

Examining the Relationship Between Cognitive Bias and Banking Entrepreneurship¹

(Analytical Study in a Sample of Private Banks in the Middle Euphrates Region)

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Abstract: *The current research seeks to identify the extent to which commercial banks practice cognitive bias as an explanatory variable with its dimensions (jumping conclusions, inflexibility of thinking, external attribution, attention to threats, social cognitive problems, self-cognitive problems, safe behaviors), and the banking entrepreneurship variable with its dimensions (Innovativeness, Proactiveness and risk taking). The private banks in the Middle Euphrates region represented the research community, while the research sample consisted of the total administrative leadership of the aforementioned banks, as (357) questionnaires were distributed. The research sought to test a number of main and sub-hypotheses related to the influence relationships between the research variables, and the hypotheses of differences between the surveyed banks to see the extent of their application to the main research variables, as well as questions related to the research problem and reaching the set goals, and programs (SPSS v.25; AMOS v.23) were used. The research reached a set of conclusions and recommendations, and the most important of these recommendations is the necessity for the banks' administrations, the research sample, to exert more effort in raising the levels of cognitive bias based on conscious thinking, and making Innovativeness work, Proactiveness, and risk-taking a priority of their interest in banking entrepreneurship.*

Keywords: *Cognitive Bias, Banking Entrepreneurship..*

I. Study Methodology

First: Study problem:

The research problem is summarized in the following question: How can the knowledge gap between knowledge bias and banking entrepreneurship be bridged? Several sub-questions emerge from this question:

1. What is the level of cognitive bias in the researched organization?
2. What is the level of the researched organization's awareness of the importance of leadership in the banking sector?
3. Does cognitive bias affect Banking Entrepreneurship?

Second: Importance of study

The importance of the study lies in the following points:

1. The research presents an attempt to look at the knowledge foundations that contributed to the success of business organizations, in contrast to the local organizations.
2. The research provides an explanation of the concept of important variables in the literature of administrative sciences (Cognitive Bias, Banking Entrepreneurship).
3. The importance of research emerges from choosing the subject of Banking Entrepreneurship, which is a requirement for all organizations aiming to achieve proactivity and sustainability in success in the knowledge economy system.

¹ Research extracted from the doctoral dissertation (the contributions of Cognitive Bias in Knowledge Risk management: the Mediating role of Banking Entrepreneurship)

Third: Objectives of study

The study reflects its main objectives in the following points:

1. Knowing the level of Cognitive Bias in the researched organization.
2. Detecting the level of banking entrepreneurship of the researched organization.
3. Determining the impact of cognitive bias dimensions on the Banking Entrepreneurship of the
4. researched organization.

Fourth: Hypothetical Study Scheme

In view of the problem, importance and objectives of the study, a hypothetical study outline has been prepared to reflect the relationship between the variables of the study, see figure 1:

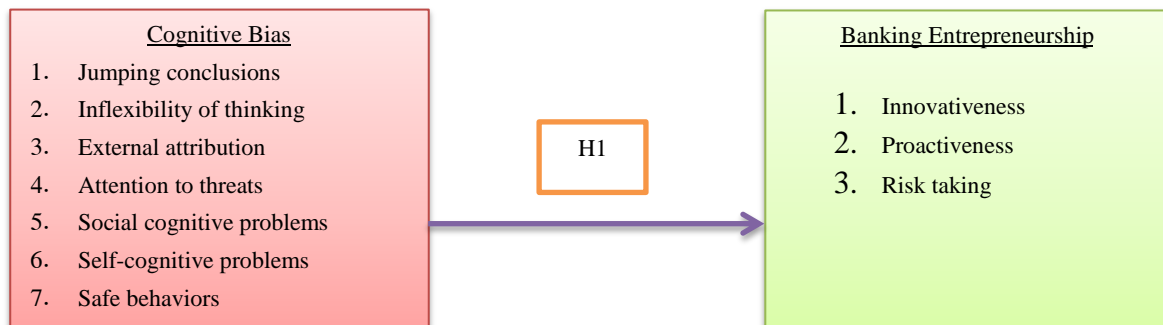


Figure 1 the hypothesis of the study

Fifth: Hypotheses of Study

Hypothesis 1: There is a statistically significant effect of cognitive bias dimensions (combined) in banking entrepreneurship.

Sub-Hypothesis 1: The first sub-hypothesis: There is a statistically significant effect relationship of cognitive bias in the Innovativeness dimension.

Sub-Hypothesis 2: There is a statistically significant effect relationship of Cognitive bias in the Proactiveness dimension.

Sub-Hypothesis 3: There is a statistically significant effect relationship of cognitive bias in the dimension of Risk taking.

Sixth: Statistical methods

A number of statistical methods have been used using the SPSS statistical programme -

1. Arithmetic medium .
2. Standard deviation
3. Cronbach factor alpha
4. Effect coefficients according to AMOS.V 26

Seventh: study sample

The research community was represented in the private banks in the Middle Euphrates region, which numbered (26) banks, while the research sample included the administrative leaders of those banks, as the researchers distributed (384) questionnaires and (371) questionnaires were retrieved. The valid questionnaires for analysis were (357) questionnaires.

Eighth: Study variables and measures

The research relied on the questionnaire as a tool for measuring research variables, as shown in Table (1):

Table (1) Research measurement tool

No.	Variables	Dimensions	Item	Source
1	Cognitive Bias	1. jumping conclusions 2. inflexibility of thinking 3. external attribution 4. attention to threats 5. social cognitive problems 6. self-cognitive problems 7. safe behaviors	6 6 6 6 6 6 6	Van der Gaag,2013
2	Banking Entrepreneurship	1. Innovativeness 2. Proactiveness 3. Risk taking	5 5 5	Ergun et al.,2004 Bulut & Yilmaz,2008

Source: Prepared by researchers.

Ninth: Some previous studies:

Some previous studies linking the relationship between cognitive bias and banking entrepreneurship.

Table(2)Some previous studies linking the relationship between cognitive bias and banking entrepreneurship

Study1 (AlKhars,2019)	
Study Title	Cognitive Biases resulting from the Representativeness Heuristic in Operations management: an Experimental Investigation".
Purpose of the study	The attempt to show the behavior of investors and its impact on cognitive biases when making investment decisions risky.
study tools & variables	independent variable: cognitive biases (insensitivity to the prior probability of results, insensitivity to sample size, misunderstanding of opportunity, insensitivity to predictability, illusion of validity, misunderstanding of regression). The dependent variable: the training process. The questionnaire was used as a measurement tool.
study sample & the time horizon	Developing a scenario related to managing operations for each cognitive bias. The study sample was 315 participants from the University of Texas.
Study Results	The results showed that people with a high capacity for cognitive thinking tend to make less biased decisions regarding the effect of training on biased decision-making, and the results also showed that educating individuals about the existence of cognitive biases helps them in part to avoid making biased decisions.
scientific value	Demonstrate the value of training in helping operations managers make less biased decisions to create a professional environment in which the influence of representative inference is minimized.
Study (Zhao et al,2020)	
Study Title	"cognitive bias, entrepreneurial emotion, entrepreneurship intention".
Purpose of the study	Using the self-regulatory attitude theory to build a theoretical model to examine the relationship between cognitive bias, entrepreneurial feeling and entrepreneurial intention, by adopting the structural equation model
study tools & variables	The independent variable: cognitive bias (optimism, overconfidence) and the dependent variable, entrepreneurship (entrepreneurial feeling, entrepreneurial intention). The questionnaire was adopted as measurement.
study sample & time horizon	A total of 312 valid samples were collected from university students in a Chinese university, and the smoothing method was used to test the multi-mediated hypotheses by adopting the structured equation model.

Study Results	The study found that positive entrepreneurial feelings play a mediating role in the relationship between optimism and entrepreneurial intent, while negative entrepreneurial feelings play a mediating role in the relationship between overconfidence and entrepreneurial intent.
scientific value	Contributions of cognitive bias in the direction in the field of activating entrepreneurship programs for university students.

II. second Part: Theoretical background and hypothesis development

1. Cognitive Bias:

A. **Concept:** There are several definitions of the cognitive bias variable, according to the point of view adopted by the researcher. (Haselton & Andrews,2005:726) defined cognitive bias as the evolution of the human mind into more adaptive thinking that would result in a lower total cost of cognitive errors rather than fewer cognitive errors in situations of uncertainty. Whereas(Kahneman,2011:772) defined cognitive bias as the self-reinforcing process of forming a collective belief through which the expressed perception leads to a chain reaction that gives a perception of increased acceptance. Whereas (Matthewes,2015:66) showed that cognitive bias represents the tendency to value third-party advice as objective, assertive, and unmotivated. Whereas (Ramos,2019:10) believes that cognitive bias expresses the predictive value of the repeated behavior that must be followed. From the foregoing, the researchers believe that individuals, through their practical journey, face many problems and difficult situations, which they can deal with in a direct consensual way, and at other times they are unable to do so, so they resort to the use of invisible selective treatment mechanisms, to avoid suffering, and liberation from the state of internal conflict. In order to achieve a temporary state of stability and personal constancy, cognitive biases come at the forefront of the mechanisms that individuals employ in order to align their self-characteristics with their own circumstances.

B. **Importance:** The importance of cognitive bias is highlighted by the following points (Watkins,2019:26):

01. Compiling similar concepts or dividing them into new information units that can be mentally processed as one category
02. The cognitive storage of individuals enables them to deal with what surrounds them in the environment and leads to mentally collecting certain biases in a random or conscious way.
03. Identifying bias through a well-designed classification system that facilitates the formation of a more useful mental hierarchy and helps reduce cognitive bias.
04. Identifying cognitive bias that will guide the formation of checklists used to determine the risk of bias through memory recall in a meaningful way to improve the quality of scientific research.
05. Classification of cognitive bias would create ease of communication and understanding between others.
06. Cognitive biases help alleviate feelings of insecurity and reinforce a sense of self-esteem and social status.

C. **Dimensions:** The researchers found that there is almost unanimity about the (Davos) scale of (Van Der Gaag,2013) with seven dimensions to measure cognitive bias, which are:

01. Jumping to conclusions: Jumping to conclusions is effective if the conclusions are likely to be correct and the costs of accidental error are acceptable, and if the jump saves a lot of time and effort. Jumping to conclusions is risky when the situation is unfamiliar, and the risks are Great, and there is no time to collect more information. They typically use probabilistic reasoning tasks based on a probabilistic inference model and will have a jump to conclusions because they have reached a final decision using little information and with high confidence in their choices (Cafferkey,2014:206).

02. Inflexibility of thinking: Cognitive inflexibility has been associated with increased confidence in the decision and shows an analysis of cognitive tasks in a way that is distinct from aspects of perception and is described as a cognitive precedent for extremist positions. in the bias area. and that flexible people are described as more optimistic, cognitively flexible, and deal with problems more positively (Albert et al.,2017:49).

03. External Attribution: External attribution bias occurs when individuals reach conclusions about the traits and personalities of others even when there are reasonable reasons for their behavior. This bias is combined with the "base rate fallacy" theories that managers ignore certain information to rely on less relevant information. Closely related to the delusion of unequal insight is external attribution, which occurs when individuals believe that their knowledge of others exceeds that of others (Jackson,2014:170). It requires realizing the power of external influence on the biases of the individual,

avoiding mental judgment, and moving towards enhancing cognitive behavior while remaining on mental judgment (Howard, 2019:197).

04. Attention to Threats: Experimental tasks are better able to target specific processes such as working memory, spatial attention, task switching and divided attention in tasks that measure complex executive function, switch mapping, and response inhibition so many tasks demonstrated by resourced higher-level executive processes Cognitive-intensive forms of higher-level cognitive processes (Mifflin et al.,2016:609). Differences in experience and development are not the only factors that can stimulate attention, but rather homogenous emotions exhibit biases in processing relevant information that can return an individual to a state balance (Schoth & Lioffi,2016:955).

05. Social cognitive problems: Mental shortcuts enable one to engage in self-protection in the face of real danger and play a role in situations in which one should be more objective. Although they recognize that there may be flaws in judgment in others, they nevertheless assume that they are immune to these flaws, which exacerbates the problem as part of the science of social cognition that measures reality with adaptive behaviors to deal with an information-saturated world. Essentially, cognition schemas help all individuals and entities make the complex world more manageable (Cynthia,2014:22). The problems of social perception lie in their strong connection to the social reference, and the problems increase more due to misunderstanding the thoughts, feelings, and motives of the opposite person (Keefe,2006:2033).

06. Subjective cognitive problems: Apart from neuropsychological and objective deficiencies, subjective complaints in the absence of objective deficits may lead to underestimation of one's own cognitive abilities and contribute to social defeat and social withdrawal, which can be addressed using cognitive-behavioral therapy (Grant et al.,2012:121). If the individual is not aware of the deficiencies, education and compensatory methods are necessary to compensate for the impact of cognitive deficiencies on practical daily life (Velligan et al.,2009:890).

07. Safe Behaviors: It means the individual's practice of behaviors to avoid potential danger and not only requires critical thinking about the degree of risk, but also about how to deal with and share this information in a meaningful and constructive manner. This is a two-way process and involves active participation prior to the assessment of risk and its subconscious awareness and subjectivity which are both personality dependent. Therefore, it is more effective in persuading individuals to agree to accept the safe and suggested behavior when compared to other risks (Sadarmin,2016:56).

2. Banking Entrepreneurship

A. Concept: The origin of the word "entrepreneur" goes back to the 12th century, but the first use of the term "entrepreneur" is recorded in the French military history of the 17th century, and it is derived from the French word, "entreprendre", which means "the undertaker". to different connotations from time to time, from persons leading military expeditions to the contractor of public works such as building bridges, ports, and the like; Later for a person managing public performance, there was no equivalent to the term "entrepreneur" in the English language. The term has been expressive of adventure, undertaking, and strength of presentation, and these elements have been used interchangeably but lack the precision and characteristics of scientific expression. The term is credited to an eighteenth-century Irishman named Richard Cantillon, who was living in France at the time, as the first person to use the term entrepreneur in a business context, describing an entrepreneur as a person who buys goods and services with the aim of selling them at prices. Unconfirmed in the future (Valizadeh & Salehi,2007:58). And (Jeffrey,2007:273) point of view on banking entrepreneurship involves being the process through which the individual pursues opportunities either alone or through a team, regardless of the resources he currently controls. Either (Dollinger,2008:9) referred to it as the control and distribution of resources to create an innate economic organization (or a network of organizations) for the purpose of profit or growth under conditions of risk and uncertainty. (Heavey & Simsek,2013: 838) mentioned banking entrepreneurship as an effective renewal method for small and medium organizations that appears in the integration of business performance to obtain strategic and financial advantages, and to obtain performance that includes business profitability compared to its competitors such as return on sales and return on assets. He added (Festus & Mgbemena, 2021:53) that banking entrepreneurship arose from a variety of pressing problems, including, the required transformation, Innovativeness, market improvements to prevent stagnation and decline, the perceived weakness in the old methods of managing organizations, and the turnover of Innovativeness-minded people who They became disillusioned with the bureaucracy of the organizations. Thus, there were many opinions and researchers about the concept of banking entrepreneurship and the sequence of the concept from internal entrepreneurship to external Entrepreneurship. It was defined by (Schumpeter, 1934:64) Innovativeness in new ways to make new changes in the market within the process of Innovativeness destruction. Between (Ahmadpour,2008:6) a series of coherent decisions of individuals

or a work group to establish, develop or maintain an economic unit. As for (Sunday & Miriam,2015:182), they see it as a tool for environmental change and an engine for the success of projects in any business organization. However, (Kuratko,2016:10) the willingness to take risks in order to generate wealth, create jobs, and form a new industry of value. (Klein,2016:323) defines it as the acquisition, merging, and recombination of heterogeneous resources under conditions of uncertainty. The researchers believe that banking entrepreneurship represents a mixture between formal and informal activities in the business organization through new business projects, Innovativeness activities, development of new products, services, technology and management techniques within existing organizations on the basis of new resource groups and the acquisition of individual skills, capabilities and initiatives, which is reflected in Innovativeness, Proactiveness and Risk-taking.

B. Importance: The behavior of Banking Entrepreneurship in organizations has different results, and that such results may lead to the development of new products, services, or businesses that translate into financial performance for the organization (Scheepers et al., 2008:12). Banking entrepreneurship leads to directing the morals of individuals towards teamwork and .Innovativeness work environment, as organizations tend to establish banking entrepreneurship as a positive practice over time in terms of improved internal efficiency, higher employee morale and significant improvement in financial performance. Banking entrepreneurship is also employed as a strategy to increase financial performance and advantages Non-financial, such as increasing the morale of the work team and the 1.Innovativeness work environment (Karacaoglu et al., 2013:163). The importance of banking entrepreneurship is increasing and is of paramount importance in business organizations through profitability and growth of organizations and stimulating Innovativeness and Innovativeness activities in addition to encouraging an atmosphere of calculated risk for operations Organizational that enhances the position of the business organization in the current markets (Shamsuddin et al.,2012:111).

C. Dimensions: Many researchers and writers in the field of banking entrepreneurship have been interested in measuring it through a set of dimensions that form the pillars that enable financial and non-financial organizations to achieve competitive advantages and profits while achieving the desires of customers. Tan(2002) indicated that the dimensions of banking entrepreneurship include (Innovativeness, Proactiveness, Risk taking):

01. **Innovativeness:** Innovativeness reflects a personality characteristic that is relatively stable and enduring across different contexts. An entrepreneur is usually described as an Innovativeness, driven individual who finds new combinations of factors of production to develop a new product, a new market, or the design of a new technology. In other words, successful Innovativeness requires an act of will, not reason (De Jong et al,2003:163). (Damanpour & Wischnevsky,2006:271) pointed out the importance of 1. Innovativeness in developing and using new ideas or behaviors in organizations, and the new idea can take the form of a new product or service, or a method of production (technical Innovativeness), or a new organizational structure or administrative system, and for Innovativeness to occur Ideas, insights and collaboration of experts and managers from different functional areas are essential to stimulate Innovativeness and new product development. (Mokaya,2012:135) added that Innovativeness is a concept embraced by banking entrepreneurship as the main material for developing products, re-engineering operations, reducing costs, finding new markets and adopting new products (Chandy & Prabhu,2003:14). Moreover, Innovativeness may be a new idea or a reshaping of old ideas, a scheme that challenges the existing order, a formula, or a unique approach that the individuals concerned consider new and so long as an idea is seen as new to the individuals involved, it is "Innovativeness", although It may appear to others as an "imitation" of something that exists elsewhere. The Innovativeness process is defined as the development and implementation of new ideas by individuals who, over time, enter into relationships with others in the work environment. This definition includes four main concepts: new ideas, It also embodies some challenges or problems such as: (1) the problem of individuals in managing attention; (2) the problem of the process of pushing ideas into new actions; (3) a structural problem in managing relationships; And (4) the problem of leadership in managing the Innovativeness environment (Murtha & Hart,2001:152).

02. **Proactiveness:** Proactive implementation and follow-up measures are shown to push business organizations towards achieving their goals. Thus, one of the characteristics of the proactive organization involves competitive and unconventional tactics towards new competitors from the same market sector, and proactive entrepreneurial organizations are constantly seeking new opportunities by anticipating future demand and developing products and services to meet customer needs (Kreiser et al,2002:78).Proactivity can meet the needs of market opportunities by being the first mover in the market, which seeks to expand the current market to gain the advantage of the engine of competition, which prompts business organizations to change their strategy to enter the market by providing new products and services that affect Innovativeness performance (Bulut & Yilmaz,2008:415).

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Proactiveness activity has been described as a forward-looking, advantage-seeking effort to shape the environment by introducing new products or processes that are superior to competitors (Lyon et al, 2000: 1056). This description indicates the importance of Proactiveness for entrepreneurs, which directs them to recognize opportunities in a distinctive way. As for (Dai et al, 2013: 517), it was discovered that Proactiveness does not lie in identifying opportunities, but rather directing entrepreneurs to lead their companies rather than being followers of other competitors, and the ability to anticipate the future requirements of business organizations in the market in order to achieve more competitive advantages. (Frishammar & Andersson, 2009: 62) indicated in their research that the proactive behavior of entrepreneurs led to the acceleration of the internationalization of business organizations, as proactive action is the key for business organizations to expand their scope at the international level.

03. Risk Taking: Entrepreneurs make their decisions based on calculated Risks, but are not insurable in the hope of sales to achieve a future profit. Willingness to go towards goals despite uncertain outcomes that may require moderate or calculated risk (Tajeddini & Mueller, 2012: 365). (Chavez, 2016: 17) has identified the tendency to Risk as the ability to take calculated risk and Entrepreneurs who have a high level of Risk appetite are more adventurous and daring, they are looking for excitement and stimuli, as well as being optimistic and energetic. The Risk of the need for achievement in terms of establishing a new business venture fraught with risk or uncertainty, with the high ability of entrepreneurs to make more risky decisions than others. (La Nafie, 2016: 110) described Risk as the willingness to provide resources to invest in opportunities and start projects despite the absence of uncertain results. The Risk can also be minimized through the organization's knowledge that it has the opportunity, technology or unique ability to exploit opportunities. He added (Scheepers & Bloom, 2008: 53) that Risk taking includes full readiness to provide resources to invest opportunities and launch projects with uncertain results and expected temporary returns on investment. Unique to the investment opportunity are "irresponsible" forms of risk, such as incurring large unsecured debts, inaction, or failure to develop a product. Therefore, risks can be managed through the chain of experiences and expertise of the entrepreneurial organization, which results in knowledge of why some initiatives succeed and not others. Part of this rapid learning may involve minor failures, but it is likely to ensure more sustainable successes in the long term.

III. Results

3-1 Coding the main research variables and dimensions: The current scientific and intellectual research model is the intermediate model that includes, according to administrative thought, the basic variables shown in table (2) as well as indicating the dimensions of the model for measuring each variable and the questions that are used to measure them and their symbols in statistical analysis and the number of items that measure every after.

Table(3) Coding and Characterization

Variables	Dimensions	No. of items	Coding
Cognitive Bias	Jumping conclusions	6	Jum
	Inflexibility of thinking	6	Inf
	Attention to threats	6	Att
	External attribution	6	Ext
	Social cognitive problems	6	Soc
	Self-cognitive problems	6	Sel
	Safe behaviors	6	Saf
Banking Entrepreneurship	Innovativeness	5	Ino
	Proactiveness	5	Pro
	Risk taking	5	Ris

Source: prepared by the two researchers based on the current research topics.

3-2 The validity of the research scale: This paragraph deals with five main points: (the validity of the apparent content of the questionnaire, the structural validity of the measurement tool test (confirmative factor analysis), the internal consistency (split-halfk), the sample sufficiency test (KMO), and the stability and consistency between the components of the scale (Cronbach Alpha) and as follows:

1. Validity of the apparent content of the research scale: The questionnaire was presented to a group of arbitrators with experience and different specializations, numbering (11) arbitrators. In the light of the suggestions made by the experts in this context, the two researchers made the necessary amendments by rephrasing some of the paragraphs that the arbitrators suggested amending their content to be clear and more consistent with their field nature and to be consistent with the nature of work and activities in the place of research.

2. Structural validity of the measurement tool: The current paragraph is concerned with exploring the constructive validity of the research measurement tool through confirmatory factor analysis of the measures of the research variables, which is one of the methods of structural equation modeling, as it is increasingly used in social science research as well as providing evidence that supports the researcher's approach to accept a hypothesis :

A - Confirmative factor analysis of the cognitive bias scale: The cognitive bias variable was measured through seven sub-dimensions: (jumping to conclusions (6) items, inflexibility of thinking (6) items, attention to threats (6) items, external attribution (6) items, Social cognitive problems (6) paragraphs, self-cognitive problems (6) paragraphs, safe behaviors (6) paragraphs). Table (2) shows the details of the form of standard values, non-standard values, and measurement errors, and also shows the significance of the values that appeared in the structural model, which are found to be statistically acceptable according to their significance ($P < .001$) and the value of the critical ratio.

Table (4) values of the cognitive bias variable model

Items	Path	Dimensions	S.R.W	Estimation	Standard error	critical ratio	Significance
Jum1	<---	Jump to conclusions	.584	.948	.102	9.291	***
Jum2	<---	Jump to conclusions	.518	1.000			
Jum3	<---	Jump to conclusions	.492	.989	.120	8.242	***
Jum4	<---	Jump to conclusions	.673	1.271	.126	10.068	***
Jum6	<---	Jump to conclusions	.437	.891	.126	7.070	***
Inf1	<---	Inflexibility of thinking	.609	.735	.058	12.616	***
Inf2	<---	Inflexibility of thinking	.764	1.000			
Inf3	<---	Inflexibility of thinking	.638	.862	.065	13.236	***
Inf4	<---	Inflexibility of thinking	.727	1.008	.068	14.750	***
Inf5	<---	Inflexibility of thinking	.587	.786	.067	11.733	***
Inf6	<---	Inflexibility of thinking	.751	.866	.056	15.382	***
Att1	<---	Attention to threats	.512	1.127	.144	7.841	***
Att2	<---	Attention to threats	.531	1.000			
Att3	<---	Attention to threats	.655	1.054	.114	9.207	***
Att4	<---	Attention to threats	.529	.966	.121	8.020	***
Att5	<---	Attention to threats	.707	1.126	.117	9.624	***
Att6	<---	Attention to threats	.731	1.311	.134	9.801	***
Ext1	<---	External attribution	.556	.848	.083	10.160	***
Ext2	<---	External attribution	.719	1.000			
Ext3	<---	External attribution	.452	.946	.114	8.278	***
Ext4	<---	External attribution	.604	1.091	.099	11.053	***
Ext5	<---	External attribution	.743	1.099	.080	13.666	***
Soc1	<---	Social cognitive problems	.618	1.094	.128	8.552	***
Soc2	<---	Social cognitive problems	.518	1.000			
Soc3	<---	Social cognitive problems	.730	1.128	.121	9.332	***
Soc4	<---	Social cognitive problems	.785	1.281	.132	9.686	***
Soc5	<---	Social cognitive problems	.543	.857	.108	7.902	***
Soc6	<---	Social cognitive problems	.514	.981	.128	7.656	***
Sel1	<---	Self-cognitive problems	.618	1.039	.122	8.525	***

Sel2	<---	Self-cognitive problems	.530	1.000			
Sel3	<---	Self-cognitive problems	.573	1.078	.132	8.148	***
Sel4	<---	Self-cognitive problems	.635	.953	.115	8.309	***
Sel5	<---	Self-cognitive problems	.550	.930	.092	10.147	***
Sel6	<---	Self-cognitive problems	.769	1.092	.119	9.190	***
Saf1	<---	Safe behaviors	.571	.924	.092	10.049	***
Saf2	<---	Safe behaviors	.750	1.000			
Saf3	<---	Safe behaviors	.800	1.040	.056	18.651	***
Saf4	<---	Safe behaviors	.503	.713	.081	8.779	***
Saf5	<---	Safe behaviors	.781	1.240	.090	13.727	***
Saf6	<---	Safe behaviors	.543	.840	.090	9.298	***

Source: AMOS V.23 output.

B- The confirmatory factor analysis of the banking entrepreneurship scale: the banking entrepreneurship variable was measured through three dimensions: Innovativeness (5) items, Proactiveness (5) items, Risk taking (5). Table (5) shows the details of the form of the standard values and values Non-standard and measurement errors and also shows the significance of the values that appeared in the structural model, which are found to be statistically acceptable according to their significance ($P < .001$) and the value of the critical ratio.

Table (5) values of the Banking Entrepreneurship variable model

Items	Path	Dimensions	S.R.W	Estimation	Standard error	critical ratio	Significance
Ino1	<---	Innovativeness	.670	1.147	.129	8.886	***
Ino 2	<---	Innovativeness	.546	1.000			
Ino 3	<---	Innovativeness	.645	1.125	.129	8.693	***
Ino 4	<---	Innovativeness	.599	.945	.114	8.301	***
Ino 5	<---	Innovativeness	.745	1.243	.132	9.399	***
Pro1	<---	Proactiveness	.649	1.340	.143	9.359	***
Pro2	<---	Proactiveness	.550	1.000			
Pro3	<---	Proactiveness	.462	.953	.110	8.653	***
Pro4	<---	Proactiveness	.787	1.827	.174	10.486	***
Pro5	<---	Proactiveness	.844	1.812	.168	10.800	***
Ris1	<---	Risk taking	.744	.979	.069	14.173	***
Ris2	<---	Risk taking	.766	1.000			
Ris3	<---	Risk taking	.729	1.001	.071	14.035	***
Ris4	<---	Risk taking	.682	1.000	.077	12.929	***
Ris5	<---	Risk taking	.716	.940	.069	13.610	***

Source: AMOS V.23 output.

3. The internal consistency of the scale: From table(6), it was found that the stability coefficient according to the half-partition method of the scale was (0.588), which means that the used scales are of high stability & can be adopted at different times & for the same individuals and give the same results.

Table (6) the internal consistency of the scale

Reliability Statistics			
Cronbach's Alpha	Part 1	Value	.951
		N of Items	39a
	Part 2	Value	.834
		N of Items	39b
	Total N of Items		
Correlation Between Forms			.445
Spearman-Brown Coefficient	Equal Length		.616
	Unequal Length		.616

Guttman Split-Half Coefficient		.588
Variance	Part1	.030
	Part2	.130

Source: SPSS V.25 output.

4. Structural validity of the sample sufficiency test: The condition of the sufficiency of the sample to verify its sufficiency is important in conducting the research tests. The (Kaiser-Meyer-Olkin) criterion is adopted, and its value must be greater than (0.50) for the sample to be sufficient, in addition to the (Bartlett's) test. and it is an indicator of the relationship between the variables, as the level of significance for this relationship must be less than (0.05), so that we can confirm that this relationship is statistically significant while making sure that there are acceptable correlations between the paragraphs of the questionnaire on the condition of a significant value (Chi-Square) for significance on the acceptability of the mentioned correlation coefficients, as shown in table(7):

Table (7) KMO and Bartlett's test for research dimensions

Dimensions	N of Items	KMO test	Bartlett Test based on the Chi-Square value	Sig.
Jump to conclusions	6	0.902	11352.038	.000
Inflexibility of thinking	6			
Attention to threats	6			
External attribution	6			
Social cognitive problems	6			
Self-cognitive problems	6			
Safe behaviors	6			
Cognitive Bias	42			
Innovativeness	5	0.917	2535.479	.000
Proactiveness	5			
Risk taking	5			
Banking Entrepreneurship	15			

Source: SPSS V.25 output.

5. Test of stability: The stability of the measurement tool shows the extent of the internal consistency of the scale used in the research. The Cronbach alpha value must be equal to (0.70) or higher than that in order for the internal consistency to be considered acceptable, as we note from table (7) that the values of the Cronbach alpha coefficient for the main research variables and their sub-dimensions ranged between (0.70-95) and these values are considered acceptable It is reliable and has an excellent level of stability, as we note that the values of the structural validity coefficient were excellent and high within the sample's answers, and thus the research tool and its measures became valid for the final application as they are characterized by accuracy, stability and high honesty.

Table (8) The results of the consistency between the components of the scale

No.	Variables & Dimensions	Cronbach alpha coefficient	structural validity coefficient
1	Jump to conclusions	0.70	0.84
	Inflexibility of thinking	0.83	0.91
	Attention to threats	0.78	0.88
	External attribution	0.75	0.86
	Social cognitive problems	0.79	0.89
	Self-cognitive problems	0.81	0.90
	Safe behaviors	0.83	0.91
	Cognitive bias	0.95	0.97
2	Innovativeness	0.78	0.88
	Proactiveness	0.80	0.89

	Risk taking	0.85	0.92
	Banking Entrepreneurship	0.91	0.95

Source: SPSS V.25 output.

3-3 Description and diagnosis of research criteria and analysis of their results:

A. Cognitive bias variable: In order to arrange the importance of the dimensions of the cognitive bias variable, the coefficient of difference was used depending on the arithmetic mean and standard deviation. The arithmetic score was (3.31), with a standard deviation of (1.238), and with a coefficient of difference (37.40). This indicates that the administrative leaders in private banks have more interest in this dimension compared to other dimensions. (1.338) with a coefficient of difference (43.30), which the sample seems to agree on as a second priority given to individuals in private banks in the Middle Euphrates region, then in the third place after social cognitive problems, whose arithmetic mean was (2.99) and with a standard deviation of (1.343) and a coefficient of difference (44.91) While it came in the fourth rank after the inflexibility of thinking, whose arithmetic mean was (2.72) and with a coefficient of difference of (1.249), while the coefficient of difference for dimension was (45.92), while it ranked fifth after safe behaviors. whose arithmetic mean was (2.68), with a deviation coefficient of (1.211), and with an achieved coefficient of difference of (45.18). As for the sixth rank, it came after social cognitive problems, with an arithmetic mean of (2.62) and a standard deviation estimated at (1.117), while the coefficient of difference for it was (42.93) and ranked last after jumping on the conclusions, as the arithmetic mean reached (2.32) and the standard deviation was (1.158) and the coefficient of difference reached (49.91).

Table(9)statistical description & interpretation of the cognitive bias variable with its dimensions

Dimensions	arithmetic mean	standard deviation	coefficient of difference C.V	order of variables
Jump to conclusions	2.32	1.158	49.91	7
Inflexibility of thinking	2.72	1.249	45.92	4
Attention to threats	3.09	1.338	43.30	2
External attribution	3.31	1.238	37.40	1
Social cognitive problems	2.99	1.343	44.91	3
Self-cognitive problems	2.62	1.117	42.93	6
Safe behaviors	2.68	1.211	45.18	5

Source: SPSS V.25 output.

B. Banking entrepreneurship variable: In order to arrange the importance of the dimensions of the banking entrepreneurship variable, the coefficient of difference was used depending on the arithmetic mean and standard deviation. (36.42), as most of the sample's answers agreed on this dimension compared to the other dimensions, then it came in the second rank, proactive, as its arithmetic mean was (3.80), with a standard deviation of (1.384), and with a coefficient of difference of (36.42), while it came in the last rank after 1.Innovativeness, with an arithmetic mean of (3.56).) with a coefficient of difference of (1.445), and the coefficient of difference was estimated at (40.58).

Table (10) Statistical description & interpretation of the banking entrepreneurship variable with its dimensions

Dimensions	arithmetic mean	standard deviation	coefficient of difference C.V	order of variables
Innovativeness	3.56	1.445	40.58	3
Proactiveness	3.80	1.384	36.42	2
Risk taking	3.87	1.341	34.65	1

Source: SPSS V.25 output.

3-4 Test hypotheses

Testing the main influence hypothesis (H1): whose content (there is a direct statistically significant effect of the cognitive bias components (combined) in banking entrepreneurship at the macro level in the researched organization) by relying on the structural equation modeling method. In order to conduct the test, Table (9) was designed to determine the effect relationships and their significance among the variables. Table (9) shows a set of results related to testing the effect of cognitive bias in banking entrepreneurship. The value of (R²) for cognitive bias in banking entrepreneurship was (0.12), and this indicates that cognitive bias explains (12%) of the changes that occur at the level of banking

entrepreneurship. As for the remaining percentage (88%), it is due to the influence of other variables that were not studied in the statistical model of the research, while the value of ($\beta = -0.34$; $P < .001$), which is a value indicating that the marginal slope coefficient indicates a negative inverse effect between the cognitive bias variable. and banking entrepreneurship, which indicates that a change of one unit in the cognitive bias will be reflected inversely by a decrease in banking entrepreneurship by ($\beta = -0.34$; $P < .001$) and as shown in table (9):

Table (11) Regression weights to test the hypotheses of the effect of cognitive bias in banking entrepreneurship

Variables	Path	Variables	Normative values	non-normative values	measurement error	CR	P value
Banking Entrepreneurship	<---	cognitive bias	-.342	-.323	.047	-6.866	***

Source: Prepared by the two researchers based on the outputs of the AMOS V.23 program.

From the main hypothesis, the following sub-hypotheses are derived:

1. The first sub-hypothesis: In this hypothesis, the amount of influence of cognitive bias and the Innovativeness dimension will be verified, the content of which (there is a direct statistically significant effect between the components of cognitive bias (combined) in the Innovativeness dimension) and by relying on the structural equation modeling method, with the aim of conducting test table (10) was designed to determine the effect and significance relationships between the independent variable and the first dimension of the dependent variable. Table (10) shows a set of results related to testing hypotheses of the direct influence of cognitive bias in Innovativeness, as the value reached ($R^2 = 0.10$), and this indicates that cognitive bias explains (10%) of the changes that occur at the level of banking entrepreneurship, while the remaining percentage is (90%) due to the effect of other variables that were not studied in the statistical model of the research, while the value of ($\beta = 0.31$, $P < .01$), a value indicating that the marginal propensity coefficient indicates a negative inverse relationship between cognitive bias and banking entrepreneurship, and it indicates that A change of one unit in the cognitive bias will be reflected inversely by a decrease in Innovativeness by (-31%). Acceptance of the hypothesis that suggests the existence of a significant effect relationship between cognitive bias and Innovativeness dimension, as shown in table (10):

Table (12) Regression weights to test the hypothesis of the effect of cognitive bias and the 1. Innovativeness dimension

Variables	Path	Variables	Normative values	non-normative values	measurement error	CR	P value
Innovativeness	<---	Cognitive Bias	0.31	-.307	.050	-6.203	***

Source: Prepared by the two researchers based on the outputs of the AMOS V.23 program.

2. The second sub-hypothesis: In this hypothesis, the amount of influence of cognitive bias and the anticipatory dimension will be verified, the content of which (there is a direct statistically significant effect between the components of cognitive bias (combined) in the anticipatory dimension) by adopting the structural equation modeling method, with the aim of conducting the test table (11) is designed to determine the effect relationships and their significance between cognitive bias and post-proactivity. As table (11) shows the set of results related to testing the hypothesis of the direct effect of cognitive bias and after proactivity, the value reached ($R^2 = 0.11$), and this indicates that cognitive bias explains (11%) of the changes that occur at the level of proactivity, while the remaining percentage is (89%) are due to the effect of other variables that were not studied in the statistical model of the research, while the value of the effect was ($\beta = -0.32$, $P < .01$), which indicates that the marginal propensity coefficient indicates a negative inverse relationship between cognitive bias and proactivity, & it indicates that A change of one unit in the cognitive bias will be reversed by a decrease in anticipation by (32%). These values are considered significant because the critical value shown in table(11) amounting to (-6.477), which is a significant value at ($P < .001$), & this indicates acceptance the hypothesis that suggests the existence of a significant effect relationship between cognitive bias and post-proactivity as shown in table(13):

Table(13)Regression weights to test the hypothesis of the effect of cognitive bias & the proactive dimension

Variables	Path	Variables	Normative values	non-normative values	measurement error	CR	P value
Proactiveness	<---	Cognitive Bias	-.325	-.373	.058	-6.477	***

Source: Prepared by the two researchers based on the outputs of the AMOS V.23 program.

3. The third sub-hypothesis: In this hypothesis, the effect of cognitive bias and the risk-taking dimension will be verified, the content of which (there is a direct, statistically significant effect between the components of cognitive bias (combined) in the risk-taking dimension) by adopting the structural equation modeling method, with the aim of Test procedure Table (12) was designed to determine the effect relationships and their significance between cognitive bias and risk taking. As table (12) shows the set of results related to testing the direct influence path of cognitive bias and after risk taking, the value was ($R^2 = 0.11$), and this indicates that cognitive bias explains (11%) of the changes that occur at the level of risk taking. As for the remaining percentage, which is (89%) is due to the influence of other variables that were not studied in the statistical model of the research, while the value of ($\beta = -0.32, P < .01$), a value indicating that the marginal tendency coefficient indicates a negative inverse relationship between cognitive bias and risk taking, which is It indicates that a change of one unit in the cognitive bias will be reversed by a decrease in risk taking by (32%). These values are considered significant because the critical value shown in the table amounting to (-.477), which is a significant value at ($P < .001$), and this indicates Acceptance of the hypothesis that suggests the existence of a significant effect relationship between Cognitive Bias and Risk taking, as shown in Table (14):

Table(14) regressive weights to test the hypothesis of the effect of cognitive bias & the risk taking dimension

Variables	Path	Variables	Normative values	non-normative values	measurement error	CR	P value
risk taking	<---	Cognitive Bias	-.321	-.288	.045	-6.387	***

Source: Prepared by the two researchers based on the outputs of the AMOS V.23 program.

IV. RESULTS DISCUSS

A. Conclusions

1. Realizing the different levels of risk determines the nature of the relationship between cognitive bias and management decision-making in light of the cognitive complexity.
2. High levels of cognitive bias reduce the level of risk perception among banks, the research sample.
3. In light of modernity and today's world charged with big data, there is a human tendency to emphasize the importance of estimating future events, i.e. the tendency to think inappropriately on what comes easily to the mind of the individual.
4. The departments of the banks under study are based on promoting the principle of risk-bearing participation and consider it a positive feature for building future plans and investing in opportunities and initiatives.
5. The non-activated work plans and regulations of the surveyed banks affect the adoption of bias in their work, and thus the workers in them face the difficulties of ease of knowledge and the avoidance of cognitive complexity in the process of perceiving risks whenever there is a change in those plans.
6. The departments of the surveyed banks were characterized by proactive steps that enabled them to take risks, as they showed high flexibility with investment projects.

B. Recommendations

1. Raising the levels of cognitive bias based on thinking consciously, analyzing and interpreting logical results by making proactive work a priority in order to obtain the opportunity and develop it continuously.
2. Work to reduce levels of cognitive bias based on cognitive ease and jumping to conclusions and limiting it to routine work and simple information.
3. The need for bank administrations to give great importance to banking entrepreneurship, as it is linked to achieving sustainable organizational goals, which is reflected positively in reducing levels of cognitive bias and cognitive risks.
4. The possibility of reducing the episodes of cognitive bias in the departments of the surveyed banks by adopting conscious thinking and adopting cognitive complexity as postulates within the priorities of the banking labor market.
5. The need to train the departments of the surveyed banks and to hold courses inside and outside Iraq to provide them with new skills, while conducting continuous evaluation tests for their performance.
6. The need for the departments of the surveyed banks to adopt the culture of banking entrepreneurship and to support and enhance Innovativeness in ideas by continuing to provide adequate support for

Innovativeness activities, whether in the field of developing modern banking services or working on implementing new ideas.

V. References

1. Albert , K, Gau V, Taylor WD, Newhouse PA,(2017)" Attention bias in older women with remitted depression is associated with enhanced amygdala activity & functional connectivity. *Journal Affect Disorder* ,vol .210:49.
2. AlKhars,M& Evangelopoulos,N& Pavur,R(2019), Cognitive biases resulting from the representativeness heuristic in operations management: an experimental investigation, *Journal of Psychology Research and Behavior Management*,vol. 12,p: 263–276.
3. Cafferkey, K., Murphy, J., & Shevlin, M.(2014),"Jumping to conclusions: The association between delusional ideation & reasoning biases in a healthy student population" , *Journal of Psychosis*, vol.6 ,NO(3),206–214.
4. Van der Gaag, M., Schütz, C., ten Napel, A., Landa, Y., Delespaul, P., Bak, M., de Hert, M.(2013).Development of the Davos assessment of cognitive biases scale. *Schizophrenia Research*,077,82-40.
5. Haselton, M. G., Nettle, D., & Andrews, P. W. (2005). The evolution of cognitive bias. In D. M. Buss (Ed.), *The Handbook of Evolutionary Psychology* (724–746).
6. Ramos,V,(2019),"Analyzing the Role of Cognitive Biases in the Decision-Making Process" International University of Rioja, Spain, the United States of America by IGI Global.
7. Watkins ,Timothy Royce, T,R,(2019),"Understanding uncertainty and bias to improve causal inference in health intervention research", the requirements for the degree of Doctor of Philosophy in the School of Public Health, Faculty of Medicine and Health The University of Sydney.
8. Jackson, SE, Beeken RJ, Wardle J.(2014)"Perceived weight discrimination & changes in weight, waist circumference, and weight status. *Journal of Obesity*.,vol.22,NO(12):248–8.
9. Kahneman, D.(2011).Thinking, Fast and Slow. New York: Farrar, Straus & Giroux.
10. Howard, A.R., & Abbas, E. A.(2016)"Foundation of Decision Analysis" England: Pearson Education Limited.
11. Mifflin, K., Chorney, J., & Dick, B.(2016).Attention and working memory in female adolescents with chronic pain and healthy pain free female adolescents. *The Clinical Journal of Pain*, vol. 32, 609–616.
12. Schoth, D. E., & Liossi, C.(2016),"Biased interpretation of ambiguous information in patients with chronic pain: A systematic review & meta-analysis of current studies " *Journal of Health Psychology*, vol. 35,944–956.
13. Cynthia ,Ho.,M.,(2014),Drugged Out: How Cognitive Bias Hurts Drug 1.*Innovativeness* ,51 San Diego Law Rev.419.
14. Keefe, R.S., Bilder, R.M., Harvey, P.D., Davis, S.M., Palmer, B.W., Gold, J.M., (2006)."Baseline neurocognitive deficits in the CATIE schizophrenia trial". *Neuro psychopharmacology*, VOL. 31. NO (9), 2033–2046.
15. Grant, P.M.,Huh,G.A.,Perivoliotis, D.,Stolar, N.M.,Beck, A.T.,(2012). "Randomized trial to evaluate the efficacy of cognitive therapy for low-functioning "patients with *Journal of schizophrenia*. *Arch. Gen. Psychiatry* vol .69 ,NO (2),121–127.
16. Velligan, D.I., Draper, M., Stutes, D., Maples, N., Mintz, J., Tai, S.,(2009)" Multimodal cognitive therapy: combining treatments that bypass cognitive deficits and deal with reasoning and appraisal biases "*Journal of Schizophr Bull* ,vol.35, NO(5), 884–893.
17. Sadarmin, P,(2016)"Cardiologists' Knowledge, Attitudes & Application of Risk towards Implantable Cardioverter Defibrillators", Thesis submitted in requirement for the qualification of

- Doctor of Medicine, Department of Cardiovascular Sciences Faculty of Medicine University of Leicester, UK .
18. Valizadeh H, Salehi M (2007). Investigating the Skills of Entrepreneurs in Iran, *J. Manage, Digest*, 5: 58-63.
 19. Jeffrey S. McMullen(2007).What is entrepreneurial opportunity? *Small Business Economics* (2007) 28:273–283 S. McMullen et al, 2007.What is entrepreneurial opportunity? *Small Business Economics*,28:273–283 .
 20. Dollinger, Marc J(2008) ," Entrepreneurship : strategies and resources", Library of Congress Cataloging-in-Publication Data, America.
 21. 13-Valizadeh H, Salehi M (2007). Investigating the Skills of Entrepreneurs in Iran, *J. Manage, Digest*, 5: 58-63.
 22. Heavey, C., & Simsek, Z. (2013). Top management compositional effects on corporate entrepreneurship: The moderating role of perceived technological uncertainty. *Journal of Product 1.Innovativeness Management*, 30(5), 837–855 .
 23. Festus,A& Mgbemena,G,(2021)," CORPORATE ENTREPRENEURSHIP AND PERFORMANCE: A THEORETICAL REVIEW", *International Journal of Management and Entrepreneurship*, Vol. 3, No. 1.
 24. Sunday, Riti Joshua, Miriam, Kamah , 2015, "Entrepreneurship, Employment and Sustainable Development in Nigeria", *International Journal of Academic Research in Economics and Management Sciences*, Vol. 4, No. 1.
 25. Kuratko, D,(2016)," Entrepreneurship: Theory, Process, and Practice 4th Edition"Australia.
 26. Klein, Peter G,(2016) " Why entrepreneurs need firms, and the theory of the firm needs entrepreneurship theory", *Management journal of Revista de Administração* ,vol. 51, 323–326.
 27. -Scheepers, M.J., Hough, J. & Bloom, J.Z. (2008).Nurturing the Corporate Entrepreneurship Capability *Southern African Business Review*, vol. 12 ,NO (3).
 28. Karacaoglu, k., Bayrakdaroglu, A. & San, F.B. (2013). The Impact of Corporate Entrepreneurship on Firms Financial Performance: Evidence from Istanbul Stock Exchange Firms. *International business Research* Vol: 6, No. 1, PP. 163- 175.
 29. Schumpeter, J. A. (1934). *The Theory of Economic Development*. Cambridge, MA: Harvard University Press.
 30. De Jong , J. P. J.,Parker, S.K., Wenoekers, S. & Wu, C. (2011). *Corporate Entrepreneurship at the Individual Level: Measurement and Determinants* EIM Research Reports. Working paper, www.entrepreneurship-SME.eu
 31. Damanpour, F., & Wischnevsky, J. D. (2006)," Research on organizational Innovativeness: distinguishing Innovativeness-generating from Innovativeness-adopting organizations", *Journal of Engineering and Technology Management*, 23, 269–291.
 32. Mokaya, S.O., (2012), "Corporate Entrepreneurship and Organizational Performance Theoretical Perspectives, Approaches and Outcomes, *International Journal of Arts and Commerce*,Vol.1 No.4.
 33. Chandy, R. K., & Tellis, G. J. (2003). The incumbent's curse? Incumbency, size, and radical product Innovativeness. *Journal of Marketing*, 64, 1–17.
 34. Murtha, T., Lenway, S., & Hart, J. (2001). *Managing new industry creation: Global knowledge formation and entrepreneurship*.
 35. Kreiser, P., Marino, L. & Weaver, L.M.(2002), "Assessing the relationship between entrepreneurial orientation, the external environment and firm performance", *Frontiers of Entrepreneurship Research*, Babson College.p:78 .
 36. Bulut, C. & Yilmaz, C. (2008) "Innovative Performance Impacts of Corporate Entrepreneurship: An Empirical Research in Turkey", *Proceedings of Academy of Innovativeness and Entrepreneurship Conference*, pp. 414-417, Beijing, China.
 37. Dai, L., Maksimov, V., Gilbert, B. A., & Fernhaber, S. A. (2014). Entrepreneurial orientation and international scope: The differential roles of innovativeness, proactiveness, and risk-taking. *Journal of Business Venturing*,29(4), 511-524.

38. Frishammar, J., & Andersson, S. (2009). The overestimated role of strategic orientations for international performance in smaller firms. *Journal of International Entrepreneurship*, 7(1), 57-77.
39. Tajeddini, K. & Mueller, S. (2012), "Corporate entrepreneurship in Switzerland: evidence from a case study of Swiss watch manufacturers, *Int Entrep Manag journal*, vol. 8, p:355–372.
40. Chavez, J. (2016), "The Personality Characteristics of an Entrepreneur and Their Effects on the Performance of a New Business Venture" Helsinki Metropolia University of Applied Sciences Bachelor of Business Administration European Management Bachelor's Thesis.
41. La Nafie, N.A. (2016), "The Effect of Corporate Entrepreneurship on Firm Performance", *European Journal of Business and Management*, Vol.8, No.3.
42. Scheepers, M.J., Hough, J. & Bloom, J.Z. (2008). Nurturing the Corporate Entrepreneurship Capability *Southern African Business Review*, vol. 12, NO (3).
43. Krueger, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15, 411–432.
44. Asad, M., Shabbir, M., Salman, R., Haider, S., & Ahmad, I. (2018), "Do entrepreneurial orientation & size of enterprise influence the performance of micro & small enterprises? A study on mediating role of Innovativeness", *Journal of Management Science Letters*, vol.8, 1015–1026.
45. Yin, H., Zhang, L., & Zhang, Y. (2017). The effect of ownership concentration and related diversification strategy of entrepreneurial enterprises on enterprise performance. *EURASIA Journal of Mathematics Science and Technology Education*, vol. 13, NO, (12), 8073-8087.
46. Zhao, Y & Xie, B (2020), Cognitive Bias, Entrepreneurial Emotion, and Entrepreneurship Intention, *Journal of Front Psychol*, vol.11, ISSU, 625.