

# THE MEDIATING EFFECTS OF ENTREPRENEURIAL ORIENTATION BETWEEN PROCEDURAL RATIONALITY AND STRATEGIC DECISION-MAKING EFFECTIVENESS

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## ABSTRACT

*This study shed light on the relationship between procedural rationality in strategic decision-making in organisations and their strategic decision-making effectiveness, taking into consideration the mediating effects of entrepreneurial orientation, as an intangible resource for organisations. Collecting data from 162 companies that work under the umbrella of the Saudi financial sector, the research found out that procedural rationality in strategic decision-making within organisations positively affected strategic decision-making effectiveness. Likewise, the research revealed that procedural rationality in strategic decision-making increased the level of entrepreneurial orientation. Moreover, the research findings showed that the high level of entrepreneurial orientation within organisations impacted their strategic decision-making effectiveness positively. These findings enrich the fields of strategic decision-making and entrepreneurial orientation within organisations, which have not relatively been subject to investigations while examining such links.*

**Keywords:** Procedural Rationality, Strategic Decision-Making, Entrepreneurial Orientation, Strategic Decision-Making Effectiveness.

## INTRODUCTION

Many researchers have shown growing interest in organisational information processing theory and intangible resources for companies as they can serve to provide competitive advantages for companies (Hove et al., 2014). Using organisational information processing theory, procedural rationality in strategic decision-making within companies is a way implemented by firms to gather, share and analyse information when they attempt to support the decision-making process (Tushman & Nadler, 1978). This suggests that requirements of information processing are based, to a great extent, on the processes of decision-making in companies (Forbes, 2007). This study examines procedural rationality as the way that firms use to increase the demand for information processing when companies consider making strategic decisions. Procedural rationality is related to using systematic and comprehensive analytical methods while solving problems and making strategic decisions (Anderson, 1983; Dimitratos et al., 2016). This usually has a positive impact on the overall entrepreneurial orientation within companies. Therefore, studying resource-based perspective and organizational information processing theory will be crucial for the present research since they enrich and complement each other. The present research aims to investigate whether entrepreneurial orientation impacts the degree to which strategic decision-making can be effective. Entrepreneurial orientation refers to “*how entrepreneurially an existing firm is managed*” (Miller, 1983). It has been widely studied in previous literature, especially in terms of its influence on firm outcomes. However, deeper investigations on firm-level outcomes are crucial in this field (Wales, 2015). These involve financial outcomes or non-financial

outcomes, such as the quality and effectiveness of the decisions taken at the firm-level (Edmond & Wiklund, 2010; Elbanna & Child, 2007; Wales, 2015). This study is crucial as previous studies have not shed enough light on the effectiveness of decisions (Dean & Sharfman, 1996; Elbanna & Child, 2007; Fredrickson, 1985). For this reason, this paper studies the influence of entrepreneurial orientation on the effectiveness of strategic decision-making among Saudi Arabian companies.

## THEORY AND HYPOTHESIS

### Procedural Rationality and Entrepreneurial Orientation

The current research suggests that procedural rationality, as a way that companies use to increase demand for information processing while making strategic decisions, affects entrepreneurial orientation in these companies. Moreover, this study proposes that the value of entrepreneurial orientation depends on the level of rationality the top management employ in such companies. Prior studies in literature reveal that procedural rationality in strategic decision-making has a positive association with entrepreneurial orientation in companies. Some researchers think that opportunities become obvious to entrepreneurs who know well how to acquire, translate, and use information. As a result, entrepreneurial orientation is a strategic orientation that reflects the organisational processes (such as procedural rationality) employed by the firm. Based on the bounded rationality approach, it is noted that the personal values and cognitive abilities of top management teams substantially affect what rational point of view or decision should be adopted. In previous literature, Slater & Narver show that systematic rational analysis seems to enhance the entrepreneurial orientation of companies in two ways. First, procedural rationality in strategic decision-making reduces the chances that companies will quickly move to exploit opportunities without taking advantage of all the benefits related to their current opportunities. Second, procedural rationality in strategic decision-making increases potentials for generative learning that boosts more innovative products and services. Moreover, Shane & Delmar realize that entrepreneurial organisations that opt for detailed analysis and planning before starting strategic activities are less likely to fail. This can be explained by the fact that the time span between planning and feedback in these organizations is much shorter than that in conservative organizations. Furthermore, Covin et al., (2006) state that companies that adopt entrepreneurial orientation are more inclined to analyse information about what should be done so as to successfully make new critical efforts and effectively apply learned lessons in the future. In a similar vein, Hammedi et al., point out that companies that adopt entrepreneurial orientation can achieve higher market performance, if they offer innovative products that follow rational routines. Therefore, all this evidence supports the hypothesis that procedural rationality in strategic decision-making may enhance entrepreneurial orientation in firms. Taking these points into account, this study suggests that:

**H1:** *The greater procedural rationality is adopted, the better entrepreneurial orientation will be in organisations.*

### Entrepreneurial Orientation and the Effectiveness of Strategic Decision-Making

Entrepreneurial orientation within organisations has recently attracted the attention of researchers (Dada & Fogg, 2016). Miller (1983) views entrepreneurial orientation as a compound construct that has three interrelated dimensions: innovativeness, proactiveness and risk-taking. Innovativeness can be defined as “*the ability of the firm to introduce new*

*products and services or modify existing ones in order to meet the demands of current or future markets*". Proactiveness, however, refers to *"the tendency of the firm to introduce new products and services ahead of the competition and act in anticipation of future demand*. As for risk-taking, it refers to *"the propensity of the firm to commit resources to projects with unknown outcomes*". Consequently, in order to draw a comprehensive picture of this phenomenon and obtain more accurate results, empirical studies have to take into account these three components while investigating entrepreneurial orientation. In view of the above, it is expected that companies displaying high levels of entrepreneurial orientation will enhance the effectiveness of strategic decision-making for three reasons. First, companies that adopt innovative ideas have the potential to make more special and competitive strategic decisions, like creating new product lines or invading new markets (Damanpour, 1996; Hurley & Hult, 1998). Second, proactive and risk-taking companies tend to be in an advantageous position thanks to their pursuit of promising opportunities that allow them to make competitive strategic decisions. Such decisions could be offering competitive prices, withdrawing present products and offering new products, or starting new investments. This is enhanced by previous studies that suggest that the first who enters the marketplace can gain a competitive advantage (Kimura, 1989). Third, proactive firms are also in an advantageous situation to react rapidly, since these companies are able to make both prompt and effective strategic decisions because their strategic logic looks for opportunities (Eisenhardt & Martin, 2000). Subsequently, these firms are competitively advantageous via the identification of opportunities and their rapid integration into their internal activities. This means that these firms may gain competitive advantages in dynamic business environments when their dynamic abilities match with their strategies (Harreld et al., 2007). In this context, Gumusluoglu & Acur (2016) point out that competitive advantages are often temporary in dynamic business environments. Thus, competition between firms is often nurtured by creating a series of short-term advantages and proactively involving them into their internal activities, rather than establishing a long-term position relating to a given product or technology. Several studies provide empirical evidence to support these arguments (Balabanis & Katsikea, 2003; Covin & Miller, 2014; Knight, 2001). In view of the above, this research suggests that:

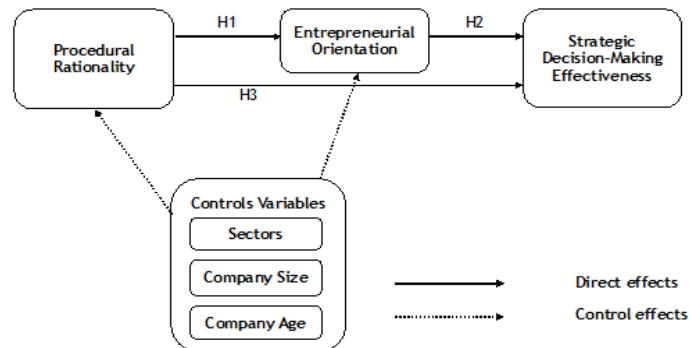
**H2:** *The stronger the entrepreneurial orientation is, the more effective the strategic decision-making will be.*

## **Procedural Rationality and the Effectiveness of Strategic Decision-Making**

Some empirical evidence suggests strong links between procedural rationality in strategic decision-making and strategic decision-making effectiveness, especially when decisions are made to manage crises rather than take advantage of opportunities. Dean & Sharfman (1996) highlight a strong relationship between procedural rationality in strategic decision-making and the effectiveness of strategic decisions, especially in unstable environments. Similarly, Elbanna & Child (2007a) reveal stronger links for strategic decisions taken by decision makers to address crises rather than decisions made to take advantage of opportunities. Previous studies, like Bourgeois & Eisenhardt have found a positive relationship between the level of rationality and companies performance in environments that are constantly changing. Likewise, a number of previous studies have displayed similar results like Glick et al., and Miller & Friesen. After examining the overall results, it is obvious that procedural rationality in strategic decision-making remains ambiguous especially in terms of its relationship with strategic decision-making

effectiveness. Deeper research is crucial to address the contradictions between prior studies. Taking these points into consideration, this paper suggests that Figure 1:

**H3:** *The higher procedural rationality is the more effective the strategic decision-making will be.*



**FIGURE 1**  
**THE CONCEPTUAL MODEL WITH THE RESEARCH HYPOTHESIS**

## METHODS

### Sample and Procedures

The study setting is a number of companies in Saudi Arabia that belong to Saudi Arabia's financial sector, namely, banks, finance companies, insurance companies, investments companies, real estate development companies and Awqaf (endowments) companies. These firms, whose activity is mainly financial, employ more than 100 employees. As for collecting data, electronic surveys were selected to survey a large and widely-dispersed population. They provide accurate information via the application of one approach on all respondents (Craig & Douglas, 2005; Hair et al., 2017). Surveys have traditionally been used in previous studies (Miller, (1983); Elbanna & Child, (2007b); Haniffa & Hudaib, (2007); Jansen et al.,(2013) as methods of examining procedural rationality, entrepreneurial orientation as well as strategic decision-making effectiveness. As such, a survey questionnaire was prepared focussing on the previously mentioned areas. In total, 1,500 questionnaires were distributed to 375 companies in a period of nearly three months from mid-December 2019 until mid-March 2020. Out of distributed questionnaires, 379 were returned from 177 companies. At least two responses from each company were collected so as to guarantee the validity of the research results. However, 15 questionnaires were excluded for various reasons, such as incomplete schedules or irrelevant answers. The remaining questionnaires, mainly 364 from 162 companies, represented a final response rate of 25% which is quite high and satisfactory. An initial meeting was held with top management teams promising to anonymize the research responses and offer a free summary of the results once the survey is completed. Then the link to the electronic questionnaire was forwarded to the members of the top management team of each firm directly, or via the Human Resources Manager. Several measures were taken to avoid participants' bias. To elaborate this, the research questions were repeated on different pages of the lengthy questionnaire to ensure that the respondents do not link the variables under study (Miller, 2008). Also, the multiple responses procedures, suggested by Elbanna & Child (2007b), were implemented by asking at least two executives from each company to answer the same

questionnaire. Comparisons between the responses of these executives were subsequently drawn. Similarly, this study implemented the Structural Equation Modelling technique to analyse the data. The study focused on testing causal relationships that were suggested as a research hypothesis to investigate multiple independent and intervening variables. SPSS (Statistical Package for the Social Sciences) (Version 24), and the Smart PLS 3.0 (Partial Least Squares Path Modelling) software packages were used to analyse the collected data.

## Measures

To measure the construct, already tested scales were used. The scales used to measure the main variables of the study Table 1.

<b>Table 1</b> <b>RELIABILITY AND VALIDITY TEST</b>					
<b>Construct</b>	<b>No. of Questions</b>	<b>Cronbach's alpha</b>	<b>Composite Reliability (CR)</b>	<b>Average Variance Extracted (AVE)</b>	<b>DV/IV*</b>
<b>Procedural Rationality</b>	5	0.845	0.89	0.619	IV
<b>Entrepreneurial Orientation</b>	9	0.923	0.936	0.62	Med
<b>Strategic Decision-Making Effectiveness</b>	4	0.837	0.891	0.671	DV

\*DV=Dependent Variable, IV= Independent Variable, Med=Mediator Variable.

**Independent variable:** Procedural Rationality in Strategic Decision-Making. In the present research, procedural rationality in strategic decision-making was examined via a five-item scale taken from Dean & Sharfman (1996) and scaled on a seven-point Likert scale. These items include:

1. How extensively did the top decision-making group in your firm look for information before making strategic decisions? (1= Not at all, 7= Extensively).
2. How extensively did the top decision-making group analyse the relevant information for decision before making a strategic decision? (1= Not at all, 7=Extensively).
3. How important were quantitative analytic techniques (such as net present value or discounted cash flow analysis, etc.) in making the strategic decision? (1= Not at all important, 7=Very important).
4. In general, how effective was the top decision-making group in your firm at focusing its attention on relevant information and ignoring irrelevant information for decision? (1=Not at all effective, 7=Very effective).
5. How would you describe the process that had the most influence on top decision-making group's decisions? (1=Mostly analytical, 7= Mostly axiomatic). This measure and its variants have been widely used with similar reliability estimates (Dean & Sharfman, 1996; Elbanna & Child, 2007a; Papadakis, 2006; Thanos et al., 2017).

The Cronbach's alpha value in this study is (0.845), as displayed in Table (1), which is similar to that of previous studies that used a similar scale for measuring procedural rationality. To sum up, in the current survey, this three-item measure shows acceptable levels of reliability ( $\alpha=0.845$ ; CR=0.890) and validity (AVE=0.619), as demonstrated in supplement Table 1.

**Dependent variable: Strategic Decision-Making Effectiveness:** In this research, strategic decision-making effectiveness was calculated by a four-item scale taken from (Jansen et al., 2013) and scaled using the same seven-point Likert scale. The items consist of:

1. To what extent have strategic decisions contributed to the turnover growth of your firm;
2. To what extent have strategic decisions contributed to the profit growth of your firm;

3. To what extent is the decision-making team satisfied with the decisions; and
4. To what extent has the decision led to the expected result.

The Strategic Decision-Making Effectiveness variable is measured as the total of these four items. This four-item measure shows acceptable levels of reliability ( $\alpha=0.837$ ;  $CR=0.891$ ) and validity ( $AVE=0.671$ ).

**Mediator variable:** Entrepreneurial Orientation. In this research, entrepreneurial orientation was measured by a nine-item scale taken from (Covin & Slevin, 1989). Entrepreneurial orientation has three dimensions (innovativeness, risk-taking and proactiveness). The items include:

1. In general, the top managers of my firm do not favour (1= a strong emphasis on the marketing of tested and true products or services, 7= a strong emphasis on technological leadership and innovation)
2. How many new lines of products/services has your firm marketed in the last 5 years? (1= no new lines of products/services, 7= many new lines of products/ services)
3. Changes in product or service lines (1= have been mostly of a minor nature, 7= have usually been quite dramatic)
4. In dealing with its competitors, my firm (1= typically responds to actions which competitors initiate, 7= typically initiates actions which competitors then respond to)
5. In dealing with its competitors, my firm (1= is very seldom the first business to introduce new products/services, new products/services, administrative technologies, etc., 7= is very often the first business to introduce administrative techniques, operating techniques, operating technologies, etc.)
6. In dealing with its competitors, my firm (1= typically seeks to avoid competitiveness preferring a “live-and-let-live” posture, 7= typically adopts a very competitive “undo-the-competitors” posture)
7. In general, the top managers of my firm have (1= a strong proclivity for low-risk projects (with normal and certain rates of return), 7= a strong proclivity for high-risk projects (with chances of very high returns))
8. In general, the top managers of my firm believe that (1= owing to the nature of the environment, it is best to explore it gradually via timid, incremental behaviour, 7= owing to the nature of the environment, bold, wide-ranging acts are necessary to achieve the firm’s objectives)
9. When confronted with decision-making situations involving uncertainty, my firm (1= typically adopts a cautious, ‘wait- and-see’ posture in order to minimise the probability of making costly decisions, 7= typically adopts a bold, aggressive posture in order to maximise the probability of exploiting potential opportunities).

This scale has been validated well and used widely in entrepreneurial orientation research (Edmond & Wiklund, 2010; Rauch et al., 2009; Thanos et al., 2017). The Cronbach’s alpha value in this study is (0.837), which is homogenous with previous studies that used a similar scale to measure entrepreneurial orientation (Thanos et al., 2017). In short, the three-item measure in this study shows sufficient levels of reliability ( $\alpha=0.837$ ;  $CR=0.891$ ) and validity ( $AVE=0.671$ ).

**Control variables:** Based on prior studies, this research examines the effects of three variables, mainly type of sector, company age and company size, on entrepreneurial orientation, politicisation and strategic decision-making effectiveness. More details on these three variables are as follows:

**Type of Sector:** This research investigates the type of sector, mainly banks, finance firms, insurance companies, investment firms, real estate development firms and Awqafs (endowments) companies (Thanos et al., 2017).

**Company Age:** This paper examines the impact of company age because this affects organisational processes and outcomes. Company age was measured by the number of years in operation (Liu et al., 2011).

**Company Size:** This research studies the influence of company size based on the number of full-time staff (García-Villaverde et al., 2013; Thanos et al., 2017; Wales et al., 2015). Company size affects its growth and its outcomes (Dimitratos et al., 2004).

## RESULTS

Table 2 TOTAL EFFECTS							
No	Relationships	Sample	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values	Results
H <sub>1</sub>	PR → EO	0.328	0.333	0.045	7.228	0.000**	Supported
H <sub>2</sub>	EO → SDME	0.246	0.249	0.055	4.441	0.000**	Supported
H <sub>3</sub>	PR → SDME	0.389	0.385	0.056	6.931	0.000**	Supported
H <sub>4</sub>	PR → EO → SDME	0.081	0.083	0.023	3.522	0.000**	Supported

\* Significant at  $p < 0.05$ , \*\* Significant at  $p < 0.01$

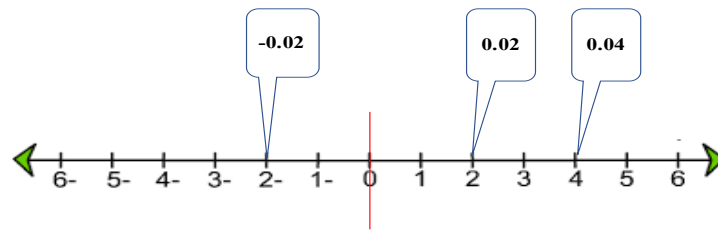
Based on Table 2, the main results of this study unveil that there is a strong relationship between procedural rationality in strategic decision-making and entrepreneurial orientation in organisations. Indeed, the higher the level of procedural rationality in strategic decision-making is, the better entrepreneurial orientation in organisations will be. Similarly, strong links are also noticed between entrepreneurial orientation in organisations and strategic decision-making effectiveness. More specifically, the higher the level of entrepreneurial orientation in organisations is, the better strategic decision-making effectiveness will be. Moreover, the research results highlight a strong link between procedural rationality in strategic decision-making and strategic decision-making effectiveness. The mediator role of entrepreneurial orientation in companies between procedural rationality in strategic decision-making and strategic decision-making effectiveness was as hypothesised.

### Mediator Analysis

Preacher & Hayes (2008) highlighted two essential stages to conduct mediator analysis. The first stage is that the bootstrap of the total effect must be significant; that is the p-value must be less than 0.05. This means that the p-value of the link between the independent variable and the dependent variable via the mediator has to be less than 0.05. As revealed in Path (a) starts from the independent variable to the mediator variable, Path (b) starts from the mediator variable to the dependent variable, and Path (c) from the independent variable to the dependent variable. As such, the total effect is Path (a) added to Path (b). This means the total effect departs from the independent variable to reach the dependent variable via the mediator variable.

Based on the p-values of the total effects from Table 1, PR→SDME is statistically significant. That is, PR→SDME is statistically significant at the 0.000 percentage level of significance; hence PR met the requirements of the first step of mediator analysis. The second step is the bootstrapped confidence interval (lower and upper levels). At this stage, the zero integer should not be between the lower and upper levels of the bootstrapped confidence

interval. For instance, as displayed in Figure 2, if the upper level is 0.04 and the lower level is 0.02, this means the values are not between 0, and therefore the second step is achieved. However, if the lower level is -0.02 and the upper level is 0.02, this means that 0 is between them; thus, step two is not attained.



**FIGURE 2**  
**EXPLANATION OF THE LOWER AND UPPER LEVELS OF THE BOOTSTRAPPED CONFIDENCE INTERVAL**

To measure the bootstrapped confidence interval (lower and upper levels), we used the template for mediation calculation as shown in Figure 3, 4.

Original sample = standard beta							
PR- → (EO)Mediator		(EO)Mediator → SDME		Automatic calculation	Standard deviation	Automatic calculation	Bootstrapped Confidence Interval
	Path a	Path b	Indirect Effect	SE	t-value	95% LL	95% UL
Mediator							

Note: Zero must not cross the Bootstrapped Confidence Interval values

**FIGURE 3**  
**TEMPLATE FOR MEDIATION CALCULATION**

Original sample = standard beta							
PR- → (EO)Mediator		(EO)Mediator → SDME		Automatic calculation	Standard deviation	Automatic calculation	Bootstrapped Confidence Interval
	Path a	Path b	Indirect Effect	SE	t-value	95% LL	95% UL
Med PR EO → SDME	0.328	0.246	0.081	0.023	3.508	0.036	0.126

Note: Zero must not cross the Bootstrapped Confidence Interval values

**FIGURE 4**  
**RESULTS OF THE MEDIATION CALCULATION**

The bootstrapped confidence interval (lower and upper levels) of  $H_X$  refers to entrepreneurial orientation as a mediator between procedural rationality in strategic decision-making and strategic decision-making effectiveness. As Figure 5 reveals, 0 did not cross the Bootstrapped Confidence Interval values, where the lower level was 0.036 and the upper level was 0.126. This means that it achieves the second requested step of mediator analysis. Subsequently, entrepreneurial orientation plays a statistically significant role as a mediator between procedural rationality in strategic decision-making and strategic decision-making effectiveness.

Table 3 TOTAL EFFECTS OF CONTROL ON PROCEDURAL RATIONALITY, ENTREPRENEURIAL ORIENTATION.						
No	Relationships	Sample	Sample Mean	Standard Deviation	T Statistics	P Values



			(M)	(STDEV)	( O/STDEV )	
1	Co Age -> EO	-0.203	-0.2	0.05	4.039	0.000**
2	Co Age -> PR	-0.04	-0.04	0.045	0.899	0.369
3	Co Size -> EO	0.356	0.353	0.052	6.893	0.000**
4	Co Size -> PR	0.226	0.228	0.053	4.229	0.000**
5	Sectors -> EO	-0.07	-0.07	0.046	1.509	0.132
6	Sectors -> PR	-0.177	-0.177	0.054	3.284	0.001**

\* Significant at  $p < 0.05$ , \*\* Significant at  $p < 0.01$

As demonstrated in Table 3, the main findings of this survey reveal that the total effect of company age on entrepreneurial orientation obtained (0.000) p-value. As such, the p-values obtained were statistically significant at a (0.01) percent level of significance; hence this enhances the positive impact of this relationship. However, the findings reveal that the total effect of company age on procedural rationality in strategic decision-making obtained p-values more than a (0.05) percent level of significance, that is (0.369). Consequently, the p-values did not obtain any statistical significance; hence this confirms the negative effect of company age on procedural rationality in strategic decision-making. Moreover, Figure 5 displays the total effect of the company size on entrepreneurial orientation and procedural rationality in strategic decision-making. The obtained p-values are less than (0.01) percent level of significance, which are (0.000). This means the p-values obtain statistical significance; hence this confirms the positive effect of company size on entrepreneurial orientation and procedural rationality in strategic decision-making. Furthermore, Table 3 reveals that the total effect of the type of sectors on entrepreneurial orientation obtained p-values more than a (0.05) percent level of significance, more specifically (0.132). This means that p-values did not obtain any statistical significance; hence this enhances the negative effect of the type of sectors on entrepreneurial orientation within organisations. However, the total effect of the type of sectors on procedural rationality in strategic decision-making obtained p-values less than a (0.01) percent level of significance, more specifically (0.001). As such, p-values obtain statistical significance, hence the positive impact of sectors type.

## DISCUSSION AND IMPLICATIONS

The objective of this article is exploring the relationship between procedural rationality in strategic decision-making, entrepreneurial orientation and strategic decision-making effectiveness, taking into account mediating relationships. The study suggests that firms that opt for procedural rationality in strategic decision-making will increase the strategic decision-making effectiveness. It also proposes that by adopting rational thoughts, the firm will increase the positive effect of entrepreneurial orientation (innovativeness, risk-taking and proactiveness). The setting of this survey is all the companies that fall under the umbrella of Saudi Arabia's financial sector since this sector is considered a milestone for trade in any economy. Focusing exclusively on Saudi Arabian companies complies with recent calls for the importance of considering different cultures while implementing a study model (Thanos et al., 2017). In turn, there are a number of important theoretical implications that can be drawn from these findings. First, the positive links between procedural rationality in strategic decision-making and strategic decision-making effectiveness suggest that rational thoughts will urge decision-makers to take effective strategic decisions. This can be implemented by focusing on collecting and analysing information, developing alternatives, objectively selecting alternatives, as well as using external sources in information processing

(Eisenhardt & Zbaracki, 1992). Based on the rational theory, decision-makers should always seek to consider all possible alternatives, and thereafter choose the solution with maximum value and benefit. Such a step requires the decision-makers to spend more time looking for better alternatives. The present research findings confirm similar findings in prior studies. For instance, Rodrigues & Hickson showed that successful decisions are more likely to result from using adequate information and adequate means of implementation. Second, the positive relationship between procedural rationality in strategic decision-making and entrepreneurial orientation suggests that rational thoughts will help organisations to adopt entrepreneurial orientation (innovativeness, risk-taking and proactiveness) within their organisations. This research finding supports the study hypothesis that procedural rationality in strategic decision-making is positively associated with entrepreneurial orientation within organisations. However, this finding may contradict some prior studies' results that unveiled that analytical strategic decision-making can retard or impede entrepreneurial action within companies. However, this research reveals that in competitive environments, procedural rationality in strategic decision-making enhances the entrepreneurial actions of the firms and encourages decision-makers to take advantage of opportunities. Subsequently, decision-makers of entrepreneurial firms have to involve analytical processes in strategic decision-making while evaluating critical opportunities in competitive environments. Hence, the study confirms that time to collect and scrutinise information when making strategic decisions in companies is not a waste of time but a valuable activity. Lastly, by implementing the resource-based theory, entrepreneurial orientation was analysed in this paper as an intangible resource that boosts the creation of firms' competitive advantages. Thus, companies with a strong entrepreneurial orientation, i.e., those involving innovativeness, proactiveness and risk-taking, are more likely to leverage available resources to achieve better results. Therefore, relentlessly pursuing new opportunities, adopting innovative ideas, and wilfully acting on risky decisions in organisations will help them attain a competitive advantage by making excellent and effective decisions. This finding reflects similar results in prior studies that emphasized the importance of entrepreneurial orientation as a catalyst for strategic initiatives and better company performance. Although some prior studies results support the findings of this survey, existing literature does not clearly and explicitly examine the link between entrepreneurial orientation and strategic decision-making effectiveness in companies, especially in Arab firms in Arab countries, like Saudi Arabia. This piece of research, therefore, argues that this is a significant contribution because it is one of the first studies to shed light on the link between entrepreneurial orientation as an intangible resource for firms and the effectiveness of strategic decision-making. Moreover, it has unveiled the impact that entrepreneurial orientation can have on strategic decision-making effectiveness. In addition, this study has enlarged the geographical scope of researches on entrepreneurship. Similarly, the positive link between entrepreneurial orientation and strategic decision-making effectiveness in Arab firms is important for these firms since they are resource-constrained and need to deploy their capabilities domestically to survive in contemporary markets. Compared to some European and Latin American countries, Arab firms have relatively younger entrepreneurs, which makes it easier for them to develop an entrepreneurial orientation in their companies and achieve maximum benefits by opting for effective strategic decisions.

## CONCLUSION

To conclude, we investigated whether procedural rationality in strategic decision-making increases the level of entrepreneurial orientation in companies. We also studied

whether the high levels of entrepreneurial orientation would have a positive effect on strategic decision-making effectiveness. The results demonstrated that procedural rationality in strategic decision-making increased the level of entrepreneurial orientation within organisations. Likewise, the high level of entrepreneurial orientation, influenced by procedural rationality, affected strategic decision-making effectiveness positively. As such, as procedural rationality in strategic decision-making is positively related to strategic decision-making effectiveness, this also applies to entrepreneurial orientation as a mediating factor. Although the present study results were relatively positive, the data may have been affected by a number of limitations. The first limitation of this study is that the sample used was selected only from the Saudi Arabian financial sector. The second limitation of this study was that the sample was only taken in Saudi Arabia; hence the findings cannot be generalised to the whole region of the Middle East or all Arab countries. The third limitation is that a number of participants avoided disclosing their positions or the names of their companies, which led to excluding their responses from the study sample. This could have serious effects on the study, but out of 379 questionnaires, only 15 questionnaires were excluded. Fortunately, this did not significantly affect the overall results.

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