

## Online Impulse Buying: The Role of Self-Construction and Online Shop Aesthetics

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**Abstract**— Online impulse buying could harm someone financially and psychologically. Previous studies have identified variables that predict impulse buying, but not many of them have examined the human's self. This study aimed at investigating the roles of insecure self-engulfed self and perceived aesthetic of online shop in predicting the online impulse buying. The participants were 285 private sector employees (156 males and 129 females; Mean of the age of 27.1 years old; Standard deviation of the age of 5.9 years) in the Greater Jakarta, Indonesia. Data analysis using multiple linear regression analysis showed that empirical data supported the positive prediction hypotheses. An additional descriptive analysis applying the Terror Management Theory showed that participants with higher mortality salience tend to have more online buying experience, and they are inclined to purchase more luxurious items such as jewelry and expensive watch than participants with lower mortality salience. This study contributes to developing the interdisciplinary field of psychological science and information technology by integrating the self and the virtual medium of shopping variables as well as by recommending behavioral engineering to control online impulse buying.

**Keywords**— impulsive buying; self, aesthetic; online; mortality salience; business psychology.

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### I. INTRODUCTION

Nowadays social networking media is no longer used as the means of communication but also widely used as the medium of online purchasing, commonly known as online shopping or e-shop. Online shopping is a technology that serves as an alternative and has some different features from those of a conventional store, in which all transactions of selling and buying, services, and other activities occur in a virtual mode [1]. Based on the online shopping survey conducted by MasterCard [2], which was done in 25 countries including Indonesia from 2011 to 2012, it showed that 77% of Indonesian internet users did online shopping meaning that they had done at least one online purchase in the last three months. This result is not much different from the survey conducted in 2016 by other institutions, e.g., DI Marketing [3].

In the past few years, the study of consumer psychology and consumer behavior have expanded its focus to online buying behavior. This is due to the rise of e-commerce and financial technology startups that have been dominating the online market. Also, tech-savvy generation that seeks convenience in buying is increasing in number. All of these contribute to the raising online market that is very different from offline buying behavior, from the product availability to payment methods and benefits. Relying on e-money to

pay for the things we want from our home makes buying things a lot easier. With a few clicks, we can bring our favorite gadget or jacket home. With the presence of a one-stop shop that has virtually anything, the act of buying often turns into the act of satisfying psychological needs in addition to biological ones. The term of online buying is quite open to interpretation. However, in this context, online buying behavior is defined in a practical and context-specific sense, i.e., the act of buying the desired product(s) in an online e-commerce platform by completing the transaction partly or as a whole online. One example of the definition would be looking, viewing, comparing, and finally selecting a smartphone from an e-commerce site to be purchased. The payment method can take a form of offline payment and then complete the administration in the platform, or take place entirely only through e-payment methods.

Online purchases frequently happen without any intention to buy before; no pre-planning. This buying is spurred by the presence of a powerful drive that occurs instantly and persistently to buy something at the moment, followed by contented feelings and excitement. Purchases like these are referred to as *impulse buying* [4]. It is not uncommon that impulsive buying would be regretted by the perpetrators, which can lead to emotional conflicts, unplanned expenses, as well as wastes—because the goods bought on impulse buying are often not needed by the purchasers [4]. Therefore, it is urgent to know the predictor variables of online impulse

buying. Previously, impulsive buying, online and offline, had been connected with variety seeking, meanings construction, web site's customization, promotion regulatory focus, and normative evaluations [5]–[8].

Naturally, humans are consumers. People's consumption behavior is not always dictated by their physical drive but can be influenced by their belief system, in which there is the urge to reduce the existential anxieties [9]. If rational decisions based on biological needs only dominate the consumption, there will not be any excessive consumption and the desire for materials and money [10]. An individual's decision in buying something is influenced by at least five factors, which are (1) the perceptions in which buyers choose, manage, and interpret information of particular product or services, (2) motivation, (3) learning process, (4) the buyers' attitudes towards something, and (5) the buyers' belief about the product or services [11].

One of the motives of purchasing either of clothing, vehicles, electronic devices or accessories is to make an image or an impression upon self in the minds of others. Another reason why people try to make such an impression is to establish a specific identity for themselves [12]–[13]. Humans define themselves through self-identity, which is a collection of traits, characteristics, relationships, roles, and membership in a social organization [14].

Consumers buy products not only for its functional benefit but also for its symbolic meaning [4]. Products consumed on their symbolic meaning are to show that these products give some indications of social standing, wealth, social identity, power and status of the individual. It is related to the ways people build or develop themselves in a way that they wish others to see them. The product that people buy can be the representative symbol of who they are, and what kind of person they consider to be ideal [15]. For example, a boy who buys a black t-shirt with the label of a metal music group band expresses his identity as a metal music fanatic. Convincing others that we have some qualities and attributes is just the same with believing firmly that we do have those qualities and attributes and thus making us feel better about ourselves. It is called a process of *self-construction*. Many times, an individual with self-construction based on self-enhancement starts with identity creation by convincing others that he/she has positive favorable attributes [16]. Self-construction is strongly related to self-presentation, in which an individual uses his/her behavior to deliver information about him/herself to others [17].

This study aims to determine whether the two products of the self-construction threats, namely (1) insecure self and (2) engulfed self, as well as a dimension related to the online shop, i.e. (3), perceived aesthetics, able to predict *online impulse buying*. The action to start and maintain self-construction and identity depends on the interaction of the individual's self with others [18]. Therefore, to build the self as the favorable person, there must be other people who have been connected with the individual conveniently either in the past or present. It is not just about how an individual relates to others, but also how others relate to the individual [19]. This relationship with other people affects the self-experience. For example, an individual could enter the social arena with a self-perception that he/she is an interesting person. However, if others in the field continually reject

his/her self-perception that he/she is a fascinating person, then he/she could accommodate the threat (i.e., refusal) with the possibility of changing his/her self-construction, from the attractive to be unattractive self. In other words, the actions of others can change or modify the self-construction of the individual. Self-construction also has a motivational purpose [13], [20]. For example, when an individual says about him/herself as someone who is financially stable, having a good job and highly educated, he/she is expected to agree with what he/she says. Individuals are under pressure to be by what is already admitted [13], [20]. However, ideally, an individual should have the autonomy and motivation to choose and play his/her role in his overall social interactions [20]. The individual's self-executive roles are to make decisions, start actions, and control his/her self and the environment [21], to choose and decide on his/her self-representation, which is supposed to be authentic and desired both for him/herself and others [22]–[23].

There are two necessary conditions needed by an individual to achieve the functional and healthy self-construction, namely (1) self-presentation, and (2) recognition rendered by other significant people to the individual [24]. Self-development may fail if other people do not give the necessary recognition and awards. This can happen in at least two ways, namely by *exclusion* or being distanced from others, and by *intrusion and control* of another person. Those are the *two major threats to the self-construction* [25].

*The first threat* is the exclusion and being shunned by others. This kind of threat is experienced by individuals who are vulnerable to the feeling of being neglected so that they fail to get the recognition or acceptance from the offered self-presentation. This higher insecure self-feels that he/she needs other people to grant him/her a sense of self, and requires the acceptance from others as the significant source of his/her self-confidence and self-esteem [26]. While a higher secure self-tends to have positive expectations both to himself/herself and others, a higher *insecure* individual (the opposite of a continuum) tends to have negative expectations, both to himself/herself and to the people around him/her. The consequence is that the individual's development takes place only fragmentarily, or even if completely, it is unsettled thoroughly, with feelings of being thrown over and vacuity of mind [25]. Such an individual might tend to have a self-presentation style that focuses on the urge to establish a fascinating self for others with the fear and hope that they will fail. Accordingly, people are more likely to do online impulse buying, hoping that they can build an attractive self for others so that they can feel being appreciated, accepted or desired. Because outer/appearance aspect is relatively easy to manipulate compared to other aspects of an individual, such as personality or intelligence, many foci more on the physical change *per se*. One effortless way is by immediately purchasing products or services needed online. Therefore, the first hypothesis of this study is that "*The higher the insecure self, the higher the tendency of online impulse buying*" (H1).

*The second threat* is the impingement and control done by others with excessive involvement. Individual experiencing encroachment vulnerably feels weary, overwhelmed, a being *engulfed*, even has a major existential fear, which is the

feeling of being taken over and controlled by others [25]. They see themselves as being forced to present themselves defined by others. Their presentation of themselves is being redefined in a way that others reconstruct them. This often results in embarrassment. These individuals feel helpless against the proximity or control of others. It is experienced as a disturbance in their self-construction. This type of threat can result in limited autonomy or a loss of self-determination, in which their identity is not chosen by themselves but by others. Such a built self is not authentic [27], as it is not freely elected, but enforced by others. Whereas, a chronic tendency of impulse buying is associated with some personality dimensions, one of which is a low level of autonomy [28]. Thus, individuals who have a fear of being infringed and controlled can also tend to make online impulse buying. Therefore, the second hypothesis of this study is that *“The higher the engulfed self, the higher the tendency of online impulse buying” (H2)*.

*Perception* also influences the decision of a potential buyer in purchasing a particular product or service. Perception decides and directs the buyer’s attention to focus on the desired and appealing things [29]. The form of perception involves all of our senses, ranging from our sight, hearing, smell, taste, and touch [30]. Things other than the product itself, i.e. virtual settings such as graphics, texts, pop-up windows, the search engine configurations, audio, colors, video streaming, and organization as well as the grouping of merchandises representative to the physical environment and related to retail atmosphere, can and lead to impulse buying [31]. Based on the explanation above, this study tried to find out if there was any role of experiential value, primarily the *aesthetic*, which could predict the online impulse buying.

The aesthetic has a comprehensive definition. Borrowing the definition from The American Heritage Dictionary of the English Language, Tractinsky and Lowengart [32] discovered that it is “an artistically beautiful or pleasing appearance.” The aesthetic stimulus can significantly influence the consumer’s cognitive, affective, and conative aspects [33]. The visual appeal is driven by dramatic design, in which the physical attractiveness and beauty are inherent in the selling set. For those who are shopping or in the entertainment interests, this kind of experience operates as a “pick-me-up” message, that is, in some cases, consciously used to enhance the buying spirit. Things constituting a beautiful online shops among others are the combination of (1) the originality, creativity, and richness of an online shop website design; (2) the pretty-looking photography with good contrast, balance, and proportion, (2) the organized and coordinated display of products, (3) the simplicity and feasibility of the navigation, (4) the blend of text and background colors to support the website readability [34]–[35].

Perceived experiential values like aesthetics are significantly associated with the preference for online purchases [37] making online buyers more likely to be impulsive. Therefore, the third hypothesis of this study is that *“The higher the perceived aesthetics of online shop, the higher the tendency of online impulse buying” (H3)*. As an additional analysis, it is suggested that the fear of death might contribute to online buying behavior. It might sound

morbid, but the link between death-anxiety and economic-consumption or money spending has been studied many times in the past few decades in the consumer-related study [38].

Consumer behavior scholars study the intention of buying things. It is not just to survive biologically (by buying food, water, and shelter), but also in a psychological sense. At least this is what Theory of Terror Management (TMT) suggests. The theory states that human being naturally has multiple mental capacities in processing and anticipating the life’s feebleness and inescapable death fact [39], known as mortality salience (MS). In other words, MS is the degree of recognition that every human being might face the end at one point or knowledge of the end of mortality. This awareness of life fragility is often associated with pain and loneliness, loss of control, failure, and journey to the unknown [40]. Not knowing when is their final moment, human being resort to various coping behaviors to usage and ease up the crippling anxiety of death [41]. From beliefs to behavior, people usually find an element from the life itself to lit a hope and delay the imminent threat of death that might happen anytime. This can be as simple as believing in something, following a particular norm, obtaining something, or strive to achieve a goal or even maintaining a relationship. It is what held accurate and valuable by people from the life itself that distract them from their mortality salience.

One of the coping behaviors would be buying behavior. A man tries to cope with the existential crisis of death through the accumulation of material objects [42]. These objects accumulated (bought) serve as a temporary symbol of immortality that helps people minimize the terror of death [38]. The instrument used to obtain the object, money (or wealth), has long been used to secure the meaning of immortality [43], rather than just a tool to obtain survival kits. This explains why some people obtain more money than they spend and even obsessed over it. Money (or wealth) has the power to change a state of smallness, helplessness, and finitude to a state of fineness, importance, and in control. Saving wealth for future serves the same purpose in the long term. It takes away or delays the perceived impending threat of death [43]. In other words, to effectively function and achieve set goals, human develop an anxiety-buffering system that serves to furnish them with psychological equanimity [43].

In studies of consumer behavior, usually, the main focus is materialism [44], which is the main instrument that provides security and meaning to one’s life [45]. Wealth and luxury items are two of the most likely items to be used as the buffer. Luxury items that “non-essential” items that contribute to the luxurious lifestyle, flatter all senses, considered valuable, rare, and better quality in the market [46]. Bonsu and Belk [38] revealed that a type of TMT study has been prominent in Western society. While in their case it is Africa region, in this study, coverage of this present study includes one of the world’s largest emerging e-commerce markets, Southeast Asia, particularly Indonesia. The pattern of online buying behavior among Indonesian people with high and low mortality salience was investigated. The idea here is that the emergence of e-commerce as a safer and easier method to purchase things might potentially amplify buying behavior that serves to assuage mortality salience.

## II. MATERIAL AND METHOD

### A. Participants and Design

Participants of this study were 285 professional employees of the private companies (156 men, 129 women; the Mean of age was 27.1 years old, and the Standard deviation of age was 5.9 years) with the age range from 18 to 40 years old. They all lived in the Greater Area of Jakarta, the capital city of Indonesia. Employees with professions were selected as participants in this study because they were considered suitable with the characteristics of online consumers identified with the following criteria [47]; being mature, earning more money, looking for comfort, innovative, looking for variations, less aware of risks, and having a more positive attitude towards advertising and direct marketing.

The study applied a predictive correlational design, with the data analysis technique using multiple linear regression analysis. The predictor variables are insecure self, engulfed self, as well as the perceived aesthetic of the online shop while the criterion/dependent variable is online impulse buying (see Fig. 1). The model was selected because impulsive buying is phenomenologically related to self-regulation [6] that interacts with the environment (in this model: an online environment). Beautification of the online environment can only affect an individual through perception. Therefore, perceptual variables became central and included in this model. Meanwhile, insecure and self-engulfed are indications of lower wellbeing. The lack or low level of self-wellbeing, in this model, will sequentially bring the impact of normatively unfavorable behavior, namely online impulsive buying.

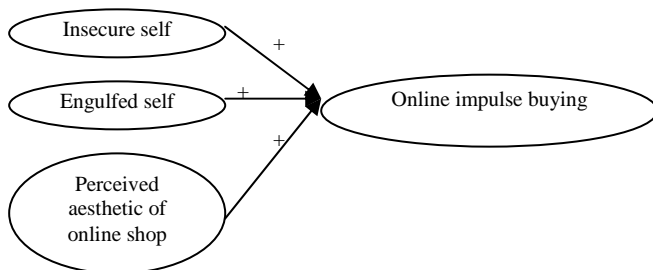


Fig. 1 The hypothetical model  
Note: (+) positive predictive correlation

For the additional analysis, a study with priming technique was done. The descriptive analysis was run on the 355 participants' (196 men, 159 women) responses from the manipulation check of mortality salience and consumption variables. There were additional 70 participants to the 285 participants of the main study, which in this case were also participants in the pilot study in testing validity and reliability of measurement instruments.

### B. Instrument

The measurement instrument of online impulse buying was adapted from the *Impulse Buying Tendency Scale* developed by Verplanken and Herabadi [28]. The Indonesian-translated version of this measurement was taken from Dameyasani and Abraham [4]. There are two dimensions, namely cognitive and affective, consisting of 20 items, and four items added from Weaver et al. [48]. The

entire items were provided with an online context. The response options ranged from “*Strongly Disagree*” (score of 1) to “*Strongly Agree*” (score of 6). Examples of the cognitive items were: “If I buy something online, I usually do that spontaneously,” “I often buy things online without thinking,” and “I usually think carefully before I buy something online” (unfavorable item; reversely scored). Examples of the affective items were: “I sometimes cannot suppress the feeling of wanting to buy something online,” “It is a struggle to leave nice things I see in an online shop,” and “I can become very excited if I see something online I desire to buy.” Example items that were adapted from Weaver et al. [48] were: “I had often bought things online that I did not need even when I knew I had very little money left” (cognitive dimension), “I sometimes feel that something inside pushes me to do online shopping” (affective dimension). Indexes of item validities of this measurement instrument were the corrected item-total correlations which ranged from 0.342 to 0.834. That is to say; the items showed an excellent item validities (the corrected item-total correlations were higher than 0.25). This measurement instrument was reliable with an index of internal consistency (Cronbach’s Alpha) of 0.930.

The measurement instrument of insecure self and the self-engulfed were adapted from *Self, and Other Scale* (SOS) developed by Dagnan et al. [25] and translated it into the Indonesian language. 24 items were representing two types of threat to the self. To allow the participants report the frequency they perceive, the items were presented with a scale of 5 points, which were: “*Never*” (score of 1), “*Rare*” (score of 2), “*Sometimes*” (score of 3), “*Often*” (score of 4), and “*Very Often*” (score of 5). The examples of insecure self-items were: “Having a secure relationship helps me feel that I exist,” “When I am alone, I feel the need to contact someone.” The examples of engulfed self-items were: “I have to get away from other people to have a sense of who I am,” “Often I wish people would give me a space to be myself.” For the insecure self-scale, the corrected item-total correlations ranged from 0.364 to 0.630 (good item validities). The Cronbach’s Alpha was 0.806. For the engulfed self-scale, the corrected item-total correlations ranged from 0.410 to 0.866 (good item validities). The Cronbach’s Alpha was 0.866.

The measurement instrument of dimensions of aesthetic was adapted from *Experiential Value Scale* (Visual Appeal and Entertainment Value) by Mathwick et al. [37], consisting of six items and translated it into Indonesian. This instrument consists of two dimensions, namely visual appeal, and entertainment value. Response options ranged from 1 (*Strongly Disagree*) to 6 (*Strongly Agree*). The examples of visual appeal items were: “The way online shops display its products is attractive,” and “I like the way online shops site looks”. The examples of entertainment value items were: “I think online shops are very entertaining,” and “Online shops do not just sell products – they entertain me.” The indexes of item validities of this measurement instrument were the corrected item-total correlations which ranged from 0.699 to 0.917 (good item validities). The Cronbach’s Alpha was 0.917.

For the additional analysis, the procedures of [45] were followed. The 355 participants were categorized into two

groups (Higher vs. Lower Mortality Salience) by psychological manipulation. Participants in the first group were given priming; they were asked to imagine the emotions that went through their mind, as well as things that happen if death comes to them. Mortality salience of the participants was checked by ambiguous word completion in Indonesian as much as nine items. For example, \_AUT. The group with higher mortality salience will answer like *MAUT* (death). Meanwhile, participants in the second group with lower expected mortality salience will be manipulated using neutral priming. They will answer like *LAUT* (sea). Another example, \_UBUR. People with higher mortality salience will answer *KUBUR* (burying), whereas those with lower mortality salience will answer *SUBUR* (fertile). After that, the online consumption behavior as well as objects of consumption when shopping online were measured.

### III. RESULTS AND DISCUSSION

The description of the participants is given as follows. Based on the levels of education, of 285 professional employees, there were 129 persons with bachelor's degrees, 60 persons with high-school certificates, 45 persons with D3-type diploma degrees, 40 persons with vocational school certificates, 6 persons with D1-type diploma degrees, 4 persons with master's degrees, and 1 person with a D4-type diploma degree. Regarding the most frequently visited social media, it was noted that most respondents used *Facebook* (41.4%) and *Instagram* (11.9%). The rest used a combination of it, e.g. 11.9% used *Facebook*, *Instagram*, and *Twitter*, 9.9% used *Facebook* and *Twitter*, 7.7% used *Facebook* and *Instagram*. Regarding the usual target of places to buy goods, 48.4% of participants claimed that they regularly bought goods through the Internet, 31.9% purchased in the mall, 18.6% in the open market, and 1.1% in other places.

The assumption tests showed that the data distribution was normal, and the data was free from multicollinearity among predictor variables ( $VIF < 10$ ,  $Tolerance > 0.1$ ) and from heteroscedasticity. The multiple linear regression analysis showed that the insecure self, engulfed self, and perceived aesthetic of online shop could simultaneously predict online impulse buying, with  $F(3, 284) = 47.119$ ,  $p = 0.000$ , and  $R\text{-square} = 0.335$ .

TABLE I  
MULTIPLE LINEAR REGRESSION ANALYSIS PREDICTING  
ONLINE IMPULSE BUYING (N = 285)

Predictor	B	SE B	$\beta$	t	p
Insecure self	0.643	0.168	0.217	3.828	0.000
Engulfed self	0.402	0.103	0.217	3.910	0.000
Perceived aesthetic of online shop	1.138	0.160	0.358	7.099	0.000

Note: SE = Standard Error; R-square = 33.5%

The insecure self ( $\beta = 0.217$ ,  $p < 0.01$ ), engulfed self ( $\beta = 0.217$ ,  $p < 0.01$ ), and perceived aesthetic of the online shop ( $\beta = 0.358$ ,  $p < 0.01$ ) can predict online impulse buying in the positive directions (see Table 1).

The results showed that *there is a role of insecure self in positively predicting online impulse buying*. Thus, the first hypothesis (H1) was supported by empirical data. The insecure self is a product of a threat toward the construction of self in which the individual fears of being rejected [25]. Individuals with higher insecure self-consider others as vital, need others to have a sense of self and want to create appealing-self for him/herself and others, hoping that others could accept and appreciate him/her [24]. The creation of the appealing self could be seen from the physical attributes, such as in fashion or beauty that always kept updated with the current trends. Many individuals focused on modifying their external attributes rather than on internal attributes within themselves to establish an ideal self-image. This was preferred because modifying physical self-looks, like the body appearance, was relatively more comfortable to do than changing other aspects, like self-traits [49]. One way to modify an individual's physical attributes was by buying online a variety of products that fit the current trend of beauty and fashion. The continuously changing trends in time result in online purchasing increases. Individuals with a higher degree of insecure self-tended to show a higher spontaneity because they tend to follow others, continuously do self-monitoring and obey normatively to the will of the people around him. This condition is compatible with the one characteristic of impulse buying [4], that is spontaneity, a desire that appears suddenly accompanied by urgency.

The research results showed that *the presence of engulfed self could positively predict online impulse buying*. Thus, the second hypothesis (H2) was supported by empirical data. When an individual presented his/her self-presentation, others were expected to accept and appreciate him. However, if he/she received any intrusion and control over himself, this could have bad impacts on him. This kind of threat could lead to the limited or even lost self-autonomy, in which the self-identity is not constituted by the individual himself, but by others [25]. If his/her original and objective self-presentation is taken over in control by others, the individual would feel alienated from him/herself [24].

Meanwhile, the tendency of impulse buying is linked to some personality dimensions, one of which is the low level of self-autonomy [28]. The lower level of the kind of self-sufficiency indicates that an individual is not accustomed to making the own self-decision, and thus, easily swayed by others, including in online shopping. Dagnan et al. [25] explained that an individual with engulfed self would try to upright or strengthen his/her self-government by keeping the dissociation with others who try to take control of himself/herself. The main purpose of the higher engulfed self is to release him/her from the immoderate control by others [24]. However, the effort is not always successful. As a result, some individuals show compensatory behavior for their failure, one of which was by doing online impulse buying. Irrational shopping activities could happen due to some reasons; one of which is to deal with such bad moods [28]. The problematic situation or personal distress that a higher engulfed self-deals with could stimulate an unplanned purchasing [50] including online impulse buying.

The research results also showed that *the perceived aesthetic of an online shop could positively predict online impulse buying*. Thus, the third hypothesis (H3) was

supported by empirical data. Wang et al. [33] defined aesthetic in the online context as the representation of different elements and attributes combined to generate beauty. Visual appeals regarding fonts and graphics contributed to improving the overall presentation of a web, or in this research, an online shop [31]. Exploring the online shop which was at first done for the self-indulgent purpose could result in purchasing, due to the pleasant effects of the website interface design. Research by Wang et al. [33] even mentioned that consumers are more likely to defer their online buying if they do not consider the online website appearance interesting even though the online shop offers some advantageous points, such as more economical prices or faster delivery. Impulse buying emphasized that it is a hedonically-driven action which values aesthetic as the main contributing factor in impulsive buying, regarding the website display designed in such a way to attract and indulge its consumers. A characteristic of impulse buying is the emerging pleasant and excited feelings, based more on emotions rather than on rationality [4].

The additional analysis on 355 participants showed that (1) Participants with higher mortality salience ( $n = 56$ ; 15.78%) shop more online than their counterpart ( $n = 299$ ; 84.23%), and (2) Participants with higher mortality salience tend to buy luxurious thing than their counterpart. Note that the participants were categorized (higher vs. lower) by *self-choice* based on the manipulation check results and *not* merely based on the psychological priming intervention. From descriptive–*not* inferential– statistics, among 56 participants with higher MS, as much as 53 (94.64%) had experienced at least one *actual online shopping*. Among 299 participants with lower MS, as much as 250 (83.61%) had such experience. Furthermore, regarding *perceived online buying tendency*, among 56 participants with higher MS, as much as 33 (58.93%) reported the tendency. Among 299 participants with lower MS, as much as 135 (45.15%) informed such tendency. This result suggested that individuals with higher MS shop more from the online shop than individuals with lower MS.

Analyzing the pattern of buying behavior on both participants on luxurious items (handbags, gold and jewelry, and expensive watches), the descriptive result showed that participants with higher MS ( $n = 13$  of 56; 23.21%) tend to buy luxurious items more than the participants with lower MS ( $n = 54$  of 299; 18.06%). Along with these result, it was confirmed that there is no difference in online buying pattern in other product categories, like clothes, vehicles, communication device, and furniture. This results suggested that in line with Terror Management Theory (TMT), luxurious items that show wealth indeed serves as one of the best buffers of death anxiety among participants with higher mortality salience.

That additional analysis showed that people's motivation for online buying is associated with the psychological dominance of death. In a Terror Management Theory analysis, this motivation is "defensive," existential as well; applied to stay away from the reality of death itself that he/she knew can come at any time on him. This finding is important and interesting because of concern for the death just does not carry on one's desire to "turn off the bodily

desires" it (as spiritual teachings often suggested), but rather reinforce one's materialism.

Results of this study converge with those of previous studies, e.g. [51] that, in the middle of mechanization era nowadays, the personhood aspects still play pivotal roles in online consumption behavior.

The results of this present study should be interpreted carefully. Insecure self and engulfed self should not be viewed as permanent selfhood. With a growth mindset, the susceptibility to experiencing the symptoms of the two kinds of selves can be reduced and even eliminated. Insecurity and immersed feeling toward others can be experienced by anyone, anytime, in situations that are manipulated and that distort the true meaning of sociality. The important thing is to be aware of these situations so that the negative selfhood conditions do not become chronic and losing self-independence---so that others easily manipulate them or even by the online industry. Even if chronic conditions have occurred, people can still get out of the situation through therapy or other appropriate interventions.

Furthermore, people can be encouraged to promote critical reasoning of buying and consuming that are not easily be "flooded" by perceived aesthetic of online shop and the intense emotions accompanying it heading to online impulse buying. Emotional features could be detected quickly and accurately through the development of information and communication technology [52], thus providing feedback to anticipate online impulse buying.

#### IV. CONCLUSION

The result of this study is the presentation of a psychological model that can predict online impulse buying; that includes self-variables as results of self-construction dynamics. It was found that insecure self, engulfed self, and perceived aesthetic of online shop can predict online impulse buying; entirely in positive directions.

This research has succeeded in showing a new perspective, that the existential self is related to one's economic behavior. The specific contribution of this research is that consumer empowerment [53] becomes an axiological value of the findings of a psychological study. Consumers not only could surrender with negative selfhood but able to realize and resurrect him/herself to healthier selfhood so as not to get caught in online impulse buying. This study along with previous studies [54] which integrate individual and environmental factors indicates that macroeconomic factors are inadequate in explaining online impulse buying. In addition, this study also contributes to explain one of the most important mechanisms of the online impulse buying element. The low capacity for delaying gratification, which so far has been attributed as a pivotal factor of online impulse buying, is very plausible sourced from insecure self and engulfed self.

The practical implication of this research is that education, counseling, and other psychological interventions as well as behavioral engineering applied to insecure and engulfed selves could be done to minimize online impulse buying.

This research also contributes, in addition to the psychology of death, to online consumer psychology. Online sellers of products or services can use this study as a basis for preparing advertising materials that directly or indirectly,

subtle or overt, raised the concern of people to death. Further elaboration is needed to address the ethical issues of utilization of knowledge on this subject.

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