The impact of entrepreneurial vigilance on innovation by business model: mediating role of entrepreneurial learning: An analytical study of opinions of a sample of administrative leaders in civil banks in Middle Euphrates Provinces

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Abstract: The aim of the research is to test the impact of entrepreneurial vigilance in its dimensions (vigilant survey and research, vigilant connectivity and communication, assessment and judgment) on innovation with the business model in its dimensions (renewal-based business model, competency-based business model) through the mediating role of entrepreneurial learning with its dimensions (exploratory entrepreneurial learning, investment entrepreneurial learning). The research was based on the descriptive analytical approach. The sample included 120 members of the directors and department heads of the civil banks in the central Euphrates governorates (Diwaniyah, Babylon, Holy Karbala, Najaf Al-Ashraf, and Muthenah). In order to achieve the research objective, a virtual model was created to illustrate the nature of the relationship between the three variables of the study and the resolution was adopted as a main data collection tool. The resolution was distributed to (142) sample subjects and (130) resolution was restored, and many statistical methods were used including mean, standard deviation, variance factor, and structuring equation modeling, using (AMOS,20 and SPSS V.25) in diagnosing study variables and testing hypotheses. The study reached several conclusions, the most important of which is the direct impact of entrepreneurial vigilance on business model innovation. An indirect impact of entrepreneurial vigilance on business model innovation through the role of entrepreneurial learning.

Keywords: Entrepreneurial vigilance, business model innovation, entrepreneurial learning

Introduction

The term entrepreneurship has been one of the most common terms especially in recent times, because it plays an important role in promoting and supporting the progress of the global economy and community development, as we are not surprised when everyone becomes entrepreneurs, wants to become entrepreneurs, or is seen as entrepreneurs. The scope of entrepreneurial vigilance is wide-ranging, and among these are the projects for mobile or food and delivery applications, since many pilot projects focus on technical aspects and mobile applications. Organizations should also endeavor to learn about all developments and changes in their external environment in order to prevent their work from unknown future risks and to take advantage of the opportunities that they sometimes offer for the continuous development, modernization and improvement of the overall work they do.

While innovation in business models is critical to the success of new projects, understanding the emergence of business model innovation is daunting, as scientists have pointed out that the mechanisms that lead to business model innovation are under consideration. For new projects in the early stages of development, entrepreneurs play a dominant role. For example, the characteristics of entrepreneurs are strongly shaped by the process of creating business models. Entrepreneurial vigilance is a characteristic that distinguishes business leaders from non-entrepreneurs. It allows businessmen to scan and research for new information, link and link previously disparate information, and assess and judge whether the new information represents an opportunity.

Entrepreneurial vigilance provides an approach that focuses only on whether the business leader feels that innovation in business models is desirable. To uncover the entrepreneurial vigilance and business model creation, we need to introduce an intermediary that can make entrepreneurs feel their actions more meaningful. Based on the knowledge-based view, entrepreneurial learning will play a role in increasing the sense that actions are possible.

Part one: Research methodology

First: problem of research

The study problem can be clarified by raising the following questions:

1. What is the level of availability of entrepreneurial vigilance dimensions in the study sample banks?
2. What is the level of availability of the dimensions of innovation in business models in the sample banks?
3. What is the level of availability of the dimensions of entrepreneurial learning in the sample banks?
4. What is the impact of entrepreneurial vigilance dimensions in business model innovation?
5. Does entrepreneurial learning mediate the relationship between entrepreneurial vigilance and business model innovation?

Second: importance of research

The importance of the study is summarized in its contribution to achieving the following:

1. Drawing the attention of the administrative entrepreneurials in the civil banks toward the importance of entrepreneurial vigilance as it represents an important and vital factor in achieving innovation in business models and consolidating their belief that it contributes to a great extent to achieving the best fit between the changing environment and their business model through employing entrepreneurial learning.
2. The importance of the study is reflected in the sector studied, namely the banking sector, which represents the basic pillar of economic development in the country in a way that promotes the growth and development of banking institutions, which constitute a vital component of the national economy.
3. The importance of the study is reflected in the enrichment of the Arab Library in general and the Iraqi Library in particular for the purpose of increasing intellectual enrichment and the accumulation of knowledge in the field of study variables through the use of the learning theory in interpreting innovation in business models.

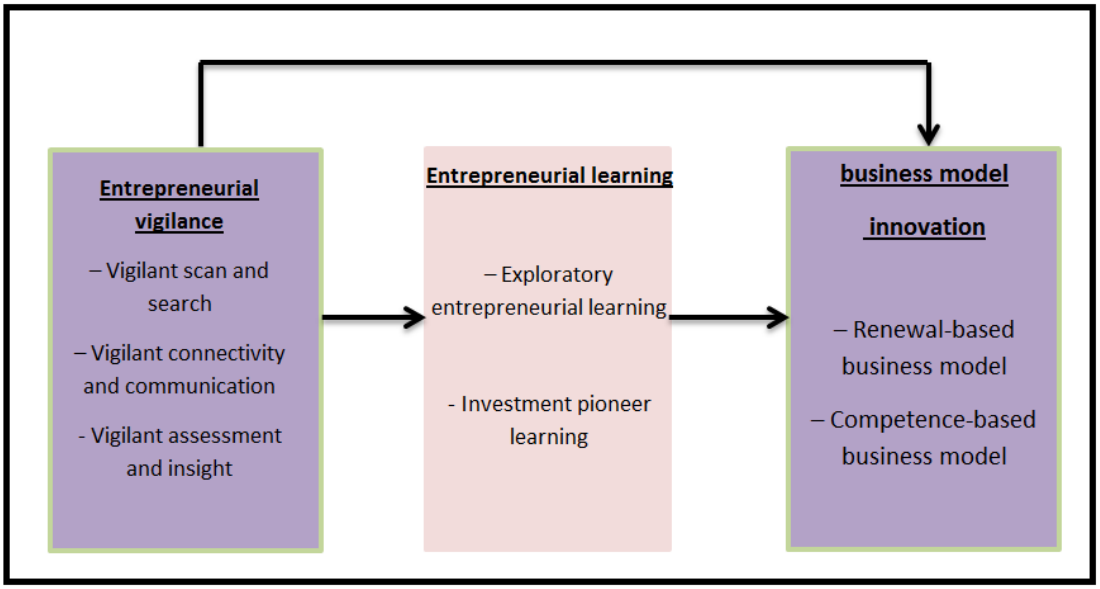
Third: Research objectives

The research aims to:

1. Reveal the level of availability of entrepreneurial vigilance dimensions (vigilant survey and research, vigilant interconnectedness and communication, careful assessment and insight) in the sample banks.
2. Check the level of capabilities available to the sample banks in business model innovation.
3. Test the direct impact of entrepreneurial vigilance dimensions (vigilant scanning and research, vigilant connectivity and communication, vigilant assessment and insight) on innovation in business models.
4. Test the direct impact of entrepreneurial vigilance dimensions (vigilant survey and research, vigilant connectedness and communication, vigilant assessment and insight) on entrepreneurial learning (exploratory, investment learning).
5. Examine the direct impact of the dimensions of entrepreneurial learning (exploratory, investment learning) on innovation in business models.
6. Test the indirect impact relationship between entrepreneurial vigilance and innovation in business models through entrepreneurial learning.

Fourth: hypothesis scheme of research

Based on the research problem and research goals, the default research schema is designed:



Figure(1) Research hypothesis chart

Fifth: Research hypotheses

According to the research schema, the following hypotheses arose:

Main hypothesis 1 (H1): There is a significant direct effect on the dimensions of entrepreneurial vigilance (vigilant survey and research, vigilant connectedness and communication, vigilant assessment and insight) in entrepreneurial learning (exploratory learning, investment learning). The following sub-assumptions emerge:

- There is a direct and significant impact of vigilant survey and research in entrepreneurial learning (exploratory, investment learning).
- There is a direct and meaningful impact of vigilant connectedness and communication in entrepreneurial learning (exploratory, investment learning).

– There is a significant direct impact of vigilant assessment and insight on entrepreneurial learning (exploratory, investment learning).

Second Main hypothesis (H2): There is a significant direct effect on the dimensions of entrepreneurial vigilance in innovation in business models. The following sub-assumptions emerge:

- There is a direct, meaningful impact of vigilant survey and research on innovation in business models.

– There is a significant direct impact on the unrelented interconnectedness and communication in business models innovation.

- There is a significant direct impact of vigilant assessment and insight on innovation in business models.

Key hypothesis three (H3): The dimensions of entrepreneurial learning (exploratory learning, investment learning) have a significant direct impact on innovation in business models (Renewal-based business model, competence-based business model). The following sub-assumptions emerge:

– There is a significant direct impact of exploratory learning on innovation Business Models (Renewal-based Business Model, competence-based Business Model).

– There is a significant direct impact of investment learning on innovation and business models (renewal-based business model, competency-based business model).

Key hypothesis fourth (H4): There is a significant indirect effect on the dimensions of entrepreneurial vigilance in business model innovation through the dimensions of entrepreneurial learning.

PART TWO: CONCEPTUAL FRAMING OF ENTREPRENEURIAL VIGILANCE INNOVATION WITH THE BUSINESS MODEL AND ENTREPRENEURIAL LEARNING

First: The concept of entrepreneurial vigilance

Entrepreneurial depends primarily on the ability to discover opportunity, pool, pool and organize resources and adopt the right strategy to invest that opportunity, however, identifying and discovering the opportunity largely depends on the entrepreneurial mindset of which entrepreneurial vigilance is one of its key elements (Samo & Hashim, 2016:7). In order to create a clearer picture of entrepreneurial vigilance and the intellectual and philosophical theses that I have addressed, it is advisable to mention a set of definitions that deal with entrepreneurial vigilance and that reference its concept and table 1 showing these definitions.

Table 1 the views of some researchers on the concept of entrepreneurial vigilance

No.	Researcher/ year	Concept
1	Baron, 2006: 112	Be able to identify opportunities as they exist or have arisen as a result of changes in technology, markets, government policies, competition, etc.
2	Tang et al., 2012: 77	Survey and research for information, link previously disparate information, and make assessments of profitable employment opportunities
3	Hu et al., 2018: 2	Identify new solutions to market and customer needs in light of current information, and imagine new products and services that do not exist today
4	Wamdia, 2019: 337	The tendency to spend a significant part of the time on environmental stewardship to look for profitable opportunities.
5	Adomako, 2020: 5	3-D behavioral construction involving survey, research, connectivity, judgment and evaluation.

6	Bueckmann-Diegoli & Gutierrez, 2020: 2	Conscious awareness and the ability to see opportunities better than others.
7	Urban, 2020: 493	A unique set of cognitive processing skills expressed in an opportunity-acceptance situation that has been overlooked by others
8	Cavaliere et al., 2021:1	The ability of an individual to recognize new opportunities that others are not aware of.
9	Fitouri & Zouaoui, 2021: 235	A tendency to observe and be sensitive to information about objects, incidents and environmental behavior patterns taking into account the problems of the organization and personnel, unmet needs and preferences of clients and new sets of resources

Second: The dimensions of entrepreneurial vigilance

(Tang et al., 2012:9) set three dimensions for entrepreneurial vigilance: Vigilant scanning and research, vigilant connectedness and communication, and vigilant judgment and vision.

1. Vigilant Scan and Research

Careful scanning and research is defined as an ongoing research of the environment, as entrepreneurs are more cautious and intelligent than others continue to explore, exploit and act on new and innovative profitable opportunities, gather the necessary and reliable information to do the work, and identify information and changes that others have missed (Al-Muse, 2021:39). Business leaders take their own judgment based on their patterns to clarify related information while in depth not meeting market needs (Qandil et al., 2019:285).

2. Vigilant connectedness and communication

Vigilant connectedness and communication focus on receiving new information, innovating, and creating extensions in logic. It's how to apply or extend information. Interconnectivity enables people to connect in a large way so that unprecedented long distance communication can be made (Tang et al.,2010:9). Accordingly, individuals eventually link new information to areas that seem irrelevant to generate a new idea. This dimension focuses in particular on the application and expansion of information in relation to the area of interest. The process of interpreting information gathered from stage 1 helps individuals make specific connections and modify their current views (Kadile& Biraglia,2020:6).

3.the judgment and the vigilant vision

Judgment and insight allow individuals to ignore weak messages and enhance their situational awareness. Entrepreneurs may also be required to evaluate, modify or review relevant alternatives because additional information can help them formulate accurate and insightful assessments that may lead to new commercial insight. Dutta& Crossan, 2005)) suggested that the appearance of information might often be more useful in evaluating a framework that adequately explains and matches the new concept and thus reveals a business opportunity. In other words, a "referee " helps entrepreneurs assess their risk appetite and uncertainty resulting from investing a particular opportunity (Liang, 2019:150-151).

Third: The concept of business model innovation

So far, there is no uniform definition of the business model, but through the compilation of relevant literature, scientists have been focusing mainly on three aspects of business model research. First: The

meaning and definition of the business model. Second: Classification of the business model. Third, creating the business model (Zhang&Zhang, 2019:133). The following table (2) presents some of the concepts that the researcher has about the concept of the business model.

Table (2) Business Model concepts

No.	Researcher/ year	Concept
1	Afuah,2003:9	The range of activities the organization performs, how it performs, and when it uses its resources to perform activities, given its industry, to create superior value for customers ... It places itself in a position to take over value.
2	Sorescu et al.,2011:5	A well-defined system of interconnected structures, activities and processes that serve as organizational logic for the organization to create value (for its clients) and allocate value (for itself and its partners).
3	Mustafa,2015:344	Design or architecture" "defines or narrates the flow of products, services and information" by "forming cross-border transactions" in order to "generate value and capture part of it" "in the network of various actors and their roles ".
4	Andreini& Bettinelli, 2017:31	A guiding logic that links technical potential with the recognition of economic value.
5	Kriss,2020:1	An outline of how the organization plans to make money through its products and customer base in a given market.
6	Al.Sudane&Saheb, 2020:348	The way in which the Organization creates, brings and benefits value.
7	Shakeel et al.,2020:8	The logic of the organization that helps develop proposals, deliver value, and achieve a viable cost and revenue.
8	Hamani&Simon, 2020:3	A new unit of analysis that provides a systematic perspective on how to do business, including cross-border activities (performed by a central organization or others), focusing on value creation as well as value acquisition.
9	Daulay et al.,2021:4	A conceptual tool consisting of a set of elements and their relationships in expressing the logic of the organization's work.
10	Hamani&Simon, 2020:1	A system of interrelated activities that transcend and cross the boundaries of the central organization.

The innovation of the business model has attracted wide interest from researchers not only because it reflects the acquisition and creation of value, but also because the usefulness of the business model is expected to increase their chances of success (Zhao et al.,2021:3). Although the innovation of the business model is a relatively recent phenomenon in literature, there are many explanations for why it is difficult and slow to change the business model within existing organizations. And discuss (Henderson&Kaplan, 2005) both incentives or contracts and relational capabilities create regulatory limits. However, this does not explain why organizations can sometimes change their business model within the current organization (Holmen& falahi, 2013:1).

Fourth: The dimensions of innovation by business model

There are several dimensions to the business model, but our study focused on the Renewal-based Business Model and the Competency-based Business Model:

1. Renewal-based Business Model

The Business Model Innovation literature is still recent and calls for further studies on the origins of the innovation of the business model (Yu et al.,2020:3). In order to develop a innovation-based business model, it is important to challenge existing "industry laws" and the logic of the current business. To

support this "out-of-the-box " thinking, it is better to access new information outside the organization or even outside industry boundaries rather than inside the organization (Bonakdar et al., 2014:4).

2. Competency-based business model

Competency-based Business Models refer to the efforts that organizations can take to achieve transactional efficiency (i.e. reducing transaction costs for all participants) (Zott and Amit, 2008: 4). Innovation of the efficiency-focused business model aims to reduce transaction costs for participants in the business, and points to new measures being taken by organizations to achieve business efficiency (Yu et al.,2020:3).

Fifth: The concept of entrepreneurial learning

The central role of learning is to reach a strong focus in entrepreneurship research. But, as a standalone concept, entrepreneurial learning is still without an agreed idea (XiU-Qing&Li:2013:1315). On this basis, the researcher drew insights from previous literature and found that entrepreneurial learning was studied from different points of view. Table 3 illustrates the different points of view:

Table (3)
Some definitions of concept of entrepreneurial learning

No.	Researcher/ year	Concept
1	Jiang& Yanqiu, 2010:401	A unique way to investigate how entrepreneurs acquire, store, and use knowledge
2	Xiu-qing&Li: 2013:1315	The process in which the new project or its units acquire, share, integrate and use knowledge in doing business.
3	Maleković et al.,2016:63	The process by which individuals acquire newly formed knowledge, understand it, and organize it with pre-existing structures, and indicate ways in which learning affects entrepreneurial work
4	Rae,2017:2	An experimental process of learning to identify opportunities, create common value and act upon them; Their focus is on how to activate this learning in an oceanic context.
5	Marhamat et al., 2019:345	Learning "that directs the entrepreneur to seek a new opportunity."
6	Politis et al., 2019:590	Create knowledge through transformation of experience
7	Sultan and Ibrahim, 344:2020	The process of acquiring knowledge in various fields and activating and harnessing this knowledge in the management and organization of business, which leads to seizing opportunities before others, increasing value and reducing risks, and thus achieving entrepreneurial performance
8	Al-Shahoumi, 132:2020	Create a mindset and culture of entrepreneurial and innovation, solve problems, enable people's self-confidence in their ability to succeed as they choose, and help young people become innovators and active participants in the labor market.
9	Lattacher&Wdowiak, 2020:1094	It is often defined as "learning in the business process."
10	Zhao e al., 2021: 843	An experimental process in which individuals continually develop their entrepreneurial knowledge throughout their careers in order to build their skills and effectiveness in starting and managing new projects, and that the essence of entrepreneurial learning is what leaders must learn or learn as they explore and invest entrepreneurial opportunities

Entrepreneurial learning can thus be defined as the process of identifying entrepreneurial opportunities, in order to enhance the ability of entrepreneurs and help them identify opportunities.

Sixth: Dimensions of entrepreneurial learning

1. Exploratory Learning

Exploration is defined as "experimenting with new alternatives with uncertain, remote, and often negative returns" Su et al.,2011:699). Exploratory learning refers to organizations' efforts and endeavors to develop their capacity to differentiate in creating or acquiring new knowledge. Exploratory activities include research, diversity, risk-taking, experimentation, flexibility and flexibility. And discovery, and innovation (Zhao e al., 2021:843).

2.Investment Learning

Investment learning focuses on pre-planned and controlled research to reduce the diversity achieved by sharpening and deepening initial ideas while increasing experience. Investment Learning (Intermediate Research) improves average performance and reduces contrast (Wang & Chugh,2014:37). By reducing the contrast, short-term average performance is improved but long-term performance is often reduced (Schildt et al.,2005:495).

Part Three: The practical aspect of the research

First: Test normal distribution of data

The test of natural distribution is one of the most important distributions used in many fields, ranging from the human sciences to the pure sciences. The main objective is to determine the type of distribution to which the data is subject, its accuracy and how it is centered if it is at or near the origin or if its distribution is skewed or flat, which can be determined by the normal distribution curve determined by the evaluation of the data under study (Goncharenko, 2017:95).

Table (4)

Tests the normal distribution (bloating and twisting) of research variables

Variables and dimensions	Bleach Kurtosis	Standard error	Z Kurtosis	Twisting Skewness	Standard error	Z Skewness
ASS	**-0.552**	**0.222**	**-2.486**	**-1.036**	**0.44**	**-2.355**
AAC	**-0.531**	**0.222**	**-2.392**	**-1.032**	**0.44**	**-2.345**
EJ	**-0.261**	**0.222**	**-1.176**	**-1.013**	**0.44**	**-2.302**
Entrepreneurial vigilance EntAle	**-0.434**	**0.222**	**-1.955**	**-0.768**	**0.44**	**-1.745**
ERL	**-0.26**	**0.222**	**-1.171**	**-0.993**	**0.44**	**-2.257**
ETL	**-0.507**	**0.222**	**-2.284**	**-1.053**	**0.44**	**-2.393**
Entrepreneurial learning EntLea	**-0.513**	**0.222**	**-2.311**	**-0.679**	**0.44**	**-1.543**
NCBM	**-0.485**	**0.222**	**-2.185**	**-0.424**	**0.44**	**-0.964**
ECBM	**-0.211**	**0.222**	**-0.950**	**-1.068**	**0.44**	**-2.427**
Innovation with the business model BusModInn	**-0.456**	**0.222**	**-2.054**	**-0.414**	**0.44**	**-0.941**

Second: Stability of the measuring tool

This is because the measurement tool is fixed in the light of certain conditions and data, and it is affected by the time and place times of measurement, the specific problem and the characteristics of the evaluators. Stability testing is one of the most important pillars of measurement tools and it is important for research results to be highly confident and appreciative (Livingston et al. 18:23). Cronbach Alpha is one of the most important and popular measures used to measure resolution stability, and if the test value is less than 60%, this is a poor indication of stability, while stability is

acceptable if it exceeds 70% and stability is good (SEKRANA, 2003: 311). Table 4 shows the structural truthfulness and stability parameters of the current research measurement tool.

Table (5)
Stability and structural truthfulness coefficients at the level and sub-dimensions of the main variables

No.	Key variables And its sub-dimensions	value of alpha Cronbach	value of the structural validity coefficient
1	Vigilant scan and research	0.931	0.965
2	Vigilant connectivity and communication	0.885	0.941
3	Evaluation and judgment	0.901	0.949
6	**Entrepreneurial vigilance**	**0.948**	**0.973**
10	Exploratory Learning	0.862	0.928
11	Investment learning	0.918	0.958
12	**Entrepreneurial learning**	**0.964**	**0.982**
15	Renewal-based Business Model	0.893	0.945
16	Competency-based Business Model	.8780	0.937
17	**Innovation business model**	**.9380**	**0.969**

Third: Analysis, description and diagnosis of the results of the study

1 describe and diagnose the entrepreneurial vigilance variable

– Description and diagnosis after a vigilant scan and research

The general weighted mean of the vigilant survey and research dimension was 3.889 with a general standard deviation of 0.956 and a relative difference factor of 24.57% and the severity of the response (77.79%), and this dimension received a " high " response level which confirms its importance at the sample level.

Table (6)
Descriptive statistics for the following day of vigilant scanning and researching

No.	mean	S.D	C.V	%	Answer level	Order
1	**3.857**	**1.011**	**26.21**	**77.14**	**high**	**4**
2	**3.908**	**1.097**	**28.07**	**78.15**	**high**	**3**
3	**3.849**	**1.055**	**27.41**	**76.97**	**high**	**5**
4	**3.790**	**1.040**	**27.45**	**75.80**	**high**	**6**
5	**3.983**	**1.135**	**28.49**	**79.66**	**high**	**1**
6	**3.950**	**1.185**	**30.00**	**78.99**	**high**	**2**
The general average of the scan dimension and the vigilant Research						
	3.889	**0.956**	**24.57**	**77.79**	**high**	**-**

- Description and diagnosis of the following vigilant interconnection and communication:

The general weighted mean of the vigilant correlation and communication dimension (3.824), with a general standard deviation of 0.958, a coefficient of relative variation (25.07%) and an intensity of the response (76.47%), was achieved with a " high " response level, which confirms its importance at the sample level.

Table (7)
Descriptive statistics for vigilant networking dimension and communication

No.	mean	S.D	C.V	%	Answer level	Order
1	**3.798**	**1.046**	**27.54**	**75.97**	**high**	**3**
2	**3.874**	**1.070**	**27.62**	**77.48**	**high**	**1**
3	**3.798**	**1.030**	**27.11**	**75.97**	**high**	**2**
The overall rate of a dimension AAC vigilant Interconnect and Communication						
	3.824	**0.958**	**25.07**	**76.47**	**high**	**-**

- Description and diagnosis after evaluation and judgment

The general weighted mean of the evaluation and judgment dimension (3.672) with a general standard deviation of 1.018 and a variation coefficient of 27.71% and the severity of the response (73.45%), this dimension has received a " high " response level which confirms its importance at the sample level.

Table (8)

Descriptive statistics for the evaluation and judgment dimension

No.	mean	S.D	C.V	%	Answer level	Order
1	**3.672**	**1.018**	**27.71**	**73.45**	**high**	**3**
2	**3.815**	**1.104**	**28.95**	**76.30**	**high**	**1**
3	**3.496**	**1.261**	**36.08**	**69.92**	**high**	**4**
4	**3.714**	**1.165**	**31.38**	**74.29**	**high**	**2**
The overall rate of a dimension Assessment and judgment EJ						
	3.672	**1.018**	**27.71**	**73.45**	**high**	**-**

Thus, the entrepreneurial vigilance variable achieved a general weighted arithmetic mean of 3.796 and its standard deviation value (.8080), which indicates that the sample's answers are dispersed from its mean. The relative difference factor (21.30%) and the achieved response strength (75.92%) thus achieved a "high" response level indicating that this variable has a high importance rating according to the responses of the sample members.

Table (9)

Descriptive statistics for the entrepreneurial vigilance variable

Dimensions	mean	S.D	C.V	%	Answer level	Order
Ass. Vigilant Scan and Scan	**3.889**	**0.956**	**24.57**	**77.79**	**high**	**1**
AAC vigilant Interconnect and Communication	**3.824**	**0.958**	**25.07**	**76.47**	**high**	**2**
Assessment and judgment EJ	**3.672**	**1.018**	**27.71**	**73.45**	**high**	**3**
The general rate of a variable Entrepreneurial vigilance						
	3.796	**0.808**	**21.30**	**75.92**	**high**	**-**

Order	Answer level	%	C.V	S.D	mean	Dimensions
1	**high**	**77.79**	**24.57**	**0.956**	**3.889**	**Ass. Vigilant Scan and Scan**
2	**high**	**76.47**	**25.07**	**0.958**	**3.824**	**AAC vigilant Interconnect and Communication**
3	**high**	**73.45**	**27.71**	**1.018**	**3.672**	**Assessment and judgment EJ**
-	**high**	**75.92**	**21.30**	**0.808**	**3.796**	**The general rate of a variable Entrepreneurial vigilance Entale**

2. describe and diagnose the reality of the entrepreneurial learning variable:

– Describe and diagnose after exploratory learning

The general weighted mean of the exploratory learning dimension was 3.727 with a general standard deviation of 0.888 and a coefficient of relative difference (23.84%) and severity of the response (74.54%), and this dimension received a " high " response level, which confirms its importance at the sample level.

Table (10)

Descriptive statistics for the exploratory learning dimension

No.	mean	S.D	C.V	%	Answer level	Order
1	**3.815**	**1.033**	**27.08**	**76.30**	**high**	**1**
2	**3.714**	**1.043**	**28.07**	**74.29**	**high**	**3**
3	**3.588**	**1.085**	**30.23**	**71.76**	**high**	**4**
4	**3.790**	**1.049**	**27.67**	**75.80**	**high**	**2**
Overall rate of the learning dimension ERL						
	3.727	**0.888**	**23.84**	**74.54**	**high**	**-**

- Description and diagnosis of the investment learning dimension

The general weighted average of the investment learning dimension reached 3.761 with a general standard deviation of 1.021 and a variation factor of 27.16% and the severity of the response (75.21%), which received a " high " response level, which confirms its importance at the sample level.

Table (11)

Descriptive statistics for the investment learning dimension

No.	mean	S.D	C.V	%	Answer level	Order
1	**3.849**	**1.117**	**29.03**	**76.97**	**high**	**1**
2	**3.782**	**1.098**	**29.04**	**75.63**	**high**	**2**
3	**3.647**	**1.109**	**30.41**	**72.94**	**high**	**4**
4	**3.765**	**1.148**	**30.48**	**75.29**	**high**	**3**
The overall rate of a dimension Investment Learning ETL						
	3.761	**1.021**	**27.16**	**75.21**	**high**	**-**

Achieved a general weighted mean of (3.744) and a standard deviation value (0.836) indicating the sample's dispersion of answers from its mean, a rational variance factor of (22.32%) and the severity of the achieved answer was (74.87%) thus achieving a "high" answer level.

Table (12)

Descriptive statistics for the entrepreneurial learning variable

Dimensions	mean	S.D	C.V	%	Answer level	Order
ERL Exploration Learning	**3.815**	**1.033**	**27.08**	**76.30**	**high**	**2**
Investment Learning	**3.761**	**1.021**	**27.16**	**75.21**	**high**	**2**
ERL Exploration Learning	**3.815**	**1.033**	**27.08**	**76.30**	**high**	**2**
Investment Learning	**3.761**	**1.021**	**27.16**	**75.21**	**high**	**2**

Overall average of entrepreneurial learning						
	3.744	0.836	22.32	74.87	high	-

Describe and diagnose innovation with the business model

– Describe and diagnose the renewal-based business model

The general weighted average of the business model dimension of renewal was 3.687 with a general standard deviation of 0.877 and a relative variation coefficient of 23.78% and severity of the answer (73.73%), which received a " high " response level, which confirms its importance at the sample level.

Table (13)

Descriptive statistics for the renewal-based business model dimension

No.	mean	S.D	C.V	%	Answer level	Order
1	3.778	1.037	27.45	75.56	high	1
2	3.487	0.964	27.65	69.75	high	10
3	3.647	0.962	26.37	72.94	high	8
4	3.664	0.914	24.94	73.28	high	7
5	3.597	1.115	30.99	71.93	high	9
6	3.714	0.940	25.31	74.29	high	6
7	3.756	1.025	27.28	75.13	high	3
8	3.731	1.014	27.18	74.62	high	4
9	3.773	1.037	27.48	75.46	high	2
10	3.723	1.073	28.82	74.45	high	5
The overall rate of a dimension Renewal based Business Model NCBM						
	3.687	0.877	23.78	73.73	high	-

– Describe and diagnose the dimension of the competency-based business model

The general weighted mean of the competency-based business model dimension was 3.619 with a general standard deviation of 0.841 and a relative variation coefficient of 23.24% and severity of the answer (72.39%), which received a " high " response level, which confirms its importance at the sample level.

Table (14)

Descriptive statistics for the competency-based business model dimension

No.	mean	S.D	C.V	%	Answer level	Order
1	3.420	1.161	33.94	68.40	high	9
2	3.067	1.240	40.43	61.34	Moderate	10
3	3.639	1.047	28.79	72.77	high	7
4	3.706	0.960	25.90	74.12	high	5
5	3.689	1.031	27.95	73.78	high	6
6	3.571	1.046	29.29	71.43	high	8
7	3.731	0.997	26.73	74.62	high	4
8	3.782	1.035	27.36	75.63	high	2
9	3.815	1.049	27.51	76.30	high	1
10	3.773	1.029	27.26	75.46	high	3
The overall rate of a dimension ECBM Competency-based Business Model						
	3.619	0.841	23.24	72.39	high	

The business model innovation variable achieved a general weighted average of 3.653 and a standard deviation value of 0.770, which indicates that the sample's answers are dispersed from its mean. The relative difference factor (21.09%) and the severity of the response achieved was (73.06%) thus achieving a "high" response level indicating that this variable was of high importance according to the responses of the sample members.

Table (15)

Business model innovation variable metadata

Dimensions	mean	S.D	C.V	%	Answer level	Order
After the business model Renewal based on NCBM	**3.687**	**0.877**	**23.78**	**73.73**	**high**	**1**
After the business model ECBM efficiency based	**3.619**	**0.841**	**23.24**	**72.39**	**high**	**2**
The general rate of a variable Innovation with the innovation business model						

Fourth: Research hypotheses

Testing the effect hypotheses are:

Test Main hypothesis 1: (There is a significant direct effect of entrepreneurial vigilance in entrepreneurial learning**)**

In the case of the first two years of the year, the first year of the year. When you check this value, we notice that it is significant because the critical ratio value (C.R.) The amount (13,724) shown in table (16) is a significant value at a significant level (0.000).

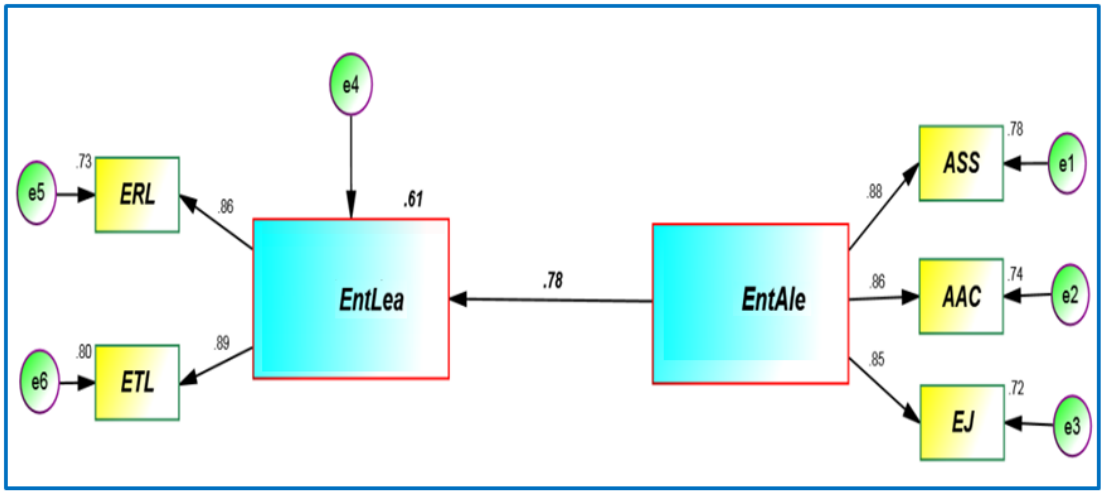


Figure (2) The impact of entrepreneurial alertness on entrepreneurial learning

Table (16)

Pathways and parameters to test the impact of entrepreneurial vigilance on entrepreneurial learning

path			Standard slope weights	Non-standard Rating	Standard error	Critical ratio	Significant ratio
Entrepreneurial learning	<---	**Entrepreneurial vigilance**	**.784**	**.861**	**.063**	**13.724**	*******
ASS	<---	**Entrepreneurial vigilance**	**.884**	**1.025**	**.050**	**20.536**	*******
AAC	<---	**Entrepreneurial vigilance**	**.859**	**.952**	**.052**	**18.220**	*******

EJ	<---	**Entrepreneurial vigilance**	**.849**	**1.023**	**.059**	**17.463**	***
ERL	<---	**Entrepreneurial learning**	**.855**	**.909**	**.051**	**17.929**	***
ETL	<---	**Entrepreneurial learning**	**.893**	**1.091**	**.051**	**21.509**	***

Test Main hypothesis 2: (There is a significant direct impact to the dimensions of entrepreneurial vigilance in innovation in business models.)

Figure 3 shows the significant effect of the entrepreneurial vigilance variable in business model innovation. The value of the standard parameter estimate has been (0.73), which means that a change in the level of entrepreneurial vigilance in one unit will affect innovation in the business model by a rate of (73%) at the level of the sample national banks. When you check this value, we notice that it is significant because the critical ratio value (C.R.) The amount (11,634) shown in the table (17) is a significant value at a significant level (0.000).

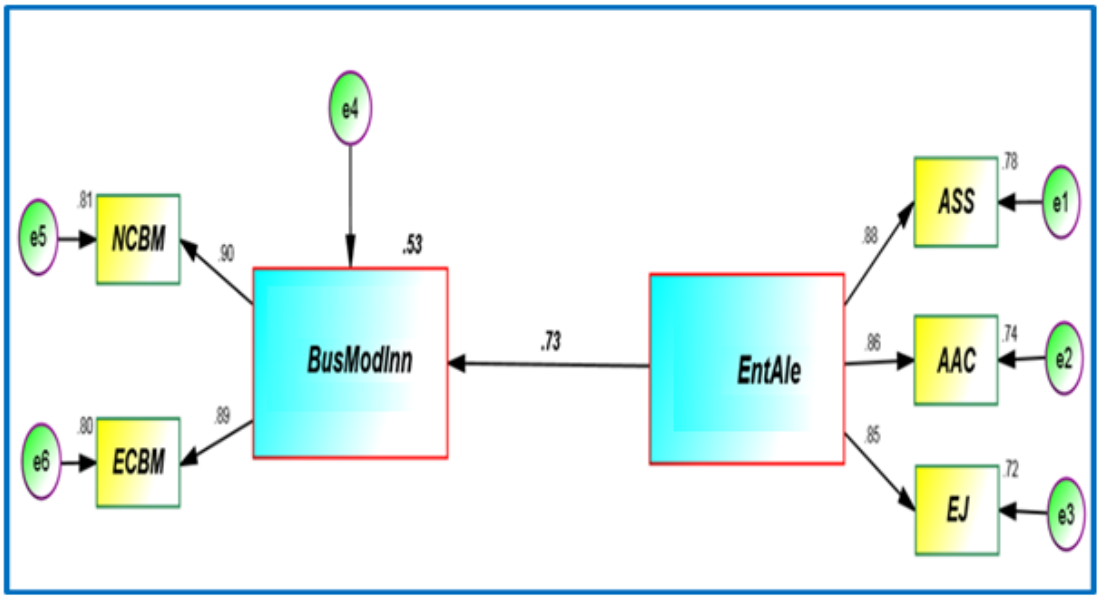


Figure (3)

The impact of entrepreneurial vigilance on innovation by the business model

Table (17)

Paths and parameters to test the impact of entrepreneurial vigilance on business model innovation

path			Standard slope weights	Non-standard Rating	Standard error	Critical ratio	Significant ratio
Innovation with the business model	<---	**Entrepreneurial vigilance**	**.731**	**.740**	**.064**	**11.634**	***
ASS	<---	**Entrepreneurial vigilance**	**.884**	**1.025**	**.050**	**20.536**	***
AAC	<---	**Entrepreneurial vigilance**	**.859**	**.952**	**.052**	**18.220**	***
EJ	<---	**Entrepreneurial vigilance**	**.849**	**1.023**	**.059**	**17.463**	***

ECBM	<---	**Innovation with the business model**	**.892**	**.974**	**.045**	**21.451**	***
NCBM	<---	**Innovation with the business model**	**.901**	**1.026**	**.045**	**22.585**	***

Test Main hypothesis 3: (There is a significant direct impact to the dimensions of entrepreneurial learning in innovation in business models.)

Figure 4 shows the significant impact of the entrepreneurial learning variable in business-model innovation. The value of the standard teacher rating has been 0.70, which means that a change in the level of entrepreneurial learning in one unit will affect innovation in the business model by 70% at the level of the sample-of-study-the-NCBs. When you check this value, we notice that it is significant because the critical ratio value (C.R.) The amount (10,759) shown in the table (18) is a significant value at a significant level (0.000).

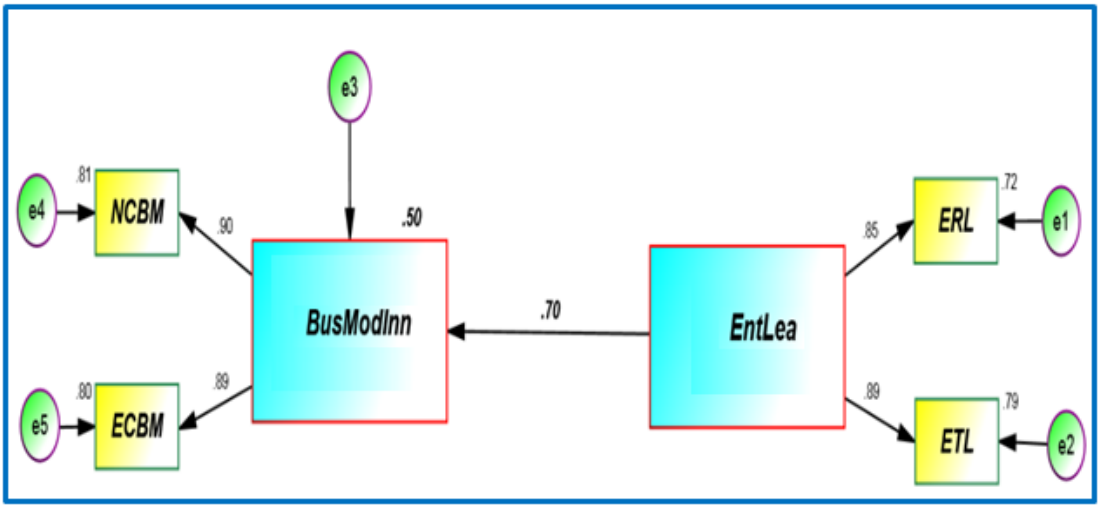


Figure (4)

Impact of pioneering learning on creativity with the business model

Table (18)

Paths and parameters for testing the impact of entrepreneurial learning on business model innovation

path			Standard slope weights	Non-standard Rating	Standard error	Critical ratio	Significant ratio
Innovation with the business model	<---	**Entrepreneurial learning**	**.704**	**.657**	**.061**	**10.759**	***
ERL	<---	**Entrepreneurial learning**	**.851**	**.906**	**.051**	**17.636**	***
ETL	<---	**Entrepreneurial learning**	**.891**	**1.094**	**.051**	**21.300**	***
ECBM	<---	**Innovation with the business**	**.892**	**.974**	**.045**	**21.451**	***

		model					
NCBM	<---	**Innovation with the business model**	**.901**	**1.026**	**.045**	**22.585**	*******

Test Main hypothesis 4: (There is a significant indirect effect on the dimensions of entrepreneurial vigilance in business model innovation through the dimensions of entrepreneurial learning.)

Figure 5 shows the standard regression paths and ratios (R2) for assessing the direct and indirect relationship between the variables, i.e. the explanation of the direct effect between the independent variable (entrepreneurial vigilance), the dependent variable (business model innovation), and the indirect effect through the intermediate variable (entrepreneurial learning) Figure 20 also shows the values of the model matching indicators that were of high conformance with the RMR indicator (.0630) .

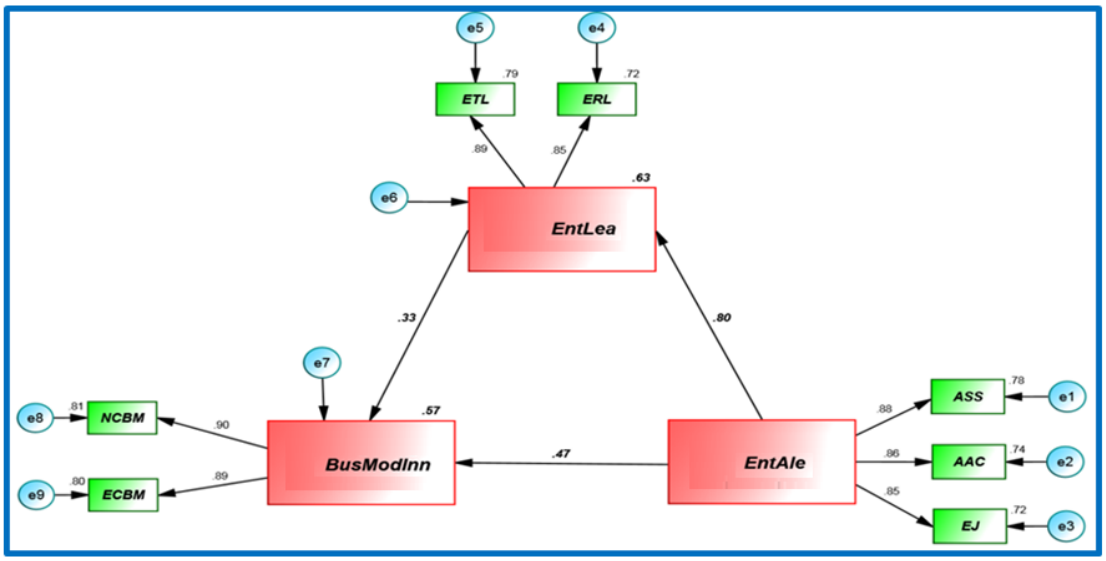


Figure (5)

The indirect impact of entrepreneurial vigilance on business model creativity by mediating pioneering learning

Table (19)

Test results for the indirect impact of entrepreneurial vigilance on business model innovation By mediating entrepreneurial learning

path			Standard slope weights	Non-standard Rating	Standard error	Critical ratio	Significant ratio
Entrepreneurial learning	<---	**Entrepreneurial vigilance**	**.796**	**.863**	**.060**	**14.298**	*******
Innovation with the business model	<---	**Entrepreneurial vigilance**	**.466**	**.472**	**.100**	**4.697**	*******
Innovation with the business model	<---	**Entrepreneurial learning**	**.333**	**.311**	**.093**	**3.351**	*******
AAC	<---	**Entrepreneur**	**.859**	**.952**	**.052**	**18.220**	*******

		ial vigilance					
ASS	<---	**Entrepreneurial vigilance**	**.884**	**1.025**	**.050**	**20.536**	***
EJ	<---	**Entrepreneurial vigilance**	**.849**	**1.023**	**.059**	**17.463**	***
ETL	<---	**Entrepreneurial learning**	**.891**	**1.094**	**.051**	**21.300**	***
ERL	<---	**Entrepreneurial learning**	**.851**	**.906**	**.051**	**17.636**	***
NCBM	<---	**Innovation with the business model**	**.901**	**1.026**	**.045**	**22.585**	***
ECBM	<---	**Innovation with the business model**	**.892**	**.974**	**.045**	**21.451**	***

Four Part: Conclusions and recommendations

First: Conclusions

This section reflects the results of the study derived from the process of statistical description and hypothesis testing, as follows:

1. The results of the study showed that sample individuals (bank managers) have a good level of vigilant scanning and scanning capability.
2. The results of the study found that the sample individuals have a good level of vigilant interconnectedness and communication capabilities.
3. The findings of the study concluded that the sample individuals have a good level of governance and assessment capabilities, i.e. they have a high capacity to assess opportunities and distinguish between profitable and unprofitable opportunities, thus increasing their ability to choose the best opportunities available in the environment.
4. The results of the study revealed a high level of interest on the part of the sample banks in the dimension of the innovation-based business model.
5. The results of the study showed a high level of distance from the efficiency-based business model, which was clearly demonstrated by the interest of bank administrations and their keen interest in achieving efficiency in all banking transactions.
6. The analysis results showed that there are moral linkages between entrepreneurial vigilance and its dimensions (careful research and survey, careful engagement and communication, assessment and governance) and business model innovation
7. The results of the study revealed a direct impact of entrepreneurial vigilance on business model innovation.
8. A high level of exploratory learning capabilities in the sample banks, which explains the emphasis of bank administrations on the exploratory aspect in the field of entrepreneurial learning and urging bank personnel to present innovative ideas that challenge traditional ideas

Second: Recommendations

1. Banks should give the sample of the study great attention to developing the survey and research capabilities of bank managers and enhancing their knowledge stock.

2. The need for the study-sample banks to enhance and develop the interconnection and communication capabilities of bank managers, to diversify their strategic ideas portfolio continuously and to improve their abilities in achieving the interconnection between information that seems to be unrelated.

3. Initiating a training and development program for the managers of the sample-studied banks to enhance their capabilities in the field of assessment, judging the available opportunities, choosing the best opportunities and distinguishing between profitable and unprofitable opportunities.

4. The company should be interested in constantly rethinking its business model through reconsidering the offers offered by banks in the field of banking services or by constantly redesigning the value chain of its services to achieve higher value.

5. Try and apply new business models through offering a new and diverse set of banking services that have not been offered by the competing banks and creating new profit outlets on a continuous basis.

6. The sample of the study banks should be concerned with facing the environmental challenges that directly affect their activities through making use of the entrepreneurial capabilities of bank managers in the field of entrepreneurial vigilance represented in the capabilities of survey, research, networking, evaluation and insight.

7. Banks should pay attention to creating a work environment that encourages entrepreneurial learning through creating an organizational culture that encourages workers to love probing, bear risks, experiment and explore new methods of work and innovative ideas and remove the sources of fear of failure.

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