# The mediating role of strategic foresight in the relationship between financial knowledge and strategic responses

Zainab Makki Mahmood<sup>1</sup>, Ali Ahmed Faris<sup>2</sup>, Jinan Mahdi Shaheed<sup>3</sup> <sup>1,2,3</sup> University of Kerbala, Iraq

#### ABSTRACT

This study aimed to clarify the mediating role of strategic foresight in its various forms (foresight, acumen, research) in the relationship between financial knowledge and strategic response in its dimensions (resource liquidity, business maturity, reactiveness and reactivity). To achieve this goal, this study was based on the descriptive analytical method, where the questionnaire was used to collect the primary data. (220) questionnaires were distributed to workers in the branches of commercial banks in the middle Euphrates cities (40) branches and (215) were retrieved from them. The results revealed that the adoption of financial knowledge enabled the organization, the study sample, to respond effectively to environmental dynamics through strategic foresight. Moreover, it was revealed that organizations that used financial knowledge were able to maximize their core competencies through strategic foresight, and thus provided added value to services efficiently over their competitors.

Keywords: Financial knowledge, strategic foresight, strategic response

#### Corresponding Author:

Zainab Makki Mahmood<sup>1</sup> University of Kerbala. Kerbala, Iraq zaineb.m@uokerbala.edu.iq

#### 1. Introduction

This research investigates how organizations in the study sample respond to local institutional restrictions and organizational frameworks. Considering how many organizations are involved in worldwide business, but remain rooted in their home nations, it's interesting to consider how these organizations deal with shifting conditions on both the domestic and international levels. A person's financial knowledge is the ability to recognize, comprehend, and apply financial concepts and methods to solve financial difficulties. It is a new way in current business strategy that encourages a company to listen to its customers, suppliers, competitors, technology, etc. and this new method has arrived to bring the organization closer to its surroundings, familiarize it with it, and assist it in analyzing it.

#### 2. Methodology of the study

#### 2.1. The study problem

In an era of diminishing resources and dynamic changes, it is very important to understand the relationship between financial knowledge and consistent strategic responses through strategic foresight. Based on the above, the problem of the study becomes clear within the answer to the following questions:

• To what extent can strategic foresight affect the support of the strategic response?

• How does financial knowledge affect the achievement of the strategic response? How can strategic foresight play a mediating role in strengthening the relationship between financial knowledge and strategic response?

<sup>©</sup> The Author 2021. This work is licensed under a <u>Creative Commons Attribution License</u> (https://creativecommons.org/licenses/by/4.0/) that allows others to share and adapt the material for any purpose (even commercially), in any medium with an acknowledgement of the work's authorship and initial publication in this journal.



# **2.2.** The importance of the study

The study derives its importance from the nature of the problem that it addresses, which is represented in the extent of the diagnosis of financial knowledge and its impact on the strategic response in the surveyed banks through strategic foresight. It also derives its importance from the following points:

- Directing management's thinking to use the strategic response in financial knowledge as a behavior that managers tend to take in decision-making through strategic foresight.
- Draw the attention of researchers and managers in all banks when they use financial knowledge to pay attention to the strategic response to increase the bank's ability to compete and survive.

### **2.3.** The objectives of the study

The foremost goals of the study are as follows:

- Determining and diagnosing the level of financial knowledge of the banks investigated.
- Determining and diagnosing the level of strategic response to the banks investigated.
- Determining and diagnosing the level of strategic foresight for the bank managers surveyed.

- Identifying the extent of the impact of financial knowledge on the strategic response through the mediating role of strategic foresight.

### 3. Study hypotheses:

The main hypothesis: There is no statistically significant effect of financial knowledge on the strategic response through strategic foresight as an intermediate variable.

Sub-hypotheses:

- There is no indirect effect of financial knowledge on the strategic response through foresight as on page 13
- There is no indirect effect of financial knowledge on the strategic response across the acumen dimension
- There is no indirect impact of financial knowledge on the strategic response through the research and exploration dimension

### **3.1.** Community and research sample

The study included (215) individuals from the directors of departments, divisions and units of governmental and private commercial banks, where (220) forms were distributed and (215) of them were retrieved. The study relied on the analytical test method, which depends on measuring the study variables by conducting a questionnaire and analyzing its results, and then testing the study variables based on the set of hypotheses developed.

#### **3.2. Data collection tools**

In its theoretical and practical aspect, the study relied on a number of tools, as shown below:

- The theoretical side: It was relied on (foreign) books and periodicals related to the subject of the study, as well as reliance on research and studies published on the international information network (Internet).
- Applied side: On the applied side, a set of international standards were used that were used in previous research and studies on the variables of the study. The researchers linked these variables in a logical way that contributes to formulating a model that is applicable and generalizable to the study community as a whole.

# 4. Theoretical aspect

# 4.1. Financial knowledge

With so many economic ups and downs, only financial knowledge can keep money safe. As financial knowledge enables decision makers to identify investment opportunities instead of adopting inflexible mindsets that avoid risk. To acquire financial knowledge, managers must be financially savvy and learn the principles and concepts of money management, such as the concept of budgeting, investing, and managing financial affairs, which includes good planning for what to dispose of money, the mechanism for paying debts, as well as how to track expenses. Financial knowledge is the ability to understand and utilize a variety of financial skills. Therefore, financial knowledge can be defined as an important component of understanding financial affairs and making rational financial decisions. They affect the quality of financial life and sound decision-making in the field of finance [1, 2]. It has been defined and measured in a number of ways. There is no

consensus on the definition of financial knowledge despite the recognition of its importance. It was defined as the ability to use different financial concepts and tools [3]. As well as the ability to use knowledge and skills to manage financial resources effectively for long-term financial security [1]. Other researchers defined financial knowledge as experience, confidence and sufficient knowledge in financial procedures and the ability to make financial decisions or is the behavior of individuals towards the use of Financial instruments and their confidence in financial operations [3] and thus they refer to individuals who have knowledge and information regarding the financial practices of business. As for the Organization for Economic Cooperation and Development's International Network on Financial Education (OECD/INFE), financial literacy is defined as the combination of awareness, knowledge, skill and behavior necessary to make sound financial decisions and ultimately achieve individual financial well-being [4]. Mitchell states that financial education is required for a measure of financial ability, i.e. to stay informed on financial matters. Financially educated individuals are the most involved in the financial market because they have knowledge of financial issues [5]. Financial knowledge is human capital that is acquired through the accumulation of financial experience, through learning different topics that affect the ability to manage all financial operations with high efficiency [1]. Individual actions affect the level of financial knowledge. Individuals who invest in financial awareness have a higher level of financial knowledge [6].Where [7] indicated that business owners who have better financial knowledge keep comprehensive business financial records and have a more competitive advantage with regard to obtaining external financing than their counterparts who do not keep it. [8] explained that whoever has financial knowledge and is able to put this knowledge into practice reaches financial well-being through the ability to read, evaluate, manage and discuss many financial conditions that ultimately lead to the financial well-being of individuals and companies, i.e. it provides the ability to determine future prospects. Profitable business, understand how to handle various financial matters. Products and services with self-confidence and skills to work on them [9, 10]. The importance of financial knowledge has become common among both individuals and decision-makers since the outbreak of the global economic crisis of 2008. It has been noted that financial knowledge is scarce and weak almost everywhere in the world, and it indicates the need for financial awareness of the necessary procedures and programs to prevent the occurrence of such crises, shocks and risks. again in the future. And to avoid individuals falling victim to fraud [11]. It is clear from this that the objectives of financial knowledge is to obtain financial freedom where a person can manage his life according to his sources of income and benefit from them so that in the future he does not resort to any unnecessary debts or loans. Financial knowledge is like a protective shield capable of protecting people and immunizing them from any negative repercussions. It's possible that this happens because they don't understand financial matters[12, 13]. Financial knowledge and comprehension, financial skills and competence, and financial accountability are all subcategories of financial knowledge, according to Orton. Basic arithmetic skills, basic arithmetic competence, comprehension of the rewards and hazards linked with various financial decisions and knowing where to get expert guidance were all included in [14]. According to David L. Remund [15], financial knowledge can be divided into five types:

- 1. Financial awareness, is the knowledge of financial concepts and products.
- 2. Financial communication, is the preparation of communication in relation to financial concepts.
- 3. Financial ability, is the ability to use knowledge in order to make necessary financial decisions.
- 4. Financial behavior is the real use of various financial instruments.
- 5. Financial confidence means people's confidence in their previous financial decisions and actions

Different aspects of financial literacy were utilized by the study's researchers. Kempson's usage of a method called the Robson approach in which financial knowledge is presented as a set of financial knowledge, conduct and attitude in addition to required financial information was found to be the most acceptable method [1].

# 4.2. Strategic foresight

By delivering actionable potential, strategic foresight is a set of institutions, activities, and routines that facilitate the investigation and exploitation of potential and limitations. These packages of orders and practices can be maintained and transformed by strategic foresight, which is a blend of creative assessment and current reality. Organizations that have a strong sense of strategic foresight are better able to adapt and thrive in quickly changing settings [16,17]. It's essential for building and sustaining a competitive advantage that lasts throughout time [18]. The study of foresight programs aiming at finding future technologies that will provide the greatest potential for economic development has yielded a large deal of knowledge about how to undertake these activities in recent decades [19]. There is a wide range of strategic foresight concepts. However, a number of

researchers have attempted to define strategic foresight. Ansett's 1982 study was the first and possibly the most significant addition to the concept of strategic foresight. To him, traditional methods of foreseeing the future, which mainly rely on past and well-known raw data, had failed to account for strategic changes in the surrounding environment. The systematic examination of weak signals, he demonstrated, would allow businesses to forecast many strategic downtimes in advance. Think of weak signals as insufficient external or internal warnings that prevent a clear assessment of their impact or a comprehensive reaction [21–23]. Foresight is a human quality that allows us to analyze the advantages and drawbacks, evaluate different options, and invest hypothetical futures at each level with enough reality and significance to use as decision-making tools. Preventing problems before they happen (early warning and advice), considering the current implications of anticipated future occurrences (formulating a proactive strategy), and picturing parts of the future (normative scenarios) [24] are some of the methods used. Study of existing possibilities and unexpected circumstances over time and the degree of analysis of desirable future states in unexpected cases, as well as a specified amount and a predetermined time frame for action, is what Amsteus defines as foresight from a manager's perspective. It is a proactive method and distributed organizational capacity in high-speed environments to map the temporal links between the past, present, and future. [16]. Three dimensions of strategic foresight (forsightedness, acumen and research) form complementary analytical methods to understand how certain organizational practices enhance the foresight of organizations embedded in high-speed environments, which is why we refer to these three dimensions as a three-dimensional framework. As a starting point:

# 4.3. Foresightedness

It means taking advantage of the past to influence the present to create a job in helping individuals identify the causes of events and learn from mistakes, and after looking as part of strategic foresight highlights the causal dynamics of the past and how it can affect the present. Proactive engagement with the past helps develop a broad understanding of historical data patterns that can be extrapolated to reveal evolving environmental trends. While the problem of cognitive inertia associated with historical knowledge and experiences has often led to mixed reactions with reference to its use in envisioning the future, foresight can be a powerful tool in estimating the probability of knowledge before an event occurs. Various organizational techniques that can be used to develop lagging knowledge include anthropological techniques in the causal domain that can be used to deconstruct and translate historical events, counter-thinking experiments, and forecasting techniques such as time series and econometrics [26].

# 4.4. Acumen

Influencing the Future by Pushing the Current. Reconstructing previous outcomes into the present is what hindsight is all about, while discernment is all about moving forward from the present to the future. It can be extremely useful in understanding situations that have no precedent in the past. It is possible to design a reasonable future based on coming technologies and socio-economic trends by anticipating and hypothesizing. When it comes to doing heuristic, value-based analysis, regulators usually rely on methods like environmental analysis, trend analysis of market patterns, value chain analysis, case probabilities and impact simulations [27] to get a sense of the future.

# 4.5. Research or prospecting

One of the characteristics of strategic foresight is research, which is the creative study and reconfiguration of the sources and constraints of future resources and beneficial results. For its part, the study stresses unconventional approaches to problem solving and challenges traditional banking paradigms. As a result, much of the bank's research is speculative and takes place in areas where industry and technology meet, as well as in the bank's value chain. Organizational values are under attack, thus researchers are looking into how to effectively support diverse points of view and tolerate those who hold them in contempt. Building cross-sector partnerships and alliances can be an important part of research; so can utilizing beta-experimental applications like social computing and the web to gather knowledge-based competitive intelligence, as well as the systematic collection, analysis, and disposition of information that employees have access to on their competitors and customers [26]. Three components of strategic foresight (foresightedness, acumen and research) can serve as a

starting point for theorizing strategic foresight and help "tyrannical" banks manage their desire to compete today and prepare for the future.

# 5. Strategic response

Strategic responses are seen as key drivers in dealing with environmental challenges and responding to customer needs [28]. There is an organization-based view of strategy that companies respond strategically to the opportunities and constraints imposed by organizational frameworks. It also focuses, in essence, on how conditions impact Organization on strategic choices [29]. Strategic response is a proactive approach and distributed organizational capacity in high-speed environments to map temporal connections between past, present and future [16]. Or it is the organization's ability, in cooperation with its customers and partners, to quickly and smoothly redistribute its resources and operations to re-dispose or take appropriate actions for the business environment [30]. Clarkson and Oliverhave developed a strategic response framework on how organizations can respond strategically to the challenges of the organizational environment. Through two main dimensions, the attitude towards responsibility and the timing of action. There are three strategic options: 1) passive 2) defensive 3) proactive [29], then Sambamurthy developed a model from an internal viewpoint and an external viewpoint of an organizational response. Through the full analysis of the response and thus the need to display the same response from a different analytical scope. As the direction of the internal response has been transformed through the fluidity of resources and the maturity of business processes, and the external response is strengthened into a proactive activity and revitalization of the business environment [31].

### 5.1. Internal response

Barney suggested that company resources include "all the assets, capabilities, organizational processes, characteristics of the organization, information, knowledge, etc. controlled by the organization that enable it to conceive and implement strategies that improve its efficiency and effectiveness [32]. It is the organization's ability to Utilizing its resources and operations to quickly build up sets of capabilities to shape strategic moves with relative ease [31]. Divided to:

- 1. Resource fluidity: It involves the creation and reallocation of resources in a timely manner after considering the internal capabilities and requirements of the external environment [33].
- 2. Business Process Maturity: The degree to which business activities are considered effective, controllable and predictable. ERP can also help in enhancing the liquidity of resources and business process management systems that are useful to achieve the required maturity of the business process.

#### 5.2. External response

The organization's ability to sense and respond to environmental threats and take advantage of opportunities is deeply rooted in the available resources, so it is important to analyze the available resources in order to identify strategic options for responding to the external environment. It represents the organization's ability to re-act or act in favor of the business environment. What are techniques for developing an environmental orientation for business response activities [30] and are divided into:

- 1. Proactive: It is an attempt to lead the market which enables to enhance the external response, for example, innovation management system for a proactive management system and customer relationship management for the aspects that are activated
- 2. Reactivation: is an attempt to respond to the requirements of a dynamic environment.

#### 5.3. Practical aspect

This topic includes two paragraphs, the first includes a description and diagnosis of the opinions of the study sample about its variables, while the other includes (hypothesis testing). It will be dealt with as follows: First: Describing and diagnosing the opinions of the study sample about its variables.

Table 1. Describes and diagnoses the opinions of the study sample about the research variables										
Dimensions	Arithmetic	standard	Variation	severity of the						
	mean	deviation	coefficient	answer %						
financial knowledge x	3.16	1.28	0.41	63.1%						
Farsightedness 1y	3.04	1.29	0.43	60.8%						
Acumen 2y	3.39	1.44	0.43	67.7%						

Table 1. Describes and diagnoses the opinions of the study sample about the research variables

Research and prospecting 3y	3.43	1.45	0.42	68.7%
Strategic Foresight y	3.43	1.445	0.42	68.6%
resource fluidity 1z	3.25	1.38	0.42	65.0%
business maturity 2z	3.27	1.45	0.44	65.4%
Proactive 3z	3.17	1.38	0.44	63.4%
Reactivation 4z	3.35	1.34	0.40	66.9%
strategic response z	3.30	1.345	0.407	66.1%

Source: Prepared by the researcher based on the results of the electronic calculator N=215

This study attempts to describe and diagnose the views of the study sample about its approved variables, as well as presenting the data shown by the questionnaire and analyzing the sample responses with regard to the independent variable financial knowledge X, the mediating variable strategic foresight Y and its dimensions (foresight Y1 and insight Y2 and research and exploration Y3), and the dependent variable which is the response Strategy Z and its dimensions (Z1 resource liquidity, Z2 business maturity, Z3 proactivity, and Z4 reactivation). Tables of the frequency distributions of the study variables have been prepared and approved for the purposes of the statistical analysis process to obtain the weighted arithmetic means, standard deviations, and percentage weights to know the severity of the answer achieved from the point of view of the sample members. and related to the responses of the sample members.

1- Description and diagnosis of the independent variable (financial knowledge X)

Table (1) shows descriptive statistics for the independent study variable (financial knowledge), knowing that the hypothetical arithmetic mean of the scale (3) was relied on as an average measuring and evaluation tool for the degree obtained and related to the responses of the sample members. The total weighted arithmetic mean was (3.16) and the arithmetic mean value was higher than the hypothetical arithmetic mean, the answer intensity was (63.1%) and the standard deviation was (1.28), which indicates the homogeneity of the data. Through employees gaining new financial knowledge from business partners and competitors as well as urging the organization to seek opportunities to learn more about financial knowledge of internal operations and customers as the organization has better communicated relevant knowledge to employees for better financial practice.

2- Description and diagnosis of the mediating variable (Strategic Foresight Y)

We see through Table (2) the descriptive statistics of the intermediate research variable (Strategic Foresight Y), knowing that the hypothetical arithmetic mean of the scale (3) was relied upon mainly to determine the extent to which the study sample was aware of the research variables:

The following is a detailed explanation of the opinions of the researched sample of the study on the dimensions of strategic foresight:

foresightedness Y1: It is noted from the results of Table (2) that the weighted arithmetic mean for the foresight dimension was (3.04), with a standard deviation of (1.29) and a coefficient of variation (0.43). It was found that the weighted arithmetic mean is greater than the hypothetical mean, and the severity of The answer to the study sample members (60.8%), and this indicates that the (foresightedness) dimension is a clear dimension for the study sample as one of the important dimensions of strategic foresight. And that the sample realizes the importance and fairness of the provisions of this dimension with all associates, as the manager is able to solve the problems facing the organization and that his evaluation of the employees is fair and unbiased, and this will reflect positively on the level of service provided by the organization.

Acumen Y2: The weighted arithmetic mean of the acumen dimension reached (3.39). The value of the arithmetic mean is higher than the hypothetical arithmetic mean, and this indicates the strength of the study sample organizations' adoption of this principle in their work, and the sample answers regarding this dimension were characterized by a kind of convergence, and this is supported by the fact that the value of the standard deviation was (1.44). Indicate the views of the study sample regarding the mentioned dimension. The response intensity rate for the study sample members was (67.7%), and this indicates that the acumen dimension is one of the clear dimensions of the study sample as one of the important dimensions of strategic foresight. Where the organization's management works to identify the capabilities available to it and employ them in a way that achieves its competitive position.

Research or prospecting Y3: Five paragraphs were presented to the respondents in this dimension. It appears from Table (1) that the weighted arithmetic mean for all the paragraphs after research and exploration was higher than the hypothetical arithmetic mean of (3). The total weighted arithmetic mean for the research and exploration dimension reached (3.43) with a standard deviation of (1.45) and a coefficient of difference (0.42) It appears that the weighted arithmetic mean is greater than the mean of the measurement tool, and the response

intensity rate for the study sample members was (68.7%). This means that the sample believes that the organization's management has experience in exploring and exploiting future competitive opportunities.

At the macro level, the strategic foresight variable achieved a weighted arithmetic mean of (3.43). The value of the arithmetic mean is higher than the hypothetical arithmetic mean, which means in practice the strength of the availability of the dimensions of strategic foresight in the organizations of the study community, and what supports this is that the standard deviation was (1.445), which is a small value that indicates the convergence of the answers of the study sample regarding the mentioned variable. The severity of the answer was (68.6%).

Table (2) shows the arrangement of the dimensions of strategic foresight based on relative importance. The dimension of acumen, it ranked first in terms of relative importance, as it reached (69%), and came after it in the second position after research and exploration, as the relative importance reached (68%). It ranked third and last with a relative importance of (61%).

Dimensions		weighted arithmetic mean	Standard deviation	Variation coefficient	Severity of answer %	Relative importanc e	ranking
Foresightedness		3.04	1.29	0.43	60.8%	61%	Third
Dimension acumen	of	3.39	1.44	0.43	67.7%	68%	Second
Dimension	of	3.43	1.45	0.42	68.7%	69%	First
Research prospecting	or						
General Average		3.43	1.44	0.42	68.6%	69%	

Table 2. Ranking the importance of strategic foresight

Source: Prepared by researchers based on the results of the electronic calculator n=215

Description and diagnosis of the dependent variable (strategic response Z). Through Table (1), we see that the descriptive statistics for the approved study variable (strategic response), note that the hypothetical arithmetic mean of the scale (3) was relied upon as a basis for knowing the extent of the study sample's awareness of the research variables, as shown below:

- 1. Resources liquidity Z1: We note in Table (1) that the total weighted arithmetic mean of the resource liquidity dimension was (3.25) with a standard deviation of (1.38) and a coefficient of variation (0.42). It was found that the weighted arithmetic mean is greater than the mean of the measurement tool, and the severity of The answer to the study sample members (65.0%), and this indicates that the dimension of resource liquidity is one of the clear dimensions of the sample members. Where the organization seeks to expand its business and production lines, and is keen to obtain the experts.
- 2. Business Maturity Z2: We see in Table (1) that the total weighted arithmetic mean of the business maturity dimension amounted to (3.27) with a standard deviation of (1.45) and a coefficient of variation (0.44). It was found that the weighted arithmetic mean is greater than the mean of the measurement tool. The response intensity rate for the study sample members reached (65.4%), and this indicates that the business maturity dimension is one of the clear dimensions for the study sample members as one of the important dimensions of the strategic response. The organization enjoys a great reputation for innovative products and services, and is seeking to enter into new markets.
- 3. Proactivity Z3: The weighted arithmetic mean of the proactivity dimension was 3.17. The arithmetic mean value was higher than the hypothetical arithmetic mean, and this indicates the strength of the organization's interest in using modern technology in its activities, and the sample answers regarding this dimension were characterized by a kind of dispersion, which supports that The value of the standard deviation was (1.38), which indicates the weak convergence of the views of the study sample regarding the mentioned dimension compared to the rest of the dimensions, and the severity of the answer was (63.4%).
- 4. Reactivation Z4: The weighted arithmetic mean for the reactivation dimension was (3.35), with a standard deviation of (1.34), and with a coefficient of difference (0.40). It was found that the weighted arithmetic mean is higher than the mean of the measurement tool, and the response intensity rate for the study sample members was 66.9% This indicates that after reactivation is one of the clear dimensions of the sample

members, as the organization has access to more specialized services. On the overall level, the strategic response variable achieved a weighted arithmetic mean of (3.30). The value of the arithmetic mean was higher than the hypothetical arithmetic mean, which in practice means the strength of the availability of the dimensions of the strategic response in the organizations of the study community, and what supports this is that the standard deviation reached (1.34), which is A small value indicates the convergence of the answers of the study sample regarding the mentioned variable, and the answer intensity was (66.1%). Table (3) shows the arrangement of the dimensions of the strategic response based on the relative importance. After the reactivation, it ranked first in terms of relative importance, as it reached (67%), and came after it in the second position after the maturity of the business, as the relative importance reached (65.4%), either after the liquidity Resources, it ranked third in terms of relative importance, reaching (65%), and after being proactive, it ranked fourth and last with relative importance amounting to (63%).

Table 5. Kanking the importance of the strategic response								
Dimensions	weighted	Standard	Variation	Severity	Relative	ranking		
	arithmetic	deviation	coefficient	of answer	importance			
	mean			%				
Resources	3.25	1.38	0.42	65.0%	65%	Third		
liquidity								
Business	3.39	1.45	0.44	65.4%	65.4%	Second		
maturity								
Proactivity	3.43	1.38	0.44	63.4%	63%	Forth		
Reactivation	3.35	1.34	0.40	66.9%	67%	first		
General	3.30	1.346	0.41	66.1%	66%			
average								

Table 3. Ranking the importance of the strategic response

Source: Prepared by researchers based on the results of the electronic calculator n=215

#### Second : Hypothesis testing

The main hypothesis: - (There is no indirect effect of financial knowledge on the strategic response through strategic foresight). In order to test the hypothesis and know the nature of the indirect influence between the research variables, this will be achieved through three sub-hypotheses. The variables in the structural equations are mutually dependent on each other, either directly or indirectly through intermediate variables (dimensions of strategic foresight). The researchers used structural equation models to analyze the path using the program (Amos V.23), which works to determine the amount of direct effects between financial knowledge, strategic foresight and strategic response in order to determine the level of indirect relationships between financial knowledge (independent variable) and the dependent variable (strategic response). Through the indicators of strategic foresight (the mediator variable), the path analysis method is one of the efficient statistical methods in data analysis and is used to establish the possibility of a causal relationship between variables and to determine the direction of direct and indirect influence relationships between variables. The main hypothesis is divided into three sub-hypotheses:

The first sub-hypothesis: -There is no indirect effect of financial knowledge on the strategic response through foresight Y1. Through the first sub-hypothesis, the first indicator of strategic foresight (forward-looking) is between financial knowledge and strategic response, and here requires path analysis (PA). The researchers used structural equation models (SEM) to measure the indirect influence between the independent variable (financial knowledge). The dependent variable (strategic response) has a foresight as a mediating variable as shown in Figure (1) Table (4) shows the causal relationship between financial knowledge and strategic response through the Y1 foresight, where the indirect effect between them was (0.292), which is less than the direct effect, which amounted to (0.47), and therefore the total effect (direct effect and indirect effect) of financial knowledge reached (0.762), in addition to the critical values of the paths (critical percentage greater than 1.96), which is significant at 1%. These results confirm the existence of a direct effect of financial knowledge on the strategic response through foresight, which results in the decision rejecting the null hypothesis and accepting the alternative hypothesis which states that there is an indirect effect of financial knowledge on the strategic response through foresight, which results is an indirect effect of financial knowledge on the strategic response through foresight.

			unougi	ii ioresigni	11				
	Path			standard	critica	p-	direct	Indirect	Total
					1	valu	effect	effect	effect
					values	e			
financial	>	Farsightedness	0.673	0.042	15.84	***			
knowledge x		1y			4				
Farsightedness	>	strategic	0.353	0.051	6.850	***	0.47	0.292	0.762
1y		response z							
financial	>	strategic	0.373	0.047	7.899	***			
knowledge x		response z							

Table 4. Paths of direct and indirect influence between financial knowledge and strategic response through foresight Y1

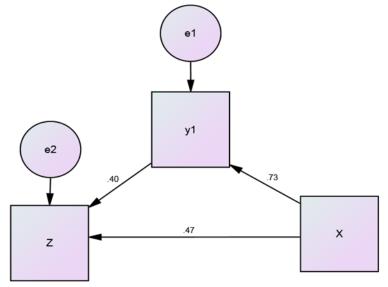


Figure 1. Paths of direct and indirect influence between financial knowledge and strategic response through foresight. Source: Prepared by researchers based on electronic calculator output.

Second sub-hypothesis: -There is no indirect effect of financial knowledge on strategic response through the acumen dimension Y2. Through the second sub-hypothesis, the second indicator of the strategic foresight indicators (after Acumen Y2) is between financial knowledge and strategic response, and here it is necessary to analyze the path. The researchers used structural equation models (SEM) to measure the indirect influence between the independent variable (financial knowledge) on the variable The dependent (strategic response) with the intelligence dimension Y2 as a mediating variable as shown in Figure (2) Table (5) shows the causal relationship between financial knowledge and strategic response through the acumen dimension Y2, where the indirect effect between them was (0.08), which is less than the direct effect, which amounted to (0.69), and therefore the total effect (direct effect and indirect effect) of financial knowledge reached (0.77). In addition, the critical values of the paths (critical ratio greater than 1.96) are significant at 1%, except for the path from the acumen dimension Y2 to the strategic response Z, this path is not statistically significant. These results confirm the existence of a direct impact of financial knowledge on the strategic response and an indirect effect of financial knowledge on the strategic response through the acumen dimension Y2, which results in the decision rejecting the null hypothesis and accepting the alternative hypothesis which states that there is an indirect effect of financial knowledge on the strategic response through yet acumen Y2.

 Table 5. Direct and indirect influence pathways between financial knowledge and strategic response through the acumen dimension Y2

Path			Estimate	standard error	critical values	p- value	direct effect	Indirect effect	Total effect
financial knowledge x	>	Acumen 2y	0.767	0.039	19.467	***	0.69	0.08	0.77
Acumen 2y	>	strategic response z	0.081	0.061	1.325	0.185			
financial knowledge x	>	strategic response z	0.548	0.059	9.355	***			

Source: Prepared by researchers based on electronic calculator output. \*\*\* at 1% significance level

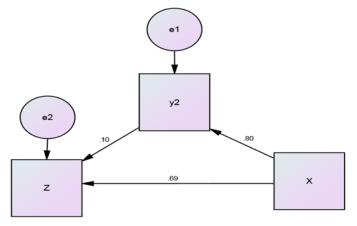


Figure 2. Paths of direct and indirect influence between financial knowledge and strategic response through the acumen dimension Y2, Source: Prepared by researchers based on electronic calculator output.

The third sub-hypothesis: -There is no indirect effect of financial knowledge on the strategic response through the research and exploration dimension Y3. Through the third sub-hypothesis, the third indicator of strategic foresight (after research and exploration Y3) is between financial knowledge and strategic response, and here requires path analysis. The researchers used structural equation models (SEM) to measure the indirect impact between the independent variable (financial knowledge) on The dependent variable (strategic response) with the presence of the research and exploration dimension as an intermediate variable as shown in Figure (3) and Table (6) shows the causal relationship between financial knowledge and strategic response through the research and exploration dimension Y3, where the indirect effect between them amounted (0.5624), which is higher than the direct effect, which amounted to (0.20), and therefore the total effect (direct effect and indirect effect) of financial knowledge (0.762), in addition to that the critical values of the paths (the critical percentage is greater than 1.96) are significant at 1%. These results confirm the existence of a direct effect of financial knowledge on the strategic response and an indirect effect of financial knowledge on the strategic response through the Y3 research and exploration dimension, which results in the decision rejecting the null hypothesis and accepting the alternative hypothesis which states that there is an indirect effect of financial knowledge on the strategic response Through research and exploration dimension Y3.

	through the research and exploration dimension 15								
Path			Estimate	standard error	critical values	p- value	direct effect	Indirect effect	Total effect
financial knowledge x	>	research and exploration dimension 3y	0.757	0.048	15.872	***	0.20	0.5624	0.762
research and exploration dimension 3y	~	strategic response z	0.590	0.031	19.212	***			
financial knowledge x	~	strategic response z	0.164	0.032	5.187	***			

 Table 6. Direct and indirect influence paths between financial knowledge and strategic response through the research and exploration dimension Y3

Source: Prepared by researchers based on electronic calculator output.

\*\*\* at 1% significance level

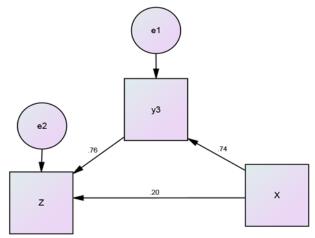


Figure 3. Paths of direct and indirect influence between financial knowledge and strategic response through the research and exploration dimension Y3, Source: Prepared by researchers based on electronic calculator output

The main hypothesis: - (There is no indirect effect of financial knowledge on the strategic response through strategic foresight). We see through Table (7) and Figure (4) below that the path coefficient of financial knowledge in strategic foresight, and strategic foresight in strategic response B1 and B2 are equal to 0.84 and 0.75, respectively, which is significant about the level of significance of 5%. But the direct path coefficient of financial knowledge in the strategic response B = 0.13, which is statistically significant at the level of significance of 5%. When looking at the coefficients of the indirect paths, we find that they are significant at the 5% level of significance. In addition, the critical values of the paths (the critical percentage is greater than 1.96) are significant at 5%. The indirect impact of financial knowledge and strategic response can be calculated through strategic foresight (0.84 \* 0.75 = 0.63). The total effect can be calculated (direct effect 0.13 + indirect effect 0.63 = total effect 0.76). These results confirm the presence of a direct effect of financial knowledge in the strategic response and an indirect effect of financial knowledge on the strategic response through strategic foresight, which results in the decision rejecting the null hypothesis And accept the alternative hypothesis, which states that there is an indirect impact of financial knowledge on the strategic response through strategic foresight.

			un	lough shak	-gic loresignt I				
Path			Estimate	standard	critical values	p-	direct	Indirect	Total
				error		value	effect	effect	effect
financial knowledge	>	Strategic Foresight	0.732	0.032	22.928	***	0.13	0.63	0.76
X		У.	0.00	0.050	11.700		-		
Strategic Foresight y	>	strategic response	0.687	0.059	11.589	***			
		Z							
financial knowledge	>	strategic response	0.107	0.051	2.077	0.038			
Х		Z							

 Table 7. Direct and indirect influence paths between financial knowledge and strategic response through strategic foresight Y

Source: Prepared by researchers based on electronic calculator output. \*\*\* at 1% significance level

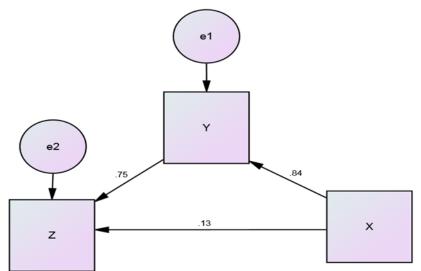


Figure 4. Paths of direct and indirect influence between financial knowledge and strategic response through strategic foresight Y, Source: Prepared by researchers based on electronic calculator output

# 5. Conclusions and recommendations

# 6.1. Conclusion

- The results of the statistical analysis showed that rational financial decisions lead to improving the organization's ability to strategically respond to opportunities and threats in the external environment.
- The increase in the ability of organizations to predict needs and efficiency in the exploitation of resources contributes clearly to the development of the organization's ability to exploit strengths and avoid weaknesses in them, and thus increase its competitiveness.
- An organization that has a high foresight and ability to research and prospect will have the potential to achieve a sustainable competitive advantage
- The mediation of strategic foresight between financial knowledge and strategic response effectively contributes to strengthening the relationship between the dependent and independent variables, and thus improves the impact of financial knowledge on the organization's ability to respond quickly and strategically to environmental changes.

• The organizations under study do not have a high ability to predict the future and may sometimes suffer from short-sightedness, which caused low levels of rapid response sometimes.

### 6.2. Recommendations

- Work to increase financial awareness and knowledge of the importance of financial decisions by analyzing the financial market environment and paying attention to the process of making investment decisions and balancing the return and risk for these decisions.
- Using experts and advanced software in financial and statistical analysis, such as algorithms, linear programming, solving real-time equations, and making use of information systems to increase the organization's ability to predict environmental developments.
- Improving the ability of organizations to respond strategically to external environmental changes by developing their ability to anticipate threats and opportunities facing the organization and then take advantage of opportunities and avoid threats.
- Increasing the organization's ability to exploit the available resources and its strengths by maximizing its administrative efficiency and avoiding weaknesses by providing effective solutions from training programs, attracting high technical and administrative skills, and transforming weaknesses into strengths through which the organization goes to the competitive environment par excellence

# References

- [1] B. Swiecka, E. Yeşildağ, E. Özen, and S. Grima, "Financial literacy: the case of Poland," *Sustainability*, vol. 12, no. 2, p. 700, 2020.
- [2] L. F. Jawad, and B. Majeed, "Tactical Thinking and its Relationship with Solving Mathematical Problems Among Mathematics Department Students," *International Journal of Emerging Technologies in Learning (iJET)*, vol. 16, no. 9, pp. 247-262, 2021.
- [3] T. A. N. Nguyen, Z. Rózsa, J. Belás, and Ľ. Belásová, "The effects of perceived and actual financial knowledge on regular personal savings: Case of Vietnam," *Journal of International Studies*, 2017.
- [4] Z. Wiecka, M. Rzelewska-Piekut, R. Cierpiszewski, K. Staszak, and M. Regel-Rosocka, "Hydrometallurgical recovery of cobalt (II) from spent industrial catalysts," *Catalysts*, vol. 10, no. 1, p. 61, 2020.
- [5] M. A. Abdullah and S. F. Azam, "Mediating relationship of financial practice between financial knowledge and business success: An empirical study on Malaysian small enterprises," *Australian Academy of Business and Economics Review Volume*, vol. 1, pp. 1-23, 2015.
- [6] H. A. Abubakar, "Entrepreneurship development and financial literacy in Africa," *World Journal of Entrepreneurship, Management and Sustainable Development*, 2015.
- [7] K. Gupta and J. Kaur, "A study of financial literacy among micro entrepreneurs in district Kangra," *International journal of research in business management,* vol. 2, no. 2, pp. 63-70, 2014.
- [8] A. Lusardi and O. S. Mitchell, "The economic importance of financial literacy: Theory and evidence," *Journal of economic literature*, vol. 52, no. 1, pp. 5-44, 2014.
- [9] R. Yahaya, Z. Zainol, J. H. Osman, Z. Abidin, and R. Ismail, "The Effect of Financial Knowledge and Financial Attitudes on Financial Behavior among University Students," *International Journal of Academic Research in Business and Social Sciences*, vol. 9, no. 8, pp. 13-24, 2019.
- [10] A. A. Faris, Z. M. Mahmood, and S. S. Al-Mayaahi, "Building an efficient portfolio by using the weighted moving average in the light of the global pandemic (COVID19)(An applied study in the Iraq stock market)," *Periodicals of Engineering and Natural Sciences (PEN)*, vol. 9, no. 4, pp. 549-560, 2021.
- [11] Á. C.-K. Habil and J. Varga, "Financial awareness of students entering higher education based on the results of a questionnaire research," *Social Sciences*, vol. 5, no. 1, pp. 681-697, 2008.
- [12] A. A. Sultan, S. A. Alfaiza, and H. A. Riyadh, "Impact of mass collaboration on knowledge sharing process using mediating role of innovation capability," *International Journal of Organizational Analysis*, 2021.

- [13] S. A. Alfaiza, A. Y. Abed, A. A. Sultan, and H. A. Riyadh, "Moderating role of leadership between mass collaboration and quality of knowledge: a case of Iraq's pharmaceutical sector," *International Journal of Organizational Analysis*, 2021.
- [14] D. Widdowson and K. Hailwood, "Financial literacy and its role in promoting a sound financial system," *Reserve Bank of New Zealand Bulletin*, vol. 70, no. 2, pp. 37-47, 2007.
- [15] D. L. Remund, "Financial literacy explicated: The case for a clearer definition in an increasingly complex economy," *Journal of consumer affairs*, vol. 44, no. 2, pp. 276-295, 2010.
- [16] D. Sarpong and N. O'Regan, "The Organizing Dimensions of Strategic Foresight in High-Velocity Environments," *Strategic Change*, vol. 23, no. 3-4, pp. 125-132, 2014.
- [17] L. Fouad, and B. Hassan, "The impact of teaching by using STEM approach in the Development of Creative Thinking and Mathemati-cal Achievement Among the Students of the Fourth Sci-entific Class," *International Journal of Interactive Mobile Technologies (iJIM)*, vol. 15, no. 13, pp. 172-188, 2021.
- [18] S. J. Armstrong, E. Cools, and E. Sadler-Smith, "Role of cognitive styles in business and management: Reviewing 40 years of research," *International Journal of Management Reviews*, vol. 14, no. 3, pp. 238-262, 2012.
- [19] K. Cuhls, A. Beyer-Kutzner, W. Ganz, and P. Warnke, "The methodology combination of a national foresight process in Germany," *Technological Forecasting and Social Change*, vol. 76, no. 9, pp. 1187-1197, 2009.
- [20] E. Major, D. Asch, and M. Cordey-Hayes, "Foresight as a core competence," *Futures*, vol. 33, no. 2, pp. 91-107, 2001.
- [21] A. Alsan and M. A. Oner, "An integrated view of foresight: integrated foresight management model," *foresight*, 2003.
- [22] É. Hideg, "Emergence in the Foresight Interdisciplinary Description of Complex Systems, 2006. 2. 4. 80-88. pp," ed, 2007.
- [23] H. Salim, Lina FoB. Majeed, "The Impact of CATs on Mathematical Thinking and Logical Thinking Among Fourth-Class Scientific Students," *International Journal of Emerging Technologies in Learning (iJET)*, vol. 16, no. 10, pp. 194-211, 2021.
- [24] A. Adegbile, D. Sarpong, and D. Meissner, "Strategic foresight for innovation management: A review and research agenda," *International Journal of Innovation and Technology Management*, vol. 14, no. 04, p. 1750019, 2017.
- [25] M. Amsteus, "Managerial foresight: concept and measurement," *foresight*, 2008.
- [26] D. M. Nicholas, *Medieval Flanders*. Routledge, 2014.
- [27] R. Rohrbeck and J. O. Schwarz, "The value contribution of strategic foresight: Insights from an empirical study of large European companies," *Technological Forecasting and Social Change*, vol. 80, no. 8, pp. 1593-1606, 2013.
- [28] R. M. Grant, "Strategic planning in a turbulent environment: Evidence from the oil majors," *Strategic management journal*, vol. 24, no. 6, pp. 491-517, 2003.
- [29] M. W. Peng and H. Chen, "Strategic responses to domestic and foreign institutional pressures: The case of the Chinese toy industry," *International Studies of Management & Organization*, vol. 41, no. 2, pp. 88-105, 2011.
- [30] E. Overby, A. Bharadwaj, and V. Sambamurthy, "Enterprise agility and the enabling role of information technology," *European Journal of Information Systems*, vol. 15, no. 2, pp. 120-131, 2006.
- [31] V. Sambamurthy, A. Bharadwaj, and V. Grover, "Shaping agility through digital options: Reconceptualizing the role of information technology in contemporary firms," *MIS quarterly*, pp. 237-263, 2003.
- [32] J. Barney, "Firm resources and sustained competitive advantage," *Journal of management*, vol. 17, no. 1, pp. 99-120, 1991.
- [33] P. P. Tallon and A. Pinsonneault, "Competing perspectives on the link between strategic information technology alignment and organizational agility: insights from a mediation model," *MIS quarterly*, pp. 463-486, 2011.