Impact of Country of Manufacture on Customer Purchase Intention: Case Study of Japanese Cosmetics in Vietnamese Market

Vo Minh Sang, Tran Ngoc Thien Thanh, Le Anh Thoai, Nguyen Ha Yen Nhi, and Nguyen Thuy Truc

Abstract—The study is on the impact of country of manufacture origin on customer purchase intention. A case study of Japanese cosmetics was conducted by a quantitative research method, with a sample size of 379 Vietnamese customers. All participants are willing to providing information for building the convenience sample. Data analysis methods included: Cronbach Alpha test, structural equation modeling, analysis of variance and T-test. The research results determined: (1) The components of the country of manufacture have positive impact on customer purchase intention. The perceived brand quality towards the country of manufacture component has the greatest direct positive influence on customer purchase intention. The perceived country image and perceived brand association towards the country of manufacture have indirectly positive impact on customer purchase intention; (2) Country image has a positive effect on customer perception of the quality of products manufactured in that country. Therefore, if the country's image is good, it will help increase the consumption intention of this country's products in foreign markets.

Index Terms—Country of manufacture origin, perceived country image, perceived brand association, brand quality, customer purchase intention.

I. INTRODUCTION

Currently, under the context of economic integration and globalization, the competition between businesses has become increasingly fierce, businesses and international marketers are constantly striving for opportunities to develop and expand international market. To create a solid foundation for the development in international market, multinational corporations should do research, understand, and judge consumer perceptions and their attitudes toward foreign-made products. Especially, understanding the purchase intention of potential consumers plays a crucial role not only in enhancing competitive edge but also in contributing to the success of enterprises in global market. Besides, smart consumption trend also leads consumers to not only consider the product quality or price but other factors such as where the product is manufactured. In addition to country of brand (COB), country of manufacture (COM) is also a significant signal of external product appearance that affects consequentially consumer perception, overall product evaluation and purchase intention; especially

in cosmetic industry where customers are more concerned with the manufacturing country of products. In general, research on the country of origin of products has recently sparked considerable interest, particularly in investigating the effects of consumer evaluation and perception. However, the topic of the impact of the country of manufacture on the consumer purchase intention is quite fresh and has not been explored by many researchers. Only a few studies have been conducted around the world on the relationship between the country of manufacture and consumer purchase intention. Specifically, the research of Iyer & Kalita demonstrated that country images for both the COB and the COM have significant impact on consumer evaluations of product quality, product value, and willingness-to-buy [1]. Ahmed & d'Astous and Saeed emphasized the crucial impact of COM compared with other COO sub-components on consumers' purchase intention meanwhile the study of Chao indicated that both COB and COM are equally significant to consumers in product evaluation process [2]-[4]. This paper is proposed to demonstrate the impact of country of manufacture on consumer purchase intention.

II. THEORETICAL FRAMEWORK AND HYPOTHESES

Purchase intention is a significant factor that helps to predict consumer behavior [5] and can be classified as fully planned buying, unplanned buying and partially planned buying [6]. Purchase intention, according to Madahi & Sukati, refers to a consumer's desire to buy a product or service because he or she believes that he or she requires it, as well as a consumer's attitude toward the product and perception of it [7]. In other words, purchase intention refers to the likelihood that a consumer will purchase a product again after evaluating it and determining its worth. While consumers may select a product, their ultimate decision to accept or reject that product is based on their intent. Many research and available literature clearly showed that Country of origin (COO) influences consumer purchase intention, particularly stated that COO has direct impact on purchase intention [8], [9]. In these decades, country of manufacture (COM), also known as place of manufacture, is another factor that consumers consider when evaluating a product. Yasin demonstrate that country of manufacture has both a positive and negative effect on consumer intention as they evaluate suppliers and then make a final decision about purchasing a product [10]. This paper proposes to study the impact of COM on customer purchase intention.

Country of manufacture is defined as the COO, in which any positive or negative influence the customer has on the

product [11]. In addition, the place of production of the product will also affect the country and brand image when customers learn about the country of origin. To avoid some constraints, multinational producers can quantify COO by separating it into two sections country of brand (COB) and COM. They discovered that COM is one of the most important factors to consider [4], [12]. When inherent characteristics are not available, consumers typically view COB and COM markings as product quality criteria [13]-[15]. To extent research, the country of manufacture image is also related to the perceived ability to produce a particular product category, which promotes consumers' perception of the product as reasonable for the country of production [16], [17]. In addition, consumers will identify important product characteristics related to the perception of the country of production. The country of manufacture has a greater influence than the country of design in terms of perceived quality in the durable goods category [18]. In addition, the country of manufacture has a strongly influence on the customer's product evaluation process by the perception of quality. In this study, COM contains the following elements: 1) Perceived country image (PCI), with the observed variables of Japan image: civilized country; modern country; developed country; strong cultural identity; health and technology country; 2) Perceived brand association (PBA) of cosmetics made in Japan (with the observed variables of cosmetics made in Japan: good sympathy; appreciate the quality; good features of the product, and high trust & positive attitude) and 3) Perceived brand quality (PBQ) of cosmetics made in Japan, with the observed variables of cosmetics made in Japan: safety, not irritation; natural ingredients, and efficient use.

Country image is known as the overall perception of products from a particular country, it based on consumer's prior perception of the country production and marketing capabilities [19]. Bilkey & Nes indicated the image of the product's country of origin plays a significant role in consumers' perceptions [20]. In addition, many research demonstrated that consumption behavior is related to the characteristics of the country's image and its people and found a positive relationship between country image and purchase intention [21]-[23]. Furthermore, manufacture country's images influence the existing product evaluation by the consumer and consumers' perceptions of country images differ substantially in terms of the number, strength and valence of the associations they make [24]. As a result, this study proposed hypotheses:

H1.1: Perceived country image has a direct positive impact on perceived brand association.

H1.2: Perceived country image has a direct positive impact on perceived brand quality.

H1.3: Perceived country image has a direct positive impact on customer purchase intention.

Brand associations consist of all brand-related thoughts, feelings, perceptions, images, experiences, beliefs and attitude [25]. Brand association has the potential to influence purchasing behavior as well as consumer pleasure. Aaker defined eleven categories of brand association: product characteristics, intangibles, customer advantages, relative pricing, use/application, user/customer, celebrity/person, life-style/personality, product class, rivals, and nation/location. In addition, brand association measurement is based on three viewpoints: the brand as a product or value, the brand as a person, and the brand as an organization [26]. According to Keller, brand associations may be classified into three types: characteristics, usage, and behavior [27]. Therefore, this study proposed hypotheses:

H2.1: Perceived brand association has a direct positive impact on perceived brand quality.

H2.2: Perceived brand association has a direct positive impact on customer purchase intention.

Perceived quality plays an integral part in brand equity. According to Aaker, perceived quality elevates consumers' impression of the differentiation, which empowers companies to charge a higher price and have more opportunities to expand the brand [26], [28]. From the perspective of consumer satisfaction, perceived quality can be seen as a vital component that raises the consumer purchase intention owing to the improvement in customer quality perception [29]. Additionally, Thakor & Lavack also considered that perceived quality and purchase intention are directly correlated, which suggested that perceived quality can be utilized to forecast the purchase intention [30]. The hypothesis of this study is proposed:

H3: Perceived brand quality has a direct positive impact on customer purchase intention.

III. RESEARCH METHODS

The scales of all components were designed into questions using the typical five-level Likert Scale for measurement, with the rates from 1: Absolutely disagree to 5: Absolutely agree. The quantitative research was carried out among Vietnamese citizens. The sample size was 379 people. Meanwhile, the proposed sample structure was mainly female who are in the age 16 years old and over. The online questionnaires created on the Google forms platform. In May, 2021, it was sent through Facebook to each participant requested for engagement with the survey. The Statistical Package for Social Sciences and Analysis of Moment Structures are used to filter and analyze the collected data. Data analysis methods such as the Cronbach's alpha test, Structural Equation Modeling (SEM), Independent Sample T-test and One way ANOVA.

IV. RESEARCH RESULTS

The Cronbach Alpha method was used to test the reliability of all the components in the theoretical model. The results of Table I showed the Cronbach's alpha coefficients ranging from 0.83-0.92, show that all components have a Cronbach's alpha coefficient greater than 0.80. The corrected item-total correlation of all components is greater than 0.50. The Cronbach Alpha test recognizes that the scales of the components in the model are reliable.

TABLE I: THE RESULTS OF CRONBACH'S ALPHA TEST

Variables	Code	Corrected Item-Total Correlation
Perceived country image (PCI); Cronbach's alpha coefficient =0.91		
Japan is a civilized country	PCI1	0.75
Japan is a modern country	PCI2	0.81
Japan is a developed country	PCI3	0.83
Japan is a strong cultural identity	PCI4	0.70
Japan is a country that focuses on health	PCI5	0.75
Japan is a technology country	PCI6	0.73
Perceived brand association (PBA); Cronbach's alpha coefficient= 0.89		
I have a good sympathy for Japanese cosmetics manufactured in Japan	PBA1	0.77
I tend to appreciate Japanese cosmetics manufactured in Japan	PBA2	0.73
If I refer to Japanese cosmetics manufactured in Japan, I will think of good features of product	PBA3	0.64
I have high faith in Japanese cosmetics manufactured in Japan	PBA4	0.76
I have a positive attitude towards Japanese cosmetics manufactured in Japan	PBA5	0.77
Perceived brand quality (PBQ); Cronbach's alpha coefficient=0.83		
Japanese cosmetics manufactured in Japan are safe	PBQ1	0.60
Japanese cosmetics manufactured in Japan are non-irritating to the skin	PBQ2	0.67
Japanese cosmetics manufactured in Japan contain natural ingredients	PBQ3	0.70
Japanese cosmetics manufactured in Japan have highly efficient use	PBQ4	0.68
Customer purchase intention (CPI); Cronbach's alpha coefficient=0.92		
I give priority to cosmetics whose brands originated from Japan when consuming	CPI1	0.83
I am willing to pay more for cosmetics whose brands originated from Japan	CPI2	0.81
If there is a consideration among cosmetics with different brands, I will give preference to cosmetics whose brands originated from Japan	CPI3	0.85
In the future, if I have a demand to use cosmetics, I will choose cosmetics whose brands originated from Japan.	CPI4	0.80

The structural equation modeling (SEM) method used to evaluate the impact of country of manufacture (COM) including perceived country image (PCI), perceived brand association (PBA), and perceived brand quality (PBQ) on customer purchase intention (CPI). The results were: Chi-square/df = 2.4 < 3.0; TLI = 0.95 and CFI = 0.96 are both greater 0.90; RMSEA = 0.062 < 0.08, which confirmed that the structural equation modelling analysis met requirement. The research results of SEM analysis in Table II.

TABLE II: THE RESULTS OF TESTING THE HYPOTHESES

Relationships			λ	P	Hypotheses	Accepted	Rejected
PCI	$\rightarrow$	PBA	0.34***	***	H1.1	Yes	
PCI	$\rightarrow$	PBQ	0.02^{ns}	0.68	H1.2		Yes
PCI	$\rightarrow$	CIP	-0.06^{ns}	0.19	H1.3		Yes
PBA	$\rightarrow$	PBQ	0.85***	***	H2.1	Yes	
PBA	$\rightarrow$	CIP	-0.07^{ns}	0.54	H2.2		Yes
PBQ	$\rightarrow$	CIP	0.86***	***	H3	Yes	

***: $P < 0.01$; ns: not significant

TABLE III: CORRELATION ANALYSIS RESULTS IN THE MODIFIED SEM MODEL

Relationships			λ	P
PCI	$\rightarrow$	PBA	0.34***	***
PBA	$\rightarrow$	PBQ	0.85***	***
PBQ	$\rightarrow$	CIP	0.77***	***

The research results of SEM analysis in Table II showed the relationships are not statistically significant at the 95% confidence level between PCI and PBQ (λ=0.02, P=0.68>0.05); PCI and CIP (λ=-0.06, P=0.19>0.05); PBA and CIP (λ=-0.07, P=0.54>0.05) consequently, we rejected the following hypotheses: H1.2; H1.3 and H2.2.

After removing the not significant relationships and modifying the SEM model, the results were: Chi-square/df = 2.4 < 3.0; TLI = 0.95 and CFI = 0.96, which were both greater than 0.90; RMSEA = 0.061 < 0.08. As a result, the structural equation modeling analysis meets the requirement. Table III showed the results of the correlations of the variables.

Perceived country image (PCI) has a direct positive impact on perceived brand association- PBA (PCI$\rightarrow$PBA: λ=0.34, P<0.01), therefore, hypothesis H1.1 is accepted. Perceived country image has an indirect impact on customer purchase intention through perceived brand association (PBA) and perceived brand quality (PBQ). Research results

show that if consumers have a higher PCI, they will have a positive impact on the perception of the country of manufacture, which impacts positively on customer intention purchase. The research results also show the importance of building a good national image because of supporting in enhancing the good perceived brand association, brand quality, and purchase intention. Research result shows a direct positive correlation of perceived brand association-PBA and perceived brand quality-PBQ (PBA$\rightarrow$PBQ: λ=0.85, P<0.01), so the hypothesis H2.1 is accepted. Meanwhile, PBA also has a positive indirect correlation to customer purchase intention through perceived brand quality (PBQ). The research results show that if customers have a good perception about the country of manufacture, they will tend to appreciate the quality of products produced in the country and contribute to increasing the purchase intention of products from the country. There is a direct positive relationship between perceived brand quality-PBQ and customer intention

purchase-CIP (PBQ→CIP: λ=0.77, P<0.01), accordingly, we accepted the hypothesis H3. Therefore, cosmetics is produced in Japan are highly appreciated by Vietnamese consumers, which positively affects the intention to purchase Japanese cosmetics.

The three components of the country of manufacture including perceived country image (CPI), perceived brand association (PBA), and perceived brand quality (PBQ) have a positive effect on customer purchase intention (CIP). These components have explained 60% of the variation of customer purchase intention. To be specific, PBA has an indirect influence on CIP. Besides that, PBQ has a direct impact on customer purchase intention. Therefore, if customers' perception of PBQ increases by 1 unit, this will lead to an increase of 0.77 unit on CIP.

The One way ANOVA test results showed that the average consumption intention of the customer group from 16-22 years old was statistically significant with 99% confidence (Sig.= 0.006<0.01) compared with the customers over 30 years old. The average statistical results on the intention to consume showed that the customers over 30 years old (mean=3.85/5.0) had a higher purchase intention for Japanese cosmetics than customers from 16-22 years old (mean=3.4/5.0). The Independent Samples Test also recorded a notable difference in consumption intention between single and married customers with 99% confidence (Sig. (2-tailed) of T-test for equality of means= 0.006<0.01). Thus, the group of customers who got married has a higher intention to consume (mean=3.78/5.0) than the single customer group (mean=3.42/5.0). The research results showed that customers married and over 30 years old appreciate the cosmetics made in Japan and have higher purchase intention than the younger and single customers.

V. CONCLUSION

Research results show that country of manufacture has a positive impact on customer purchase intention. To be specific, the component of the country of manufacture which is perceived brand quality has a direct impact on customer purchase intention. Other elements are perceived country image and perceived brand association have an indirect effect on customer purchase intention through perceived brand quality. These research results are compatible with Ghazali; Wang & Yang; Yasin; Cateora; Huber & McCann; Olson; Olson & Jacoby; Ozsomer & Cavusgil; and Chao [4], [8]-[12]. Research results show that building a good national brand image will greatly help their products penetrate and develop in foreign markets. The research results also recorded the positive correlation between the components of the country of manufacture: perceived country image- perceived brand association - perceived brand quality. The results of this study are similar to those of previous studies, such as Baughn & Yaprak; Han; Papadopoulos; Aaker; Chaudhuri [21]-[23], [26], [28]-[30]. The results suggest that a good country image not only has a positive effect on customers' perception of quality for goods produced in the country but also contributes to an increase in consumer intention, which helps companies have more competitive advantages in foreign market.

VI. LIMITATIONS AND FURTHER RESEARCH

Besides the new findings, this study still has some limitations. Initially, the sample size is not large enough and the research sample structure was mainly in the Southwest region of Vietnam. Consequently, the representativeness of the population is somewhat limited. Secondly, the research sample of this paper focuses mainly on young people who have good sympathy for Japan, so the objectivity of the research results may be affected. Thirdly, this study is only conducted in the cosmetic industry of Japan that has a competitive advantage in foreign markets, so the representativeness of the research results is also restrained. Finally, many possible factors impact customer purchase intention for imported products. Nevertheless, the study does not control these factors, which may affect the stability of research findings. Future similar studies should expand the study area in both central and northern regions of Vietnam. The research sample also ought to focus on middle age. In addition, it is possible to expand research in other industries such as food, pharmaceutical, and technology products made in Japan.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Tran Ngoc Thien Thanh, Le Anh Thoai, Nguyen Ha Yen Nhi, and Nguyen Thuy Truc responsible for the conceptualization, literature review and collected the data. Vo Minh Sang suggested the theory, analyzed the data. All the authors agreed the final version.

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