Investigating Beliefs, Attitudes, And Intentions Regarding Strategic Decision-Making Process: An Application Of Theory Planned Behavior With Moderating Effects Of Overconfidence And Confirmation Biases

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Abstract:

The current research aims to apply the theory of planned behavior (TPB), as one of the most used models in the literature in terms of feasibility, testability, methodological suitability, and validity within managers who make strategic decisions in Malaysian SMEs. The current study analyzed the most common biases (overconfidence and confirmation) as moderators in the strategic making decision process.A convenience sampling technique was used for methodology with a population of 450 managers in Malaysian SMEs. The findings support the model used with predictive variables of attitude, subjective norms, and perceived behavioral control and determined the exclusion of overconfident bias as an interfering variable for the managers.Confirmation bias plaid a vital role among managers. The current study provides useful theoretical and practical implications for strategic making decision managers in Malaysian SMEs.

Keywords: Strategic decision-making process, Intention, Attitudes, Subjective norms, Perceived behavioral control, Theory of planned behavior.

1. Introduction

Managersmake strategic decisions throughout their work careers. However, what managers perceive can be substantially different from objective reality. People's behavior is based on their perception of what reality is, not on reality itself. Managers' behavior directly depends on perception. Strategic decision-making is the mental process of choosing from a set of alternatives. Every strategic decision-making process produces an outcome that might be an action, a recommendation, or an opinion. One of the important tools in the company is management, which companies' performance directly depends on the strategic decisions management makes. The argument that management can be directly related to the company's performance can be supported by scholars (Stulz, 2008; Shleifer, 2011; Nocco and Stulz, 2006). The scholars mentioned that managers are sometimes unaware or neglect potential risk that turns out to be significant. Earlier literature review shows that management helps the company to avoid bankruptcy and improve the process of strategic decision-making. There is enormous literature regarding the Theory of Planned Behaviour (TPB) (Ajzen, 1991), and affecting decision-making process(Maria Gstaettner, Rodger, and Lee,2017; Jia, and Bradbury,2020; Elbanna, 2018;Henryks, etal., 2020; Javaid et al., 2020;Dotti et al., 2020;Raju, 2021; AlMaamary, et al., 2021). However, there are only a few studies that applied TPB on strategic management decision (Ulker-Demirel, andCiftci,2020),

hospitality management, (Soorani,andAhmadvand, 2019), consumer food-management behaviour, and most research was done in tourism management (Putro et al., 2020;Yu et al., 2018; Wong et al., 2021; Maria Gstaettner, Rodger, and Lee, 2017). This particular research will be focused on managers and the way they intend to make strategic decisions. Moreover, this research will have common biases in decision-making as moderators, such as overconfidence bias, confirmation bias.Moreover, the current research will have a great contribution to the literature review, there is still no comprehensive research on strategic management decisions applying TPB along with common biases as moderators. In advance, there is no study on common biases in the strategic decision-making process along with TPB applied. To fill this research gap, the current study aims to identify strategic managers' beliefs, attitudes, and perceived behavioural control on intention to make a strategic decision with the interfering role of overconfidence bias, confirmation bias, prediction on strategic making decisions.

In a deep understanding of strategic managers making decision process and the factors influence, the current research focused on developing a new model, which is the combination of TPB model and common biases in decision making, to explain the construct influencing on strategic managers' decision-making process.

The paper will be opened from the literature review on the risk management decision-making process, constructs of the TPB, and control variables (overconfidence bias, confirmation bias). The following part of the research will explain a methodological approach with upcoming research analysis. Subsequent parts will be given for discussion results, findings and conclude with implications for risk managers. The last part of the article will conclude the research results along with theoretical and managerial implications, limitations of the study.

2. Literature review and developing hypotheses

Strategic management is a process where managers identify, assess, and treat the risk that could potentially affect companies' business operations.Dotti et al., (2020) examined the decision-making process and implementation which can be characterized by different levels. The medium complexity decision-making process can be characterizedas intuitive, the managers are influenced by emotions, or they rely on experience. In contrast, when the decision-making process and implementation is low complexity, the managers make a decision more rationally. Responsibility for making a strategic decision undoubtedly relies on the top management team (Netz, Svensson, andBrundin,2020).

2.1. Theory of Planned Behavior

The theory of planned behavior (TPB) was designed by Ajzen (1991) where cognitive self-regulation plays an important role in human behavior. The theory was designed to predict and explain human behavior in a specific context. One of the central factors of the TPB is human intention to make a decision. Motivational factors are shown as indicators, most likely influencingthe intention of performance, and showing how hard humans attempt to try to perform. "The stronger the intention to engage in a behavior, the more likely should be its performance" (Ajzen, 1991). A strategic decision is characterized by uncertainty about potential decisions related to attitude towards the decision. Individuals perceive, evaluate the decision. Their mind constantly evaluates the problem, respond to the available options and the outcomes. During the decision-

making, managers are usually involved in a two-step process, which is their perception of the situation and generation, evaluation along witha selectionof the choice. Subjective norms in the TPB play a vital role in referring to the person or a particular group of people that need to approve or support a certain behavior. Subjective norms can be interpreted by the perceived social influence by other humans which can influence an individual's behavior in a particular manner and their motivation to comply with particular people's vision. The literature review on subjective norms has been proved as a weak influence on decision-making intention compared to attitude. However, (Zhuang et al., 2020) have found an insignificant relationship between subjective norms and perceived behavioural control. Managers often do not follow a self-directional attitude.

Perceived behavioral control can make it possible for managers to control their beliefs that determined their behavior (e.g., I have access to necessary applications) or impede the managers to behave (e.g., I am not skilled to do this)(Van Twillert et al., 2020). The concept of PBC is to explain conditions where managers do not completely control their behavior. Ajzen (1991) referred to that "individual's perception of his or her control over the performance of the behavior". PBC was also determined by ease or difficulties of carrying out the intended behavior (Zolait, 2014). When managers think that the task which is in front of them is easy to perform is high in perceived behavioral control; if the task is difficult to perform it takes low in perceived behavioral control (Manstead, 2002). These relate direct and observed and related experience of behavior and "other factors that may increase or reduce the perceived difficulty of performing the behavior in question" (Ajzen 1988,). When managers intend to perform actual decisions and fail to perform, this failure is attributable to the individual's lack of control over the behavior.

When managers perceived the situation or the problem they are going to deal with, they may decide based on their perception is going to ease or difficult of performing. Perceived behavioral control varies across factors and the given situations, where the result may depend on individual perceptions of behavioral control which depends on the situation.

The current study proposed the following hypotheses regarding the three direct predictors of the Theory of planned behavior.

H1: Attitude towards strategic decision positively influence intention to make a strategic decision.

H2: Subjective norms positively influence intention to make a strategic decision.

H3:Perceivedbehavioral control positively influences intention to make a strategic decision.

2.2. Common biases in decision making as moderators

Decision-makers engage in bounded rationality; however, managers constantly interact with common biases. To minimize the effort decision-making managers, rely on intuition, experience, impulses, or merely convenient rules. Researchers highlighted four common biases which can interact with decision-making. Czaja,andRöder, (2020) described the tendency of managers to overestimate their abilities to perform. The literature supports the link between overconfidence bias and intention to make a decision. Li, andCao, 2021; Erceg, andGalić, 2014; Proeger, andMeub, 2014; Levy, andTasoff, 2017).

Proeger, andMeub, (2014) discussed extensively overconfidence bias among individuals and groups. They found that if individuals decide on the group (subjective norms) while observing other people the overconfidence bias tends to trigger. Moreover, if managers take decisions individually overconfidence can lessen slightly become under confidence. However, another research finding shows that if the group is homogenous, the tendency of overconfidence does not depend on the group making a decision. Literature suggests that overconfidence bias take a place among managers who make decisions, they try to predict the future and happened to overestimate their abilities (Mishra, andMetilda, 2015).

Managers during the decision-making process assume that they rationally gather information, however, they do not. They selectively gather it. Confirmation bias is when humans selectively gather information, reaffirm their past choices, and discount information that contradicts them.

Zhao, Fu, and Chen, (2020), described the intricate moderating role of confirmation bias while making decisions for individuals. Managers tend to accept at face value information that confirms their preconceived views, while they seek sceptical information that challenges them. Extensive literature tends to provide the understanding, that individuals who feel a strong need to be accurate in making a decision are less prone to confirmation bias (Millner, Ollivier, and Simon, 2020; Sude, Pearson, and Knobloch-Westerwick, 2021; Matthiesen, et al., 2020). Thus, the hypotheses are proposed as follows:

H4: Overconfidence bias moderates the relationship between attitude, subjective norms and perceived behavioral control, and intention to make a decision.

H5: Confirmation bias moderates the relationship between attitude, subjective norms and perceived behavioral control, and intention to make a decision.

3. Methodology

The current research and data collection took a place in August-January 2022. The study was used a nonprobability sampling technique to distribute the questionnaire. A convenience sampling technique was applied. The questionnaire was distributed to the targeted population among managers of SMEs in Malaysia. A total of 600 questionnaires were distributed, however, only 450 were used and analyzed. Which gives the response rate of 75%, according to Uma Sekaran (2016) the response rate is acceptable to proceed for data analyses.

The questionnaire contained the first part related to demographic statistics, which included gender, age, education, and working experience. The TPB variables such as Attitude perceivedbehavioral control, subjective norms, overconfidence bias, and confirmation bias were measured in 5-point Likert Scale ranging from (1) completely disagree to (5) agree. The Decision-making variable was measured with a 5-point Likert Scale ranging from (5) frequently to (1) very infrequently or rare.

Variables of the theory of planned behavior such as attitude, subjective norms, perceived behavioral control were measured and adapted from (Ajzen, 2020). The participants were asked to rate their attitude related to decision making such as if participants enjoy or were satisfied. Perceived behavioral control variables were measured and adapted from (Ajzen 2020). Participants were asked if their making decision was under control, did anybody influence the decision-making process. Subjective norms variable measurement were adapted from (Ajzen, 2020). The participants were asked their decision around experienced or inexperienced managers

surrounded. Finally, control variables such overconfidence bias were measured and adapted from (Proeger & Meub, 2014). Confirmation bias variables were measured and adapted from (Heesen et al., 1971). Participants were asked if they would like a certain idea to be true, they end up believing it to be true if they are motivated by wishful thinking and ignoring or rejecting information that casts doubts.

4. Data Analysis

The data was analyzed using SMART PLS software. The total sample size of the data was 450. According to (Hair et al., 2014) before proceeding to analysis the data should be tested on distribution and examined with two measures of distribution skewness and kurtosis. To determine if the distribution of the variable were symmetrical the skewness analysis was applied. The constructs were in the range +1 to -1 and did not exceed the variation, and were close to 0, thus the normality can be concluded(Hair et al., 2014).
The statistical analysis for SMART PLS was performed in four steps as determined by (Hair et al., 2014). Analysis of reflective measured model included: 1) internal consistency, which was evaluated with composite reliability, 2) convergent validity which was assessed with AVE, 3) discriminant validity, which was assessed with Heterotrait- Monotrait ratio (HTMT), 4) indicator reliability, which can be assessed with the indictor's outer loadings. The next step will be evaluating the structural model. The indications to be assessed are 1) coefficient of determination (R2), 2) predictive relevance (Q2), 3) size and significance of path coefficients, 4) *f2* effect size using bootstrapping technique. Next step, the moderation effect of overconfident bias and confirmation bias were assessed. The last step of the analysis was to evaluatethe importance of decision-making based on outer weights obtained by SMART PLS through bootstrapping technique.

4.1. Results

4.1.1. Demographic information

Descriptive statistics of the demographic variables were such as gender, age, occupation, work experience, education of 450 valid responses, 53.8% were females, 46.2% were males, major age (61.5%) of the participants varies from 26-36 years, and average age (30.8%) varies from 37-50 years. Subsequently, the majority of participants (61.5%) have work experience between 6-15 years (Figure 3), 23.1% of participants have work experience of 1-5 years.Education of the participants varies from Ph.D. and MBA which constitute the majority of population 35.2% Ph.D. and 27.4% MBA, following with Bachelor 23.7%, Diploma 13.7%.

4.2. Measurement model

Assessing the reflective measurement model starts with assessing reliability and validity and examining any collinearity issues. Internal consistency was measured composite reliability as presented in Table 4. The composite reliability should vary between 0 and 1, with high values indicating a higher level of reliability. According to (Hair et al., 2014), composite reliability values from 0.70 to 0.90 can be regarded as satisfactory. Table 4 shows that all the constructs meet the mentioned criteria the value

varies from 0.856 to 0.887, hence can conclude that that is a sufficient level of internal consistency reliability.

Table 1: Reflective measurement model: reliability and validity

Latent Variables	Indicators	Convergent Validity		InternalConsistency Reliability
		Loadings	AVE	Composite reliability
AT	AT1	0.980	0.623	0.865
	AT2	0.788		
	AT3	0.735		
	AT4	0.725		
SBN	SBN1	0.967	0.673	0.887
	SBN2	0.982		
PBC	PBC1	0.875	0.560	0.877
	PBC2	0.850		
	PBC3	0.936		
	PBC4	0.889		
	PBC5	0.784		
	PBC6	0.971		
DM	DM1	0.785	0.670	0.889
	DM2	0.908		
	DM3	0.932		
	DM4	0.875		

To establish convergent validity on the construct level the average variance extracted was assessed. The value of 0.50 or greater indicates that the construct determines more than half of the variance of its indicators, hence the convergence validity meets the satisfactory level (Hair et al., 2014).

Table 2: HTMT result

	AT	DM	PBC	SN
AT				
DM	0.450			
PBC	0.442	0.451		
SN	0.145	0.351	0.491	

Discriminant validity was assessed through HTMT result which is shown in Table 5. All constructs did not pass the threshold of 0.85.

4.3. Structural model and test hypotheses

Assessing measurement model constructs confirmed reliability and validity, the next step addresses the assessment of the structural model. R2 measured as model predictive accuracy. R2 could be ranged from 0 to 1. Some of the academic studies considered the R2 value of 0.20 to be high in a discipline such as a consumer behavior or marketing (Hair et al., 2014). In the current study, R2 is 0.639 which can be considered above a moderate level.

The significant level was examined without considering the moderating effect of overconfidence and confirmatory biases. The bootstrapping technique was used to evaluate the significance level and test hypotheses in Table 6.

Table 3: Results of significance testing of path coefficient

Hypotheses	Path coefficient	T statistics	P-value	Significance
H1: AT-DM	0.054	4.411	0.021	Sig
H2: SB-DM	0.095	3.283	0.005	Sig
H3: PBC-DM	0.823	6.737	0.000	Sig

The relationship between attitude, perceived behavioral control and decision making among managers in Malaysia was significant with $p<0.05$, thus H1and H3 is accepted. The relationship between subjective norms and decision making appeared significant with p<,0.05, thus H2 is supported.

Table 4: Effect Size and predictive relevance

	F2	Q2
AT	0.01	
SN	0.022	
PBC	0.458	
DM		0.059

Estimating predictive relevance Q2 in the structural model was used blindfolding procedure. Q2 value can be calculated by using two different approaches. To obtain the result was used cross-validated redundancy was, as it built on the path model estimates of both the structural and the measurement models (Hair et al., 2014). Table 4 shows that Q2 is 0.059, meaning that predictive relevance with values 0.02, 0.15, 0.35 indicate that the exogenous construct has a small, medium, or large predictive relevance (Hair et al., 2014).

Assess the effect size that values of 0.02, 0.15, 0.35, respectively, represent small, medium, and large effects of an exogenous latent variable (Cohen, 1988).

The effect size *f2* as shown in Table 4, explains that endogenous latent decision making has effect sizes of 0.01, 0.022, 0.458 respectively. Hence, the effect size of attitude on the endogenous latent decision making is small, the effect size of subjective norms on endogenous latent decision making is small, and the perceived behavioral control has a large effect size.

The moderating role of overconfidence and confirmation biases was analyzed using the SMART PLS bootstrapping procedure, and the results are presented in Table 5.

The result revealed that overconfidence biases have not confirmed a moderating effect on the relationship between attitude, subjective norms, and perceived behavioral control. The mediating effect of overconfidence bias was insignificant with $p>0.05$. However, the path was negative for subjective norms (-0.214), and perceived behavioral control (-0.154). The result did not support hypothesis 4.

Table 5: Result of moderating effect of overconfidence bias

H4 moderating effect	Path	T vale	P value	Significance
AT-DM	0.387	0.525	0.600	NS
SN-DM	-0.214	0.218	0.828	NS
PBC-DM	-0.154	0.356	0.722	NS

The moderating role of confirmation bias was analyzed using SMARTPLS bootstrapping procedure and the result is presented in Table 6. The result was found that moderating effect between attitude, subjective norms, and perceived behavioral control was significant $p<0.05$.
The path coefficient between variables was positive (0.245, 0.161, 0.176). Hence Hypothesis 5 issupported.

Table 6: Moderating effect of confirmation bias

H5	Path	T Value	P-value	significance
AT-DM	0.245	4.465	0.001	SN
SN-DM	0.161	3.320	0.003	SN
PBC-DM	0.176	6.870	0.000	SN

To evaluate the relative importance of the constructs that influence making a decision the SMART PLS bootstrapping procedure was used. The result shown in Table 7, attitude, subjective norms and perceived behavioral control, confirmation biasis listed in order of outer weight by type.

Table 7: The relative importance of the constructs

Constructs	Description	Outer weights	t	p
Attitude	Spontaneous style of making decision	0.981	2.589	0.036
	High risk activities	0.784	2.012	0.048
	Make a decision quickly and instinctively	0.782	1.540	0.124/ns
	Rational conclusion	0.613	2.388	0.046
Subjective Norms	Experience people around	0.999	2.916	0.047
	Unexperienced people around	0.104	0.201	0.440ns
Perceived Behavioral Control	Focused on success	0.819	2.286	0.023
	Study evidence in details	0.937	2.885	0.046

	Acting on impulse	0.598	1.210	0.227/ns
	Evaluating options	0.886	2.298	0.022
DM	considering all implications	0.492	4.918	0.000
	Plan ahead	0.908	4.647	0.000
	Consider all pros and cons	0.938	4.672	0.001
	Deliberate logical process	0.863	3.440	0.001
Confirmation bias	Always believe in doing	0.749	4.370	0.002
	Motivated by wishful thinking	0.658	3.504	0.003
	Reject information that casts doubt	0.056	2.065	0.032

Out of attitude towards making a decision, participants hesitate to makea decision quickly and instinctively, feel reluctant of making a strategic decision with inexperienced people around, thus this construct was insignificant. Although, participants were very reluctant to makea decision based on impulse. According to (Hair et al., 2014) if the indicators' outer weight is insignificant, however, the constructs item in outer loading are relatively high >0.50, the indicators should be interpreted as absolutely important, but not as relatively important. The two constructs with insignificant weight (attitude and perceived behavioral control, and subjective norms), have greater outer loading (0. 781 and 0.985, and 0.849 respectively). Since these three indicators' loading was significant, the indicators were retained in the analysis to keep content validity.

The 14 constructs, 11 were statistically significant. There were, based on outer weights significant level. Managers makea decision based on their attitude towards the problem. Some of the prefer rationally to think before jumping to conclusions, some of the use different stylesof attitude towards the problem. Most of the managers feel more confident when they belong to the formal group with experience people surrounded by them, thus can assume that experienced people bring confidence. Managers assured that to make a strategic decision in their daily life most of them prefer to go into details about the problem or evaluate the options. They don't act on impulse even most experienced managers, who can rely on their experience to make strategic decision making (Erceg,and Galić, 2014)managers prefer to study evidence in detail and evaluate options.

The most important was strategic decision-making constructs, explaining that managers prefer all implications and plans. Seems like no matter if managers are experienced or belong to formal groups, the strategic decision-making process deliberate logical process considering all pros and cons. An earlier study showed that decision making relies on what groups the managers located (Mishra,and Metilda, 2015), managers tend to make better decisions inhomogeneous formal groups,

however, in this study the construct has a negative and insignificant weight loading impact on the strategic decision-making process that this construct was deleted.
When the situation of desire or information influences managers' beliefs the confirmation bias accrues. Previous studies(Millner, Ollivier, and Simon, 2020; Sude, Pearson, and Knobloch-Westerwick, 2021) suggested that managers are prone to confirmation bias. However, the study showed that confirmation bias does occur during our life, and some managers like the particular idea or the concept to be true, and they eventually start believing that is the information is true. Managers are reluctant to gather new information when the evidence gathered so far confirms the view or prejudices one would like to be true. As consequences people might become prisoners of their assumptions. Wishful thinking is a form of false optimism. When managers are surrounded by experienced colleges around, they feel like they are under influence, feel more confident to make a strategic decision.

5. Discussion and conclusion

The primary aim of the study is to identify the strategic decision-making process among managers in Malaysia. Ajzen's Theory of planned behavior was applied a theoretical framework and extended with two moderating variables such as overconfidence bias and confirmation bias. The TPB model was tested with SMARTPLS. The result determined that all relationshipswere statistically significant between constructs of TPB, indicating that TPB is a valid model for strategic making decision context. The attitude, subjective norms, and perceived behavioral control have demonstrated a significant influence on strategic decision-making. The moderating effect of overconfidence bias and confirmation bias was not confirmed. The result of the research will provide the importance of theoretical and practical implications.

5.1. Theoretical implications

The theory of Planned behavior is widely used for studying human behavior in various industries, however, to study strategic decision-making process was not implemented. Additionally, no analysis has been done through moderating effect of overconfidence bias and confirmation bias. By addressing these research gaps, the result of the study highlights theoretical implications.
First, TPB which is used to analyze the strategic making decision process appeared as a valid model for determining making decision process. The results appear that predictors significantly influence the strategic making decision process. All three variables such as attitude, subjective norms, perceived behavioral control were found to account for 64% contribution in the strategic making decision process. Although the relationship between attitude and making the decision was significant as well as subjective norms. Given that perceived behavioral control was the most important determinant of making decision intention, the result suggests that future details research is suggested to identify additional relevant perceived beliefs.
Second, the current study has identified attitude, subjective norms, and perceived behavioral control that influence the strategic decision-making process. This study may be the first attempt to investigate managers' beliefs structure regarding the strategic decision-making process. Underlining constructs beliefs will allow intervention strategies to change managers' behavior desirably.

Third, this study maybe one of the few existing attempts to investigate the moderating role of overconfidence bias and confirmation bias on relationships between TPB constructs in the strategic decision-making process. Most common biases and their impact on strategic making decisions will be important in establishing a theoretically sound research model. Especially when confirmation bias significantly influences managers' strategic decisions.

5.2. Practical implications

A practical view of the findings provides crucial information for managers. To recognize the process and the viewpoint of managers regarding their decisions made, employees need to focus on three constructs of the theory of planned behaviors to understand specific beliefs that underline them. All three constructs showed significance to the strategic decision-making process. Among all determinants of perceived behavioral control, the most important can be considered that managers mostly study evidence in detail before making a decision, second most important determinant that should be considered by managers is that managers take time to think critically about the situation before deciding by evaluating all the options fully.

The second important construct of TPB was the attitude and its items were identified. Managers should realize that jumping to conclusions rather trying to calculate in advance what might happen can significantly affect strategic decisions. Decisions involve selecting one and more options that managers cannot improve or making judgments about what they can influence, thus managers should consider not making decisions quickly and instinctively.

The last important TPB determinant was subjective norms. Subjective norms items present that manager feel more comfortable around experienced employees to make a strategic decision. This can be influenced by supporting and approving a particular behavior and decision. On the other hand, if the manager is surrounded by inexperienced colleagues, this might take in a wrong way as most likely employees will not support the strategic decision, as those employees have a lack of experience of a different vision.

This study examined common biases that influence strategic decision-making. The result showed that overconfident bias was a statistically insignificant moderating effect onthe strategic making decision process. However, the path was negative, that managers with raising overconfidence bias might just into decision quickly and rationally, especially if the manager has the experience and working with an unexperienced group of employees. The possibility of making the wrong decision with a high level of overconfidence bias is high.

Another confirmation bias was examined and did show a statistically significant moderating effect. When confirmation bias accrued as it has shown a positive path towards strategic making decision, managers might form their attitude and beliefs towards a decision and may ignore additional information was being taken into consideration. As human being tends to like certain ideas or concepts to be true, so they eventually believe that it to be true. Especially managers might take into consideration related to formal groups.

5.3. Limitations and future research

This study has several potential limitations. The research examined TPB and relies on behavioral intention, instead of actual behavior, to measure the outcome. Accordingly, to better understand the strategic decision-making process it is suggested to examine the extended theory of planned behavior. Also, the study used only two common biases out of five. Using a convinces sampling might be another limitation of the study because the different industries or different sizes of companies might have a different opinion. Future research suggested choosinga specific industry and applying a random sampling technique or stratified random sampling technique to obtain more generalized data about the strategic making decision process. Future research also might be applying moderators as work experience. Finally, future research should include additional predictors, such as past behavior to increase models' predictability.

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