self-image as seen in Table 4, item 16. With a notably low mean value of 2.6400 and a standard deviation of 1.43991 (the highest of all 24), we get the impression that overall Japanese students are unsure exactly if it is okay to think of themselves as bilingual even though they are using both English and Japanese academically and in some cases, socially, on a daily basis. This finding is in support of the second hypothesis, which theorizes that Japanese perceive bi-/multilingualism not so much as their present reality, but as an objective not yet fully achieved.

Correlation tests were applied in light of some of these preliminary findings. Initial analyses on gender produced no salient relationships between the factor of male/female and any of the 24 items. Age, however was different. Among international students, significant correlations were discovered between age and four of the factors as shown in Table 6. For the sake of brevity, only significant correlations are presented here and in the tables that follow.

The negative value for #17 might result in some confusion. Since the item is negatively worded in the questionnaire, after entering the raw data into SPSS, the values were reversed before any statistical analyses were carried out. Therefore it is indeed a negative correlation, though the others (#4, #10, #21) are all positive. To sum up, as foreign students increase in age, they hold ever-stronger beliefs that: a bi-/multilingual person has lived in more than one country (#4), a bi-/multilingual person speaks English (#10) and that Japanese who graduate from Japanese universities are bi-/multilingual people (#21). However, quite interestingly, as age increases, foreign students feel less and less that they want to be bilingual (or multilingual) (#17).

Table 4. Mean scores of Likert-scale items – *Japanese* sub-sample.

Item#	N	Minimum	Maximum	Mean	Std. Deviation
1	25	1.00	5.00	3.640	.95219
2	25	1.00	5.00	2.840	.85049
3	25	1.00	4.00	1.9167	1.01795
4	25	1.00	5.00	3.0000	1.08012
5	25	1.00	5.00	2.6800	1.21518
6	25	2.00	5.00	3.8800	.72572
7	25	2.00	5.00	3.9200	.81240
8	25	2.00	5.00	3.8000	.86603
9	25	1.00	4.00	3.0800	.95394
10	25	3.00	5.00	4.2000	.64550
11	25	1.00	4.00	2.9200	.81240
12	25	2.00	5.00	3.6000	.95743
13	25	2.00	5.00	3.0800	.99666
14	25	1.00	3.00	2.5200	.65320
15	25	1.00	5.00	3.8800	1.05357
16	25	1.00	5.00	2.6400	1.43991
17 (r)	25	1.00	5.00	4.5417	1.14129
18	25	2.00	5.00	4.1200	.92736
19	25	1.00	5.00	3.6800	1.1455
20	25	1.00	5.00	3.1200	.92736
21	25	1.00	3.00	1.8800	.78102
22	25	1.00	5.00	3.5200	1.15902
23	25	1.00	5.00	4.0000	1.04083
24	25	1.00	5.00	2.9600	1.05987

Table 5. Mean scores of Likert-scale items – *non-Japanese* sub-sample.

Item#	N	Minimum	Maximum	Mean	Std. Deviation
1	96	1.00	5.00	3.8842	.97700
2	94	1.00	5.00	3.5106	.87676
3	94	1.00	4.00	2.5000	1.19812
4	95	1.00	5.00	3.3474	1.06958
5	95	1.00	5.00	2.9579	1.11007
6	96	1.00	5.00	3.4271	1.01302
7	95	1.00	5.00	3.8526	.87481
8	95	1.00	5.00	3.4211	1.14464
9	96	1.00	4.00	3.1667	1.17578
10	95	1.00	5.00	4.0316	.97252
11	95	1.00	4.00	2.9684	1.18009
12	96	1.00	5.00	3.2812	1.07315
13	94	1.00	5.00	3.1915	1.07039
14	96	1.00	3.00	2.3802	1.10202
15	96	1.00	5.00	3.4375	1.03428
16	95	1.00	5.00	4.0211	.98908
17 (r)	94	1.00	5.00	4.5319	.85134
18	96	1.00	5.00	3.8750	1.04881
19	95	1.00	5.00	3.6316	.96814
20	96	1.00	5.00	3.7917	.90515
21	96	1.00	3.00	2.4271	.81750
22	96	1.00	5.00	3.2396	1.11208
23	96	2.00	5.00	4.0312	.91137
24	95	1.00	5.00	3.3158	.86619

Table 6. Correlations between age and questionnaire items among foreign students.

		#4	#10	#17	#21
Age	Pearson Correlation	.233*	.264**	-.274**	.208*
	Sig. (2-tailed)	.023	.010	.007	.042
	N	95	95	94	96

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

It might be assumed that older students with arguably more overseas experiences see an obvious relationship between living abroad and being bilingual. In other words, they may feel that one cannot live abroad and *not* be bilingual. Although the correlation found between age and #10 appears surprising, it may go hand in hand with the previous comment on #4; it is likely those who live in multiple countries are exposed to English more than any other additional language. The older one becomes, the more English is assumed to be the second language of 'bilingualism'. According to the findings concerning #21, older students feel more strongly that Japanese university graduates are bi-/multilingual. This might suggest a more holistic definition of bilingualism is emerging among students over time, where 'bilingualism' involves more than just the ability to communicate with ease and relative fluency.

In other words, younger students might perceive bilingualism to be more of an ever-elusive goal, whereas the older ones could perhaps be developing a more practical definition of it. This means that older foreign students might perceive that Japanese university graduates are relatively capable of functioning as bilinguals though the majority may not be fluent speakers.

The final survey item (#17) that positively correlates with age is: "I do not want to be a bi-/multilingual person." Is it because older foreign students attending Japanese universities have given up on becoming bilingual? Another possibility is to assume these students feel they *already are* bilingual, and therefore

wanting to be bilingual is irrelevant. Younger students, on the contrary, are expected to think of themselves as 'in the process' of becoming bilingual, which would explain the negative correlation. A slightly negative, though not significant correlation coefficient of -0.071 for #16 ("I am a bi-/multilingual person") lends minor support to this claim. Older students may thus be convinced that bilingualism is no longer a goal but a way of life.

The most informative findings uncovered via correlation testing concern students' perceptions of their L2 ability and the 24 items. Table 7 provides correlation values between L2 ability rating and two items on the questionnaire which produced strong positive correlations.

Table 7. Japanese students' self-rating of L2 ability and questionnaire items

		#1	#16
L2 ability	Pearson Correlation	.582**	.627**
	Sig. (2-tailed)	.003	.001
	N	24	24

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

The questionnaire simply asks students to rate their English ability on a scale of 0-10, with '1' signifying 'just started' and 10 meaning 'fluent'. Table 7 demonstrates that as students rate themselves more highly, two of the 24 factors correlate significantly with L2 ability. #16 states: "I am a bi-/multilingual person." This is a straight-forward finding and additional discussion is not warranted. High self-rating students will obviously be more apt to call themselves 'bilingual'. Item #1 ("A bi-/multilingual person is internationally-minded"), however, is worth investigating further. 'Internationally-minded' suggests the idea of thinking beyond the borders of Japan. Interestingly, students who rate their L2 level low do not seem to feel being bilingual means being internationally-minded. It would likewise appear that Japanese students, who self-rate their L2 ability highly, understand that English allows them to become more of an international thinker. Perhaps low L2 self-rated students feel they can be internationally-minded without becoming bilingual. If so, our data show that they may change their minds once they develop stronger L2 skills.

The results of L2 ability self-rating correlation tests differed for foreign students. Table 8 provides the data from another Pearson correlation test, which compares L2 ability among foreign students and the 24 questionnaire items. Five of the items were found to display varying degrees of correlation. For the same reasons as those noted earlier, #16 results are to be expected.

With regard to #11 ("a bi-/multilingual person is a foreigner"), participants were instructed during the administration of the surveys to apply the term 'foreigner' in a generic sense, to anyone who is not in his/her home country. A slightly significant negative correlation advises us to consider that foreign students with high L2 abilities do not feel one must be a foreigner to be bilingual. Equally possible of course is the assertion that foreign students in Japan, who self-rate their L2 ability low, feel more strongly that a bi-/multilingual person is a foreigner. This finding suggests that as students acquire stronger L2+ skills, the belief that one can function as a bilingual/multilingual in one's own country increases.

Table 8. Foreign students' self rating of L2 ability and questionnaire items.

		#11	#16	#18	#22	#23
L2 ability	Pearson Correlation	-.257*	.465**	.249*	.291**	.224*
	Sig. (2-tailed)	.013	.000	.015	.004	.030
	N	93	93	94	94	94

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Items #18, #22 and #23 are relatively similar (see Table 1) so they will be discussed as a group. In short, the results suggest foreign students who are arguably more bi-/multilingual than others perceive there is a real need for changes in language education in Japan. We are left with the thought that bi-/multilingual foreign students living in Japan see bilingualism as a positive goal the nation ought to be pursuing more diligently in its schools. Once again, our main hypothesis is supported, and as this correlation suggests, it is not students with lower L2 ability necessarily who feel this way, but those who claim to already have advanced L2 proficiency.

Qualitative – When is a person bi-/multilingual? We now proceed to the results of an analysis of the comment boxes, which was undertaken according to the principles of grounded theory (Strauss & Corbin 1998). Grounded theory involves an inductive process of reading the raw data repeatedly, and then allowing salient themes to arise in the process. As these themes arise, a coding process then takes place, which is similar to categorization of thoughts and ideas that flow from the inductive process. The end result is the presentation of theories the researcher has developed throughout the entire procedure.

To begin, we will look at the main themes that emerged from the non-Japanese sub-group as a result of analyzing the first open question: "At what point do you feel a person can truly say: "I am bilingual now". Below are the main themes that emerged:

Can speak fluently in another language; this typifies a large portion of the responses. 'Speaking' is probably the most frequently used verb the participants offered. 'Fluently' was also commonly found within the comment boxes, along with less regularly used expressions that augment 'speaking,' such as 'confidently', 'without worries', 'comfortably', and to a lesser extent, 'properly' and 'spontaneously'. No respondents stated that speaking ability must equal the level of a native speaker; the level of 'fluency' appears to be what most foreign students feel is required to become bi-/multilingual.

Can communicate (converse) with foreigners and/or native speakers; the term 'communication' appeared almost as regularly as 'speaking' and it is believed by most that this communication takes place between not just 'others' but 'outsiders'. Some expressions used by participants that flesh out this theme include once again: "with fluency," "for expressing thoughts," and "without difficulties or problems". The term 'communication' is relatively synonymous with 'speaking', though the main difference lies with the added concept of 'interaction'. This suggests that interaction may be most important, though in order for it to happen, speaking (rather than just smiling and nodding, etc.) must come into play.

Uses another language; this simply-worded theme of course draws us back to the utilitarian nature of 'bi-/multilingual' discussed earlier. A smaller number of participants, though still noteworthy, chose the word 'using' instead of 'speaking' or 'communicating'. Further insights were offered by this minority on the topic of 'using' an L2. First of all, it was found that especially among self-acclaimed 'bilinguals' from the sample, daily use of an L2 qualifies them as bilinguals. One participant mentioned he is bilingual since he had been using the language for a long time. Another student made the following comment:

> *"I guess a person can say that he/she is bilingual when the frequency of other language(s) he/she uses is at least the same with his/her mother language."*

Therefore, we must also consider that students may feel they are bilingual by virtue of the fact that the target language is 'used' as opposed to only being 'studied' or 'practiced'.

Understands another language; suggesting that linguistic production itself is not an absolute necessity to be 'bilingual'. The number of participants commenting on this theme is similar in number to those supporting the previous theme. The idea coming through is that 'understanding' an L2 is essential. To this general category, there were added details of "with fluency," "academically," "conversations," "jokes," and "each other." The idea that bi-/multilingual individuals, by definition, possess *both* active and passive communication skills, as noted by Li Wei (2008), is borne out by the evidence here. As expected, however,

the proportionately fewer comments that fall within this theme suggest productive skills play a more substantial role than receptive skills in defining, in students' minds, the point at which one becomes bi-/multilingual.

Understands the culture of the L2; though mentioned last, this theme was by no means the least significant. In order to be bilingual, many students express a belief that the culture of the L2 matters. Respondents who added comments on this topic thought it was necessary to be "interested in the L2 culture," "be open," "make friends," and "experience new things" in order to be able to relate to the culture the L2 arises from. Since the majority of students who participated in this study are certainly 'bi-/multilingual' in varying degrees, we are reminded of the fact that language encompasses much more than academics and business opportunities; we need to know the people we are talking with.

An analysis of comments made by Japanese respondents provides evidence that the same themes noted above are also indicative of this smaller sub-group. However, it proved to be advantageous to analyze their comments separately. All the Japanese agree that speaking, communicating, using and understanding the L2 are necessary, but more pronounced here were comments about speaking "like" and communicating "with" native-speakers. One student, for instance, wrote the following in her comment box: "When a person can speak like a native." Considering that Japanese participants comprise just under one-fifth of the entire sample, proportionately speaking, their comments in this regard were more than ten times more prevalent. It would appear that the idea of becoming native-like, though still mentioned by far less than the majority of respondents, remains among Japanese university students.

Qualitative – Thoughts on bi-/multilingualism in Japan: Of the 122 participants, 18 foreign and 3 Japanese left this comment box blank, so roughly 83% of respondents offered their thoughts. The question asks students how important they believe bi-/multilingualism to be in Japan, and requests practical suggestions to help Japan move in a positive direction with regard to bi-/multilingualism. The qualitative analysis of the data is thus broken into two sections in accordance with the dual nature of the question.

The themes were virtually all positive with respect to promoting bi-/multilingualism in Japan. Only three participants among the Japanese sub-group and five from the international cohort had critical comments to make about the topic. The opinions centered around the idea that Japan does not need to pursue bi-/multilingualism since most citizens do not care about L2+ fluency, have no need for it and can easily survive without it. However, the majority of responses gravitated toward a few popular themes.

A bi-/multilingual Japan is important! It should be noted that among the international students, approximately one-third who made comments in this box stated explicitly that bi-/multilingualism is important for Japan, and as a few individuals noted, it is even "very" important, "vital" and "absolutely necessary." The expectations of foreign students, mostly from other Asian countries, upon entering Japanese society may have been of a country that is more committed to advancing foreign language education; the data suggests many felt Japan needs to do more in this regard.

Global connections require a bilingual Japan; one theme that clearly stood out was the call for Japan and its citizens to interact with others for the purpose of development, intercultural communication and pursuing stronger international relations. Apparently the participants felt that English was necessary to do this. Many foreign students at this international university in Kyushu and a few Japanese nationals too held the belief that Japan needs to make its voice heard by communicating with the outside world with the language spoken there.

Global business requires a bilingual Japan; this goes hand in hand with the previous point as its 'economic' counterpart. Bi-/multilingualism is considered key not just to communicate with others but to gain wealth. All forms of international business and trade, not to mention the introduction of new technologies and promotion of travel and tourism, rely on a common language to facilitate money-making endeavors. This is understood to be a trend that shows no signs of diminishing; therefore, for Japan's future,

becoming more bi-/multilingual would help it achieve greater financial success. These first two themes were the most prevalent among the data. The influence of globalization and internationalization does not shrink, but only expands as each year goes by and there is no refuting the axiom that for the time being, English is the language that links peoples and cultures from around the world.

Japan lags behind; a sizeable number of respondents offered insights into the English speaking abilities of the average Japanese and the open-mindedness of society as a whole. Overall, their impressions could not be labelled 'favorable'. The theme of Japanese people being poor English speakers came up repeatedly. Some judged the English levels of Japanese students to be much lower than those of students in other Asian countries, which seemed to be disillusioning to them. Four students began a sentence with "even though Japan is a developed nation…" when decrying the English-speaking skills of its people. Connected to this is a complaint voiced by both Japanese and internationals about the conservative nature of Japanese society, which may include not only the realms of business and politics but other social/cultural spheres. Quite simply, the criticism came through that the "Japanese way of doing things" stifles creativity among the Japanese and restricts open, global-minded exchanges. Interestingly, in this regard, Kharkhurin (2012) proposes that a link exists between flexibility in thinking and creativity – traits which occur with more frequency among bilingual children than monolingual. These comments by the respondents therefore mirror some of the findings within bilingualism research.

Idea – L2 education must improve; many respondents felt that to improve bi-/multilingualism English should be taught in schools, and indeed it is, though the number of comments made in this regard suggests improvements are necessary. Several comments focused on the seriousness of the issue, asserting that teaching English effectively is crucial and must become a focal point in schools. Other comments that were coded as 'practical advice' include: "speak *more* English," "learn *in* English," "learn *practical* English," "learn English to teach the outside world about Japan," "hold classes that are conversation-based and fun," and "teach culture with language." One suggestion voiced by a few participants was that students begin learning foreign languages at a younger age. On the whole, comments pertaining to this theme convey the idea that respondents feel some sort of change would be beneficial.

Idea – More interaction; A final theme that arose from the data was the call for interaction among Japanese and L2 speakers. This includes suggestions that more international students and/or foreigners in general be available in order to interact with Japanese people. An influx of non-Japanese residents into the country was considered a means to promote the process of multilingualism, be it in schools or society. Gottlieb notes that within the context of globalization wherein population flows affect the cultural fabric of nations, Japan "has begun to face the prospect of reinventing itself in terms of its self-image as a one-nation, one-language polity" (2007, p. 198). Unless trends are reversed, this inevitable evolution toward plurality in the once singular nation called 'Japan' will lead its citizens to think anew about multilingualism and/or 'multicultural coexistence' (Heinrich 2012, p. 23). Participants of this study for the most part viewed this positively, as it leads toward greater opportunities for Japan to become multilingual and a more pronounced player in international business and affairs.

Conclusion

The times we live in are characterized by the movement of people, ideas, goods and services across the globe; language skills are thus necessary to confront the challenge of maintaining order and positive relationships between people of all backgrounds and cultures. At an international university in Kyushu, Japan, students from Japan and other parts of the world shared their perceptions on the theme of bi-/multilingualism. This topic is of particular relevance to them in their personal lives as students and as emerging citizens of a

global society. Their insights were investigated via a questionnaire containing 24 likert-scale attitude-measuring items, and two open comment boxes.

The opportunity sample chosen for this study, as expressed in Table 1 is a mixture of students from various backgrounds, which provide a unique blend of voices; however, it is necessary to note that the size and make-up of the pool of participants should also be considered a limitation of the study. A relatively small number of Japanese students (N=25) form the domestic group, and since the 97 individuals comprising the overseas cohort represent numerous countries and regions of the world, this "international students" group is not assumed to be representative of all international students in Japan.

To summarize first of all the quantitative findings, an analysis of the data showed that virtually all students wish to be bi-/multilingual, and their definition of it predominantly makes English one of the bi-/multilingual languages. A sizeable portion of participants also believe Japanese society would benefit greatly by becoming more bi-/multilingual. Both of these findings are in support of the main hypothesis of the study. Further statistical analyses yielded additional findings, such as Japanese ranking themselves much lower than other nationalities with regard to the statement: "I am a bi-/multilingual person." This finding suggests the second hypothesis is supported as well. Japanese students are inclined to envision bi-/multilingualism more as an aspiration in life than as an element of their present identity as language learners. In addition, Japanese students who self-rate their L2 ability highly are more likely to label bi-/multilingual people as being "internationally-minded." Within the 'foreign student' sub-group, those who rank their L2 ability highly are more likely to express the belief that Japanese society ought to become more bi-/multilingual.

Qualitative data from comment boxes were analyzed in order to answer questions pertaining to a definition of bi-/multilingualism and beliefs about the role it ought to play within Japanese society. A definition of bi-/multilingualism, arrived at via analysis of the data from the first topic, would be: "to use an L2 to speak and converse fluently with foreigners and/or native speakers, while understanding both linguistic input and cultural aspects of the L2." The majority of both Japanese and international students expressed a common belief that bi-/multilingualism is important for Japan in light of globalization, and that the nation's educational policies ought to take this into account in order to make improvements to the system and provide more opportunities for interactions between Japanese and internationals in order to promote a bi-/multilingual society.

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REVIEW:

An ethical review of the production of human skeleton models from autopsied Hansen's disease patients in pre-war Japan

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Abstract

On May 9, 2013, a local newspaper in Kumamoto prefecture in Kyushu, Japan reported that pathology researchers at Kumamoto Medical School had produced dozens of human skeleton models (hereafter, models) from autopsied patients who had died of Hansen's disease (HD) in the 1920s. A general meeting of the "Hansen's Disease Citizen's Association" was held in Kumamoto City immediately after the release of this news. The Association made an emergent appeal, demanding investigation into the production of these models and the ethics of medical professionals and researchers at both the Kumamoto University School of Medicine and the National Sanatorium *Kikuchi Keifuen*, where all autopsied patients had been admitted. Both former patients with HD and commentators specializing in historical issues concerning HD argued that medical professionals involved in the production of these models were discriminatory towards patients with HD and carried out unethical medical practices. The authors believe it important to examine, from the humane perspective, the factors that had allowed medical professionals to participate in these activities without condemnation from both the medical community and lay population. The paper discusses the long history of discrimination against patients with HD and the ethical fragility of medical professionals as two main factors that contributed to the production of these models. The sociopolitical circumstances of the era in which this occurred must also be considered, including the national atmosphere and the ethical immaturity of the medical community at the time. In conclusion, the authors stress the importance of preventing discrimination and ensuring robust ethical guidelines for medical professionals in order to keep history from repeating itself. It is essential to continue the endless battle against discrimination as well as serious reflection upon the past and learning from it.

Keywords: Discrimination, Hansen's disease, History, Japan, Medical ethics.

Introduction

On May 9, 2013, a local newspaper in Kumamoto prefecture located in Kyushu Island, Japan reported that pathology researchers at Kumamoto Medical School had produced dozens of human skeleton models (hereafter, models) from autopsied patients who had died of Hansen's disease (HD) in the 1920s. This news spread throughout the country, renewing national attention on issues of discrimination against people suffering from various diseases and former patients with HD (Sawamoto 2013; Izumi 2013, Editorial 2013). A general meeting of the "Hansen's Disease Citizen's Association", aiming to eliminate prejudice against individuals with the disease and addressing the lessons learned from historical discrimination, was held in Kumamoto City immediately after the release of this news.

The Association made an emergent appeal, demanding investigation into the production of these models and the ethics of the medical professionals and researchers at both the Kumamoto University School of Medicine (originally Kumamoto Medical School) and the National Sanatorium *Kikuchi Keifuen,* where all autopsied patients had been admitted. Finally, the Association demanded that the Ministry of Health,

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Labour, and Welfare investigate whether or not similar activities had occurred at other institutions (Sakamoto 2013).

Both former patients with HD and commentators specializing in historical issues concerning HD argued that medical professionals involved in the production of these models were discriminatory toward patients with HD and carried out unethical medical practices. They also asserted that these practitioners were inhumane, and had violated the human rights of the patients by treating the human body as an object (Sawamoto 2013, Editorial 2013, Kyodo Tsusin 2013; Nittere News 24, 2013). On March 24, 2014, an "Investigation Committee" concerning the production of human skeleton models of patients with Hansen's disease at Kumamoto University Graduate School of Life Sciences (hereafter, Investigation Committee) published a report on this matter, revealing the details discussed below (Investigation Committee Report 2014).

An associate professor from the Kumamoto Medical School Department of Pathology (hereafter, Department) initiated production of the models from autopsied patients with HD who had been admitted to the Kyushu Sanatorium (currently called the National Sanatorium *Kikuchi Keifuen*) between 1927 and 1929. A list of autopsied bodies was found that exclusively consisted of patients with HD and revealed that the associate professor had conducted autopsies on 43 patients with HD between November 1927 and March 1929. Models were produced from 20 of these patients and were preserved at the Department. None of these models exist today; they are thought to have been destroyed during the World War II bombing of Kumamoto City by the United States. The associate professor mentioned this incident in an article published in 1951 under the title of "*An Afterword (Batsu ni kaete)*" (Suzue 1951).

Autopsies had been conducted with due process for the majority of the 43 cases. However, no written consent was obtained from the patients or their family members to produce the models. The Investigation Committee believed that the associate professor produced these models for anthropological research aimed at proving the existence of a biological predisposition for contracting HD. The findings of this study were formally presented in 1931, under the title "*A study of the biological predisposition of Leprosy patients: the first report,"* at the Japanese Society of Pathology (Suzue and Nagase 1931). "*An Afterword*," published in 1951 by the said associate professor, includes this statement:

> *"I always showed off this precious collection of human skeleton models of patients with HD to celebrities who visited Kumamoto Medical School, bragging with pride."*

The Investigation Committee argued that the acts of preserving models as a 'research collection' and showing them off with vaunt suggested a lack of consideration for the deceased, even if the audience had been medical researchers. Such behavior by the associate professor was judged to be problematic from a research ethics standpoint. The Investigation Committee concluded that production of the models caused harm to the affected patients and to those concerned with similar issues in a modern society. These actions were also considered to have caused psychological suffering and contributed to the distrust of physicians, medical researchers, and healthcare professionals in general. The Investigation Committee voiced deep regret and promised to prevent similar occurrences.

This paper examines what factors allowed for the production of these models without hesitation or any serious consequences at the time they were produced. The presentation of research findings based on anthropological analysis of the models was not criticized by the medical community in 1931, and it was not until 2013 that the 1951 publication of "*An Afterword*" became the target of social blame. We believe it

important to examine, from the humane perspective, the factors that allowed medical professionals to participate in these activities without condemnation from either the medical community or lay population. The sections that follow discuss the long history of discrimination against patients with HD and the ethical fragility of medical professionals as two main factors that contributed to the production of these models. We also consider circumstances of the era in which this occurred, including the national atmosphere and the ethical immaturity of the medical community at the time. We further argue the importance of preventing discrimination and ensuring robust ethical guidelines for medical professionals in order to keep history from repeating itself.

Methodology

This paper provides a critical analysis of the historical account of discrimination against patients with Hansen's disease in Japan starting from 1920, and the reasons behind it, which also resulted in the production of skeletal models from the autopsied bodies of patients who had died from this disease. The research uses historical records, newspaper accounts of this act, and the reports of the formal organizations and the Investigation Committee that was formed to investigate it. Most of these reports were in Japanese language, and therefore this paper maybe the first academic review of the production of the skeletal models that was first reported in Kumamoto, Japan in 2013.

The paper uses ethical review and analysis to discuss and shed light on the reasons for such discrimination and the implications for current practice of medicine in Japan regarding patients suffering from stigma of disease.

Findings and Discussion

The history of discrimination against patients with HD in Japan

Discrimination against patients suffering from HD, as well as those who have recovered from it, has been one of the gravest human rights violations in historical and contemporary Japan (Table 1).

Table 1. A summarized timeline of events related to the production of human skeleton models from deceased patients with HD in Japan

1907	Establishment of the *Leprosy Prevention Law* (first legal isolation of roaming patients with HD from communities)
1909	Five public sanatoriums for patients with HD were built
1915	Forced sterilization of patients with HD at Zensei Hospital
1927	Production of human skeleton models from deceased patients with HD
1930	First establishment of a national sanatorium for patients with HD
1931	Establishment of the *Leprosy Protection Law* (original legislation forcing isolation of all patients with HD); presentation of "*A study of biological predisposition of Leprosy patients: the first report*" to the Japanese Society of Pathology
1936	Initiation of the "*20-Year extermination plan"* for leprosy; spread of the "*No Leprosy patients in our prefecture movement (Mu rai ken undo)"* throughout Japan
1948	Enactment of the *Eugenic Protection Law* (legalizing the sterilization of patients with HD and abortion of fetuses carried by these patients)
1951	Publication of "*An afterword"* in the "*Bulletin Monograph of Dermatology"* of Kyoto University
1958	Enactment of the *Leprosy Protection Law* (new legislation maintaining the forced isolation policy against all patients with HD)
1996	Abolishment of the *Leprosy Protection Law*

We argue that the nationwide discrimination and prejudice towards patients with HD in Japan at the time played a significant part in the production of these models. Discrimination is defined as unfair treatment of a particular individual or group without a legitimate reason (Niimura 2008). People have discriminatory feelings or thoughts when they feel uncomfortable about and loathe, disdain, or are afraid of a person or group without a rational reason (Nakajima 2009). HD has a dreadful history of discrimination. Patients with this illness not only suffered from severe and persistent symptoms, but were also forced to leave their home or town. These individuals were compelled to wander, and were socially devastated by separation from spouses, children, parents, and other relatives (Ohtani 1993, Niimura 1998). Since ancient times, individuals with HD were forced to, metaphorically, "experience death" during their lives. They were stigmatized as being impure or criminal, and were thought to be "quasi-humans" being punished by Buddha or God. Patients with HD were thus sentenced to social death in addition to their disease-related suffering and disability (Ohtani 1993, Niimura 1998). In Europe, the prevalence of isolation institutions for patients with HD increased in the 19th and 20th centuries. In Hawaii, this malady was referred to as an 'isolation' disease (Dobson 2010). In Japan, HD was recognized as "Buddha's vengeance," the disease of heaven's judgment, the shame of entire families, or "*suji*" (a bad pedigree), since the Edo era (Ohtani 1993, Niimura 1998, Akamatsu 2005).

HD was irrationally considered both a genetic illness and an infectious disease, with current and former patients being long abhorred in local communities. Japan also maintained a national forced isolation policy, via the *Leprosy Protection Law,* that lasted 90 years keeping patients with HD in forced isolation (Dobson 2010; Hataya 2006; Kumamoto *nichinichi* 2004; Inspection Committee 2005). Although this law was repealed in 1996, serious prejudice and discrimination against recovered patients still continue. A Japanese physician, who has been involved in the care of patients with HD for decades, called the illness outstandingly extraordinary because the suffering from this disease leads to loss of one's home and homeland (Tokunaga 1982).

Akamatsu, a Japanese anthropologist, wrote that latent discrimination against those who had a family member with HD is obvious in the context of marriage. People who believe that their children or grandchildren might marry someone with a HD pedigree have been known to tenaciously investigate multiple generations of the prospect's familial ties to determine whether any members had HD. Even a rumor of a relative with HD can be sufficient to call off an engagement (Akamatsu 2005).

Narratives about patients with HD in sanatoriums revealed that their family members were not present when they passed away, did not attend their funerals, and did not collect their ashes after cremation. Many of these patients' families refused to allow the patients to visit their homes while they were still alive. When they returned home, some were told by their families: "Do not come back. Keep away from this house," "You have such a shameful disease," and "You would keep me from looking at people in the eye" (Tokunaga 1982). One patient with HD repeatedly escaped from a sanatorium in search of freedom, but was rejected by people from his hometown, his relatives, and even his own mother. In one instance, people believed that a grandfather with HD would socially hurt his grandson (Tokunaga 1982). In November 2003, a hot springs hotel in Kumamoto, Japan, refused lodging to patients who had previously suffered from HD. This situation reminded Japanese society of the deeply-rooted and long-lasting prejudice and discrimination toward patients with HD (Hataya 2006).

In 2009, a study of the daily lives of patients who previously suffered from HD was conducted by a human rights volunteer group. Respondents reported that patrons at local public bathhouses told them not to

come; staff at local bookstores ordered them not to touch the books; and guests at their home would not eat food they served (Sankei newspaper 2009). A 2013 survey reported that 37% of laypersons would feel uncomfortable bathing with former patients with HD, and 42% would not want a marriage between their family and the children of former HD patients (Kusonoki 2013). As is evident from the above discussion, the production of models from deceased patients with HD occurred in a society that was severely discriminatory towards patients with the disease. It is thus not an overstatement that these unethical and inhumane attitudes toward, and policies against, patients with HD are partly responsible for having allowed these models to be produced.

Ethical fragility among medical professionals

Besides the severe and widespread discrimination against both current and former patients with HD, we argue that ethical fragility among medical professionals, especially physicians, contributed to the environment that allowed the production of these models. Certain characteristics shared by many medical professionals could make them ethically susceptible, leading them to do something considered unacceptable from the modern moral standpoint. For example, Colaianni suggests that the present medical culture remains relatively unchanged from the time when German doctors participated in the genocide carried out by Nazis, transforming life-saving professionals into murderers. She claimed that the culture of medicine made German doctors more morally vulnerable than laypersons at that time (Colaianni 2012).

This characteristic of moral vulnerability now and then among medical doctors has arisen from the rigid hierarchy and socialization in medical culture, a strong career ambition, and a 'license to sin' (i.e., physicians are allowed to perform actions in medical school that are taboo in other contexts, in the pursuit of scientific knowledge), all of which result in arrogance and a belief that they are above the law (Colaianni 2012; Berger 2002). It has also been suggested that physicians become accustomed to inflicting suffering, as part of their professional duties (Colaianni 2012).

Tsuneishi has recounted the actions of the 'Unit 731', in which Japanese medical researchers performed cruel human experiments, human vivisection, and murders. Participants quickly became accustomed to the brutality of their acts and developed a serious lack of social awareness and individual independence, attempting to justify their barbaric actions by claiming that they had been done for the glory of the Emperor and Japan (Tsuneishi 1995).

In the "*Final Report on Hansen's Disease-Related Issues,"* the Inspection Committee in 2005 reported on fetus sample records found in HD sanatoriums, stating:

> *"The personnel of many national sanatoriums for HD had failed to treat the residents as human beings with dignity, and completely ignored the dignity of fetuses in the past. Furthermore, they had treated resected body parts from the patients in an unethical manner. In other words, what ought to be addressed most is that the personnel, including physicians, nurses, medical technicians, and administrative officials, had all lost their awareness of medical ethics".*

A scientific misconduct researcher suggested that egocentrism, contempt of others, and perceptions that one is 'above the law', the rules of society do not apply, and that one is doing what is right or highly important, can strongly contribute to research misconduct, fabrication, and falsification. It has also been argued that some professors at medical schools commit research fraud because they have developed a belief that they are different from and superior to others (Hakuraku 2011).

Those involved in the production of the models may have had similarly problematic beliefs and

perceptions of themselves, the medical profession, and other individuals. Both past and present medical cultures occasionally nurture arrogance, the tendency to justify actions in the name of science, the nation, or the Emperor, unconditional confidence in doing what is perceived to be right, and numbness to the brutality inherent in some medical practices. The national goal of exterminating HD at the time may have been used to justify the production of these models for medical research. The study was consistent with national policies at that time, and was regarded as beneficial. Research was viewed as socially significant insofar as it aimed to reveal the mechanisms involved in contracting the disease. At the time, HD was viewed as weakening the nation, and stopping its spread was seen as promoting overall health and reinforcing the physical capacities of Japanese people.

Individuals with feelings of elitism, career ambition, and clear purpose, as well as beliefs in high productivity, progress, health, and social improvement, are likely to think that human beings who are unable to contribute to social progress should be excluded from global society. It can be argued that such eugenic ideas are clearly connected with discrimination against disabled individuals, including patients with HD, and that these ideas attenuate empathy for physically and socially vulnerable persons and weaken psychological resistance to the violation of human rights. As a consequence, respect for the dignity of deceased patients with HD and courteous treatment of dead bodies is easily lost.

The "*Final Report on Issues Related to Hansen's Disease"* published by the Inspection Committee in 2005, discussed the establishment of a lifelong isolation policy in Japan; this report posited that doctors had propagated the belief that HD was highly contagious, extremely dangerous, and should not exist in a civilized nation, as well as the belief that HD must be eliminated at any cost. The report concluded that these widespread beliefs led Japanese citizens to discriminate against both current and former patients with HD. The report also suggests that some Japanese medical professionals at the time actively discriminated against and isolated patients with the disease. Looking at all the evidence together, we propose that ethical fragility among medical professionals contributed to their willing involvement in discrimination against these patients and production of the models without consent.

National Setting

Production of the models in question occurred between 1927 and 1929. In addition to the social discrimination against these patients and the ethical fragility of medical professionals, the national setting at the time may have contributed to this shocking event. It is necessary to consider the overall environment during this era to better understand these occurrences. Two related factors that are important to consider are the pre-war nationalist policy aimed at enriching and strengthening Japan, and the immature level of research ethics at the time.

The medical society of Japan developed a system of medical ethics in the late 1880s and early 1890s. The major ethical principles governing medical practice at the time were care and consideration for patient suffering, non-maleficence and beneficence, and mercy. Physicians' virtues were also considered essential (Goto 1999). However, Ozeki pointed out that the missions and obligations of physicians at the time could not be separated from the nationalistic awareness of the era. It was believed that medical progress would promote health and thereby enhance national productivity (Ozeki 1970). It was also believed that, in order to compete with Western countries, Japanese medicine had to enhance the physical abilities of Japanese citizens. Thus, from the beginning of modern medicine in Japan, many Japanese physicians had engaged in healthcare and medical research motivated by nationalism or enthusiasm to serve their country. Confucianism was believed to have contributed to the foundations of Japanese medicine and the

establishment of healthcare and public health systems (Ozeki 1970). We argue that the application of Japanese nationalist ideas to medicine led to the development of eugenic ideology. This nationalist ideology, which was focused on enriching and strengthening Japan, may have led Japanese physicians to discriminate against socially vulnerable people, including those with HD.

To further understand the national setting in the 1920s, it is necessary to consider what constituted research ethics at the time. To the best of our knowledge, international research ethics guidelines had not yet been established. Throughout history, medical research has taken place at the expense of condemned criminals, those with mental illnesses, slaves, minorities, and those under forced isolation (Baker & Mccullough 2009). Indeed, other significant unethical human experiments were carried out soon after the 1931 presentation of the findings of the model study, including the Tuskegee syphilis study (1932-1972), the Japanese Unit 731 bioweapon experiments (1932-1945), and human experiments conducted at Nazi concentration camps (1939-1945). It was not until 1947 that the Nuremberg Code was developed. However, unethical medical research on human subjects did not disappear (Beecher 1966), and this prompted the World Medical Association to develop the first version of the Helsinki Declaration in 1964.

Production of the models occurred in a period of nationalistic and eugenic totalitarianism and immaturity of medical research ethics. It is unlikely that physicians, medical researchers, or even Japanese society, gave significant consideration to human rights and dignity. It is also unrealistic to expect that these medical researchers would have obtained informed consent, from patients or their families, to produce the models at the time, although such practices are unacceptable from a contemporary ethical standpoint.

Conclusion

What course of action is appropriate for ethically dealing with the knowledge of the production of these models, which were made from deceased patients who experienced discrimination and forcible isolation nearly 90 years ago? It would be too simplistic to respond that the practice had occurred due to the features of the era during which it occurred and the immaturity of research ethics at the time, without further reflection. It would also be fruitless to only apply retrospective ethical judgments to individuals who were directly involved in these events and condemn them. To allow for a thorough reflection, it is necessary to analyze the major contributing factors involved, and to assess human inclinations. The following passages discuss discriminatory attitudes toward patients with HD, as well as the concept of ethical fragility among medical professionals.

Discrimination must be eliminated in order to stop the harm it causes to targeted groups and its impact on their biological and social lives. As discussed in detail in the preceding sections, discrimination has caused torment throughout the lives of current and former patients with HD (Ohtani 1993; Akamatsu 2005; Hataya 2006; Kumamoto Nichinichi 2004; Investigation Committee 2005; Tokunaga 1982; Inami 2007). We believe that health-related discrimination still persists today, and cannot be completely eliminated. Never has a utopia existed that is completely free of discrimination, and there likely never will. The only chance for full realization of human rights and ethics is through a fight against weakness, arrogance, selfishness, self-centeredness, narrow-sightedness, and the failure to recognize and appreciate the suffering of others. It would likely be an endless battle.

Discriminatory ideas and feelings reside in the dark side of the human spirit, no matter how they are developed or established. It is impossible to avoid all discomfort or unpleasant feelings towards particular

individuals or groups, and it is instinctual to fear contagious diseases that deform or destroy the body. Discriminatory thoughts, feelings, and actions are natural to humans, but discrimination against an individual or group is distinctly inhumane. It has been suggested that discriminatory thoughts and feelings are part of the basic human mentality (Akamatsu 2005). It is essential to look into human darkness in the face in order to make progress in countering discrimination.

Despite dark tendencies, humans also have empathy for others. They possess a pure, natural compassion that makes it impossible to remain indifferent in the face of another's misfortune (Jullien 2002). Solidarity is highly valued in human society, and this sentiment is pivotal for anti-discrimination education and activities. Akamatsu, a folklorist studying various types of discrimination in Japanese communities, stated that "The animal called the human being is hopeless. But, we cannot afford to give up anti-discrimination activities. There is no choice but to continue the activities with patience" (Akamatsu 2005). While we cannot present a methodological solution to eliminate discrimination against patients with HD, it is important for individuals with empathy and compassion for the suffering of others to continue to enlighten those who are less empathetic and compassionate. These individuals must also recognize that their mission will be endless, due to the strong and tenacious nature of discriminatory thoughts and feelings.

Finally, what approach is best for addressing problematic attitudes among physicians and medical researchers and helping them become ethically robust? Regrettably, arrogance is common among physicians, and violates the benevolent spirit of medicine and the quality of medical care (Jullien 2002). Physicians and medical researchers are prone to become arrogant and look down on others. They tend to overestimate the power of medicine and forget its limitations, and are at risk of developing a eugenic worldview. They may also have a big power, which can be a double-edged sword. It is very difficult to entirely remove discriminatory ideas from the mind, and everyone should be aware of them. We argue that physicians with eugenic beliefs, who are eager to conduct medical research and feel that they are above the law, could end up repeating such barbaric acts of human rights violations. Therefore, it is important to reflect upon the past and learn from it. Only by doing so will it be possible to prevent similar tragedies in the future.

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Smith, D. 1951. Modern Kabuki. *The Guardian* (6 April).

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