# The relationships between big-five personality traits and the choice of luxury product attributes by Vietnamese consumers

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#### ABSTRACT

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This study tests and discusses the relationships between personality traits in the Big-Five Model and consumers' choice of luxury attributes (CLA) associated with branded products in Vietnam. A total of 500 adult consumers are interviewed by a self-administrated questionnaire in three cities in Vietnam. Because 33 cases are eliminated for missing values, the data of 467 consumers are employed in this study. Structural equation modeling is also adopted to evaluate the reliability and validity of the constructs and test hypotheses. The results indicate that while extraversion, openness, agreeableness have significantly positive conscientiousness and neuroticism have significantly negative impacts on the choice of luxury attributes. Thus, Vietnamese consumers with different personality traits have different preferences toward luxury products. The extra value of the paper is to provide deeper insights into how and why each personality trait can link with the choice of luxury attributes. This paper, in addition, particularly stresses that consumers who register in extraversion, openness, and agreeableness are the target audience for luxury branded products in Vietnam.

## 1. Introduction

The "democratization of luxury" has spread all over the world (Truong et al., 2008), making luxury consumption more affordable and accessible to new consumers including those in such an emerging market as Vietnam (Tuu et al., 2017). While most studies in the luxury consumption area have been conducted in Western cultures, only a few have focused on the context of Asian emerging markets (e.g., Monkhouse et al., 2012; Shukla et al., 2015). In those markets, more and more affluent consumers show a strong orientation to a high preference for branded luxury goods with a very fast growth rate (Tay, 2008). However, we have just a little understanding of Vietnamese consumers' perceptions of luxury goods (e.g., Nguyen & Smith, 2012; Nguyen & Tambyah, 2011; Tuu et al., 2017). Previous studies found that luxury consumption is associated with individuals' demographics (Eng & Bogaert, 2010), psychological characteristics (Eastman & Eastman, 2011; Zhan & He, 2012), and personal values and social factors (Shukla et al., 2015; Zhan & He, 2012). However, little discussion has been held on the relationships between personality traits and luxury consumption (Amatulli & Guido, 2011; Park et al., 2008).

The relationships between different types of personality traits (e.g., extraversion, agreeableness, conscientiousness, neuroticism, and openness in the Big-Five Model) and luxury brand-related behaviors were explored, but supported by just a little empirical evidence (e.g., Fujiwara &

Nagasawa, 2015; Guido et al., 2007; Giovannini et al., 2015). In addition, most previous studies investigated the relationships between personality traits and luxury consumption in the context of luxury brand choice (e.g., Fujiwara & Nagasawa, 2015; Guido et al., 2007; Helgeson & Supphellen, 2004). For example, Fujiwara and Nagasawa (2015) verified the effects of consumers' personality traits in the Big-Five model on purchase intentions for car luxury brands. They found that the purchase intentions of consumers with a high neuroticism for Ferrari and Porsche are significantly lower than those with a low neuroticism, and that the purchase intentions of consumers with a high openness to experience for Dom Perinon, Ferreri, Rolls-Royce, and Porsche are significantly higher than those with a low openness to experience. However, those studies could not explain how and why each type of personality links to the choice of specific brands. A few studies have made efforts to substantiate those links by investigating the relationships between some types of personality and brand/product attributes (e.g., Casidy, 2012; Lin, 2010; Mazler et al., 2006; Tuu et al., 2017). For example, Casisy (2012) found a significant association between personality traits and prestige sensitivity for luxury fashion brands. Tuu et al. (2017) confirmed a positive effect of openness to experience on the choice of luxury attributes for branded products. Because the manner in which each of the Big-Five personality traits may influence luxury consumption has not been examined, this study extends those studies by

discussing and investigating the relationships between different types of personality traits in the Big-Five Model and consumers' choice of luxury attributes (CLA) as suggested by previous studies (e.g., Fujiwara & Nagasawa, 2015; Tuu et al., 2017).

While marketers have been challenged to remove a strong focus on traditional functional product attributes and price, an understanding of individual traits and values in relation to selected unique, symbolic, and innovative product attributes is crucial for developing customized products and new marketing tools that enable marketers to better serve and satisfy the emerging and challenging desires of individual customers (Fitzmaurice & Comegys, 2006; Kotler, 2000; Shukla et al., 2015; Tsai, 2005). For example, a luxury watch advertisement on www.ebay.com (Ebay, 2015) claims that a luxury watch can speak volumes about a range of attributes that define a customer's personality trait. Once a customer has arrived at a picture of selected luxury watch attributes, he/she would go through different watch elements to determine which combination of features suits him or her best. Therefore, this knowledge is essential for the managers of branded products, in particular for those who aspire to develop products with a luxury image with a strong positioning based on personality traits (Okonkwo, 2009; Tuu et al., 2017).

Therefore, this study, particularly done in an emerging market, Vietnam, aims to contribute to the literature of luxury consumption by exploring the relationships between each of those five personality traits and CLA. The findings of this study will be of significant relevance for marketing practitioners and researchers in positioning a luxury brand and designing a product with appropriate attributes. The study is also expected to attract both marketing researchers and managers for obtaining a deeper insight into the personality traits that drive luxury consumption in the Vietnamese context (Monkhouse et al., 2012). The next parts will discuss theoretical framework, methods, analytical results, discussions and some limitations as well as future research.

## 2. Theoretical framework

# 2.1. The choice of luxury product attributes

The concept of luxury is difficult to define because it is highly subjective and situationally and experientially contingent, depending on the individual and social needs of the consumer (Kapferer & Bastien, 2009). Some researchers have developed a multidimensional perspective of luxury as a reflective second-order construct (e.g., Nueno & Quelch, 1998; Tuu et al., 2017; Vigneron & Johnson, 2004). Based on a firm-centric approach, Nueno and Quelch identified (1998)common luxury characteristics which included a consistent delivery of premium quality, expense, craftsmanship, a recognizable style or emotional exclusivity, appeal, design, excellence, reputation, and uniqueness. Similarly, adopting a consumer-based approach, Vigneron and Johnson (2004)

detailed five dimensions that consumers may use to differentiate luxury and nonluxury products or brands, including perceived conspicuousness, uniqueness, quality, hedonism, and perceived extended self.

Vickers and Renand (2003) proposed that luxury and non-luxury products can be differentiated according to the functional, experiential, and symbolic interactional dimensions of a product. They described the functional dimension as a set of product features that responds to extrinsic consumption needs through physical and service attributes (e.g., product quality), experientialism as product features that stimulate sensory pleasure, and "symbolic interactional" dimension product components that are related to status and affiliation with a desired group. In addition, there is a consensus among researchers that luxury is associated with originality, creative excellence, uniqueness, creative imagination, innovative design and creative quality, and features that are inextricably intertwined with the product's symbols, logos, and package design (Kapferer & Bastien, 2009; Vigneron & Johnson, 2004). Innovation is associated with originality (scarcity), uniqueness, creativity, and slight imperfections in handmade products (Nueno & Quelch, 1998). Therefore, this study regarded an innovative and creative dimension as an attribute of a luxury product (Miller & Mills, 2012). Berthon et al. (2009) argued further that there is no absolute differentiation between luxury and non-luxury, but instead they exist on a continuum. They noted that functional, symbolic, social, experiential, and innovative attributes of luxury are contextual and may change over time, depending on the individual and the prevailing socio-cultural beliefs.

In relation to CLA, consumers have often developed phased decision-making strategies to simplify their decision making (Johnson, 1989). An integral component of these phased decision-making strategies is the formation of a downsized subset of products or brands—the consideration set from which a product/brand is chosen (Nedungadi, 1990). Of those products/brands held within the consideration set, similarities in terms of salient attributes or benefits have been identified as the significant differentiator in facilitating choice (Ballantyne et al., 2006).

Based on the above discussion, this study defines CLA as consumer behavioral predispositions to evaluate the product that boasts luxury attributes which fulfil consumers' individual goals in a specific consumption context (Tuu et al., 2017). This means that CLA is not necessarily related to an actual choice of a specific branded product, but rather to the outcome of a choice influenced by a branded product's evaluated general attributes or benefits (Ballantyne et al., 2006) on a continuum of non-luxury to luxury (Berthon et al., 2009).

# 2.2. Personality traits and the theories of self-congruity and self-completion

Consumer personality is defined as the intrinsic organization of an individual's mental world that is stable over time and

consistent over situations (McCrae & Costa, 2008). Currently, the most influential model for describing personality, the Big-Five Model, characterizes individuals in terms of relatively enduring and universal patterns of thoughts, feelings, and actions (Costa & McCrae, 1992; McCrae & Costa, 1997; McCrae & Costa, 2008). The Big-Five Model is regarded as one of the primary benchmarks in the trait theory of personality. The model allows researchers to examine individual differences based on different trait factors that correlate with each other within five distinct personality dimensions (McCrae & Costa, 1997).

Personality research in marketing over the past decades has been dominated by the self-congruity theory. This theory suggests that consumers prefer to buy products and brands with attributes that best reflect their ideal or actual personality (Dolich, 1969). Marketing researchers, however, found mixed empirical evidence. While some researchers supported the theory (Casidy, 2012; Helgeson & Supphellen, 2004), others found little empirical evidence to confirm the association between personality and behaviors relating to choosing products or brands (Shank & Langmeyer, 1994). These findings may be derived from the fact that most of those studies focused on the relationships between personality traits and consumer choice at brand level (e.g., Mercedes), but not at attribute level as discussed by the self-congruity theory (Dolich, 1969). Therefore, this study expects that the links between personality traits and brand choice may be explained clearly by a brand's attributes instead of the brand itself.

In addition, the self-completion theory suggests that the possession and use of symbols contributes heavily to development and protection of a person's self-image (Braun & Wicklund, 1989). A symbol can be defined as any facet of the person that has the potential to signal to others (who understand the symbol as related to the identity) that one possesses the identity in question (Braun & Wicklund, 1989). The self-completion theory supports the notion that consumers use product/brand attributes as a means to protect their selfidentity (Casidy, 2012).

On the basis of the self-congruity theory and the self-completion theory and the findings from previous studies (Casidy, 2012: Dolich, 1969; Helgeson Supphellen, 2004; Tuu et al., 2017), this study postulates that each personality trait in the Big-Five Model can be associated with CLA in different manners. Each personality trait possesses unique characteristics which can be reflected in consumers' CLA (Mulyanegara & Tsarenko. 2009). Consumers with a certain personality trait may have tendency to choose branded product attributes that reinforce their actual/desired self-image and communicate this image to relevant others (Tuu et al., 2017).

# 2.3. Openness to experience and the choice of luxury product attributes

Openness to experience is a personality trait that describes the extent to which individuals are imaginative, sensitive to aesthetics, curious, independent-minded,

and receptive to new ideas, experiences, and unconventional perspectives (McCrae & Costa, 1997). Individuals with a high degree of openness experience to have experientially richer lives and are more willing to entertain novel ideas unconventional values and emotions than closed individuals (Costa & McCrae, 1992; Matzler et al., 2006). The majority of previous studies have suggested that openness to experience is the trait most closely related to creativity and innovation (McCrae & Costa, 1997), which are among main characteristics certain definitions of luxury (Miller & Mills, 2012). A number of previous studies have suggested a positive association between openness to experience and the emotional, aesthetic, symbolic (i.e. the symbolic interactional attribute of luxury) and affective (i.e. the experiential attribute of luxury) aspects of consumption (Matzler et al., 2006). These findings are consistent with the correspondence perspective between personality traits and brand attributes of the self-congruity theory (Dolich, Generally, there are highly compatible associations between aspects of openness to experience and dimensions of luxury, which fosters the desire of individuals with high openness to experience luxury product attributes (Tuu et al., 2017). Thus, the following hypothesis is formulated:

H1. Openness to experience is positively associated with CLA.

2.4. Extraversion and the choice of luxury product attributes

Extraversion is characterized as the dimension underlying a broad group of traits, including venturesome affiliation, positive affectivity, energy, ascendance, ambition, sociability, activity, and the tendency to experience positive emotions such as joy and pleasure (Costa & McCrae, 1992). Although previous research has not the examined relationship between extraversion and luxury consumption, there are several reasons that make extraversion a good predictor of CLA based on the selfcongruity theory (Dolich, 1969) and selfcompletion theory (Braun & Wicklund, 1989). For example, extrovert individuals tend to be talkative and socially ascendant, so they prefer interpersonal interaction and more importantly, they like to be the center of conversation (Costa & McCrae, 1992). In addition, individuals who score high on extraversion are predisposed toward positive affect and prefer interpersonal interaction (Mooradian & Swan, 2006). Thus, luxury attributes would make extroverts attract more attention from friends as well as strangers. Furthermore, extraverts are also cheerful and optimistic individuals, and hence have a tendency to experience affective states and positive emotions, including the hedonic values and positive emotions of the product consumption (Guido, 2006; Matzler et al., 2006). As such, luxury attributes are expected to provide consumers positive experience, which is what extroverts are seeking. Individuals with high scores on extraversion have been characterized as being assertive, forceful, and ambitious (Costa & McCrae, 1992), while luxury attributes usually signal status

or wealth (Truong et al., 2008). Thus, extroverted consumers may choose those attributes to enhance their image. The relationship between extraversion and creativity and innovation is widely discussed in the literature (e.g., Rank et al., 2004). Therefore, there are highly compatible associations between aspects of extraversion and luxury attributes, which offers individuals with high extraversion the aspiration to experience luxury attributes. Thus, the following hypothesis is suggested:

H2. Extraversion is positively associated with CLA.

# 2.5. Agreeableness and the choice of luxury product attributes

Agreeableness refers to the individual's level of empathy, compassion, warmth, and generosity (McCrae & Costa, 1997). High individuals agreeable are trusting, sympathetic, cooperative, good natured, straightforward, forgiving, and gullible (Costa & McCrae, 1992). People with higher scores on agreeableness would experience as strong a negative emotional response as less agreeable people, and these people are better at emotional selfregulation (Ho et al., 2004). Agreeableness relates to more positive emotions; thus, high agreeable consumers should like experience more positively affective attributes than low agreeable consumers (Orth et al., 2010). Guido et al. (2007) suggested agreeable people would have a strong linkage with hedonic shopping values and may like luxury attributes as a means to represent or display themselves. Butt and Phillips (2008) found that individuals with high agreeableness care more about showy attributes of their mobile phones in order to achieve self-stimulatory purpose and/or to attract the attention of other people. Thus, the next hypothesis is as follows:

H3. Agreeableness is positively associated with CLA.

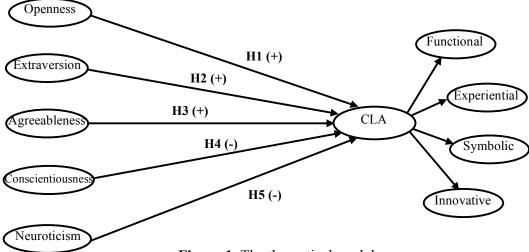
# 2.6. Conscientiousness and the choice of luxury product attributes

Conscientiousness involves order, ethical behavior, dependability, and achievement (Paunonen & Ashton, 2001). Conscientiousness represents traits such as organized, self-control, careful, being persistence, and reliable (Costa & McCrae, 1992). Based on the self-congruity theory (Dolich, 1969), Casidy (2012) documented conscientious people selfthat are disciplined and intrinsically motivated to success, and thus they are less likely to use luxury attributes because they regard them as distracting and unproductive. In the same line, Joshanloo et al. (2012) added that conscientious people are also able to control excited emotions, delay gratification, and pay more heed to utilitarian rather than hedonic values. Thus, they tend to select core attributes instead of luxury attributes in their consumption. Eastman and Eastman (2011) found that there is a significant negative relationship between conscientiousness and luxury consumption. In addition, because conscientiousness is also found to be negatively correlated with creativity in some studies (e.g., King et al., 1996), it is not surprising that conscientious

people take CLA into little consideration. Thus, the following hypothesis is suggested:

- H4. Conscientiousness is negatively associated with CLA.
- 2.7. Neuroticism and the choice of luxury product attributes

example, Fujiwara and Nagasawa (2015) found that people with high scores on neuroticism show a significantly lower purchase intention for luxury products than those with low scores on neuroticism, which reveals that luxury product attributes are



**Figure 1.** The theoretical model

Neuroticism is associated with the tendency to experience negative affects such as anxiety, anger, irritability, fear, sadness, and insecurity (McCrae & Costa, 1992). Individuals who score high on neuroticism tend to respond emotionally to situations that would not influence most people (McCrae & Costa, 1997). Neuroticism have found to be associated emotionally unstable (Pervin, 2006) to correlate negatively with creativity and innovation (Rothmann & Coetzer, 2003), and relate to negative affect (Paunonen & Ashton, 2001). Although no studies we know have investigated the link between neuroticism and CLA, based on the selfcongruity theory (Dolich, 1969), this study expects that this link may exist. For

difficult to be unacceptable to people with this personality trait. Thus, the last hypothesis is as follows:

H5. Neuroticism is negatively associated with CLA.

Based on the hypotheses proposed above, the theoretical model is shown in Figure 1.

### 3. Methods

# 3.1. Product and subject

Perceptions of luxury are a relative experience and are strongly culture-bound (Dubois et al., 2005). Therefore, it is useful to explore this phenomenon in an emerging country like Vietnam (Shukla et al., 2015). Luxury branded products with famous

names, such as Omega watches, Mazda cars, Piaggio motorcycles, or different types of furniture, are nowadays impressively designed and created with more and more luxury attributes to attract customers in an increasingly fierce market. Regardless of low average per capita income, rapidly increasing materialism encourages consumers in all parts of the world (Nueno and Quelch, 1998). This is also true of Vietnam where consumers aim to present an image of high social class by seeking out products/brands that symbolize wealth, social prestige, power, and achievements (Breininge, 2015). As such, luxury branded products have become the symbols of choice that fulfil personality and value traits. These products/brands are quite popular Vietnam. Therefore, it is reasonable to expect that consumers will have acquired some product and brand knowledge and developed choice criteria (e.g., salient attributes) before making a choice decision and that they will provide reliable and valid responses to the questionnaire.

Data from 467 consumers were collected through convenience sampling in three cities (Nha Trang, Rach Gia, and Vinh) in Vietnam using a self-administered survey questionnaire at their homes. Nha Trang is one of the most well-known cities in Vietnam attracting millions of tourists annually. Rach Gia and Vinh are two of the fastest growing emerging cities in Vietnam with the growth rate of about 10% annually in recent years1. Therefore, consumers in these three cities have shown a sharp tendency toward emerging products and luxury consumption. The respondents were clearly informed that the study concerned branded products and that it required them to choose one product from a list as an evaluated object. Accounting for the highest ratios among the selected items are watches (29.6%), furniture (26.1%), pendulumclocks (10.0%), motorcycles (10.7%), and cars (2.7%). The respondents aged from 20 and possessing at least one item from the above list of luxury products were chosen for interview. The descriptive statistics for demographics is shown in Table 1.

 Table 1

 Descriptive statistics for demographical characteristic

		Frequency	Percent
Gender	Male	227	48.6
	Female	240	51.4
Married status	Married	327	70.0
	Single	140	30.0

<sup>&</sup>lt;sup>1</sup> Based on the reports of social-economic development from the locals

		Frequency	Percent
Education	Elementary and secondary school	14	3.0
	High school and middle level	325	69.6
	College and university	77	16.5
	Master and higher education	51	10.9
Family income	Under 5	103	22.0
	From 5 to 10	274	58.7
	From 10 to 15	51	10.9
	From 15 and higher	39	8.4
Age group	Under 30	148	31.7
(year old)	From 30 to 40	225	48.2
	From 40 to 50	65	13.9
	From 50 and higher	29	6.2

The typical respondents are female (51.4%), married (70.0%), family average income from 5 to 10 million VND (58.7%) and educated for about 12 years (69.6%). Their average age is 34 years, ranging from 20 to 70 with the highest ratio for the group aged from 30 to 40 (48.2%) (i.e. the data are recorded from age perspective). Although a convenience data set is used, the descriptive statistics on the sample's demographical characteristics have shown appropriate ratios of the respondent groups in terms of gender, married status, education, and family average income, which is expected to generate rational variances of intended variables for the next analyses.

# 3.2. Measurement of the constructs

This study adopts a multidimensional perspective of luxury as a reflective second-

order construct to demonstrate that luxury and non-luxury products can be differentiated according to their functional, experiential, symbolic, interactional, innovative, and creative dimensions (Kapferer & Bastien, 2009; Nueno & Quelch, 1998; Tuu et al., 2017; Vigneron & Johnson, 2004; Vickers & Renand, 2003). The scale of *CLA* measured includes four dimensions reflecting functional. symbolic, and innovative experiential, attributes of a luxury product on a 7-point bipolar scale in the form: "Please indicate the level of each product attribute you tend to choose when you buy the selected product...." The respondents have been encouraged to think about a specific favorite product/brand intended to buy and then to rate their perceptions concerning 14 luxury attributes adapted from previous studies (Berthon et al., 2009; Miller & Mills, 2012;

Vigneron & Johnson, 2004). *Personality traits* are measured on a 7-point Likert-type scale using the items from the International Personality Item Pool scales (Donnellan et al., 2006) and the NEO-Five Factor Inventory (Costa & McCrae, 1992). The above scales have been tested in a pilot survey with 50 consumers. The primary analytical results show that all those scales have acceptable reliability (all Cronbach's alpha coefficients > 0.70) (Hair et al., 2010).

## 3.3. Common method bias

Because the data are self-reported and a within-subject design is used, a common method bias may have confounding effects on the observed relationships between the predictors and criterion variables (Podsakoff et al., 2003). This phenomenon is often caused by carryover effects when a respondent rates an item with a little different content from just above others (Bickart, 1993). Therefore, to overcome the potential common method bias, the items of personality traits are placed in a separate sheet in an arbitrary order in questionnaire (Bickart, 1993; Olsen, 2002). The same technique is also used for the items of luxury attributes. In addition, a single common method factor approach by Podsakoff et al. (2003) is used to check the presence of the common method bias. Thus, a measurement model with a single-method first-order factor is estimated besides the basic CFA model for all intended constructs

to detect the existence of the common method bias (Podsakoff et al., 2003). The results demonstrate that the model fit under the common method model slightly improves in comparison with the basic CFA model and that the correlations estimated remain almost unchanged between the two models. Thus, it is assumed that the common method bias should not be a problem in the analysis.

### 4. Results

# 4.1. Validation of measures: Reliability and validity

The constructs are to be assessed to ensure internal consistency as well as convergent and discriminant validity by performing confirmatory factor analysis (CFA) using AMOS. The results, summarized in Table 1, indicate that the measurement model well fits the data  $[\chi^2](df)$ = 280) = 526.8, p = 0.000; RMSEA = 0.043; GFI = 0.92; CFI = 0.95] (Anderson & Gerbing, 1988). All the composite reliability (CR) measures exceed the minimum value of 0.60, and all the average variances extracted (AVE) surpass the recommended threshold of 0.50 (Anderson & Gerbing, 1988). The individual item loadings on the constructs are all significant (p < 0.001; tvalue > 11.0) with their values ranging from 0.63 to 0.95, showing that the convergent validity of the constructs is acceptable.

Table 2

Constructs and indicators

Constructs and indicators		Factor loadings	<i>t</i> -values	CR	AVE
Functional (attributes)				0.76	0.52
Low/high quality		0.67	13.7		
Simple/sophisticated		0.79	17.4		
Humble/superior		0.69	14.2		
Experiential (attributes)				0.76	0.51
Popular/rare		0.79	17.3		
Unattractive/attractive		0.71	15.1		
Normal/unique		0.64	13.4		
Symbolic (attributes)				0.80	0.57
Low social level/high social	al level	0.75	15.1		
Targeted at poor/rich people		0.82	18.1		
Low symbolic value/high symbolic value		0.69	13.8		
Innovative (attributes)				0.68	0.52
Low/high innovation		0.70	14.2		
Low creative/high creativit	у	0.74	15.1		
Openness to experience	I see myself as			0.77	0.52
creative		0.63	13.6		
imaginative		0.82	18.4		
open to new experience	s, complex	0.71	15.5		
Extraversion	I see myself as			0.79	0.56
talkative		0.66	14.6		
extraverted		0.86	19.5		
arguable		0.72	16.3		
Agreeableness	I see myself as			0.82	0.60

Constructs and indicators	Factor loadings	t-values	CR	AVE
Functional (attributes)			0.76	0.52
trusting and friendly	0.71	16.0		
good natured and sympathy	0.77	17.6		
helpful and forgiving	0.84	19.6		
Conscientiousness I see myself as			0.86	0.67
order and carefulness	0.83	20.3		
self-discipline and reliability	0.84	20.7		
systematic and organized	0.79	19.1		
Neuroticism I see myself as			0.88	0.71
nervous	0.88	22.6		
worried	0.80	20.0		
inadequate	0.85	21.4		
Second-order construct of CLA <sup>a</sup>			0.93	0.76
Functional	0.93	17.0		
Experiential	0.90	14.2		
Symbolic	0.95	17.6		
Innovative	0.69	12.0		

Notes: <sup>a</sup> A separate CFA is conducted for CLA.

As shown in Table 3, most correlations are less than 0.50 and the squared correlation between each of the constructs (the highest value of 0.28) is less than the average variance extracted (AVE) from each pair of constructs (lowest value of 0.52), demonstrating discriminant validity (Fornell & Larcker, 1981). It is worth noting that

CFA for the reflective second-order construct of the choice of luxury product attributes indicates an acceptable fit with the data  $[\chi^2(df = 40) = 133.8, p < 0.000; \text{ GFI} = 0.92; \text{ CFI} = 0.93; \text{ RMSEA} = 0.067]$ . Thus, the study re-employs this reflective second-order construct in testing the subsequent hypotheses.

Construct	M	SD	1	2	3	4	5
1. CLA	4.63	1.15	1.00				
2. Openness	5.26	1.05	0.42	1.00			
3. Extraversion	3.62	1.88	0.41	0.53	1.00		
4. Agreeableness	3.02	1.48	0.27	0.28	0.22	1.00	
5. Conscientiousness	3.20	1.25	-0.18	0.06 ns	-0.02 <sup>ns</sup>	0.24	1.00
6. Neuroticism	3.12	1.22	-0.16	-0.04 <sup>ns</sup>	-0.17	0.19	0.10 ns

Table 3

Construct means, standard deviations, and correlations

*Note:* <sup>ns</sup> non-significant

# 4.2. Hypothesis testing

A structural equation modeling (SEM) is used to test the proposed hypotheses in a standardized equation as follows:

 $CLA = \beta_1 Openness + \beta_2 Extraversion + \beta_3 Agreeableness + \beta_4 Conscientiousness + \beta_5 Neuroticism + \varepsilon$ 

The significance of the coefficients  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$ , and  $\beta_5$  indicates direct effects of openness, extraversion, agreeableness, conscientiousness, and neuroticism on CLA. The results also suggest the acceptable fits of the models (GFI = 0.92; CFI = 0.95; RMSEA = 0.043). The standardized coefficients, t-values, fitting statistics, are shown in Table 4.

H1, H2, and H3 suggest that openness to experience, extraversion, and agreeableness have positive effects on the choice of luxury product attributes. The results support these hypotheses as evidenced by significant positive effects of openness to experience ( $\beta$ = 0.25, t = 4.4, p < 0.001). extraversion ( $\beta$  = 0.20, t = 3.5, p < 0.001) and agreeableness  $(\beta = 0.23, t = 4.0, p < 0.001)$  on CLA. In contrast, H4 and H5 which propose that conscientiousness and neuroticism have negative impacts on CLA respectively are also supported through the results of significantly negative effects conscientiousness ( $\beta = -0.17$ , t = -3.4, p <0.001) and neuroticism ( $\beta = -0.15$ , t = -2.9, p < 0.01) on CLA.

Table 4		
Hypothe	sis te	stino

Wariah la /laurah aria/na mila (Caurus auta d/Nah)			Regression coefficients		
Variable/hypothesis/result (Su	Std. β	<i>t</i> -value			
Openness	H1	Supported	0.25***	4.4	
Extraversion	H2	Supported	0.20***	3.5	
Agreeableness	Н3	Supported	0.23***	4.0	
Conscientiousness	H4	Supported	-0.17***	-3.4	
Neuroticism	H5	Supported	-0.15**	-2.9	
$R^2(CLA)$			29.3	3 %	
Chi-square (df), p			532.6 (284), p = 0.00		
GFI			0.92		
CFI			0.95		
RMSEA			0.0	)43	

*Notes:* \*\* p < 0.01; \*\*\* p < 0.001; ns: non-significant; CLA: the choice of luxury product attributes

# 5. Conclusion, implications, and limitations

## 5.1. Concluding remarks

This study explores the relationships between personality traits in the Big-Five Model and CLA in the context of Vietnamese consumers' chosen luxury attributes of branded products. The proposed hypotheses are tested by a SEM (Anderson & Gerbing, 1988). The results indicate the reliability and validity of the constructs, supporting all the five hypotheses proposed. While openness to experience, extraversion, and agreeableness are found to have positive effects, conscientiousness and neuroticism exert negative impacts on CLA. The Vietnamese context represents an interesting cultural group for research in luxury

consumption, because its people share similar cultural and personality traits based on Confucian values which is much different from Western values (Monkhouse et al., 2012). Thus, this study has generated significant contributions, in particular given luxury consumption in such an Asian developing country as Vietnam.

# 5.2. Theoretical implications

The results suggest that personality traits are important determinants of CLA. The findings support the call to consider luxury consumption based on consumers' personality traits (Amatulli & Guido, 2011; Park et al., 2008; Shukla et al., 2015). Although the associations between different types of personality traits and brand/product attributes have been discussed and tested in

some studies (e.g., Casidy, 2012; Guido et al., 2006; Giovannini et al., 2015; Lin, 2010), this study contributes to the literature by testing and providing important empirical evidence to support the combined effects of the Big-Five personality traits on CLA in a SEM. While most of those previous studies investigated the relationships between some personality traits and luxury consumption based on general perspectives of the theories such as the self-congruity theory (Dolich, 1969) and/or self-completion theory (Braun & Wicklund, 1989), this study elaborates different influential mechanisms of each type of personality trait in the Big-Five Model on CLA and confirms that consumers with different personality traits have different manners in relation with CLA. A person often dominates in one or two types of personality traits, but he/she may have multi-dimensions of the traits (Costa & McCrae, 1992; Goldberg, 1993). Therefore, the combined inclusion of the five big personality traits in a SEM in conjunction with CLA has generated more comprehensive explanation most previous studies that articulated one or a few personality traits (e.g., Casidy, 2012; Lin, 2010; Mazler et al., 2006; Tuu et al., 2017) or each type of personality trait concerning luxury consumption in separate models (e.g., Mulyanegara & Tsarenko, 2009).

The significant associations between personality traits and CLA have substantiated the application of self-congruity theory (Dolich, 1969) and self-completion theory (Braun & Wicklund, 1989) and are consistent with the recent findings from previous studies investigating

the linkages between personality traits and brand attributes (e.g., Casidy, 2012; Lin, 2010; Mazler et al., 2006). The tendencies to choose luxury attributes suggest that consumers of a certain personality trait use luxury attributes as a means to protect their self-identity and express their self-concept (Richins, 1994). More specifically, this study highlights the roles of individual personality traits as drivers of or barriers to CLA (while openness to experience, extraversion, and agreeableness are found to drivers. conscientiousness and be neuroticism are regarded as barriers to CLA).

Openness to experience has a positive effect on CLA, which is in line with relevant studies (e.g., Costa & McCrae, 1992, 1997; Matzler et al., 2006). This may be attributed to the fact that those with high degrees of openness to experience may desire to be different situations faced with creativity and innovation (Miller & Mills, 2012), and with emotional, aesthetic, aspects symbolic, and affective consumption (Matzler et al., 2006).

While there are several reasons that extraversion is a positive predictor of luxury consumption (e.g., Guido, 2006; Matzler et al., 2006; Mooradian & Swan, 2006), no empirical evidence has been found. Thus, a significant positive association between extroversion and CLA detected in this study has shed some light on the importance of this personality in the social context of luxury consumption. It seems that highly extrovert individuals value social interaction, and thus pay considerable attention to the luxury attributes they choose, which may be

attributed to the sociable nature of this trait. Because luxury attributes are often regarded as a symbol of status, highly extrovert individuals may choose luxury attributes that are consistent with the socio-economic level of their peers (Casidy, 2012).

Similarly, agreeableness is found to relate positively to CLA, which is consistent with discussions by some previous studies suggesting that agreeable individuals care more about luxury attributes and like to experience positive affects (Butt & Phillips, 2008; Guido et al., 2006; Orth et al., 2010). The finding is also similar to Fujiwara and Nagasawa (2015), who proposed a positive effect of agreeableness on intention to buy luxury car brands, but this effect was not significant in their study. It is likely that a certain gap exists between luxury attributes preferred and a luxury brand chosen by consumers because different luxury brands in a product category can have similar luxury attributes, but only one of them is chosen in a specific context of consumption (Johnson, 1989). Therefore, the difference between the finding from this study and the one from Fujiwara and Nagasawa (2015) may be due to the difference between the attribute choice and brand choice.

In terms of barriers, it is shown that conscientiousness becomes a barrier of CLA. This finding is similar to Eastman and Eastman (2011), who detected a negative association between conscientiousness and luxury consumption. This may be attributed to the fact that highly conscientious individuals are more likely to experience utilitarian attributes than luxury attributes (Joshanloo et al., 2012). Luxury attributes

can be perceived as a signal of high quality against poor product quality (Phau & Leng, 2008). However, this quality signal may be less appealing to highly conscientious individuals with much concern over evaluating product quality, and therefore they may have formed positive perceptions on the quality of non-luxury brands or products.

A significant negative effect of neuroticism on CLA means that luxury attributes are unacceptable to people with this personality trait. The result is similar to the finding by Fujiwara and Nagasawa (2015), and it indicates that highly neurotic individuals seem to avoid luxury attributes, perhaps to cope with their negative emotions (Pervin, 2006) they may be faced with in a social context where most people are still struggling with their lives.

## 5.3. Practical implications

This study has some important implications for the marketing of luxury branded products. The findings that different personality traits have associations with luxury product attributes are of potential importance in positioning a luxury product when exploring and attempting to occupy market segments, which suggests that personality traits should be considered.

Personality-based segmentation can be implemented by devising and promoting different types of luxury attribute appeals to target different personality traits (Casidy, 2012). Consumers who are dominant in openness, extraversion, and agreeableness tend to prefer luxury attributes. Therefore,

for example, positioning a brand/product with a creative, symbolic, or hedonic image may attract people characterized as being open to experience, extrovert, or agreeable. For the nature of these personality traits, marketers can make effective communication messages that lay emphasis on the luxury image of products consistent with consumers' self-concept.

On the other hand, highly neuroticism individuals tend to be less attracted to luxury attributes that can make them stand out from their peers. Thus, marketers of luxury products targeting these individuals should portray fun or sociable images that can be relevant to the neuroticism individuals without causing them to feel superior to their peers (Casidy, 2012). Similarly, given highly conscientious individuals' experience, utilitarian attributes are favored over luxury attributes (Joshanloo et al., 2012). Therefore, high quality images of products/brands with utilitarian appeals may attract them.

There is also a managerial implication for marketers of non-luxury products/brands. Consumers who are dominant in conscientiousness and neuroticism are likely to prefer less luxury attributes. These consumers might pay more attention to attributes such as price, core quality, and comfort rather than luxury attributes.

Marketers of non-luxury products/brands should take these consumers as the main target segment. Marketing strategies for non-luxury products/brands should focus on delivering good quality product with affordable price rather than emphasizing luxury attributes (Casidy, 2012).

## 5.4. Limitations and future research

This study has several limitations. The research is based on a convenience sample in Vietnam and focuses on a selection of branded products. Future research should be extended to incorporate representative sample of brands/products as well as testing them in other countries. Because the respondents evaluated luxury attributes on the basis of an expected luxury brand of a certain product such as a watch, furniture, piece of pendulum-clock, motorcycle or car, the findings only generate general implications, but not for a specific luxury brand. Future research should thus use specific premium or luxury brands, such as Samsung or Mercedes, or more extreme luxury brands, such as Louis Vuitton or Rolex, to explore whether there exists a difference. Finally, the results reported in this paper are conditional upon self-reported measures of the constructs using correlation methods, hence rendering the task of proving the causal nature of the relationships more problematic

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