Passion and Self-Efficacy Based Decision Quality: Conceptualization and Empirical Research

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Abstract

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Research Aims: I the marketing domain, consumer decision quality conceptualization still leaves unfulfilled nodes. When the decisions are made under uncertainty, decision outcomes occurred in the long run, and decision outcomes are determined mostly by customer participation in the value creation process; decision satisfaction as a decision quality sole indicator has less power. Therefore, this study offers passion-and self-efficacy-based decision quality in which passion and self-efficacy acted as a unidimensional construct in its function as a decision quality indicator.

Design/methodology/approach: The study used a cross-sectional design. The data were collected with a survey using online questionnaires from 350 conveniently chosen respondents. The data are analyzed using structural equation modeling.

Research Findings: Passion and self-efficacy based decision quality is a valid and reliable construct that is also more powerful and has better goodness-of-fit than decision satisfaction in representing decision quality. Its influence on mastery goals is higher than on avoidance goals. Approach motivation goals influence loyalty intention positively and likelihood to switch negatively. Avoidance motivation goals influence loyalty intention negatively and switching likelihood positively.

Theoretical Contribution/Originality: Passion and self-efficacy-based decision quality is a concept that is still limited to the present study and can be considered as new to the scientific world.

Practitioner/Policy Implication: To increase loyalty intention, a university can fertilize approach achievement and decrease avoidance achievement motivations.

Research limitation/Implications: Further research is encouraged to utilize longitudinal design to check a decision and its effect stabilities' in two or more different time points.

Keywords: Passion, self-efficacy, decision quality, achievement loyalty intention

INTRODUCTION

High student loss is a long severe problem of many tiny and private colleges or universities from long ago until recently. A decade ago, Radford et al. (2014) reported that around 36% of American students left their university without credentials. A recent report indicates that the problem is still there. In the USA, Fain (2019) reported that 22% of students for each batch will leave their university. Tejo (2019) said that approximately 40% of students from such a university dropped themselves out in Indonesia. This trend gave birth to a question, why some students leave their university? Did they make the bad enrollment decision?

Everybody needs to make good decisions in life. The quest for a good decision concept has attracted many researchers since long ago. This effort is also signaled by the birth of decision sciences purposed to help people make good decisions.

Keren and de Bruin, (2017) pointed out that scientists usually use the process and outcomes approach to judging decision quality. How good is the decision making process? This question is the focus of the process approach. The premise is the right process will generate good outcomes or, at least, has the highest chance for a decision-maker to achieve goals (Geisler & Allwood, 2018; Keren & de Bruin, 2017). This expectation cannot always be fulfilled. A good process will not always generate good outcomes, and bad outcomes are not always identical with ill-defined processes. The reverse can also happen (Keren & de Bruin, 2017). Moreover, there is still no agreement about the quality standards of decision-making (Jacoby et al., 1977; Keren & de Bruin, 2017).

When decision-making contains subconscious steps, for which the decision-makers may unaware of, this approach has less power to judge decision quality (Willman-Iivarinen, 2017). In the outcomes approach, decision quality is determined by the favorability of its outcomes (Keren & de Bruin, 2017). Decision-makers' satisfaction functions as the sole indicator of decision quality in this approach (Tyburski, 2017).

Decision-making sometimes is the same as choosing one or multiple goals (Morris et al., 2018; Verschure et al., 2014). In this context, The best choice is the most possible and most suitable one based on the situation, not the most possible one to generate the best behavioral outcome (Jacoby et al., 1977; Keren & de Bruin, 2017; Tyburski, 2017). First, some decisions are made under uncertainty in which the decision-makers have no clear understanding of what will happen with decision outcomes (Chernev et al., 2015; Tyburski, 2017). In this uncertainty, a satisfying decision can lead to bad outcomes (R. A. Howard, 1988; Keren & de Bruin, 2017; Spetzler et al., 2017) and vice versa.

Second, decision outcomes often are occurred in the long run (Mellers, 2000; Stevenson, 1993), and choice satisfaction gives no clear picture of consumer satisfaction. It can only explain 20.78% (Chae et al., 2005) or 19.36% (Heitmann et al., 2007) consumption satisfaction. As Bubic (2014) said, decision satisfaction is an immediate response to the decision, while consumption satisfaction is determined mostly by a commitment to the choice. Third, in many occasions, such as in participative service, decision outcomes are determined mostly by customer participation in the value creation process (Dong et al., 2014). The author believes that it's necessary to think about a concept that covers those considerations.

The choice of a university is conducted under all mentioned conditions. With this situation, the question is, is there another indicator that describes student decision quality better than decision satisfaction? More specifically, in answering it, this study investigates the validity and reliability of passion and self-efficacy-based decision quality and its relative power as a decision quality indicator compared to decision satisfaction. If the new indicator has better predictive validity, we can baptize it as a new indicator of decision quality and be addressed as this study's original contribution.

This study is managed as followed. In the next section, the author presents a literature review. In this section, besides giving a brief description of decision quality, the author also develops an alternative decision quality indicator concept. The author proposes a research method to ensure the new indicator's

robustness and the research model in the third section. The fourth section consists of the analysis to find the validity and reliability of decision quality under investigation, including its predictive capability compared to decision satisfaction. The discussion, conclusion, limitations, and suggestions for further study are presented in the final section.

LITERATURE REVIEW

Decision quality is the quality of a decision when the decision is made regardless of its outcomes. It has been the focus of decision specialist for a long time (Howard, 1988). Their main concern is to define what decision quality is and how to create good decisions (Keren & de Bruin, 2017).

Howard (1988: 682) stated that a good decision is, "*An action we take that is logically consistent with the alternatives we perceive, the information we have, and the preferences we feel*." Spetzler et al. (2017) and Tyburski (2017) stated that there is no standard process nor procedures for good decisions. Every situation has its own nature, problem, considerations, risks, and gameplay.

Despite the difficulties faced in assessing decision quality, the researchers keep addressing the issue. The most fundamental question in their endeavors is whether the process should judge decisions to make them or their outcome (Keren & de Bruin, 2017). The more 'down-to-earth' proposal comes from Spetzler et al. (2017). Thinking that decision quality is a measurable variable, he proposes six requirements for a good decision, they are relevant and reliable information, sound reasoning, an appropriate frame, clear values and trade-offs, creative alternatives, and commitment to action. More clearly, the frame talks about what is to be decided. It consists of the purposes, scope, and perspective about a decision. Values represent what decision-makers want and hope.

Spetzler's (2017) six requirements are purposed to assess decision quality in a business. Long ago, Jacoby et al. (1977) have warned that there's no single approach to define decision quality in the consumer context. Each individual has their own rule and system (Tyburski, 2017; Willman-

Iivarinen, 2017). However, in individual life, in which process-oriented quality is difficult to implement, the outcomes approach makes sense more (Keren & de Bruin, 2017). With this approach, decision-makers' quality of decision is determined by their decision, especially when the outcomes are uncertain and they should be found in a long time (Saifort & Booske, 2000).

Another approach to decision quality is based on the individual capability to make a decision. Effective decision making depends on decision makers' capability to identify, comprehend, and integrate information (Fischoof, 2008). The Decision-Making Competence (DMC) scale and its variants are based on this belief (Liang & Zou, 2018). However, they indicate only the decision maker's quality, not the decision itself.

As stated before, decision satisfaction is used as an indicator of decision quality (Keren & de Bruin, 2017; Tyburski, 2017). Decision satisfaction is an immediate response when a decision is made (Chernev et al., 2015; Heitmann et al., 2007). However, decision quality gives no idea about individuals' engagement with the decision in the future. The decision contains goals, plans, and choice (Krant & Kunreuther, 2007; Sado, 2014). Achievement of goals depends on the implementation of plans (Sado, 2014). Successful implementation requires passion (Currant et al., 2015; Vallerand et al., 2003) , and self-efficacy (Schunk & DiBenedetto, 2016; Stajkovic & Luthans, 1998).

Conceptualizing Passion and Self-Efficacy Based Decision Quality

We may think that students with a good decision should have no regret, have confidence, and justify their decision. According to Heitmann et al. (2007), those properties are decision-making goals, and their achievement is stated in decision satisfaction. So, in this endeavor, they should be free from conceptual model (Figure 1).

Let us start from the endpoint to explore the model. The researchers commonly agree that the indicator of decision quality is consumption satisfaction (Heitmann et al., 2007; Keren & de Bruin, 2017; Tyburski, 2017).
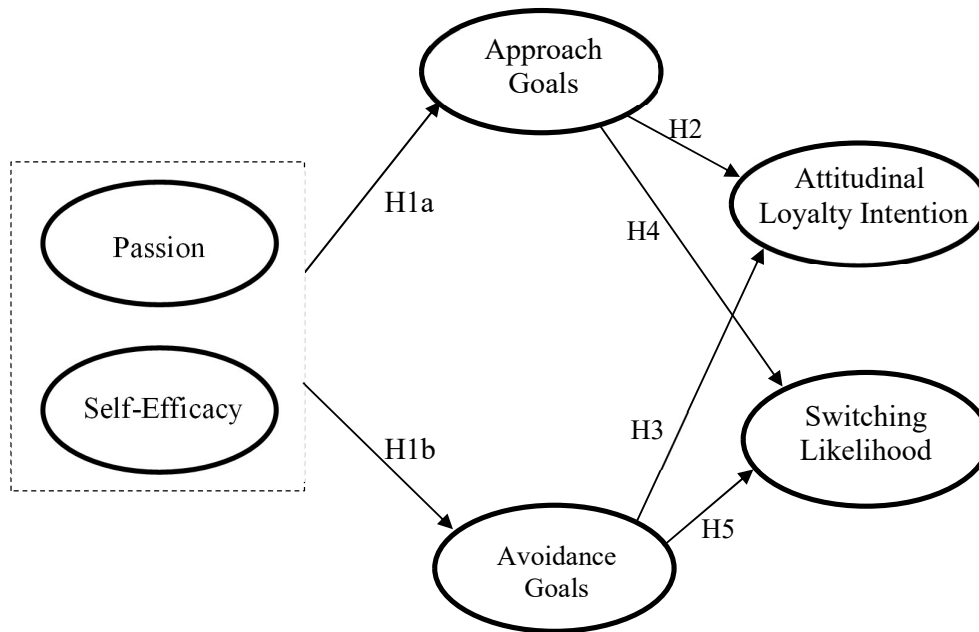
Figure 1. Conceptual Model

The consequence of consumer satisfaction is consumer loyalty (Heitmann et al., 2007; Oliver, 1999). In the university context, the determinant of students' satisfaction is achievement motivation (Serin, 2017) that is influenced by self-efficacy (Domenech-Betoret et al., 2017; Schunk & DiBenedetto, 2016) and passion (Serin, 2017; Stoeber et al., 2011; Vallerand et al., 2003).

In a situation that there's no consumption activity yet, at a decision moment, consumption satisfaction can only be detected through its direct determinants (achievement motivations) and indirect determinants (passion and self-efficacy) as well as its consequences (loyalty intention and switching likelihood) (Figure 1).

Good decision quality generates high loyalty intention and low brand switching. These conditions are not the indicator but the effect of decision quality. Because passion and self-efficacy are conceptualized as a determinant of achievement motivation, loyalty intention, and switching likelihood, a new indicator of decision quality should be based on those concepts.

Passion

People with the same capability can demonstrate different success for the same task (Duckworth et al., 2007). Besides capability, people need another personal property to make its implementation successful (Constantin et al., 2011; Culin et al., 2014; Duckworth et al., 2007; M. C. Howard & Crayne, 2019). This personal property is theorized by many concepts, such as goal striving (Bagozzi & Dholakia, 1999), goal commitment (DeShon & Landis, 1997), perseverance (Duckworth et al., 2007), passion (Duckworth et al., 2007; Vallerand et al., 2003), and persistence (Constantin et al., 2011). Although it has its uniqueness, each concept describes how people maintain effort and interest over the years despite challenges, difficulties, failures, and adversities faced during task accomplishment.

Perseverance and persistence are personality traits (Culin et al., 2014; Duckworth et al., 2007). Although it can be connected with a specific state (Howard & Crayne, 2019), these traits are inherited and unalterable and describe a general tendency to stick with a task no matter how the situations are (Constantin et al., 2011). Goal striving and goal commitment are goal-related persistency. It is defined as the importance level of a goal, determined by an individual's effort to reach it and unwillingness to abandon the goals despite

being confronted with setbacks or negative feedback of goal-achievement (DeShon & Landis, 1997).

Vallerand et al. (2003: 757) defined passion as "a strong inclination toward an activity that people like, that they find important, and in which they invest time and energy." They figured passion as a post-decisional experience related to a certain activity.

Vallerand et al. (2003) categorized passion into two categories, i.e., harmonious passion (HP) and obsession passion (OP). The autonomous internalization of the activity generates harmonious passion into a person's identity. With this passion, people treat an activity as an important thing in life. They are motivated to engage in the activity without enforcement to do so. With this free choice, the activity is in harmony with other's aspects of a person's life. Obsessive passion (OP) is connected with an activity intentionally use to create one's identity. With this activity, an individual expects certain contingencies, such as self-esteem, excitement, and perceived social acceptance generated from activity engagement. Passion has the potential to control an individual. When an individual becomes under passion control, the passionate activity takes an excessive space in the person's identity and may sacrifice other aspects in a person's life.

In the university context, harmonious passion has the same meaning as students' integration concept. Students' integration into their university could occur in two forms (Henniq-Thurau et al., 2001). First, academic integration, i.e., active participation in university societies and committees. Second, social integration, i.e., friendships and acquaintances with fellow students. Tinto argues that, as Hennig-Thurau et al. (2001) stated further, the more integrated the students into their university, the more harmonious their self-image is with their university. The student will adapt the abilities, skills, and value system with those from the university. contribute to the institution's higher degree of commitment. For this reason, in this study, the author considers that harmonious passion, not obsession passion, is more suitable to describe decision quality.

Self-Efficacy

People can assess their capability to handle and accomplish tasks then build a belief around their ability called self-efficacy (Bandura, 1977; Chasiotis et al., 2019; Schunk, 1991). It is different from real efficacy. Although we can believe that high ability people will have high self-efficacy, it does not close a possibility for them to have low self-efficacy (Schunk, 1991).

Self-efficacy is a subjective matter that strongly determine the way people feel, think, get motivated, and do a behavior. High self-efficacy people have high confidence in performing tasks. They look for higher goals with higher motivation and enthusiasm. They eagerly look for a more difficult task because they see it as a challenge instead of run away from it as it were a threat to be avoided. Conversely, low self-efficacy people view a difficult task as an obstacle or even threats they should avoid. They tend to express low motivation and a weak commitment to the goals or tasks they are involved. In facing a difficult task, they check their weaknesses or deficiencies and try to escape from it for many reasons (Bandura, 1977; Domenech-Betoret et al., 2017; Huang, 2016)

Perceived-difficulty in performing a task works like self-efficacy (Kraft et al., 2005). For the same job, low self-efficacy people will see it more difficult than high self-efficacy people. If the perceived difficulty is high, one can expect low self-efficacy. On the other hand, when low perceived difficulty is low, high self-efficacy is there. The same as self-efficacy, perceived difficulty also determine the outcome of performing a task.

Many studies confirm self-efficacy's influence on various behaviors and their outputs. Many researchers use self-efficacy (SE) as a proxy for the Theory of Planned Behavior (PBC). Although SE is not a perfect substitution for PBC, based-on meta-analysis upon 40 studies about drinking alcohol behavior, Cooke et al. (2016) found that SE has a higher strength to predict intention than PBC.

Achievement Motivation

As a concept, achievement motivation is rooted in the expectancy-value theory (Meyer et al., 2019). In this theory, behavior potential (BP) is the function of expectancy (E) and reinforcement value (RV). Expectancy is a subjective assessment of the probability of certain behavior to produce expected outcomes or reinforcements. Reinforcements as an identifiable events that can increase or decrease the potentiality of some behaviors to occur or reinforcements are potential outcomes that increase the possibility of behavior to occur (Pipkin & Vollmer, 2009).

A behavioral outcome can be produced by skill or chance-related factors (Graham & Weiner, 1996; Nicholls, 1984; Simamora, 2020). In the first method, the outcomes are generated by one's ability. Individuals can maintain a high expectancy if they have a high ability to perform tasks. However, prior success or failure will influence self-efficacy and further expectancy. A chance-related process can be imagined as tossing a coin, where outcomes are the same, regardless of the previous tossing failed or successful.

This concept expanded into the wider concept of personality traits, i.e., Rotter's internal versus external locus of control (Reknes et al., 2019). Internal locus of control is a general belief that one's fate is influenced mainly by internal factors. Individuals with an external locus of control believe that external factors are responsible for their fate. Therefore, the achievement motivation concept is likely more relevant when skill-related factors and subjects produce expectancy have a high ability (Nicholls, 1984) and an internal locus of control (Graham & Weiner, 1996). Nicholls (1984: 328) stated directly that *"achievement behavior is defined as behavior directed at developing or demonstrating high rather than low ability."*

Based on Nicholls (1984), we should accept that achievement motivation is only relevant to high self-efficacy. In its development, in addition to the initial approach view, the effort to avoid failure is taken into achievement motivation and called achievement. Consequently, achievement motivation consists of approach and avoidance motivation (Elliot, 1999). Although achievement goals through which achievement motivation is approached have developed to the divergent more recent concepts, this model is still used in recent studies (Chasiotis et al., 2019).

Loyalty Intention

Consumer loyalty expresses a deep commitment to a brand expressed by repurchase behavior and intention to continue to hold it, although there are reasons to switch (Oliver, 1999). It is determined closely by the commitment and brand reputation generated by overall satisfaction as a perceived quality result ((Manuera-Aleman et al., 2003; Oliver, 1999) and love (Fournier, 1998). That commitment itself is generated by liking the brand and indicated by brand advocacy and referral. A brand relationship with loyal customers can also work as a love relationship. Faithful and loyal consumers love only one brand (Fournier, 1998).

Many researchers believe that consumer loyalty is a multi-dimensional construct instead of a unidimensional construct (e.g., Heitmann et al., 2007; Johnson et al., 2006). It consists of attitudinal and behavioral aspects (Dick & Basu, 1994). The attitudinal part of loyalty covers all psychological aspects mentioned above (Manuera-Aleman et al., 2003). The behavioral element, as a dimension firstly accepted, is related to repurchase behavior.

The Influence of Passion and Self-Efficacy on Achievement Motivation

Many studies (e.g., Serin, 2017; Stoeber et al., 2011; Vallerand et al., 2003) confirmed that passion positively influences achievement motivation. No doubt that achievement motivation is also a major consequence of self-efficacy (Domenech-Betoret et al., 2017; Schunk & DiBenedetto, 2016). Although previous studies show that achievement motivation is the very consequence of passion and self-efficacy, in this study, the author proposes that, passion can mix with ratio in what so called passionate rationalism that substantially takes part in a decision making (Lakomski & Evers, 2010). More

specifically, self-efficacy can mix with emotions in developing emotional reasons (Grossmann et al., 2013) that is, according to (Sommet & Elliot, 2017), required for achievement motivation. In sum, we can expect that passion and self-efficacy based decision will increase achievement motivation, as specified in the following hypotheses:

H1: Passion and self-efficacy based decision quality influence positively (a) approach motivation and (b) avoidance motivation.

The Influence of Achievement Goals on Attitudinal Loyalty Intention

Achievement goals are a main component of achievement motivation (Dresel & Grassinger, 2013; Rosas, 2015). In this study, the author investigates the influence of achievement motivation (represented by achievement goals) on loyalty to the chosen university. There's no direct reference for this relationship, though it is still understudied so far. So, parallel findings are used to develop the notion that motivation influences loyalty intention.

In the retailing context, Weindel (2016) conceptualized achievement goals like the customers' perceived value. He said that achievement goal triggers loyalty to a retailer. In the educational field, Henniq-Thurau et al. (2001) found that goal commitment operationalized as "*When I set targets for myself, I always reach them,*" which is viewed in this study as the expression of motivation, shows divergent relationships with loyalty. More specifically, those researchers found that the relationship is significant in the engineering department, but in business, law, and educational studies departments, the relationships are not significant. Maybe the most valuable explanation comes from Teng et al. (2012). They found that achievement striving (desire for achievement), together with gaming competence, are strong predictors of game loyalty that is operationalized as the willingness to continue to play the game.

These arguments are used to formulate the following hypotheses:

H2: Approach goals influence attitudinal loyalty intention positively. The higher is approach goals, the higher attitudinal loyalty intention.

H3: Avoidance goals influence attitudinal loyalty intention. The higher is avoidance goals, the higher attitudinal loyalty intention.

The Influence of Achievement Goals on Switching Likelihood

Scientific works investigating the relationship between achievement goals and the likelihood to switch to another school or university are rare. Fortunately, the author finds an inspiring work from Gasper et al. (2012). They found that the students who switch schools are more likely to perform worse academically than those who do not switch schools. In other words, low capability students tend to have a higher switching likelihood than high capability students. Those who have high capability tend to pursue approach goals (Chasiotis et al., 2019; Tanaka & Yamauchi, 2001). It means that approach goal has a negative influence on switching likelihood. Those who exhibit fear of failure because of low capability tend to set avoidance goals (Chasiotis et al., 2019; Tanaka & Yamauchi, 2001). In other words, an avoidance goal tends to stimulate switching likelihood. These arguments enable the author to formulate the following hypotheses:

H4: Approach goal influences attitudinal loyalty intention negatively. The higher (lower) is the approach goal; the lower (higher) is the switching likelihood.

H5: Avoidance goals influence attitudinal loyalty intention positively. The higher (lower) is the avoidance goals; the higher (lower) is the switching likelihood.

RESEARCH METHOD

Sample and Data Collection

The study is conducted in Kwik Kian Gie School of Business, located in Jakarta, Indonesia. The choice of this business school is based on two main considerations. First, the choice is almost without pressure since the college applied a relatively soft selection process. For educational service at the same level and major, there are many alternatives available for students. So, the student decision quality is possibly varied, ranging from the bad to the good one. Second, as a brand, this college's name is viewed no halo effect on the perception of college quality. Therefore, we can expect that service attributes, features, and anticipated future outcomes are the factors that influence the choice mostly.

The study was conducted a few days before the 2019/2020 school year period started. Respondents were new students that in a few days to come will start their studies. This moment was intentionally chosen to ensure that the students have no experience yet that may influence their perception as a whole. The beginning part of the questionnaire specified the study's purpose, the voluntary nature of the study, and the prescription of how to fill the questionnaire. The author also stressed that participation does not affect them since each respondent is anonymous.

From 521 new students as many of 350 them involved in the study (response rate is 67.18%) that consist of 198 males (56.6%) and 152 (43.4%) females with age average of 18.29 years. The questionnaires are distributed online. New students are sent questionnaires' link and invited them to open the questionnaires by simply clicking the link in their gadget. It enabled the respondents to fill the questionnaires at any time and from anywhere. To reduce position bias, the author randomized the order of the questions and the choice.

The responses are collected automatically by the system as soon as the submit button clicked. There's no missing data because the system required the respondents to respond to each questionnaire before the submission button's push is authorized.

Measurements

Measurement scales are adapted from previous studies, except for switching likelihood, specially developed in this study (Appendix 1). All of the measurements are multi-items in nature. Their validities and reliabilities have been proven in many types of research. Switching likelihood is intentionally treated as a single item measurement because of its nature as 'possibility.' The original questions are translated into the Indonesian language to fit the research context. Responses are recorded using a five-level Likert-type scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Procedure of Data Analysis

Data analysis follows the procedure depicted in Figure 2. In the first step, the authors ensure the validity and reliability of the initial measurement scale using first-order confirmatory analysis and Cronbach Alpha.

After ensuring the validity and reliability of all constructs, in step two, the author conducts second-order confirmatory factor analysis to ensure whether the same latent variable underlines specified sub-dimensions of decision quality. More specifically, at this point, the author verifies whether passion and self-efficacy belong to two or one latent variables. For this purpose, the author uses exploratory factor analysis (EFA) with principal axis factoring as an attraction technic to ensure the use of items' common variance. If the program offers only one latent variable, analysis is continued with confirmatory factor analysis (CFA) using LISREL.

When the second stage is successfully passed, in the third stage, the author analyzes the new concept's predictive validity as specified in the conceptual model (Figure 1). This model's result is compared with the other two models that use self-efficacy and decision satisfaction as the exogenous variables.

RESULT

First Order CFA: Initial Measurement Model

The first step in the data analysis is to ensure the validity of the used constructs. Confirmatory factor analysis (CFA) with LISREL is conducted for this necessity. As we can see in Appendix 1, all items exceed the minimal threshold of factor loading (FL$\geq$0.5) as suggested by Hair et al. (2016).

The items that fail to fulfill this requirement are deleted, such as occurred to MAP3, MAV1, and MAV2, and PAS3. Moreover, all constructs should meet the requirements of the average variance extracted (AVE) $\geq$0.05 and composite reliability (CR) $\geq$0.60. If a construct fails to fulfill this standard, its lowest loading item is deleted even though the item's loading exceeds the minimum standard of 0.5, therefore LOY1 is deleted.
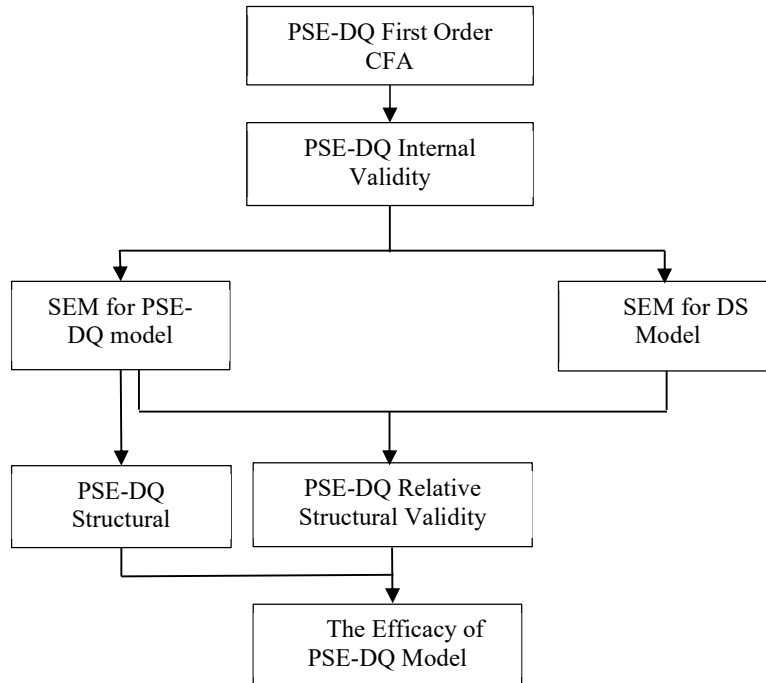

Figure 2. Steps in Data Analysis

The SAT4 is deleted to increase the validity of the measurement model as a whole. Finally, initial model is good fit as shown by, among others, RMSEA=0.067, Comparative Fit Index (CFI) = 0.98, Incremental Fit Index (IFI) = 0.98, and Root Mean Square Residual (RMR) = 0.028. All the validity criteria (FL, AVE, and CR) and reliability (Cronbach Alpha) requirements are fulfilled (Appendix 1).

Second Model of Measurement

As specified in the conceptual model (Figure 1), the exogenous variable consists of the passion and self-efficacy mix. The author conducts exploratory factor analysis upon their combined items to ascertain whether the two dimensions are better treated as bi-dimensional or unidimensional. To attract only common variances, the author uses principal axis factoring in SPSS version 22 as an attraction technic. The direct oblimin rotation ensures that extracted factors are correlated.

The result shows that all items are extracted only to one latent variable. Further, confirmatory factor analysis with LISREL was used to check latent variable solidity. The result shows that all the items are solid as members of the same latent variable, as shown factor loadings>0.5, AVE=0.51, and CR=0.87 (Table 1), which satisfy Hair et al. (2016) and Wijanto (2008). So, the PSE-DQ is statistically confirmed.

Table 1. Measurement Model of the PSE-DQ

Statement	FL	AVE	CR
"My study in this university is in harmony with the other activities in my life" (PAS1)	0.72		
"The new things that I discover with my study in this university allow me to appreciate it even more" (PAS2)	0.72		
"My study in this university will allow me to live a variety of experiences" (PAS4)	0.79		
"My study in this university will be well integrated in my life" (PAS5)	0.68		
"My study in this university will be in harmony with other things that are part of me" (PAS6)	0.79		
"I believe I will receive an excellent grade from this university" (SE1).	0.79		
"I'm certain I can understand the most difficult material presented in this university" (SE2).	0.68	0.51	0.87
"I'm confident I can understand the basic concepts taught in this university" (SE3).	0.65		
"I'm confident I can understand the most complex material presented by the instructor in this university" (SE4).	0.62		
"I'm confident that I can do an excellent job on the assignments and tests during my study in this university" (SE5).	0.73		
"I expect to do well in this university" (SE6).	0.70		
"I'm certain I can master the skills being taught in this university" (SE7).	0.72		
"Considering the difficulty of materials offered in this university, the teacher, and my skills, I think I will do well in this class" (SE8).	0.72		

Noted. FL=factor loading, AVE=average variance extracted, CR=construct reliability

In this study, for a simplification, the new latent variable underlying them is now called passionate and self-efficacy based decision quality (PSE-DQ).

The measurement model of PSE-DQ is fair fit according to RMSEA=0.088, and good fit as stated by Normed Fit Index (NFI) = 0.97, Non-Normed Fit Index (NNFI) = 0.98, Comparative Fit Index (CFI) = 0.98, Root Mean Square Residual (RMR) = 0.024, and Standardized RMR = 0.043.

Mean, Correlation and Standard of Deviation

As shown in Table 2, using the average of 4 as the minimum threshold for the high category in the five-level Likert-type scale, only approach motivation falls into this category. Except switching likelihood, the rest can be categorized as 'almost high' as their averages approach that standard.

Special attention should be paid to the variable' switching likelihood'. Although the response to the question "*In future I may switch to other university*" is close to the category of "nor high, nor low," unfavorable responses to this question is substantial ('maybe yes, maybe' no=106 participants or 30.3%, yes=72 persons or 20.6%, and certainly =16 persons or 4.6%). Around 88 respondents (36.2%) see switching decision to another university as a possible thing in the upcoming year. This is an initial picture of why small and private universities suffer a high loss of students, as described earlier.

Using 0.70 a minimal threshold, the correlations between satisfaction and justified confidence, PSE-DQ, and attitudinal loyalty intention are positive and high. The same result is also evident in the correlations between justified confidence and PSE-DQ, and attitudinal loyalty intention. The PSE-DQ has positive and high with attitudinal loyalty intention, approach motivation, and avoidance motivation. Moreover, attitudinal loyalty has a positive high and positive correlation with approach motivation and avoidance motivation. Approach and avoidance motivations are positive and high, but both constructs have a low and positive correlation with satisfaction and justified confidence. Last, the correlations of switching likelihood to all constructs are low and negative.

Table 2. Mean, Correlation, and Standard of Deviation

	Decision Satisfaction	PSE-DQ	Attitudinal Loyalty Intention	Switching Likelihood	Approach Motivation	Avoidance Motivation
Decision Satisfaction	1.000					
PSE-DQ	0.797*	1.000				
Attitudinal Loyalty Intention	0.816*	0.976*	1.000			
Switching Likelihood	-0.133^	-0.157+	-0.163+	1.000		
Approach Motivation	0.608*	0.914*	0.892*	-0.166+	1.000	
Avoidance Motivation	0.511*	0.777*	0.722*	-0.013	0.844*	1.000
Mean	3.76	3.83	3.85	2.71	4.00	3.89
S. Dev	0.57	0.65	0.56	1.09	0.66	0.66

Note: *Significant at $\alpha<0.001$ (1-tailed), +significant at $\alpha<0.02$ (1-tailed), ^Significant at $\alpha<0.05$ (1-tailed).

Structural Model Analysis

There are two models in this section, and the name of each model is based on their exogenous variables. The models are PSE-DQ and decision satisfaction (DS) models.

The PSE-DQ model is the main model in this study. Besides testing the hypothesis, this model is used to test the PSE-DQ absolute and relative efficacy. The criteria used for this purpose are determinant coefficient (R^2) and goodness-of-fit. Among the two models, the better should be the one which is higher in those criteria.

In the first run, LISREL indicates that the DS model fit is bad (RMSEA=0.106). Then, the model is modified by freeing the error variances between PAP1 and PAP2, PAP2 and PAP3, MAV3 and PAV3, and PAV2 and PAV3. Such action is legal as long as the items whose error variances are freed belong to the same endogenous construct (Wijanto, 2008). The first two couples are members of approach motivation, and the last two couples are from the avoidance motivation construct. Finally, the goodness-of-fit of the DS model is increased, as exhibited in Table 3.

Because using the same syntax, model modifications applied to the DS model are also applied to PSE-DQ models. As a result, PSE-DQ's goodness-of-fit is also increased, as shown in Table 3.

The path of $\beta_{21}=0.99$, t=15.91 marks the influence of PSE-DQ on approach motivation at $\alpha<0.05$ and H1a is confirmed. This variable also shows its determination on avoidance motivation as shown by $\beta_{31}=0.81$ and t=10.91 that is significant at $\alpha<0.05$ and hypothesis H1b is confirmed.

The influence of approach goals on attitudinal loyalty intention is significant ($\beta_{31}=1.09$, t=11.27, $\alpha<0.05$); therefore, H2 is confirmed. As expected, approach goals influences switching likelihood negatively and significantly ($\beta_{41}=-0.46$, t=-3.78, $\alpha<0.05$), and H3 is confirmed.

Avoidance motivation shows its negative non-significant influence on attitudinal loyalty ($\beta_{32}=-0.11$, t=-1.59, $\alpha>0.05$); and H4 is not confirmed. As expected in H5, this construct is influence positively and significantly switching likelihood ($\beta_{42}=0.36$, t=2.73, $\alpha<0.05$).
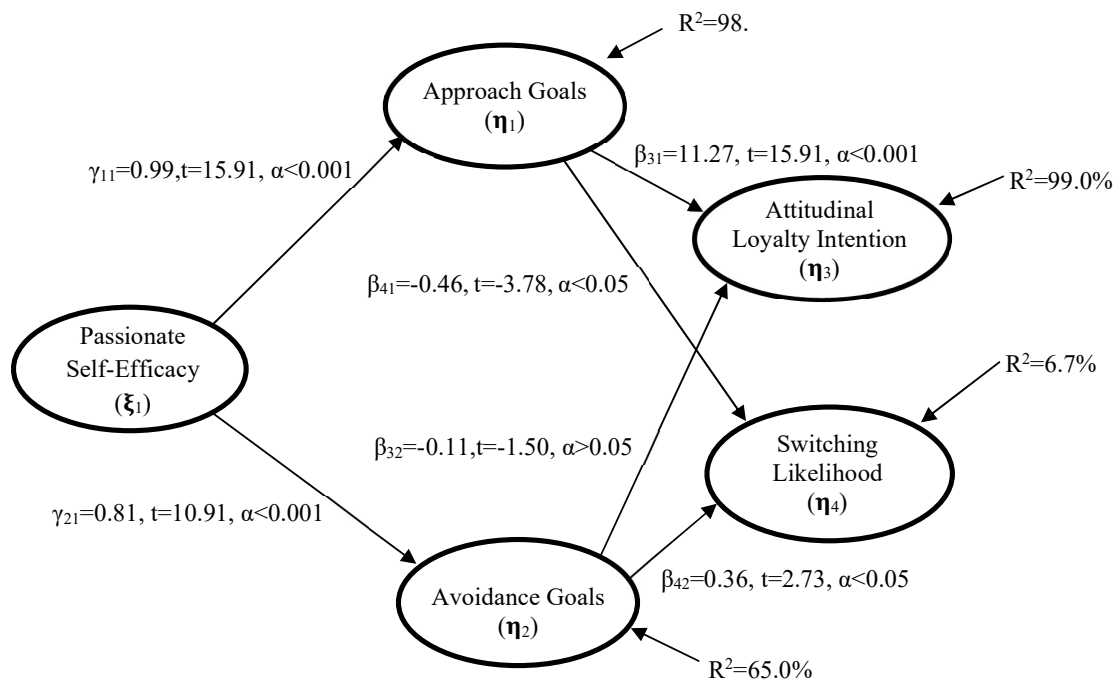
Figure 1. Structural Model of PSE-DQ

The Comparison of PSE-DQ and DS Models

The comparison of the PSE-DQ model and DS model is exhibited in Table 5. Both models' power in explaining attitudinal loyalty intention indirectly and directly is quite high and comparable, as shown by $R^2=99.0\%$ (PSE-DQ model) and $R^2=95.0\%$ (DS model). On the other hand, both models have a relatively weak determination on switching likelihood, as indicated by $R^2=6.7\%$ (PSE-DQ model) and $R^2=9.1\%$ (DS model).

The PSE-DQ model is substantially more powerful ($R^2=98.0\%$) than decision satisfaction ($R^2=63.0\%$) in predicting approach goals as well as avoidance goals ($R^2=65.0\%$ vs $R^2=42.0\%$). The PSE-DQ model demonstrates these functions with better goodness-of-fit in general (Table 4). Therefore, as a whole, the PSE-DQ is better than the DS model in predicting decision quality

DISCUSSION

Passion and self-efficacy are confirmed as part of a latent variable called passion and self-efficacy based decision quality (PSE-

DQ). The PSE-DQ shows a higher direct effect on avoidance and approach motivations and a total effect on attitudinal loyalty intention and switching likelihood than decision satisfaction. As a whole, PSE-DQ is a better predictor of decision quality than decision satisfaction.

The PSE-DQ model generally is also stronger than mere self-efficacy in determining achievement goals. Huang (2016) found in a meta-analysis upon 148 studies ($N = 61,456$) found that the correlation of self-efficacy on mastery and performance approach ranged from moderate to strong and with performance-avoidance and mastery avoidance goals were low. In this study, the correlation of PSE-DQ with approach goals, taken from the square root of determinant coefficient ($R^2=0.98$), is almost perfect ($R=0.99$) and with avoidance goals ($R^2=0.65$) is very strong ($R=0.81$).

Interestingly, the PSE-DQ dimension is also stronger than a mere passion for influencing achievement goals. A meta-analysis of 94 studies conducted by Currant et al. (2015) found that the determinations of harmonious passion on mastery avoidance, performance approach, and performance-avoidance goals are 37.5%, 80.93%, and 61.56%, respectively.

Table 3. The Comparison of PSE-DQ, SE, and DS Models

Endogenous Variables	Determinants	Models					
		PSE-DQ			Decision Satisfaction		
		SC	T-value	R² (%)	SC	T-value	R² (%)
Mediating Variables Effect							
Attitudinal loyalty Intention	Approach Motivation	1.09	11.27	99.0%	0.91	11.79	95.0%
	Avoidance Motivation	-0.11	-1.50		0.12	2.26	
Switching Likelihood	Approach Motivation	-0.46	-3.78	6.7%	-0.38	-4.48	9.1%
	Avoidance Motivation	0.36	2.73		0.26	3.22	
Direct Effect							
Approach Motivation	PSE-DQ	0.99	15.91	98.0%			
	Decision Satisfaction				0.79	12.32	63.0%
Avoidance Motivation	PSE-DQ	0.81	10.91	65.0%			
	Decision Satisfaction				0.65	8.87	42.0%
Total Effect							
Attitudinal Loyalty Intention	PSE-DQ	0.98	15.92	95.0%			
	Decision Satisfaction				0.80	12.50	63.0%
Switching Likelihood	PSE-DQ	-0.13	-2.93	2.5%			
	Decision Satisfaction				-0.13	-2.45	1.4%
Goodness-of-Fit							
Root Mean Square Error of Approximation (RMSEA)		0.075 (good)			0.098 (marginal)		
Normed Fit Index (NFI)		0.97 (good)			0.95 (good)		
Non-Normed Fit Index (NNFI)		0.98 (good)			0.95 (good)		
Comparative Fit Index (CFI)		0.98 (good)			0.96 (good)		
Incremental Fit Index (IFI)		0.98 (good)			0.96 (good)		
Relative Fit Index (RFI)		0.96 (good)			0.94 (good)		
Root Mean Square Residual (RMR)		0.027 (good)			0.060 (bad)		
Standardized RMR (SRMR)		0.044 (good)			0.094 (bad)		

Notes: *Significant at α<0.001, SC=standardized coefficient, R2=determinant coefficient

This study uncovers rare findings of the influence of achievement goals on loyalty intention. Approach and avoidance motivation show inverse influence on loyalty intention. More specifically, approach goals influence attitudinal loyalty intention positively, but avoidance motivation influences it negatively. Switching intention is influence negatively by approach goal but positively by avoidance goal.

The PSE-DQ (R2=2.5%) and the DS (R2=1.4%) have low efficacy in explaining switching likelihood. This result confirms the efficacy of Bansal et al. (2005) push, pull, and mooring factors (PPM) theory. This theory states that switching behavior in service is influenced by push, pull, and mooring factors. Push factors are negative factors in the existing service provider that push customers away, such as low satisfaction, failure in service quality, low value, low trust, high price, price unfairness, etc. Pull factors are any positive factors

offered by other service providers that pull people in, such as high service quality, price fairness, good personal service, incentive, and so on. Mooring effect are factors that can encourage people for migrating to a new service provider or deter the potential switchers from leaving their existing service provider, such as attitude toward switching, switching cost, switching obstacles, etc. In sum, switching behavior can be judge more accurately when customers have to experience the service. So, it's understandable if decision maturity and decision satisfaction have low efficacy to explain the switching likelihood.

This study also demonstrates the validity of PSE-DQ that makes it worth to be baptized as an indicator of decision quality. However, in this study, PSE-DQ that merges passion and self-efficacy until this point has not been formal concept. Other researchers are encouraged to investigate further this intriguing challenge.

This study cannot be escaped from the difficulty of determining each respondent's achievement goals orientation, as also experienced by many previous studies. Other researchers are suggested to use a method that can separate respondents as approach or avoidance goal orientated. Because, as Hoyert and Hendrickson (2012) found, goal orientation can be used to improve college retention and graduation rates.

Present research still uses a single cross-sectional design that makes it impossible to check the influence of PSE-DQ on real future outcomes. Longitudinal research design is required for this purpose. With this approach, the influences of PSE-DQ on real achievement, attitudinal loyalty, and switching behavior can be detected.

CONCLUSION

Passion and self-efficacy based decision quality is a valid and reliable model. It has a better fit and higher efficacy than the decision satisfaction model to predict students' loyalty intention and switching likelihood.

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Appendix 1. Initial Measurement Model

Measurements	FL	AVE	CR	Alpha	Source
Decision Satisfaction					
1. I am satisfied that I am well informed about this university before I chose it (SAT1)	0.74				
2. My decision to choose this university was the best decision possible for me personally (SAT2)	0.74				
3. I am satisfied that my decision to choose this university was consistent with my personal values (SAT3)	0.68	0.55	0.73	0.89	Holmes-Rovner et al., 1996
4. I expect to successfully carry out (or continue to carry out) my decision to choose this university	NU				
5. I am satisfied with my decision to choose this university (SAT5)	0.81				
Harmonious Passion					
1. My study in this university is in harmony with the other activities in my life (PAS1)	0.63				
2. The new things that I discover with my study in this university allow me to appreciate it even more (PAS2)	0.76	0.54	0.76	0.85	Zhao et al., 2015
3. My study in this university will allow me to live a variety of experiences (PAS4)	0.77				
4. My study in this university will be well integrated in my life (PAS5)	0.77				
5. My study in this university will be in harmony with other things that are part of me (PAS6)	0.73				
Self-Efficacy					
1. I believe I will receive an excellent grade from this university (SE1).	0.73				
2. I'm certain I can understand the most difficult material presented in this university (SE2).	0.63				
3. I'm confident I can understand the basic concepts taught in this university (SE3).	0.81				
4. I'm confident I can understand the most complex material presented by the instructor in this university (SE4).	0.70				
5. I'm confident that I can do an excellent job on the assignments and tests during my study in this university (SE5).	0.79	0.53	0.90	0.90	Pintrich et al., 1991
6. I expect to do well in this university (SE6).	0.79				
7. I'm certain I can master the skills being taught in this university (SE7).	0.68				
8. Considering the difficulty of materials offered in this university, the teacher, and my skills, I think I will do well in this class (SE8).	0.66				
Attitudinal Loyalty Intention					
1. I will have special attachment or emotional feelings towards this institution (LOY1)	NU				
2. The quality of care of this college is good (LOY2)	0.76				
3. I will trust the learning services provided by this university (LOY3)	0.77	0.50	0.67	0.80	(Kumari & Patyal, 2015)
4. I will recommend this university to my friends and relatives (LOY4)	0.61				
5. I have positive attitude towards this university (LOY5)	0.68				

Appendix 1 (CONTINUED)

Measurements	FL	AVE	CR	Alpha	Source
Approach Motivation					
1. My aim is to completely master the material presented in this class (MAP1)	0.77				
2. I am striving to understand the content of this course as thoroughly as possible (MAP2)	0.81				
3. My goal is to learn as much as possible (MAP 3)	NU	0.61	0.82	0.87	Eliot and Murayama (2008)
4. I am striving to do well compared to other students (PAP2)	0.77				
5. My aim is to perform relatively well relative to other students (PAP2)	0.74				
6. My goal is to perform better than the other students (PAP3)	0.79				
Avoidance Motivation					
1. My aim is to avoid learning less than I possibly could (MAV1)	NU				
2. My goal is to avoid learning less than it is possible to learn (MAV2)	NU				
3. I am striving to avoid an incomplete understanding of the course material (MAV3)	0.64	0.50	0.66	0.83	Eliot and Murayama (2008)
4. My goal is to avoid performing poorly compared to other students (PAV1)	0.78				
5. I am striving to avoid performing worse than other students (PAV2)	0.78				
6. My aim is to avoid doing worse than other student (PAV3)	0.60				
Switching Likelihood					
1. In the future I may switch to other university (SWITCH)	1.00	1.00	1.00		This study

Noted. AVE=FL=Factor loading, average variance extracted, CR=construct reliability, NU=Not used.