The Customer Perceived Values on Green Furniture Innovation based on 4C Theory and Practice in PRC

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Abstract: As the center of business today is gradually transfer from enterprise – oriented to customer-oriented, customer perceived value was paid more and more attention by various market participants. Meanwhile, with consumer's increasing environment and health consciousness, green product is becoming an inevitable trend all over the world. In case of the furniture industry uses wood and wood-based materials as its primary raw materials, it is practically important for this business to go green. The purpose of this study is to examine empirical research review on the impact of green furniture innovation on perceived 4C’s customer value grounded theory in terms of environmentally friendly materials, packaging and labels in the People's Republic of China (PRC). The qualitative approach was also used in conjunction with an online expert interview distributed to 11 sales managers from PRC furniture enterprises. The results confirmed that environmentally friendly material is the most important and valuable factors (average importance level 84%) for Chinese customer, followed by environmentally friendly packaging (average importance level 73%) and environmentally friendly labels (average importance level 69%). When it comes to purchasing cost, it is worthy our attention to notice that Chinese customers are more willing to accept this increased cost due to adoption of environmentally friendly materials, rather than packaging and labels.

Keywords: 4C’s, Customer Perceived Value, Green Furniture Innovation, the People's Republic of China

INTRODUCTION

Today, many countries face serious environmental deterioration and natural resources depleting problems that makes business and consumer confront one of the biggest challenges – to protect and preserve the earth’s resources and the environment [1]. A responsible organization should try to find a balance between economic, social, and environmental performance. In this context, business is pursuing a long-term sustainable economic development path and green products have emerged. As previous academicians have already noticed that more and more consumers today with environment and health consciousness that led to increasing demand for green furniture worldwide. China, the world’s second largest economy, has a growing demand for green furniture as well [2]. Furniture use wood and wood-based material as its main raw material was considered it can achieve sustainable industrial upgrading through green innovation. Thus, to be constantly updated of Chinese customers' demand for green furniture innovations is critical for those enterprises aiming to enter one of the biggest China furniture markets. Based on the 4C’s theory, this paper utilizes a qualitative review of literature research method including online interviews to 11 sales managers of Chinese furniture enterprises in order to in-depth understand the perceived value of green furniture innovations to Chinese customers in terms of eco-friendly materials, packaging and labels.

LITERATURE REVIEW

A. The grounded theoretical framework - 4C’s

Lauterborn proposed the 4C’s marketing mix model, which refers to consumer wants and needs, cost to satisfy, convenience to buy and communication as the catechism for our times [3]. The content includes four points. First, what the customer want should be sold rather than what you can manufacture. Second, enterprise should make every effort to reduce the cost of fulling the customer's demand. Third, enterprise should take every effort to give convenience to customer for purchasing. Finally, customer communication is more important than promotion [4]. According to Wang (2020), customers mainly refer to customer value. As his understanding on 4C’s as 1) enterprises must first understand their customers, and if necessary, do customer research to provide products that
meet their needs. At the same time, the enterprise provides not only products and services, but also the customer value that results from them. 2) cost comprises not only the enterprise’s production costs, but also the customer’s purchasing costs. The ideal situation of pricing should be lower than the psychological price of customers, and it can make the enterprise earn more profit. Furthermore, the intermediate customer’s purchase cost includes not only its currency expenditure, but also the time, spirit, physical strength and energy expenditure, and purchase risk it consumes. When buying goods, customers always desire to minimize the relevant costs to maximize their satisfaction. 3) convenience is to provide customers with the greatest convenience in shopping and use. 4C’s marketing theory emphasizes that when developing a distribution strategy, enterprises should prioritize the convenience of their customers over the convenience of the enterprise itself. Through good pre-sale, sale and after-sales service, customers can enjoy convenience while shopping. Convenience is an integral part of customer value. 4) communication includes providing consumers with information about store locations, goods, services, prices, etc., as well as influencing consumers’ attitudes and preferences, persuading consumers to patronize stores, buying goods and establishing a positive corporate image in the minds of consumers [5].

As several prior research has already suggested, with the development of the market, the center of the market has gradually changed from enterprises to customers and the market competition is shifting from product-oriented into customer-oriented nowadays. In this context, 4C’s marketing mix model is becoming popular among enterprise, industry, government and consumers. In comparison to the enterprise-centered 4P’s, 4C’s look at a marketing problem from the consumer perspective and it is customer-centered [6]. 4P’s is mainly considers what the enterprise wants to produce or provide, what price to set, how to distribute and promote, and what channels to choose for sales, whereas 4C’s primarily emphasizes that enterprises should first pursue customer satisfaction, then strive to reduce customer purchase costs, and pay full attention to customer convenience in the purchasing process (rather than determine the sales channel strategy from the enterprise’s perspective), and finally consumer-focused marketing communications should be effective [7].

B. Customer perceived value on green innovation

Consumers are driven by perceived value. Perceived value is an attribute related to product value perception, so it can establish a positive word-of-mouth effect and increase purchase intentions. Perceived value is crucial to marketing performance, because enterprises can cultivate consumers' purchasing intentions through consumers' perceived value [8]. Regarding the constituent dimensions of perceived customer value, there is no unified conclusion. Deng (2015) summarized the previous measurement of the perceived customer value dimension and proposed that perceived customer value mainly has dimensions such as price, quality, function, society, service, and emotional values, it was further pointed out that the main difference between traditional shopping and online shopping is the change of service value [9]. More generally, perceived value refers to consumers’ overall assessment of the net benefit from products and services. Perceived value explains how consumers perceive the benefits and utility they obtain from using products and the time and money they give for this [10]. Green perceived value refers to consumers’ overall appraisal of what they give for and receives from a product or service, based on their environmental desires, sustainability expectations, and green needs [11].

Bennington (1985) indicate that the perception of a piece of furniture is determined by its aesthetic appeal, functionality and durability [12]. However, the fact that furniture is sold on a perceived value rather than on an actual value is often overlooked as perceived value is very much dependent on the aspects of design and sympathetic use of material nowadays. Therefore, a furniture purchase, which was previously determined by price and quality, is being influenced by elements of feel-good factor, pride of ownership, environmental aspects, etc. This illustrates that furniture is no longer regarded as a functional item, but rather as a piece of merchandise that is an integral part of the lifestyle and home. Furniture is a product with a high value-added ratio. In some types of furniture, the wood material used is the care of the value of the piece of furniture but in others, such as some upholstered chairs, the proportion of wood, both in value and volume, is low while the piece of furniture is still considered high value. It must be noted that upholstered furniture has the highest trade value in the European Union (EU), followed by bedroom, kitchen and office furniture. Consumer tastes are moving towards lighter woods like beech, birch and maple. However, cherry, teak and other dark woods continue to be in vogue, reflecting trends of nostalgia and warmth. A move away from laminates and veneers, towards solid wood, is also underway. Rubberwood, however, is the main source for wooden furniture [13]. Through empirical analysis, Lu (2016) found that in the clothing retail, products, services, and the environment have a positive effect on customer perceived value. The study also emphasized the impact of clothing store image on customer perception value [14].
According to Larsen and Lewis (2007) discussed that one of the most important characteristics from an entrepreneur is the ability to innovative creation [15]. Without innovation, the company will not last long. This is because the needs, wants, and demands from customers change. Customers will not always consume the same product; they will look for other products from other companies that are feel can satisfy their needs. For this reason, it is necessary to have continuous innovation if the company wants to go ahead and stand up to its business. In conclude, the more product innovations a company makes, the higher its competitive advantage. In recent decades, environmental problems have become an increasing concern for the general public as well as academia worldwide as many countries face serious environmental deterioration problems [16]. With consumer’s rising health and environment consciousness, green product is becoming a global trend nowadays which is pulled by consumers and spurred by governments [17]. Therefore, green innovation is necessary for enterprises to differentiate their products from competitors as well as to enter the green products market. Green innovation or environmental innovation is defined as changes in products, services, or business models undertaken by organizations to sustain their green orientation [18]. Renningsand Rammer (2009) stated that green innovation is a change made in an enterprise with all aspects and development in a sustainable manner, but its development must be seen from an environmental aspect. Furthermore, it was stated that green innovation has two dimensions, such as green product innovation and green process innovation [19]. Green product innovation has the ultimate goal to improve a product in order to increase consumers and new markets. A product is designed in an environmentally friendly manner, whereas green process innovation is carried out to increase productivity and cost efficiency with an environmentally friendly process. Green product innovation is a multi-phase process that focuses on three major environmental themes: materials, energy, and pollution, which are highlighted based on the major environmental impact at different phases of the product life cycle, despite the fact that not all products have a significant environmental impact at each stage of the life cycle, but almost all products have a significant environmental impact in at least one of the stages of the life cycle [20]. According to Ar (2012) stated that green product innovation was environmentally friendly materials, environmentally friendly packaging, products with recycled and the use of environmentally friendly labels [21]. In general, the goal of green product innovation is to create environmentally friendly new or modified products in order to reduce environmental impact. Green product innovation is environmentally friendly and covers the introduction and improvement of products using environmentally friendly or recyclable materials. It can reduce the environmental impact of using production inputs, includes product modifications aimed at energy conservation, prevention pollution during product usage [22].

Green innovation or environmental innovation is a driving force underlying the achievement of a low-carbon economy and sustainable growth. The European Union (EU) has pledged to implement the Eco-Innovation Action Plan through environmental policy and financing instruments in order to promote funding of green innovations in Small and medium-sized enterprises (SMEs) [23].

C. Adoption green innovation in PRC furniture industry

With the rapid economic development globally, more and more consumers today with environment and health consciousness that led to huge demand for green products. According to an Accenture global survey, more than 80% of interviewees consider a product’s environmental performance when making a purchasing decision [24]. In other words, the green quality of products can bring certain added value and competitiveness. Green market has been continuously and rapidly growing worldwide. In current period, an extensive number of researches identified that go green is imperative for an organization. The main types of green strategies gleaned from the literature are: (1) green innovation, (2) greening the organization, and (3) green alliances. The development of innovation was considered as the key motivation for enterprises attempting to go green [25].

PushpanathanandDhananjani Silva (2020) indicated that the recyclability, durability, biodegradability, renewability, low emission, local production and energy efficiency are the characteristics of the green products by comparing to the non-green products [26]. Consumers would purchase green products if their needs and wants for safety, quality, availability, and convenience are prioritized, and if they recognize that green products may assist to solve environmental problems. Consumers judge the value of a product using quality indicators and then combine this judgment to evaluate their purchase. The data analysis of Papadopoulos, KaragouniandTrigkas (2018) indicates that the three most important factors that influence the participants’ decision in purchasing green and smart furniture in general appear to be price, quality and functionality of the furniture [27]. Pressure from stakeholders is reported in literature as an important driver that motivates enterprises to engage in green innovationas industrial
enterprises’ pollution and hazardous waste have direct and indirect effects on stakeholders[28]. It includes both internal stakeholders (such as managers, leaders and supervisors) in stimulating green innovation in enterprises and also external stakeholders (such as competitor, supplier, customer) as external pressure which may encourage enterprises to adopt green innovation. It shows that the commitment of the top management team to green innovation is effective as the team directly influences decisions in the enterprise. Berrone, Fosfuri, Gelabert and Gomez-Mejia (2013) suggested that institutional pressures can prompt green innovation, particularly in corporations exhibiting perceived deficiencies in environmental responsibility [29]. Environmental regulations have been identified as the main determinant of enterprises in understanding the dynamics of green-innovations. It was revealed in the documentation that regulations play a key role in green production innovation and indicate that public subsidies could be an instrument that supports enterprises adopting environmental innovations. Governments can mandate enterprises to use pollution control technology and reduce their environmental impact. They can also encourage enterprises to implement proactive green process innovation to control the environmental impact of their production process, failure to meet with the demand of regulatory stakeholders leads enterprises to penalties, fine, lawsuits, and even loss of operating permits[30]. Therefore, enterprises should consider innovation and environmental issues when entering green products market in order to differentiate from competitors.

D. The impact of green innovation and perceived values

As noted by Küçükoğlu and Pınar (2015) that there is a strong positive impact of green innovation on the enterprise’s environmental performance, green innovation assures efficient usage of materials along with the reduction of pollutants and tends to improve the overall image of an enterprise and as a consequence can lead to better market performance [31]. Furthermore, Ardyan, Nurtantiono, Istiyanto and Rahmawan (2017) found evidence of green innovation’s ability to significantly increase sustainable competitive advantage and enterprise’s market value, which in turn improves the overall performance of enterprises in their study [32]. Green product innovation benefits customers because besides having environmentally friendly benefits, green products will also produce personal environmental benefits for customers, such as energy savings. So, this will indirectly create more demand and enterprises will be motivated to carry out better innovations. The finding of study by Buswari, Setiawan and Khusniyah (2021) suggested that green product innovation has a positive highly significant effect on competitiveness and business performance according to their survey to 638 Small and medium-sized enterprises (SMEs) at East Java in Indonesia [33]. The researchers argue that green product innovation is a determining factor for both business performance and also competitive advantage, green product innovation that is carried out creatively is an important factor for the success of SMEs. Li, Ngniatedema and Chen (2017) found that green innovation reduces production costs in the long run and increases the demand for green products [34].

According to research finding of Soon and Kong (2012), green perceived value had the positive significant influences on green purchase intention, the higher perceived value, the stronger consumer’s purchase intention of green products. Customers are more willing to buy green when they perceive the value of green products to individuals and the impact they have on the environment [35]. Therefore, enterprises should gain customers’ insight from this point of view and increase the green perceived value as much as possible.

THE 4C’S CONCEPTUAL FRAMEWORK

The Fig.1 implies the 4C’s concept framework on green furniture innovation theory VS green furniture innovation practice, which is outlined that environmentally friendly materials, packaging and labels as dynamic factors to have influence on perceived 4C’s customer value in terms of customer needs and wants, cost to satisfy, convenience and communication. According to the model, green furniture innovation practice is consistent with green furniture innovation theory in overall, however, a difference in the degree of conformity do exist between theory and practice.
Notice: According to interview feedback from 11 sales managers from furniture enterprise in PRC, all findings are consistent with the perceived 4c’s customer value theory grounded framework. It can conclude that environmentally friendly materials, packaging and labels have a significant impact on perceived 4C’s customer perceived value. More specific details were explained in below parts as followings:

Firstly, 91% (10/11) of respondents agree that environmentally friendly materials are Chinese customer’s needs and wants and there is a same agreement rate who believe using environmentally friendly materials can bring customer convenience. 73% (8/11) agree using environmentally friendly materials to produce green furniture will increase customer’s purchasing cost, which is consist with previous study says that customer is willing to pay more for green furniture. 82% (9/11) of them claim that using environmentally friendly materials can enhance communication with customers.

Secondly, the recognition on environmentally friendly packaging attain extremely high level also, 91% (10/11) of respondents believe that using environmentally friendly packaging for green furniture is Chinese customer’s needs and wants, however, only 55% of them (6/11) claims that the using environmentally friendly packaging will increase customer’s purchasing cost, while 36% (4/11) argue that the purchasing cost should not increase even if enterprise use environmentally friendly packaging for green furniture. In other words, customer expect similar purchasing cost between green furniture which using environment friendly packaging and conventional furniture with ordinal packaging, 9% (1/11) say it is not applicable. The agreement on using environmentally friendly packaging will provide customers more convenience and bring better communication is with the same rate at 73% (8/11).

Thirdly, when it comes to environmentally friendly labels, some respondents do not believe that using environmentally friendly labels is needs and wants of Chinese customers which count for 27% (3/11) while others 64% (7/11) think so. There is 55% (6/11) of respondents believe that using environmentally friendly labels will raise consumer purchasing cost, whereas 36% (4/11) believe that using environmentally friendly labels would not raise customer purchasing cost, and 9% (1/11) believe it is not applicable. The respondents who believe that adoption of environmentally friendly labels can bring consumers more convenience and better communication account for 82% (9/11) and 73% (8/11) separately.

In short, according to the interview feedback from these 11 sales managers, they believe that Chinese customers pay much attention on environmentally friendly materials and packaging. The practically special attention was paid on environmentally friendly materials which can see clearly that the score on environmentally friendly materials is the highest from all 4C’s aspects, followed by environmentally friendly packaging. In contrast, environmentally friendly labels with relatively low scores comparing to materials and packaging, this can illustrate from another
view that using environmentally friendly labels on green furniture products is not an absolute necessity for Chinese consumers at the present stage. An overall image percentage can be drawn as below Fig. 2:

<table>
<thead>
<tr>
<th>Average Importance level</th>
<th>4C’s perceived value on environmentally friendly materials, packaging and labels</th>
</tr>
</thead>
<tbody>
<tr>
<td>The most importance level: 100% - 90%</td>
<td>None</td>
</tr>
<tr>
<td>The upper medium importance level: 89% - 80%</td>
<td>Environmentally friendly materials (84%)</td>
</tr>
<tr>
<td>The medium importance level: 79% - 70%</td>
<td>Environmentally friendly packaging (73%)</td>
</tr>
<tr>
<td>The lower medium importance level: below 69%</td>
<td>Environmentally friendly labels (69%)</td>
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</tbody>
</table>

Conclusion

In this study, we have explored the impact of green furniture innovation on customer perceived value in terms of environmentally friendly materials, packaging and labels based on 4C’s grounded theory. The main findings can be concluded as below Fig. 3:

It can be seen that environmentally friendly materials play a significant important role especially in terms of customer needs & wants and convenience aspects that both 2 factors get 91% importance level. For environmentally friendly packaging, the most important dimension considered by experts is customer needs and wants, counting as 91% importance level as well. Regarding to environmentally friendly labels, convenience takes the most important role as 82% importance level when comparing to other 4C’s factors. From the overview, the average importance level is ranked by environmentally friendly material (average importance 84%), followed by environmentally friendly packaging (average importance 73%) and environmentally friendly labels (average importance 69%).

The results have some implications for furniture enterprises management in PRC which is planning to enter green furniture market. These marketing enterprises should consider environmentally friendly materials as the most
important factors which may affect consumer’s purchasing decision on innovative green furniture, followed by environmentally friendly packaging. And environmentally friendly labels are not an absolute necessity for Chinese consumer at the present stage. More detailed, the vast majority of respondents believe that environmentally friendly materials and environmentally friendly packaging are in demand by Chinese customers. Furthermore, for environmentally friendly materials and environmentally friendly labels, enterprises also need to focus on its convenience both in shopping and use. As cost for environmentally friendly materials get the highest importance level as 73%, if local and international enterprises want to increase purchasing cost including increase price of green furniture, it should invest in environmentally friendly materials of green furniture rather than packaging and labels.

REFERENCES