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Identity Representation in Customization. A Case of Nike Shoes

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Abstract— **Customization has been well-studied in perspective of manufacturers in the context of developed countries, however, not well-explored in developing countries like Vietnam. The present research was conducted to address customization as a value creator, associated with the particular case of Nike's shoes, for consumers in Vietnam. Based on prior studies, a model was built to examine customization through the meaning of customized products. This research aims to determine important factors influencing the product meaning that young consumers use to evaluate Nike's products. Following a survey-based quantitative approach, Partial Least Square-Structural Equation Model (PLS-SEM) was used to analyze 227 participants, who have used Nike's products. The findings showed that personal identity-based motivation, social identity-based motivation, need for uniqueness, and aesthetic impressions were important predictors of customized Nike's shoes' meaning, which influences consumer evaluation of the products.**

Keywords— *Customer Behavior; Customization; Product Meaning; Identity Representation; Identity-based Motivation*

1. Introduction

Coming along with technology innovation, it seems like almost everything, now, is customizable in accordance to individuals' tastes and demands, hence it is considered as a standard for companies to offer customized products to meet the personal requirements of their consumers (Abnett, 2015). Companies should enable changes of their products attributes, which could be as simple as colors, flavors, materials, and features, or as complex as creating a totally new product for a specific group of clients (Cleverism, 2015). Mass customization has been applied for broadening the range of industries including food production (e.g. Kraft, M&Ms), automobile (e.g. Ford), footwear (e.g. Nike, Adidas) and computer (e.g. Dell, HP. Nike, a

pioneer in the shoe industry, operated mass customization since 1999, with NIKEiD available on Nike's online website at first. NIKEiD is an online service that grants consumers the ability to configure their own products, especially shoes, by customizing color, material, design and performance features in accordance to their preferences (Forbes, 2015). NIKEiD is a wonderful customization service applying modern technology, yet simple for consumers to use, and offers a considerable amount of items and customizable options. It is a demonstration that Nike has realized the importance of customization.

In Vietnam, customization is a growing trend since many small-medium enterprises offer self-designing and customize-in-order services to consumers. Their products are mainly T-shirts (e.g. aoin.vn; aothuntuthietke.com; aothun.vn), shoes (e.g. KQ CUSTOMS) and cards (e.g. thiephong.vn). However, multinational companies have not considered Vietnam as a potential market to launch their customization services. Specifically, many famous brand names such as Nike, Adidas, Dell, and HP have not provided their customization services in Vietnam, although they have already been selling their products for a long time. This may be because of several reasons involving Vietnamese consumption behavior, and the companies' facilities and distribution being unfavorable for their customization services. However, Vietnam is an emerging market with rapid economic growth, and Vietnamese consumers are evolving (BDG Vietnam, 2016). They are less price-sensitive since their income level increases, thus, they demand products of high quality and are influenced by tastes and brands (Thanhnien News, 2016). Online shopping is a rising trend in Vietnam and is strongest for fashion, utilities, travel, and gaming (Burrage, 2016). Given those conditions, Vietnamese young people have a tendency to

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experience new things, spend money rather than save, and adopt modern lifestyles. Wearing shoes/sneakers has become more and more convenient for them. In addition, they have a strong urge to express their characteristics due to the increasing influences of social networks. Particularly, the growth of the internet and social media has allowed 35 million Vietnamese people to express themselves online in 2015 (Burrage, 2016). Thus, customized products, including shoes/sneakers, can become one of their considerations to achieve that goal.

In terms of research, "mass customization is stressed by academicians in different ways" (Addis and Holbrook, 2001). It has been studied in association with product design (e.g. Franke, Schreier, and Kaiser, 2010), technology (e.g. Goto and Ishida, 2014), business strategy (e.g. Tseng and Piller, 2011), consumer behavior (Tseng and Hu, 2014; Coelho and Henseler, 2012), and consumer value (e.g. Prahalad and Ramaswamy, 2013). However, limited research pays attention to the meaning that customized products hold for customizers (Herd, 2011). Marketers and manufacturers would need more understanding of that matter, however, most research about the topic of customization was conducted in the context of developed countries. In addition, firms need to put themselves in customers' "shoes" to evaluate customization, because companies who aim to be "smart customizers" have to deeply understand the roots of value that customization offers their consumers (Jaruzelski and Jones, 2007). And as Richins (1994) suggested, meaning is an important element of value.

Thus, the purpose of the present research is two folds. First, to identify determining factors of the meaning of Nike's customized shoes in the perspective of young Vietnamese consumers. Second to analyze how the meaning affects their evaluation of the products. In order to achieve those purposes, the present research employed survey-based quantitative approach with the help of SmartPLS3. Partial Least Square-Structural Equation Model (PLS-SEM) was used to analyze 227 participants, who owned Nike's products. The results of data analysis provided that personal identity-based motivation, social identity-based motivation, need for uniqueness, and aesthetic impressions were important predictors of customized Nike's shoes' meaning, which has influences on consumer evaluation of the products.

2.   Literature Review

2.1   Product Meaning

According to Solomon (1983), "Products are consumed both for their social meaning… and for their private meaning". Public meanings (shared meanings) are the subjective meanings, which are perceived by outside observers (non-owners) of the product, that is, by members of community or society at large. The public meanings of consumer goods have been studied in several different contexts including communications (Holman, 1976; Burroughs, Drews, and Hallman, 1991; Dittmar, 1992), possession value (Prentice, 1987), and customization (Herd, 2011). According to the study of Herd (2011), shared meanings tend to be dominant when products are composed of elements or symbols that are commonly agreed upon by non-owners. Private meanings (personal meanings) of a consumer product are the subjective meanings perceived by an individual (owner of the product), such meanings originate from "the owner's personal history in relation to the object" which outside observers cannot recognize (Blumer, 1969; Hirschman, 1986; Richins, 1994). A deluxe limited edition of iPhone 7, for example, may be perceived as a valuable object due to its rarity by other people (shared meaning of the object), it also holds personal meanings for its owner, that the gold cast monolithic monkey on its back panel represents the birth year of the owner's child.

While public meanings may have a strong effect on conforming desire and determining the types of products people want to purchase, private meanings play a critical role in detecting the consumer's feelings about consumer goods (Richins, 1994). Customization enables consumers to modify attributes and features of consumer goods, thus, it has an influence on their the meanings. In other words, consumers have chances to create meaningful products, which contain a different combination of public and private meanings (Herd, 2011). Meaning is determined in multiple manners, and involving several dimensions (Richins, 1994). There are about five dimensions of meaning proposed in a study of Noth (1988), which discusses utilitarian, economic, sociocultural, aesthetic and sacred dimensions. Most of the meanings that create value, however, can be placed in groups including utilitarian, enjoyment, representations of interpersonal ties, and identity

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(self-expression) (Richins, 1994). In research about meanings in relations with product design and technology, product meaning is composed of aesthetic impression, semantic interpretation, and symbolic association (Crilly, Moultrie, and Clarkson, 2004; Goto and Ishida, 2014). It is proposed that experience of meaning is one of three main elements of product experiences (Desmet and Hekkert, 2007). The meaning element consists of consumers' abilities to ascribe personality or other expressive characteristics, and to determine the personal or symbolic importance of products, which are in conformity with Crilly et al.'s (2004) concepts "semantic interpretation" and "symbolic association". Furthermore, Herd (2011) studies product meaning in the context of customization, examining three aspects: identity-based motivation, design freedom, and need for uniqueness.

2.2   Product Evaluation

Value is a thoroughly studied subject, which has been examined in a variety of disciplines. Both commercial and marketing approaches view value in the light of economics that value of consumer goods is justified by their price in relation to quality. This, however, is not enough to represent the genuine value that products hold for consumers (Richins, 1994) since a product's value has a connection to the consumption experiences related to that product (Holbrook, 1994). There are other researchers that link value of a product with its meanings (Baudrillard, 1981; Bloch and Richins, 1983; Douglas and Isherwood, 1979; Herd, 2011). Scholars provide two main reasonings on the relationship between product meaning and value. One is about the intrinsic communicative capability of owed objects, saying that they can project personal and social information of their owners, thus, consumers choose and value products due to the communicative meaning they hold (Douglas and Isherwood, 1979). The other reason is about products and their meaning influencing consumers' self-expression (identity) (Belk, 1988, Wicklund and Gollwitzer, 1982). As consumers possess products because of the value they bring and that value derives from their meaning, thus, product evaluations are examined in order to dig deeper into the association between product meaning and value. In the context of customization, the value is added to customized products when customers build additional meaning into them via a customizing process (Herd, 2011).

In a study about benefits of customized products brought to consumers, relative to standardized products, it is discovered that products customized for the primary reason of consumers' preferences will generate significantly higher benefits for consumers in terms of willingness to pay, purchase intention, and attitude toward the products (Franke, Keinz, and Steger, 2009). According to Schreier (2006), customized products, in comparison with standardized ones, may provide consumers with additional pleasant benefits including closer fit between individual needs and product characteristics; perceived uniqueness of customized products; and do-it-yourself effects. In addition, a comprehensive study about the perceived value of customized products and customized experiences focuses its view on the benefits perceived by individual consumers and proposes five aspects of value of customization including utilitarian value, uniqueness value, and self-expressiveness value grouped into mass-customized product values; then hedonic value and creative achievement value classified as co-design process values (Merle et al., 2010). These elements have been studied as aspects of product meaning in previous research (e.g. Noth, 1988; Richins, 1994; Ligas, 2000; Desmet and Hekkert, 2007; Crilly et al., 2004; Goto and Ishida, 2014).

2.3   Identity-based Motivation

According to Kirmani (2009); Oyserman and Destin (2010); Herd (2011), identity, what comes to mind when one thinks of himself/herself, consists of two main elements: a personal identity and a social identity. Personal identity is associated with the independent self, which includes the self's elements that are unique such as distinguishing traits, personalities or purposes. On the contrary, social identity is associated with the interdependent self, meaning it includes the self's elements that are related to group membership or personal relationships. "They (people) know who they are and who they are directing their choices. In that sense, choices feel identity-based and identity-congruent" (Oyserman, 2009, p. 276). An identity can be personal or social, either way, related to specific patterns of behavior, and to particular ways of making meaning out of everything (Oyserman, 2009). Identity may be firmly established, yet, highly responsive to the situational signal.

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Moreover, identity involves not only content but also readiness to behave inconsistency with the identity. Thus, any behavior (positive or negative, utilitarian or symbolic) can become identity-congruent (Oyserman, 2009). Thus, identity-based motivation model is based on the significant role of identity in rooting for meaning-making and for behavior (Oyserman and Markus, 1998). Personal identity motivations drive people to behave inconsistently with characteristics and value that distinguish them as unique persons (Oyserman, 2009). In the context of standardized products, consumers can differentiate themselves by using symbolic products, which are only owned by the minority, or by staying away from prevailing products (Berger and Heath, 2007; Tian, Bearden, and Hunter, 2001). In the context of customization, consumers are able to individualize themselves via customized products that can make their personal achievements and their distinctive features stand out. Personal identity-motivated consumers may choose design elements indicating their distinctiveness without taking outside observers' interpretation into account (Herd, 2011).Social identity motivations stimulate people to behave in accordance with their perspectives regarding the state of belonging to groups, and their connection with appreciated people (Brewer and Gardner, 1996; Oyserman, 2009). Without customization, consumers can show their collectivity via products displaying their group memberships or their valuable relationships (Berger and Heath, 2007; Berger and Ward, 2010; Escalas and Bettman, 2005; Han, Nunes, and Dreze, 2010; White and Dahl, 2007). With the assistance of customization, social identity-motivated consumers prefer design elements relatively comprehensible to others, for instance, pictures showing their relationships with others, or icons of their social groups (Herd, 2011).

2.4   Design Freedom

In order to make customization functions available to consumers, companies have to consider options regarding the quality of the customization process and the fulfillment customers feel about products they create (Dellaert and Stremersh, 2005; Randall, Taylor, and Ulrich, 2007; Valenzuela, Dhar, and Zettelmeyer, 2009). Choosing the appropriate toolkit for consumers to create their own products is critical (Herd, 2011). According to von Hippel and Katz (2002), toolkits are sets of "user-friendly"

design tools working together in a harmonizing manner to provide consumers with the ability to create products of their preferences. Toolkits allow consumers to customize products, that can be manufactured, via repeating trial-and-error. In research about value of mass-customization toolkits, Franke, Schreier, and Kaiser (2010) demonstrates the benefits of "I designed it myself" effect for consumers, leading to a conclusion that a customization toolkit has to provide not only the maximum value of preference fit and minimum value of design effort, but should also bring the "I designed it myself" feelings out of consumers. There is a variety of toolkit options that companies can consider depending on their simplicity and their degrees of freedom offering to consumers (Franke, Schreier, and Kaiser, 2010; von Hippel and Katz, 2002).

Different level of simplicity and degrees of freedom of customizing toolkits will have a different impact on consumers' design experiences. A low-simplicity toolkit will offer consumers options regarding colors, sizes, and materials, which are set in advanced. Whereas, a sophisticated toolkit will grant consumers the ability to create their own design elements, such as embroidered texts, or pictures of their own (Herd, 2011). When granted with "true design freedom", deriving from a more sophisticated toolkit, consumers are able to customize products more creatively (von Hippel, 2001). Thus, it is proposed that level of design freedom will influence the meaning that consumers create in their customized products (Herd, 2011).

2.5   Need for Uniqueness

It is proposed that people have different instinctual needs to distinguish themselves from others (Snyder and Fromkin, 1977), via their consumption behavior (Tian, Bearden, and Hunter, 2001). That need is conceptualized as consumers' need for uniqueness, which is explained as one seeking for distinctiveness, compared with others, attained via purchasing, using, and handling consumers products as a means to enrich and strengthen his/her personal and social identity (Tian, Bearden, and Hunter, 2001). The need for uniqueness is expected to have impact on not only standardized products but also self-designed ones, in the sense that consumers who seek uniqueness will appreciate nonidentical goods, thus, they are more likely to build their desired meaning into

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customized products (Herd, 2011) because they provide the "illusion of having one-of-a-kind" (Toffler, 1970). Moreover, they have a tendency to assess their products more favorably because one-of-a-kind products improve evaluations (Franke and Schreier, 2008).

2.6   Aesthetic Impression

It is a fact that "a good design attracts consumers to a product, communicates to them, and add value to the product by increasing the quality of user experiences associated with it" (Bloch, 1995). Thus, product appearance has become more important in a heterogeneity of product types, even in types whose pleasing appearances seem trivial such as cleaning buckets and vegetable peelers (Bloch et al., 2003). A pleasant-looking product brings value to consumers (Schmitt and Simonson, 1997), however, the origin of the latent value is mostly undiscovered (Herd, 2011).According to Crilly, Moultrie, and Clarkson (2004), the aesthetic impression should be distinguished from product aesthetics which refer to the outward aspects of products that consumers sense (Lewalski, 1988). The aesthetic impression can be explained as consumers' feelings or experience of the perception of products' pleasing appearance (Crilly, Moultrie, and Clarkson, 2004). In research regarding innovation of product meaning, Goto and Ishida (2014) mention that consumers' explanation of product meaning relies on product appearance since the first interaction consumers have with products is normally through their looks. That interaction is strongly affected by consumers' aesthetic impression of the products and has an essential impact on their consumption (Crilly, Moultrie, and Clarkson, 2004). In the context of customization, consumers are granted the ability to modify products' appearance to their preferences and to create additional meaning in their customized products (Herd, 2011). Since aesthetic impression is based on product appearance in relation with consumers' cognitive response and considered as an aspect of product meaning (Goto and Ishida, 2014), it is expected that aesthetic impression plays a similar role with customized products.

2.7   Literature Gaps

When reviewing existing studies, there is an extensive amount of research dedicated to product meaning and product value, however, only a few

pay attention to product meaning that consumers create in their products through customization process, and to how they evaluate their customized products. Given these facts, the connection between product meaning and product evaluation have been well-explored, yet, it is not often examined in the context of customization. Other limitations in the literature involve some of the constructs considered in the present research. Identity representation, particularly, identity-based motivation need to be further explored to find expansive understanding of meaning and value created by/for consumers and companies. Then, design freedom, which is associated with manufacturer decision should be considered in the view of consumers for examination of their response to it. And lastly, aesthetic impression, one of the consumers' cognitive response seen regularly in product design literature, however, rarely in studies about the customized product in the perception of consumers. In addition, a majority of customization research is conducted in the environment of developed countries, where customization has a long history of developing, growing, and innovating. Few studies explore customization phenomenon in developing countries, thus, only a few of them are conducted in the Vietnamese context where consumers have a different consumption behavior from those in developed countries.

3.   Methodology

3.1   Research Model and Hypothesis

The research model was built on prior theoretical foundations of customization and consumer behavior (e.g. Herd, 2011; Oyserman, 2009; von Hippel, 2001; Franke, Schreier, and Kaiser, 2010; Tian, Bearden, and Hunter, 2001; Crilly, Moultrie, and Clarkson, 2004; Richins, 1994), which suggested important factors for solving the research question. The research subject, Nike customized shoes, was examined for its Product Meaning in consumers' perspective and how it influences consumers' Product Evaluation. Several predictor factors were proposed for determination of Product Meaning including Personal Identity-based Motivation, Social Identity-based Motivation, Design Freedom, Need for Uniqueness, and Aesthetic Impression. In the present study, Product Meaning (PM) represents the meaning that consumers built into their customized products, and

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Product Evaluation (PE) refers to how consumers evaluate their customized products.
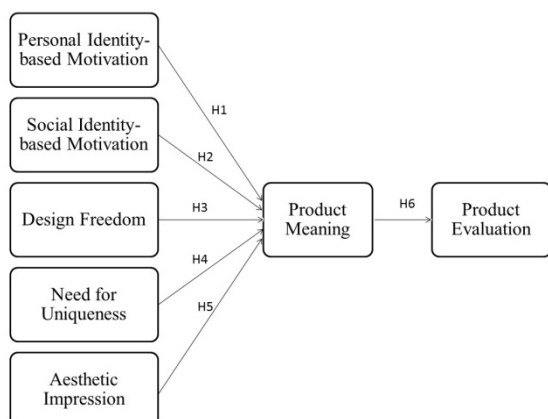
Figure 1. Research Model for Meaning and Evaluation of Customized Product

The research hypotheses supporting the proposed model are shown as follows:

H1: There is a positive relationship between Personal Identity-based Motivation and Product Meaning

H2: There is a positive relationship between Social Identity-based Motivation and Product Meaning

H3: There is a positive relationship between Design Freedom and Product Meaning

H4: There is a positive relationship between Need for Uniqueness and Product Meaning

H5: There is a positive relationship between Aesthetic Impression and Product Meaning

H6: There is a positive relationship between Product Meaning and Product Evaluation

3.2   Questionnaire and Sampling

Data was collected via the use of a survey conducted both online and offline. An online survey form was created on Google Forms. The survey link was distributed through social networks, particularly Facebook, to targeted participants. The off-line survey was conducted by handing the printed questionnaires out directly to the participants. Participants of both situations were asked for their willingness to give their responses prior to receiving the questionnaire. The collected data was entirely from participants, who voluntarily completed the survey. The questionnaire provided precise information regarding the contents and purpose of the survey. There were two groups of questions. Personal information questions, in the form of multiple choices, asked for general

information of the participants, which related to the research context. And the questions for the constructs were adopted their indicators. The constructs questions were based on 5-point Likert scale, 1-5 corresponding with Strongly Disagree-Strongly Agree.

Table 1. Measurement Scale

Constructs	References	Items
Personal Identity-based Motivation	Campbell et al., 1996; Berger, & Heath, 2007; Herd, 2011	4
Social Identity-based Motivation	Luhtanen, & Crocker, 1992; Berger, & Heath, 2007; Herd, 201	4
Design Freedom	von Hippel, & Katz, 2002; Franke, Schreier, & Kaiser, 2010	3
Need for Uniqueness	Tian, Bearden, & Hunter, 2001	4
Aesthetic Impression	Bloch et al., 2003	4
Product Meaning	Richins, 1994	5
Product Evaluation	Schlosser, & Shavitt, 2002; Franke, Keinz, & Steger, 2009; Schreier, 2006	5

The sample size needed to establish statistical validation for the present research is justified by a variety of prior studies. Comrey and Lee (1992) suggested a minimum sample size of 200 for an adequate analysis. Rhea and Parker (2014) stated a minimum sample size of 218 is enough to gain sampling accuracy with a confidence level of 95%. Hair et al. (2016) cited the 10 times rules (Barclay, Higgins, and Thompson, 1995) which indicates that the sample size should be equal or larger of 10 times the maximum number of arrows pointing at a construct, applying to PLS-SEM. Hair et al. (2016) also mentioned Cohen's (1992) recommendation of sample size in PLS-SEM for a statistical power of 80%. Following the two studies, the minimum sample size appropriate for the present research is 70 with a statistical power of 80% for the R^2 value of at least 0.25 and a 5% probability of error. At the end of the survey, 267 responses were collected (118 responses from an online survey, and 149 off-

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line), expecting to meet statistical accuracy requirements. The targeted participants for the present research were young Vietnamese consumers. In order to achieve convenience and time-efficiency in data collection, the researcher narrowed the target down to students of Vietnam National University in Ho Chi Minh City.

3.3   Questionnaire and Sampling

Given the literature reviewed, 29 measures were identified for all constructs. They are used to observe each construct in the context of Nike customized shoes in the perception of Vietnamese young consumers. They build a solid base for data collection for the present research. Among these constructs, Personal identity-based motivation, social identity-based motivation, and design freedom will be measured reflectively; the need for uniqueness, aesthetic impression, product meaning, and product evaluation will be measured formatively. The proposed hypotheses were then tested via two analysis techniques including Confirmatory Factor Analysis (CFA) and Partial Least Squares-Structural Equation Modeling (PLS-SEM). The statistical analysis software utilized in the research was SmartPLS 3 which can run both measurement and structural model analysis. The evaluation criteria used were adapted from guidelines of Garson (2016), and Hair et al. (2016) for examining research models with SmartPLS.

4.   Results and Findings

4.1   Data Screening

In preparation for measurement and structural model analysis, a data screening was executed with all responses collected (N = 267) in SPSS 23. The screening results showed that there were no data points being unfilled, and all measurement items meet the requirements of distribution that Skew value ranges from -2 to 2, and Kurtosis value ranges from -7 to 7 (Curran, West, and Finch, 1996). The dataset showed values of Skewness from -1.19 to 0.04 and of Kurtosis from -0.8 to 2.07. There were no univariate outliers in the dataset since there were no standard variation values exceeding 3.29 (Tabachnick and Fidell, 2007). In screening for multivariate outliers, Mahalanobis distance was calculated for each response and compared with the critical value of 56.9, which is corresponding with a number of

indicators of 29 and the chi-square distribution with $p= 0.001$ (Tabachnick and Fidell, 2007). There were 6 responses having Mahalabonis distance larger than 56.9, thus, they are deleted from the dataset. After screening, there were 261 responses suitable for further analysis.

4.2   Demographic Information

Table 2. Demographic Information

Description	Frequency	Percentage (%)
Gender		
Male	122	46.7
Female	139	53.3
Age		
18 - 22	242	92.7
23 – 28	18	6.9
29 - 35	1	0.4
Over 35	0	0
Income/Allowance		
0 – 5 million VND	223	85.4
5 – 10 million VND	36	13.8
10 – 15 million VND	1	0.4
Over 15 million VND	1	0.4
Frequency of purchasing shoes		
One pair per year	98	37.6
2 – 3 pairs per year	132	50.6
4 – 5 pairs per year	23	8.8
Over five pairs per year	8	3

There were 261 valid responses filtered through preliminary screening. The participants of the survey were asked for their personal information relating to the purposes of the present research. It was found that among 261 participants, 122 of them are male and 139 are female, equivalent to 46.7% and 53.3% respectively. All of the participants were in their young ages (92.7% in the age range of 18-22, 6.9% in the age range of 23-28, only 1 respondent was in the age range of 29-35). The majority of participants wear shoes (20.3% of the respondents indicated that they wear shoes 50-70% of the total time of outdoors, 18% responded to 70-85% of the total time of outdoors, and 42.5% responded to 85-100% of the total time of outdoors). The participants also had moderate intention to buy new shoes (37.6% of the respondents purchased one pair of shoes per year, 50.6% responded to 2-3 pairs of shoes per year, 8.8% responded to 4-5 pairs of shoes per year, and

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3% responded to more than 5 pairs of shoes per year). This demographic information proved the present research had an appropriate data source for solving the proposed research questions. Since the present research is aimed to study the perception of Vietnamese young consumers on Nike customized shoes. Thus, only responses indicating the possession of Nike shoes were selected for further analysis. This resulted in 227 responses being

examined in CFA and PLS-SEM analysis.

The research model was analyzed via CFA analysis to test the reliability and validity of the measurement model (outer model). Because the model has both reflective and formative constructs, evaluations of the outer model were conducted first, for reflective measurement model, then, for formative measurement model. Figure 2 shows the research model qualified for outer model analysis.
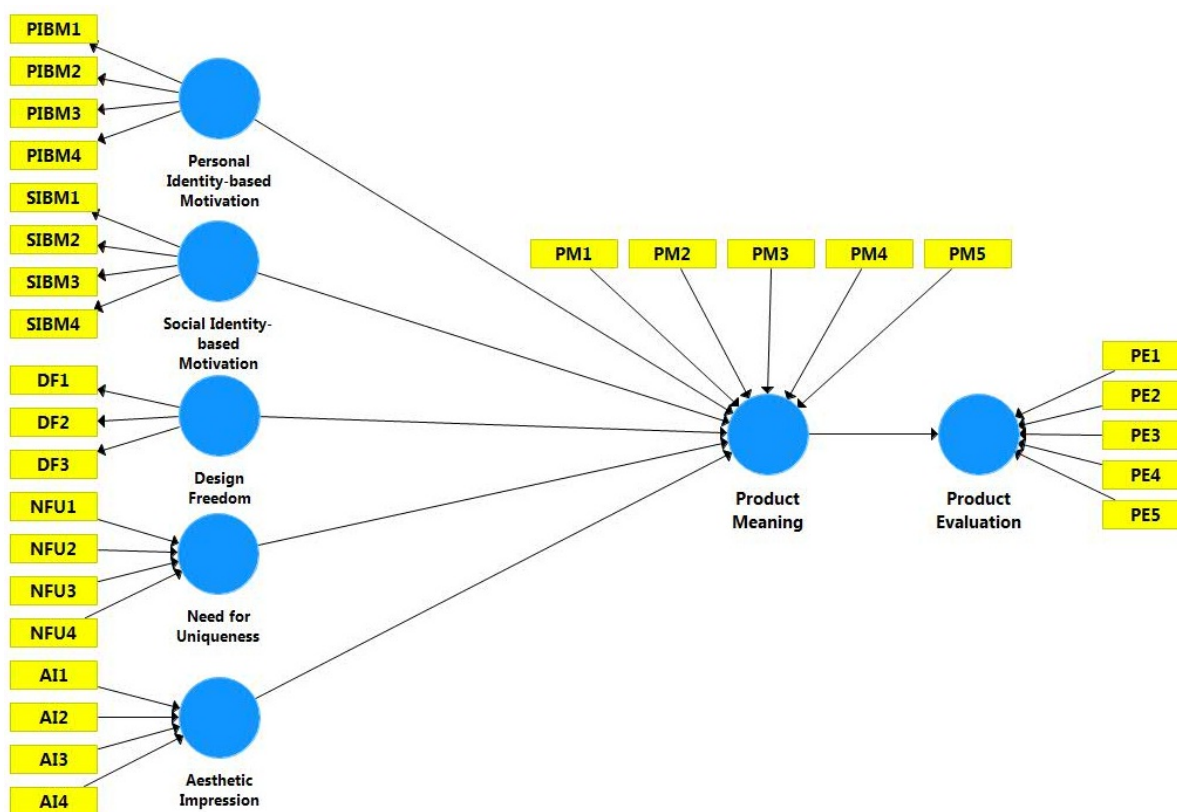

Figure 2. Research Model before Measurement Model Analysis

Table 3. Descriptive Statistics

Construct/ Associated items		Survey Questions	Mean	SD
Personal Identity-based Motivation (PIBM1, PIBM2, PIBM3, and PIBM4)	1.	In general, I have a clear sense of who I am, what I am, and what I want, regardless of what people say.	3.91	0.823
	2.	I tend to buy/use products or brand that the majority does not own.	3.27	0.910
	3.	I customize the product to have a unique design of my own.	3.54	0.932
	4.	I will add elements (e.g. icons, picture, color choice, etc.), which have personal meanings to me, to my customized products.	3.78	0.918
Social Identity-based Motivation (SIBM1, SIBM2, SIBM3, and	1.	My socialization (e.g. group memberships, interpersonal connections, relationships) is an important reflection of who I am.	3.76	0.738
	2.	I love using products which have designs showing which	3.33	0.882

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SIBM4)		social groups I belong to.		
	3.	I customize the product to have design showing my important relationships (e.g. with family, significant others) or my belonging to social groups.	3.36	0.847
	4.	I will add elements (e.g. icons, picture, color choice, etc.), which have well-known meanings, to my customized products.	3.36	0.898
Design Freedom (DF1, DF2, and DF3)	1.	I feel awesome to be able to create products that fit my preferences better than mass-produced products.	4.13	0.826
	2.	The customizing options offered are enough to create products for my taste.	3.43	0.819
	3.	I can interact easily with customization functions offered by the producer to create products of my desire.	3.49	0.778
Need for Uniqueness (NFU1, NFU2, NFU3, and NFU4)	1.	I often look for one-of-a-kind products or brands so that I create a style that is all my own.	3.19	0.943
	2.	I actively seek to develop my personal uniqueness by buying special products or brands.	3.37	0.943
	3.	When a product I own becomes popular among the general population, I begin using it less.	3.11	1.107
	4.	I dislike products or brands that are customarily purchased by everyone.	3.15	1.096
Aesthetic Impression (AI1, AI2, AI3, and AI4)	1.	I have the ability to imagine how a product will fit in with designs of other things that I already own.	3.91	0.834
	2.	I have a pretty good idea of what makes one product look better than the others.	3.71	0.827
	3.	If a product's design really "speaks" to me, I feel that I have to buy it	4.06	0.842
	4.	When I see a product that has a really great design, I have a strong urge to buy it.	3.95	0.861
Product Meaning (PM1, PM2, PM3, PM4, and PM5)	1.	Using customized products is a way to improve my mood and my confidence.	3.70	0.785
	2.	Customized products will represent my ability to create unique designs.	3.91	0.788
	3.	Using customized products is a way I express myself (e.g. personality, preference, taste, goal, etc.)	3.95	0.745
	4.	Using customized products is a way I improve my appearance.	3.85	0.817
	5.	Customized products have social prestige value, thus, give me social status.	3.52	0.938
Product Evaluation (PE1, PE2, PE3, PE4, and PE5)	1.	Customized products are more attractive than mass-produced products.	3.87	0.793
	2.	Customized products, that meet users' preference, are worthy of the extra prices.	3.88	0.811
	3.	Compared to standard products, customized products will better satisfy users' requirements.	3.94	0.785
	4.	Compared to standard products, customized products are more likely be what user really desire.	3.96	0.769
	5.	Compared to standard products, customized products will better meet users' preferences.	4.07	0.700

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4.3 Reflective Measurement Model Evaluation

Three reflectively measured constructs were examined in five criteria, including outer loadings, indicator reliability, internal consistency, convergent validity, and discriminant validity (Hair et al., 2016; Ringle, Wende, and Becker, 2015; Asyraf and Afthanorhan, 2013), via SmartPLS 3. To provide insight into the assessment of reflective measurement model, Tables 4-7 were presented.

Table 4. Outer Loadings and Indicator Reliability for Reflective Indicators

Reflective Construct	Indicator	Outer Loadings	Indicator Reliability
Personal Identity-based Motivation	PIBM1	**0.445**	**0.198**
	PIBM2	0.624	**0.389**
	PIBM3	0.844	0.712
	PIBM4	0.818	0.669
Social Identity-based Motivation	SIBM1	0.656	0.430
	SIBM2	0.810	0.656
	SIBM3	0.817	0.667
	SIBM4	0.753	0.567
Design Freedom	DF1	0.834	0.696
	DF2	0.708	0.501
	DF3	0.538	**0.289**

Table 5. Composite Reliability and AVE Values of Reflective Constructs

Reflective Construct	Indicator	Composite Reliability	AVE
Personal Identity-based Motivation	PIBM	0.786	**0.493**
Social Identity-based Motivation	SIBM	0.846	0.580
Design Freedom	DF	0.741	**0.495**

Table 6. Composite Reliability and AVE Values (without PIBM1 and DF3)

Reflective Construct	Indicator	Composite Reliability	AVE
Personal Identity-based Motivation	PIBM	**0.835**	**0.632**
Social Identity-based Motivation	SIBM	0.846	0.580
Design Freedom	DF	**0.758**	**0.614**

Table 7. Fornell-Larcker Criterion

	AI	**DF**	NFU	PE	**PIBM**	PM	**SIBM**
AI	Formative Construct						
DF	0.397	**0.783**					
NFU	0.349	0.436	Formative Construct				
PE	0.443	0.491	0.325	Formative Construct			
PIBM	0.338	0.535	0.511	0.435	**0.795**		
PM	0.586	0.475	0.570	0.572	0.503	Formative Construct	
SIBM	0.240	0.403	0.257	0.379	0.270	0.354	**0.762**

All indicators had loadings of larger than 0.5, except for PIBM1 with a loading of 0.445 meaning that PIBM1 may not be kept in the model, while the other indicators passed the outer loadings test. There were three indicators that did not meet the required indicator reliability value of at least 0.4, including PIBM1, PIBM2, and DF3. These indicators were considered to be removed from the model. Composite reliability values of the three reflective constructs exceeded the minimum value

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(0.6) required to show their reliability. AVE value of Social Identity-based Motivation passed the threshold of 0.5, as the other criteria of the construct were also satisfied, thus, all indicators of Social Identity-based Motivation were validated and retained in the model. Meanwhile, AVE values of Personal Identity-based Motivation and Design Freedom were lower than 0.5, meaning some of their indicators had to be removed from the model. Based on the outer loadings and indicator reliability values, PIBM1 and DF3 were eliminated, since PIBM1 did not meet both criteria, and DF3 was the only indicator of Design Freedom that has unsatisfied indicator reliability value. Computing of composite reliability and AVE values will be run again to examine the effect of the removal of PIBM1 and DF3. It was shown that both composite reliability and AVE values of Personal Identity-based Motivation and Design Freedom were improved and met the requirements of internal consistency reliability and convergent validity measures. Thus, the removal of PIBM1 and DF3 from the model was justified. PIBM2, although having an indicator reliability of 0.389 slightly lower than 0.4, was kept in the model since it did not bring negative influences (i.e. composite reliability and AVE values of Personal Identity-based Motivation were above 0.6, and 0.5

respectively), removal of it, however, might. The Fornell-Larcker criterion analysis indicated that the three reflective measures have discriminant validity since the square roots of AVE values of three reflective constructs on the diagonal (bold numbers) were the highest among other values in their respective row and column.

4.4 Formative Measurement Model Evaluation

Four formative constructs were examined in three criteria, including convergent validity, collinearity issues, and the significance and relevance of formative indicators, via SmartPLS 3. Figure 3, 4, 5, 6 show the results of redundancy analyses. These redundancy analyses exhibiting path coefficients of 0.770 (NFU), 0.765 (AI), 0.753 (PM), and 0.723 (PE), although not meeting the ideal value of 0.8, were considered acceptable. Because research on the subject of Nike customized shoes in the context of Vietnam could be regarded as exploratory research, which often requires slightly lower standards for measurement criteria. R^2 Value of four model reached moderate level. In addition, the four paths were highly significant at the level of 1% probability of error ($\alpha = 0.01$). Thus, the four formative constructs had an acceptable level of convergent validity.
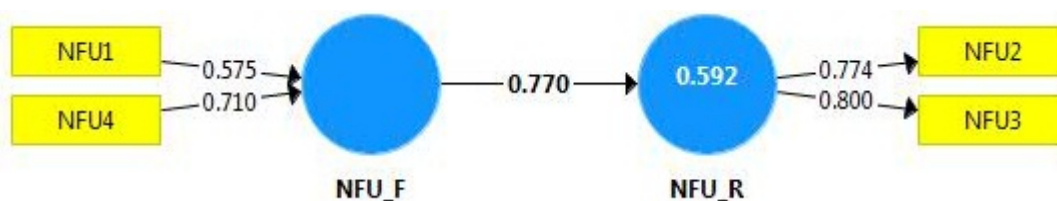

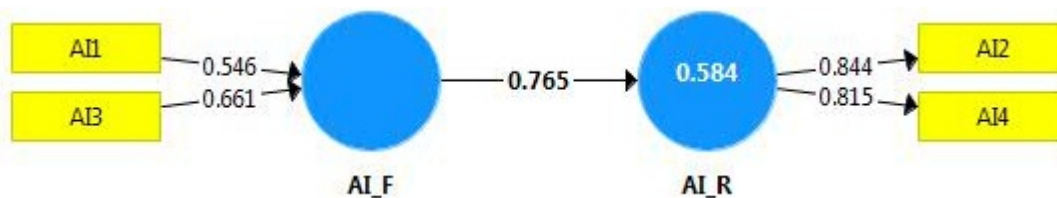**Figure 3.** Redundancy Analysis for Need for Uniqueness

Figure 4. Redundancy Analysis for Aesthetic Impression

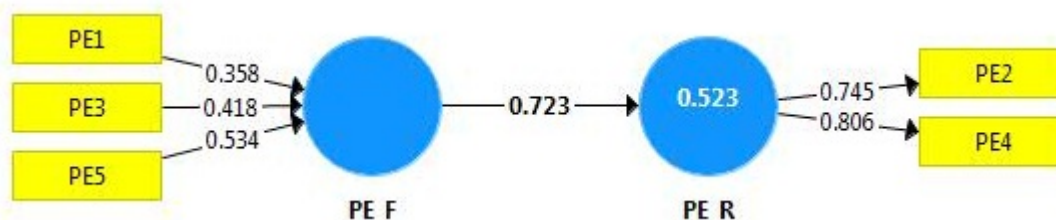**Figure 5.** Redundancy Analysis for Product Meaning

Figure 6. Redundancy Analysis for Product Evaluation

Table 8 and 9 were presented for deeper insight into the assessment of formative measurements model. Since all of the VIF values were lower than 5, four formative constructs did not trouble with collinearity issues. There were four indicators that were not significant including NFU4 (t value = 1.451), AI2 (t value = 1.554), PM2 (t value = 1.316), and PE3 (t value = 1.581), while all other indicators were significant. These four indicators not relatively important, however, were absolutely important because their outer loadings were larger than 0.5 and significant (i.e. p values of their loadings were smaller than 0.01). In addition, the four indicators were supported by prior research and theory. Thus, they were kept in the formative measurement model.

Table 8. VIF Values of Formative Indicators

NFU		AI		PM		PE	
Indicator	VIF	Indicator	VIF	Indicator	VIF	Indicator	VIF
NFU1	1.833	AI1	1.804	PM1	1.368	PE1	1.322
NFU2	1.901	AI2	1.957	PM2	1.783	PE2	1.468
NFU3	2.001	AI3	1.902	PM3	1.804	PE3	1.567
NFU4	2.045	AI4	1.771	PM4	1.538	PE4	1.627
				PM5	1.457	PE5	1.688

Table 9. Outer Weights Significance Testing Results

Formative Constructs	Indicators	Outer Weights (Outer Loadings)	t Values	Significance Levels	p Values
NFU	NFU1	0.314 (0.782)	2.320	**	0.020
	NFU2	0.560 (0.885)	4.358	***	0.000
	NFU3	0.257 (0.586)	1.771	*	0.077
	NFU4	0.184 (0.588)	1.451	NS	0.147
AI	AI1	0.189 (0.618)	1.696	*	0.090
	AI2	0.190 (0.682)	1.554	NS	0.120
	AI3	0.620 (0.926)	5.281	***	0.000
	AI4	0.232 (0.770)	1.895	*	0.058
PM	PM1	0.290 (0.698)	3.275	***	0.001

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	PM2	0.107 (0.677)	1.316	NS	0.188
	PM3	0.342 (0.760)	3.675	***	0.000
	PM4	0.395 (0.807)	4.590	***	0.000
	PM5	0.223 (0.655)	3.025	***	0.002
PE	PE1	0.282 (0.644)	2.564	**	0.010
	PE2	0.298 (0.681)	2.567	**	0.010
	PE3	0.148 (0.668)	1.581	NS	0.114
	PE4	0.374 (0.746)	3.524	***	0.000
	PE5	0.304 (0.782)	2.532	***	0.012

Note: NS = Not Significant. *$t > 1.65$. ** $t > 1.96$. *** $t > 2.57$

4.5 Structual Model Analysis (PLS-SEM)

After the measurement model was tested for validity and reliability, the remaining analyses were for evaluation of the structural model following four criteria; collinearity assessment, structural model path coefficients, the coefficient of determination (R^2 value), and f^2 effect size.

Table 10. VIF Values for Predictor Constructs

Predictor Constructs	VIF	Collinearity Issues
Personal Identity-based Motivation	1.631	No
Social Identity-based Motivation	1.214	No
Design Freedom	1.689	No
Need for Uniqueness	1.472	No
Aesthetic Impression	1.261	No
Product Meaning	1.000	No

Table 11. Bootstrapping Results for Structural Model Path Coefficients

	Path Coefficients	t Values	Significance Levels	p Values
PIBM → PM	0.158	2.600	***	0.009
SIBM → PM	0.118	1.851	*	0.064
DF → PM	0.063	1.290	NS	0.197
NFU → PM	0.301	4.774	***	0.000
AI → PM	0.374	6.380	***	0.000
PM → PE	0.572	10.103	***	0.000

Note: NS = Not Significant. *$t > 1.65$. ** $t > 1.96$.
*** $t > 2.57$

Table 12. f^2 Effect Sizes for Predictor Constructs

Predictor Constructs	f^2 Value	Level of Effect
Personal Identity-based Motivation	0.033	Small
Social Identity-based Motivation	0.025	Small
Design Freedom	**0.005**	None
Need for Uniqueness	0.134	Small
Aesthetic Impression	0.242	Medium
Product Meaning	0.486	Large

Tables 10-12 were presented to provide insight into the assessment of structural model. VIF values of predictor constructs were all lower than 5, thus, there was no collinearity issues in the structural model. All path coefficients were significant at the level of 1.65 ($\alpha = 0.1$), except for DF → PM, which has a coefficient of 0.063 and t value of 1.29 ($<$ 1.65). Thus, the path coefficient of DF → PM was the weakest and not significant. The strongest path was PM → PE with a value of 0.572 meeting the significant level of 1% probability of error. There were also three other paths meeting that level of significance ($\alpha = 0.01$) including PIBM → PM, NFU → PM, and AI → PM, having coefficients of 0.158, 0.301, and 0.374 respectively. The second weakest path was SIBM → PM with a value of 0.118, however it still reached a significant level of 10% probability of error. These results indicated that there was only one hypothesized relationship not being supported.

R^2 values of two endogenous constructs including Product Meaning (0.542) and Product Evaluation (0.327). These values indicated that Product Meaning had a moderate level of predictive accuracy and Product Evaluation had a small level of predictive accuracy. f^2 effect sizes for predictor constructs indicated that Product Meaning (f^2 value = 0.486) had a large effect on

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Product Evaluation, Aesthetic Impression (f^2 value = 0.242) had a medium effect on Product Meaning, Personal Identity-based Motivation (f^2 value = 0.033), Social Identity-based Motivation (f 2 value = 0.025), and Need for Uniqueness (f^2 value = 0.134) had small effects on Product Meaning, while Design Freedom (f^2 value = 0.005) had no effect on Product Meaning.

4.6   Findings and Discussions

Analysis results validated Hypothesis H1, meaning that personal identity-based motivation has positive significant influences on meaning that young Vietnamese consumers build in their shoes through customization. This is consistent with findings in a study of Herd (2011). Oyserman (2009) suggested that the built-in meaning would be regarded as private for the consumers, and would reinforce the consumers' personal identity. That means the customized shoes would contain favorite colors and personalized texts of customizers. These details will enhance their individualism such as personal taste, lifestyle, or personalities. For examples, a "cat person" could add a text "Purrfect!" (which is a cat-related pun for "Perfect") to his/her shoes just to cherish his/her love for cats.

Hypothesis H2 was also validated by analysis results, that is consistent with findings in a study of Herd (2011), however, with a lower level of significance. That means social identity-based motivation has positive influences on meaning that young Vietnamese consumers add to their shoes via customization, although the effects are not as strong as those of personal identity-based motivation. Following Oyserman (2009) reasoning, the added meaning would be congruent with the customizers' social identity and reinforce their collectivism. The customized shoes could have colors, texts and symbols signifying social groups that consumers belong to, for instance, rainbow color is used to indicate LGBTQ+ community, or a community appreciating diversity and open-mindedness.

Hypothesis H3 was not validated by analysis results, to be specific, the relationship between Design Freedom and Product Meaning was positive but not significant. This means the degree of design freedom that Nike is offering on the NIKEiD website does not contribute a fair amount to meaning that young Vietnamese consumers create in their Nike shoes through customization. Design Freedom was a factor under control of manufacturers, in the present research, put into the perception of consumers. Thus, the results indicated that young Vietnamese consumers do not highly appreciate Nike's customization service.

Hypothesis H4 was validated by analysis results, that is consistent with findings in a study of Herd (2011). This means the need for the uniqueness of young Vietnamese consumers has positive significant influences on the meaning they add to their Nike shoes through customization. The young Vietnamese consumers who have the desire to be dissimilar with others would want to wear shoes that are special, unique, or at least relatively uncommon to gain the sense of distinction (Tian, Bearden, and Hunter, 2001). Self-designed shoes could provide them the distinctiveness. Thus, consumers who are motivated by their longing for uniqueness will appreciate highly the value of customized shoes.

Hypothesis H5 was validated by analysis results, that is consistent with the idea of Goto and Ishida (2014).This means aesthetic impression has positive significant influences on the meaning that young Vietnamese consumers build into their NIKEiD shoes through customization. The aesthetic impression is explained as consumers' feelings or experience when looking at products having the pleasing appearance (Crilly, Moultrie, and Clarkson, 2004). Thus, for young Vietnamese consumers, they really enjoy the good appearance of Nike customized shoes and may think that customization does create better-looking shoes.

Hypothesis H6 was validated by analysis results, that is consistent with findings in a study of Herd (2011). This means the additional meaning that young Vietnamese consumers build into their Nike shoes through customization has positive significant influences on the way they evaluate their customized shoes. Richins (1994) suggested that meaning is an important predictor factor of value. When young Vietnamese consumers design Nike shoes in accordance with their preferences or demands, which originated from their identities, longing for distinctiveness, or appreciation for aesthetics, they perceive additional value that the self-designed shoes hold for them, thus, they would evaluate them more preferably.

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5.   Conclusion

5.1   Contribution to Research

The present research used a quantitative method to determine and validate the important factors accounting for the additional meaning that young Vietnamese consumers create via customization to their NIKEiD shoes. The researcher also attempted to explain how the customized meaning will influence the consumers' evaluation of their customized shoes. In the context of Vietnam, mass-customized products are still uncommon, and research regarding the topic of consumer behavior toward customization is relatively limited. This research provided a quantitatively validated model for the study of the topic in the Vietnamese context. This is an important contribution of the present research because prior studies on customization were conducted mainly in the context of developed countries. This research also adapted well-studied constructs of different fields and contexts to the research model examining an aspect of customization, meaning of customized shoes, that is not well-explored, especially, in developing countries like Vietnam. The present research exhibited the importance of the aspect to customization and validated its positive effect on consumers' evaluation of customized products, particularly Nike shoes. The quantitative analyses indicated that identity-based motivation, consumers' need for uniqueness, and aesthetic impression account for the additional value that young Vietnamese consumers/customizers perceive from their self-designed shoes.

5.2   Implications

The present research could serve as a reference for marketing and manufacturing regarding the shoe industry in Vietnam. The research indicated that the personal identity, the longing for distinctiveness and the appreciation for aesthetics of young Vietnamese consumers has significant influences on how they perceive self-designed shoes. These factors could motivate consumers to customization and could lead to higher evaluation of the products or services, and then of the brand. Thus, the research findings could give a hint to shoe marketers and manufactures in building their marketing, and producing plans/strategies that they should pay attention to consumer individualism, their dislike of similarity, and their treasuring of

product appearance.

This research also found that young Vietnamese consumers do not highly appreciate Nike's customization service. Given the facts, Nike does not focus its customization services in the Vietnamese market, although NIKEiD website is accessible globally through the internet and the design toolkit that Nike offers is universal. There is valid proof of that is the lack of facilities for mass customization (i.e. no NIKEiD studios in Vietnam, and factories focusing on mass-production). Since customization services are not cheap to put in operation, it requires a potential market having enough demands to offset the costs, to be specific, the consumers must crave for self-designed products strongly enough to make a profitable market (von Hippel and Katz, 2002). This research, to some degree, showed the perspective of young Vietnamese consumers toward Nike customization shoes and service, that Nike and other companies could take into account when making business decisions regarding customization and Vietnamese market.

5.3   Limitations and Future Research

Although the present research resulted in contributions to research and implications regarding customized shoes in the Vietnamese market, there are some limitations needed to be acknowledged. Firstly, the research approach was based only on the survey. This may generate results responding to some aspects of the problem, not capturing it as a whole. Secondly, the scope of the research is relatively small in that the researcher focused on young Vietnamese consumers narrowed down to university students in Vietnam National University. And the research aims to explain the case of Nike shoes. Thus, the findings could become less valid when taken in a larger context. Thirdly, because the present research was conducted in a different context from the origin of prior study and theory, the research tried to keep the model at its essence to explain the meaning and value of customized shoes in context of Vietnam. And lastly, the present research stood on the Vietnamese consumers' perspective to examine the value of customization.

These limitations create opportunities for future research. Upcoming research could employ an experimental approach, in which participants try to customize the products, and evaluate their design

right after. Since the model was validated, future research could apply it to different types of customization products or services. The scope and segmentation of participants for future research could also be changed in order to fit with the nature of the studied subject. Future research could explore more by adding additional complexity to the model with additional constructs and complex relationships. For instance, the construct Product Meaning could be examined deeper since it contains two aspects private and public meaning, or Design Freedom could be examined in association with other predictor constructs. There are many other aspects of consumption that could be studied in the context of customization in Vietnam such as satisfaction, repurchasing and willingness-to-pay. Future research could also take the perspectives of companies/manufacturers, which are Vietnamese or operating in Vietnam, into account. Manufacturers are the providers of customization services; there could be many technical, competitive, and brand issues they need to consider for the operation of customization. They are also receiving values when customization is a success, thus future research could analyze factors leading to that success or analyze values customization brings them.

Acknowledgments

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