The impact of strategic vision and balancing learning style on business model adaptation in the Egyptian private airlines[1]

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ABSTRACT

This study aims to investigate the impact of strategic vision and balancing learning style on business model adaptation directly and indirectly by mediating business model dynamics. The study was applied to the ten oldest Egyptian private airlines during the Covid 19 crisis. A self-administered questionnaire used to collect data from the top managers in the sample airlines by using the complete census method. About (165) questionnaires retrieved and were valid to statistical analysis. The hypotheses have been tested using the path analysis technique .The statistical results initially demonstrate that the first independent variables top management strategic vision have a positive impact on business model adaptation directly and indirectly through business model dynamics, while the direct impact of the second independent variable top management balancing learning on business model adaptation has been rejected which indicate the importance of the mediating variable (business model dynamics) in strengthening this relation.

Keywords: strategic vision, balancing learning style, Business model dynamics, Business model adaptation, Egyptian private airlines, The covid 19 crisis.

I. INTRODUCTION

In 2020, the COVID-19 pandemic shocked the aviation industry in a big way that has not been happened since the Second World War. the adverse impacts of the COVID-19 pandemic on the aviation industry was estimated at about a 66% decline in global revenue passenger kilometers (RPKs) and the revenues decreased by 50% to reach about $419 billion in 2020 compared to $838 billion in 2019. In this context The International Air Transport Association (IATA) estimated the losses of the aviation sector in Egypt at a value of 2.2 billion dollars as a result of

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the loss of 13 million passengers, which led to losses in the Egyptian economy estimated at 2.4 billion dollars. (IATA annual review, 2020).

In the face of this challenge which is expected to continue during 2021 due to continued restrictions on air navigation traffic, the Egyptian airlines have to adapt their business model and reconfigure their dynamics capabilities as response to this unexpected external threat. (Khodaei and Ortt, 2019;Teece, 2018;Yun et al., 2016; Demil and Lecocq, 2010; Massa and Tucci, 2013).

The literature in the field of business model has focused largely on the key constituents of business model, the drivers and the impediments of business model adaptation and the level of the dynamics of its structure (Saebi et al., 2017; Wirtz et al., 2010; Osterwalder et al., 2010; Teece, 2018) while another group of studies highlighted the effect of top management's capabilities, skills and knowledge on adapting the business model (Fritscher and Pigneur, 2014; DeReuver et al., 2013; Doz, 2010; Maurya, 2016; Augier and Teece, 2009).

In addition, a few contributions in the business model stream captured the lack of strategic direction of top management as one of the main obstacles in adapting the business model (Saebi et al., 2017; Wirtz et al., 2010; Osterwalder et al., 2010; Teece, 2018) while another group of studies highlighted the effect of top management's capabilities, skills and knowledge on adapting the business model (Fritscher and Pigneur, 2014; DeReuver et al., 2013; Doz, 2010; Maurya, 2016; Augier and Teece, 2009).

Top management is actively engaged in all the activities related to business model adaptation from identifying the opportunity or need to change until designing and implementing the new business model. Top management knowledge was seen as a key driver of business model dynamics and also the adaptation process. (Khodaei and Ortt, 2019; Osiyevskyy and Dewald, 2015; Zumitzavan, 2015; Abell et al., 2008).

Following the resource-based theory, the individualism theory and the micro foundations approach top management's knowledge is built through intentional actions specifically individual's choices, abilities, and learning style.(Barney and Felin, 2013; Barne et al.,2011; Abell et al., 2008).

The balancing learning style was chosen for the study because it is more compatible with the objectives of the research as it balances different learning sources and streams, thus enhances the individual's knowledge reverse and

increases his ability to adapt to the surrounding situations. (Kolb, 2013; Kolb and kolb, 2016; Kolb and kolb, 2018).

Top management balancing learning style as a key determinant of top management knowledge will be analyzed according to the experiential learning theory which highlighted the importance of experiential learning knowledge in contrast to cognitive learning which is the academic knowledge. (Barney et al., 2011; Kolb, 2013; Kolb and Kolb, 2016). Kolb Learning Style Inventory—Version 3.2 (The KLSI 3.2) created in (2013) will be guided in the study.

The paper attempts to fill the gap in the business model literature by examining in-depth the impact of top management strategic vision and top management balancing learning style on business model adaptation directly and indirectly through mediating business model dynamics in the Egyptian private airlines.

2. RESEARCH PROBLEM

Since Egyptian private airlines face a great challenge to adapt their business model and enhance its dynamics in response to COVID 19 pandemic and considering the essential role of top management in fulfilling this process, there is a growing concern to highlight the extent to which top management strategic vision and balancing learning affect business model dynamics and adaptation. The research problem can be formulated in the following questions:

2.1. What is the impact of top management strategic vision on business model dynamics on?

2.2. What is the impact of top management balancing learning style on business model dynamics?

2.3. What is the impact of top management strategic vision on the business model adaptation?

2.4. What is the impact of top management balancing learning style on the business model adaptation?

2.5. What is the impact of business model dynamics on business model adaptation?

3. RESEARCH OBJECTIVES

This research aims to fulfill the following objectives:

3.1. Identify the impact of top management strategic vision on business model dynamics.

3.2. Identify the impact of top management balancing learning style on business model dynamics.

3.3. Identify the impact of top management strategic vision on the business model adaptation.

3.4. Identify the impact of top management balancing learning style on the business model adaptation.

3.5. Identify the impact of business model dynamics on business model adaptation.

4. RESEARCH HYPOTHESES

Depending on the relevant literature review the following hypotheses can be formulated:

H1. Top management strategic vision will have a positive impact on business model dynamics.

H2. Top management balancing learning style will have a positive impact on business model dynamics.

H3. Top Management strategic vision will have a positive impact on business model adaptation.

H4. Top management balancing Learning style will have a positive impact on business model adaptation.

H5. Business model dynamics will have a positive impact on business model adaptation:

5. THEORETICAL FRAMEWORK

5.1 Strategic vision

Strategic vision is a road map that shows the route a company intends to take in developing and strengthening its position. (David,2015). It also helps in communicating the management's objectives to shareholders and aligning the capabilities of the organization in a particular direction. (Masanell and Ricart, 2010). Strategic visionaries are capable of leading change and empowering leaders as well as employees in implementing change. (Thompson & Gamble, 2019).

5.2 Balancing learning style

balancing learning style will be mainly studied with regard to the resource-based theory which has received most attention in the micro foundations research, especially routines, capabilities and knowledge (Abell et al., 2008 ; Barney et al ., 2011; Felin, and Foss, 2009; Felin and Hesterly, 2007).The knowledge based view of the firm advocates that the main sources of a competitive advantage are

knowledge assets that are built over time through processes of creating, integrating and sharing knowledge. These processes are critically dependent on individuals 'skills, capabilities and learning styles often in responding to rapidly changing contingencies. (Reynolds and Vince, 2007; Felin and Hesterly, 2007; Merriam et al., 2007; Chong, 2005; Cavaleri, 2004; Barnett and Storey, 2001; Sternberg and Zhang, 2000).

In this line learning style can be defined as a fundamental process by which a person's attitudes and behaviors influence the preferred method of learning. Learning style is based on two key dimensions: (1) the manner an individual use to gather information and (2) the way an individual use to evaluate and act on information. (Kolb, 1984; Kolb, 1976; Kolb, 2005; Chapman, 2008; Buch and Bartley, 2002; Fritz, 2002; Baker et al., 1985).

There have been different theories investigated and classified the learning preferences of people, the most common were (Kolb's learning style (1976, 1984, 1996, 2005,2013), Myers-Briggs Type Indicator (MBTI, 1979), Honey and Mumford's learning style, (1995), Dunn and Dunn learning style, (2000), Hawk and Shah, (2007), Towler and Dipboye, (2003). Kolb's and Honey and Mumford's learning styles were the most used and acceptable concepts as they focused on behavioral types and had been applied to help individuals identify their preferred ways of learning and enhance their learning performance (Zumitzavan,2015; Buch and Bartley, 2002; Frido, 2004; Heffeler, 2001, Jamieson, 2010; Barmeyer, 2004; Brew, 2002; Waller et al., 2017).

Kolb's original KLSI version has identified four learning style groupings that are associated with different approaches to learning which are: Diverging, Assimilating, Converging, and Accommodating. These four learning styles are highly influenced by individuals 'culture, personality type, educational specialization, career choice, and current job role and tasks, (Kolb, 1984; Kolb, 1976; Kolb, 2003). The new KLSI 4. o introduced nine style types by moving from a (4) pixel to (9) pixel resolution of learning style that can be systematically arranged on a two-dimensional learning space defined by Abstract Conceptualization-Concrete Experience and Active Experimentation-Reflective Observation. (Kolb's, 2013; Kolb and Kolb, 2016).

This research has built on Kolb Learning Style Inventory—Version 3.2 (The KLSI 3.2) which created in (2013) to incorporate the new nine learning style typology of

the KLSI 4.0 in a paper version which are: The Initiating style, the Experiencing style, the Reflecting style, the Analyzing style, the thinking style, the deciding style, the acting style, and the balancing style. (Kolb and Kolb, 2013; Kolb and Kolb 2016; Kolb and Kolb, 2018).

The Balancing learning style is one of the most preferred learning pattern.it characterized by increased ability to adapt by weighing the pros and cons of acting versus reflecting and experiencing versus thinking. It balances concrete experience, abstract conceptualization, active experimentation and reflective observation. People with a balanced learning style tend to be more satisfied in learning environments in which they use the four learning modes and have a higher ability to work with diverse groups of people. (eg. Kolb 2013, Kolb & Kolb, 2016; Kolb & Kolb, 2018; Yousafzai et al., 2018; Zhu et al.,2018; Ata & Cevik, 2018; Sudria et al., 2018; Swari, 2015).

5.3 Business model concept and constructs

The term 'business model' was first defined by Timmers in late 90's as a pure business concept explaining the logic of doing business of a firm in the context of electronic commerce (Timmers, 1999). During the past twenty years' business model concept and constructs was a subject of great debate and an unresolved point so far. A high degree of discrepancies and inconsistencies in defining business model and in describing its constructs and the interrelationships between them. In conceptualizing and characterizing business model many variables must be taken into consideration including the nature of the industry and the environmental context so the focus on specific aspects may not fit all contexts or all time frames. (Khodaei and Ortt, 2019; Corbo, 2018; Fielt, 2014; Teece, 2010; Masanell and Ricart 2010; Chesbrough and Rosenbloom, 2002; Adamantia, 2004; Jonas, 2003).

In developing business model different approaches and perspectives have been used which reflect different focal points and different level of dynamisms, the basic perspectives include: Static, dynamic, strategic and operational. According to the static perspective business model is a set of building blocks which define how a company creates and captures value (Demil and Lecocq 2010 Teece, 2010; Masanell and Ricart 2010; Chesbrough 2010; Osterwalder et al., 2010; Zott, 2010), while the dynamic perspective takes a transformational view by describing how change and innovation of business model happens (eg. Khodaei and Ortt; 2019,

Teece; 2018, Khanagha et al., 2014). The strategic perspective of business model is more concerned with how business model can create value for multiple stakeholders (Casadesus and Zhu 2013; Amit and Zott 2015; McGrath, 2010), Finally the Operational Perspective focuses on operating, managing and controlling business model once they have been implemented (Osterwalder et al., 2010, Mitchell et al., 2015; Linder and Cantrell, 2001).

Business models (BMs) are simplified representations of the aspects and the interactions between these aspects that an organization considers when creating, delivering, capturing, and exchanging value (Khodaei and Ortt, 2019; Teece, 2018; Foss and Saebi, 2017; Yun et al., 2016; Morris, 2005; Chesbrough, 2010; Jonas, 2003, Pateli, 2004).Various researchers have repeatedly used different terms to describe similar components and elements related to different business model frameworks but the most building blocks used in the majority of these studies were: customer value proposition, customer segments, customer relationships channels, key resources, key activities, partners, costs and revenues structure which were built on business model canvas (Khodaei and Ortt, 2019; Verhoeven and Johnson, 2017; Cosenz, 2017; Bertels et al., 2015; Fritscher and Pigneur,2014; Fielt,2014; Mustafa and Werthner, 2008; Jonas,2003; Chesbrough and Rosenbloom, 2002).

5.4 Business model dynamics

Dynamics in business model has been studied with two different streams, the first addressed business model adaptation which entails the changes occurring in existing business model over time in responding to external triggers, while the second type of studies addressed the need to create innovation by implementing an innovative BM. (Khodaei and Ortt 2019; Aversa et al., 2017; Saebi et al., 2017; Felin and Foss, 2012; Casadesus and Zhu, 2013; Aspare et al., 2010). BMD is defined in terms of the frequency and the degree of changes in business model (Teece, 2010; Doz, 2010; McGrath, 2010; Morris, 2005).

BMD "can range from incremental changes in individual components of business model, extension of the existing business model, introduction of parallel business model, to disruption of business model by replacing the existing model with a fundamentally different one. (Foss and Saebi, 2017; Zott et al., 2011; Corbo, 2017; Khanagha et al., 2014; Massa and Tucci, 2013; Morris, 2005; Chesbrough, 2010; Demil, and Lecocq, 2010; Dunford, 2010).

In this line Khodaei and Ortt, (2019) suggested four criteria in evaluating the degree of dynamics in business model frameworks which are: completeness of business model aspects, interrelationships between business model aspects

interrelationships between aspects over time, and framework changes over time and across context.

This research will utilize the first three criteria and exclude the fourth criterion because it is more related to modifying the business model for the purpose of innovation and development and not as a response to an external trigger (business model adaptation). (Khodaei and Ortt, 2019; Schaffer et al., 2019; Demil and Lecocq 2010; Klang et al., 2014; De Reuver et al., 2013) thus the dynamics perspective of business model will be evaluated according to the following criteria:

- **Completeness of business model aspects: business** model has to address a complete set of internal aspects such as a company competences and capabilities as well as some critical external aspects such as competition. (Khodaei and Ortt, 2019; Schaffer et al., 2019).

- **Interrelationships between business model aspects:** A dynamic business model is a complex system of interrelated subcomponents of value creation, delivery and capture mechanisms which is interacting with heterogeneous internal and external influences leading to the evolution of its components and the system itself. (Khodaei and Ortt,2019; Schaffer et al., 2019; Fritscher and Pigneur, 2014, 2015b)

- **Interrelationships between business model aspects over time:** in the face of a highly volatile environment it is important to consider and maintain an equilibrium of business model components (Khodaei and Ortt, 2019; DeReuver et al., 2013; Al-Debei and Avison, 2010), recognize the cause and effect relationships between them and track variables that affect each other over time (Cosenz, 2017; Fritscher and Pigneur,2014; 2015; Achtenhagen et al., 2013; Hakker et al., 2006; Osterwalder et al., 2010)

5.5 Business model adaptation

Nowadays firms are continuously subjected to external environmental pressures therefore they have an urgent need to adapt their business model to preserve their relevance (Amit and Zott, 2015; Cavalcante et al., 2011; Wirtz et al., 2010). Business model has become an important lever for enhancing a firm's ecological fitness (Saebi et al., 2017 Amit and Zott, 2015; Teece,2010a). The individual decisions about business models design and adaptation affect significantly a firm's competitive performance (Saebi et al., 2017; Bock et al., 2012; Leek et al., 2008; Linder and Cantrell, 2001; Andries and Debackere, 2007).

Following a dynamic approach, BM framework must serve as a learning tool that is adaptive and flexible to both internal and external changes. Business model adaptation requires progressive and continuous refinements to maintain internal

and external consistency. (Saebi et al., 2017; Demil and Lecocq, 2010; Teece, 2010a). Adaptation may imply changes of the firm's value proposition, market segment, value chain and value-capture, or how these are linked in architecture (Corbo et al., 2018; Saebi et al., 2017; McNamara and Sasson 2013; Bock et al., 2012; Andries and Debackere, 2007).

A firm dynamic capabilities play an essential role in adapting the BM. Dynamic capabilities are those capabilities that are difficult-to-replicate and can be disaggregated into the capacity to sense and seize opportunities by reconfiguring the firm's intangible and tangible assets. (Khodaei & Ortt, 2019; Zollo & Winter, 2002). Zahra et al. (2006) and Augier and Teece (2009) concluded that the willingness and the ability to adapt business model are driven by maintaining the balance between the static and the dynamic capabilities.

In conclusion dynamic capabilities and BM concepts are fundamentally intertwined, since that the BM is considered as a dynamic capability that links a firm's distinctive competencies to organizational aspirations and outcomes (Eden and Ackermann, 2000), so the ability to adapt business model is a dynamic capability. (Zahra et al., 2006).

6. PREVIOUS STUDIES

6.1 Strategic vision and business model dynamics

Strategic vision as a company road map helps in enhancing the dynamics of business model by developing a more complete list of a critical environment components, actors and factors such as: the technology, the products, the competitors, the customers, and the stakeholders in the wider market environment. (Madu, 2014; Hilton, 2012; Masanell and Ricart, 2010).

In addition, a well-developed strategic vision enables managers to visualize the company framework and the system embodied in its components, their relationship to each other and the principles guiding its design and evolution (Hsiang, 2015; Malek, 2014).

6.2 Balancing learning style and business model dynamics

Balancing learning style is viewed as a key determinant of the level of dynamics of the business model which based on three main criteria first, business model completeness, second, the interrelation between business model aspects, third, the interrelations between business model aspects over time. It affects remarkably the volume and the relevance of knowledge and information the company has over its

key players and its critical environmental factors. (Kolb, 2013; Kolb and Kolb, 2016; Kolb and Kolb, 2018; Moser and Zumbach, 2018; Yousafzai et al., 2018).

The balancing learning style stimulates top management tendency to gather information, see the large picture, recognize all the related variables in the environmental context and pursue a variety of stakeholders interests, it also enhances top management ability to sense and respond to the external change (Kolb, 2013; Kolb and Kolb, 2016; Kolb and Kolb, 2018; Moser and Zumbach, 2018; Yousafzai et al., 2018; Zhu et al., 2018; Ata and Cevik, 2018; Smith and Rayfield, 2017; Sudria et al., 2018; Swari, 2015; Brown, and Posner.

In addition, top managers who experience a balancing learning style become more able to identify and assess the interrelation between an environment variables and weigh its interferences, recognize patterns in events and relationships, integrate and systematize ideas through reflection and to act quickly and decisively to a changing environment. (Kolb, 2013; Kolb, and Kolb, 2016; Ata and Cevik, 2018; Smith and Rayfield, 2017; Sudria et al., 2018).

6.3 Strategic vision and business model adaptation

Business model adaptation requires a well prepared vision which guides the organization in its pursuit of strategic opportunities, spells out the context in which the organization operates and provide the employees with a tone that to be followed in responding to dramatic and rapid environmental changes. (Hsiang et al., 2015; Gamble et al., 2019; David, 2011). Strategic visionaries use the knowledge of their environment to adapt and innovate (Hinton, 2012; Masanell and Ricart, 2010; Mansfield and Fourie, 2004).

6.4 Balancing learning style and business model adaptation

To design and adapt the business model, top management need to gain deep understanding and knowledge about customers, market, industry dynamics, internal organizational structures and stakeholder needs. The Process of orchestration and reconfiguration of business model activities is revolved around knowledge acquisition, articulation and application activities, which can be interpreted as experiential and cognitive learning mechanisms which inevitably has to take place at the micro level(Sniuks, 2015; Teece, 2016; Saebi et al., 2017; Foss and Saebi, 2017).

In this line the balancing learning style enables managers to effectively learn by using a variety of strategies which maintain balance between concrete experience,

abstract conceptualization, active experimentation and reflective observation and, this balance ensures the adequacy and quality of knowledge they have and affects the way they act and adapt as managers. It also enhances their willing to take risks, to identify new opportunities and generate possibilities for survive and success (Kolb 2013; Kolb and Kolb, 2016; Kolb and Kolb, 2018; Moser and Zumbach, 2018; Yousafzai et al., 2018; Zhu et al., 2018; Ata and Cevik, 2018, Smith and Rayfield, 2017; Sudria et al, 2018; Swari, 2015).

6.5 Business model dynamics and business model adaptation

Business model dynamics enhance the entrepreneur's ability to assess the ongoing changes and constantly monitor whether business model changes are required are not. Eg. (Khodaei and Ortt, 2019; Schaffer et al., 2019; Khanagha et al., 2014; Cavalcante et al., 2011).

According to (Rennings and Rammer, 2011) having a more complete list of the critical environmental components can help in elaborating the capabilities that entrepreneurs need to learn, sense, filter, shape, and calibrate opportunities. These capabilities are crucial for identifying, experimenting, and fueling BM change to exploit new business opportunities (Achtenhagen et al., 2013; Teece, 2010).

Furthermore in updating a business model architecture, it is important to consider the Interrelationships between business model aspects and the evolution of this interrelationships over time to identify the relevant changes in the environment, specify BM that fit theses change and maintain the equilibrium of the business model aspects during the adaptation process (Khodaei and Ortt, 2019; Cosenz, 2017; Fritscher and Pigneur, 2015b; Achtenhagen et al., 2013; Al-Debei and Avison, 2010; Osterwalder et al., 2010).

In this line Demil and Lecoqc (2010) propose "dynamic consistency" as a firm's capability of anticipating and reacting to sequences of voluntary and emerging change, sustaining a BM's performance while adapting it. (Cosenz, 2017; Fuller and Haefliger., 2013; Achtenhagen et al., 2013; Casadesus and Zhu, 2013).

7. RESEARCH VARIABLES AND MEASURES

The researcher identified and measured the first independent variable (top management strategic vision) based on literature review (Gamble et al., 2019; David, 2011; Illesanmi, 2011) and the second independent variable (top management balancing learning style) based on Kolb Learning Style Inventory—

Version 3.2 (The KLSI 3.2,2013).The mediating variable (business model dynamics) has been identified and measured based on relevant literature (Khodaei and Ortt, 2019; Jarrín et al.,2016; Fritscher and Pigneur,2015b). To identify and measure the dependent variable (business model adaptation) the researcher adopted the proposed ideas from (Khodaei and Ortt,2019; Schaffer et al., 2019; Teece,2018; Al-Debei and Avison, 2010; Masanell and Ricart, 2010; Chesbrough, 2010; Demil and Lecocq, 2010; Morris, 2000). Thus A conceptual framework has been developed (Figure 1).
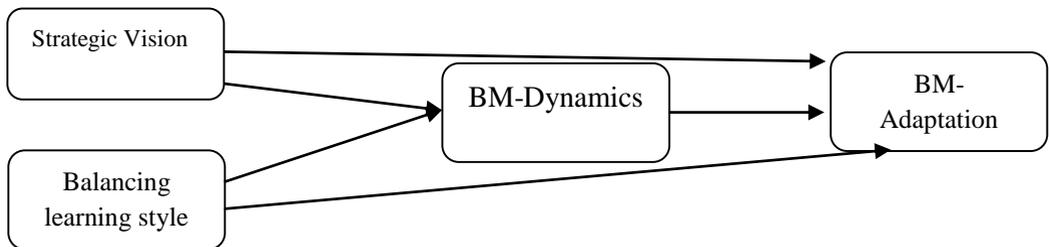
Figure 1: Research Framework

8. RESEARCH METHODOLOGY

8.1 Research design

This study is characterized as descriptive as it "exposes characteristics of certain populations. It can also establish a correlation between variables and define its nature. (Vergara, 2000). We adopted a quantitative approach wherein the data collection instrument was a questionnaire. Single cross-sectional design is applied where there is only one sample of respondents and information is obtained from this sample only once.

8.2 The research population and sample

The research aims to introduce a coherent framework to examine the impact of top management strategic vision and top management balancing learning style on business model adaptation through the mediating effect of business model dynamics. The relevant literature review enabled us to design such frame work and test the relations between research variables.

The private Egyptian airlines has been chosen as a research setting because it is one of the most sectors that was affected severely with Corona epidemic and its repercussions starting from turbulence in aviation movement and until a complete

halt in air traffic with the height of the outbreak. The study focused on the ten oldest private airlines in Egypt as shown in (table1) depending on its strong presence in the market and its exposure to many crises and threats that forced it to change its business models thus they gained long experience in the field of business model adaptation and its critical success factors. (Ashour et al.,2020; abdall et al., 2007).

Table 1: The ten oldest Egyptian private airlines

Airline	Commenced operations
Air Sinai	1982 n
Alahliay Air	1986
AMC Air	1988
Alkan air	1996
Air Cairo	2003
Alexandria Airlines	2006
Almasria Universal Airlines	2008
Nile Air	2008
Alarabia Air	2009
Nesma Airline	2010

Source: Egyptian civil aviation ministry, 2021.

The study focused on the top management members in all the studied companies including (CEO, marketing managers, services managers, finance manages, human resource managers, development manager, quality manager, training manager, procurement manager) as they are more involved in the decision making considering business model adaptation so we guarantee getting complete and accurate data regarding a phenomenon of interest" (Onwuegbuzie and Collins, 2007). The complete census method was used. About 187 managers were relevant to participate in our research. A total of (187) questionnaires were distributes (172) questionnaires were retrieved, of which (7) were invalid, Therefore, (165) answered questionnaires were valid for analysis. The response rate was (82) percent.

8.3 Data collection

Data collection was based on structured questionnaire. The questionnaire instrumental sections are as follows: Section one Occupational Characteristics. (Position) Title, Section Two: includes the measures of the variables of the research. The first independent variable (top management strategic vision) has been measured through (4) items, the second independent variable (top management balancing learning style) through (6) items, the mediating variable (business model dynamics) measured through (6) items while the dependent

variable (business model adaptation) measured through (8) items. Answers were organized according to 5 points likert scales ranging from1 = strongly disagree , 2 = disagree, 3= neutral, 4= agree, 5= strongly agree (for the variables) Top management strategic vision business model dynamics and business model adaptation , while 5 points likert scales ranging from Never = 1, Seldom = 1, Occasionally = 3, Frequently = 4, Always = 5) used for top management learning style construct . Data was collected between (September and October 2020).

Table 2: measures of research variables

Variables	Top management strategic vision	Top management balancing learning style	business model dynamics	business model adaptation
Number of items	4	6	6	8
Items Arrangement	A (1-4)	B (5-10)	C (11-16)	D (17-24)

8.4 Data analysis techniques

Data were analyzed through SPSS-Statistics software 23.0 versions and Amos Application-20, by using the following techniques:

- Mean, Standard Deviation, Skewness, and Kurtosis for descriptive statistics of sample data.
- Cronbach Alpha for testing internal consistency reliability of used measurement scales.
- Factor Analysis for testing the construct validity of used measurement scales.
- Path analysis technique to explain the relations among the variables and test the hypotheses.

9. RESULTS

9.1 Descriptive analysis

We conducted statistical analysis with regard to the variables considered in the research, top management strategic vision, top management balancing learning style, business model dynamics, and business model adaptation. The results of mean value, standard deviation, skewness and kurtosis are summarized in table (3).

Table 2: sample according to Job (Position)

		Frequency	Percent
	Services manager	20	.12
	marketing manager	25	.15
	financial manager	20	.12
	development manager	5	.03
	human resources	20	.12
	Quality manager	5	.03
	Training manager	10	.06
	Offices manager	60	.83
	Total	165	100.0

Table 3: Descriptive Statistics results

Variables	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Strategic vision	165	2.00	4.50	2.8530	.47095	-.380	.189	.196	.376
Balancing learning	165	2.00	4.33	2.8182	.44851	-.451	.189	.114	.376
Dynamics	165	2.00	4.33	2.9444	.50918	.316	.189	-.092	.376
Adaptation	165	1.25	4.75	2.9598	.70966	.420	.189	-.381	.376
Valid N (listwise)	165								

Table (3) clarifies the respondent's attitude toward the variables studied (top management strategic vision, top management balancing learning style, business model dynamics, and business model adaptation) where the arithmetic mean for these variable ranges between (2.81 - 2.95) indicating that all the research variables were not found enough (below average) from the participant's point of view.

Then, skewness and kurtosis of each observed variable was examined to analyze univariate normality distribution. The values of skewness and kurtosis for all variables are considered in the acceptable range. For the skewness index, acceptable value range between (-3 and +3) (Chou et al., 1995), whereas for the kurtosis index

the values less than (10) are considered in acceptable range (Kline, 2005). Thus, the univariate normality of the variables reasonably exists.

These results indicate the optimality to use the path analysis technique.

9.2 Reliability analysis

The reliability of the research variables was examined by computing Cronbach's alpha coefficients. Test was used suggested by Gregory (2004). The acceptable Cronbach's alpha reliability is (0.7). The Cronbach's alpha for all constructs is above (0.70), it is (0.840) for top management strategic vision, (0.909) for top management balancing learning style (0.823) for business model dynamics and (0.895) for business model adaptability providing support of the reliability of all constructs used in the research as shown in table (4).

Table 4: Cronbach's alpha coefficients of used scales in the research

Variables	Top management Strategic vision	Top management balancing learning	business model Dynamics	business model adaptation
No of Items	4	6	6	8
Cronbach'alpha	.840	909	.823	.895

9.3 Validity analysis

The research tests the validity through both content validity and construct validity. Content validity conducted by asking scholars in strategic management area to check the questionnaire items. Recommendations recommended by these scholars have been taken into account. Then factor analysis was used to confirm the construct validity of the measurement tool, KMO presented a value of (.874) indicating the data set size adequacy and Bartlett test presented a value of (0.000) proving significance for further analysis (Wixom & Watson 2001).

9.4 Hypotheses testing

To explain the relations among the variables and test the hypotheses a path analysis was conducted:

The test, X² gave the value (000.00), Probability level cannot be computed showing (000) degree of freedom. The Value of CMIN/ df = (000). The probability level shows the fitting of the model at the level of significance of (p≤ 0.001).

The goodness of fit index has been calculated, Normed Fit Index (NFI), Comparative Fit Index Fit (CFI), Relative Fit Index (RFI) must Proximity to One. Root Mean Square Error of Approximation (RMSEA) must Proximity to Zero. The model of study achieves high degree of fit, NFI value is (1), CFI value is (1), RMSEA Root Mean Square cannot be computed. Previous results allow us at considering the acceptability of the model. The results of Goodness of Fit index are shown in table (5).

Table 5: the results of Goodness of Fit index

P	χ^2 /df	Df	χ^2 (CMIN)
000	000	000	000.00.
RFI	GFI	CFI	NFI
1	.1	1	1

Figure (2) presents path analysis test results and table (7) presents the regression weights for the variables considered in the model.
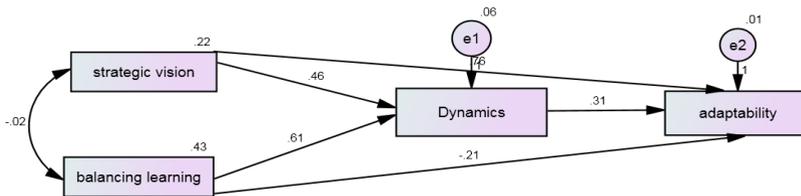

Figure 2: path analysis test

Table 6: Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
Dynamics	<---	SV	.457	.042	10.965	***	
Dynamics	<---	Balancing	.608	.030	20.418	***	
Adap	<---	Dynamics	.311	.037	8.414	***	

			Estimate	S.E.	C.R.	P	Label
Adap	<---	SV	.759	.026	29.223	***	
Adap	<---	Balancing	-.208	. 270	-.861	.323	

10. DISCUSSION AND CONCLUSION

According to the findings of the path analysis test, first the impact of top management strategic vision on business model dynamics is confirmed which indicate that, having a clear vision that takes into account the interests of all stakeholders and is highly linked to the surrounding environmental change enhances the level of dynamics of the business model.

Second, the significant impact of top management balancing learning style on business model dynamics is proved, this suggests that a balancing learning style that integrates concrete experience, abstract conceptualization, active experimentation and reflective observation is relevant to enhance the completeness and coherence of the business model and thus its level of dynamics.

Third, the results allow to confirming the relation between business model dynamics and business model adaptation, thus we can state that considering all the relevant internal and external environmental variables and recognizing the interrelated relationships between them and its effect on business model variables could facilitate the process of adapting the business model as a response to the surrounding changes.

Furthermore, the results show that strategic vision is relevant to directly enhance business model adaptation so, top management strategic vision must be guided in the process of adaptation as it helps in detecting the environmental variables and providing with the relevant knowledge required to assess the external threats and opportunities, thus it rationalizes the reconfiguration of a firm dynamics capabilities and mobilize the employees toward the process of adaptation.

Finally, Top management balancing learning style is not relevant to directly enhance business model adaptation so the mediating effect of business model dynamics should be considered in enhancing this relation, and thus the hypothesis

relating to the positive impact of top management balancing learning style on business model adaptation is rejected.

According to the results presented above we can present the final model in (Figure 3):
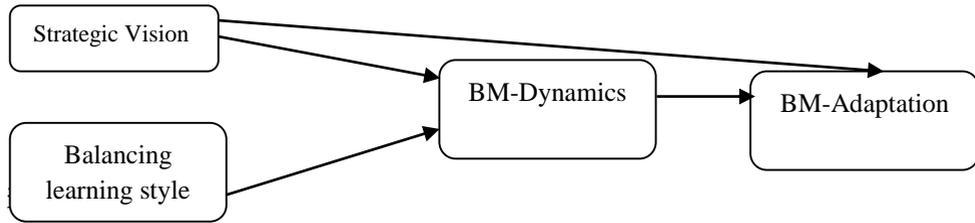

Figure 3: Final research framework

Previous results allow us to draw some practical implications

Top management strategic vision must be highly considered in the process of adapting the business model as it guarantees a higher commitment to the primary path of the organization and enhances the level of interaction with the environmental context.

Top management strategic vision also captured as a key determinant of business model dynamics because it helps in recognizing all the influential variables both inside or outside the organization, realize the interrelationships between them and trace the evolution of these relationships over time. Egyptians and Arab organizations must pay great attention to the visionary's leaders who are more sensitive to the environmental change and able to respond gracefully to them.

Because the relation between top management balancing learning style and business model dynamics has been confirmed, we suggest that organizations should take this learning pattern into the account in the process of selection, training and developing top management members because it has a great impact on their level of knowledge in terms of variety, diversity and quality which affect significantly on the business model completeness and coherence, hence its level of dynamics.

Regarding the research results which confirmed the relation between business model dynamics and business model adaptation we recommend that, top managers should consider the business model completeness and coherence in its developing process by incorporating all the related and relevant factors and recognizing the overlap relations between these factors over time.

The general results of this study provide a viable evidence of the influence of top management strategic vision and top management balancing learning style on business model adaptation by mediating business model dynamics which makes a significant contribution to the business model literature as it is the first study conducting in Egypt and Arab region examines the relations between these variables.

II. LIMITATIONS AND FUTURE RESEARCHES

This study has inevitable limitations; first the study conducted only on the oldest ten private Egyptian airlines. Therefore, the results may not be generalized to other companies in the same sector or to other sectors.

This is the first study to investigate the impact of top management strategic vision and balancing learning style on adapting the business model directly and indirectly through business model dynamics in the Egyptian setting.

This study provides a great addition to the new stream of research in the strategic management field which focuses on the analysis of its micro foundations. The study investigates strategic topic (business model dynamics and business model adaptation) examining their foundations rooted in individual actions (top Management balancing learning style) (Azorín, Francisco, 2014).

Considering the ability to conduct further analysis. Other moderators could be investigated in maximizing the effect of top management strategic vision and top management balancing learning style on business model adaptation.

In addition future research should further investigate the impact of other learning style on enhancing business model dynamics and business model adaptation

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Appendix A.

Dear ----

Kindly participate in our survey about **The Impact of Top Management Strategic Vision and Balancing Learning style on Business Model Adaptation: The Mediating Effect of Business Model Dynamics."** by ticking an appropriate response on the basis of the following scales.

Your effort will be extremely appreciated.

Section 1: Title:

- Chief executive officer
- Marketing manger
- Financial manager-
- Development manager
- Services manager
- Human resources manager
- Quality manager

Section 2:

With regard to top management strategic vision criteria in your corporation, please indicate how much you agree or disagree for each of the statements below, by selecting the appropriate answer. The item scales are five-point Likert type scales with1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree.

Note: Items marked by an asterisk were removed in the final instruments

A- Top management strategic vision	1	2	3	4	5
1) The company's vision clarifies the logical reason fo r its business.					
2) The company's vision clarifies the aspirations of shareholders which should considered in company business model.					
3) The company's vision considers the relevant environmental changes.					
4) The company's vision communicates management's goals to the shareholders.					

Please consider the statement below carefully and select the most appropriate answer. (Note: Never = 1, Seldom = 1, Occasionally = 3, Frequently = 4, Always = 5)

B-top management balancing Learning Style	1	2	3	4	5
1. You can change your approach to learning based on the situation.					
2. You are open to new experiences and equally adept at identifying and solving problems.					
3. You are able to see diverse perspectives on issues and bridge differences between people with different styles.					
4. In a team environment you are able to adapt to fill in the missing style needed to get the task done and help the team navigate through the learning cycle.					
5. You may find it difficult to make decisions about issues or choose between different alternatives.					
6. Your tendency to pursue a variety of interests may lead you to change jobs and careers many times over the course of your life.					

With regard to business model dynamics and business model adaptation please indicate how much you agree or disagree for each of the statements below, by selecting the appropriate answer. The item scales are five-point Likert type scales with 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree, Note: Items marked by an asterisk were removed in the final instruments

C-Business model Dynamics	1	2	3	4	5
1. The company's business model consider all relevant internal variables.					
2. The company's business model considers all relevant external variables.					
3. The company's business model helps distinguish between environmental variables and business variables.					
4. The company's business model helps in identifying the Interrelationships between environmental variables and business variables.					
5. The company's business model enables to recognize the interrelated subcomponents of the value creation, delivery, and capture mechanisms.					
6. The company's business model enables to identify the variables that affect each other and track the evolution of this relationships over time.					
D-Business model adaptation					
1. The company could easily change the product and services delivered to customers in responding to covid 19.					
2. The company could easily change the segment of customer in responding to covid 19.					
3. The company could easily change the method for promoting or selling in responding to covid 19.					
4. The company could easily change the method for producing in responding to covid 19.					
5. The company could easily change the method for sourcing in responding to covid 19.					
6. The company could easily change the revenue generation mechanism in responding to covid 19.					
7. The company could easily the cost structure in responding to covid 19.					
8. The company could easily reconfigure its dynamic capabilities in responding to covid 19.					

أثر الرؤية الإستراتيجية ونمط التعلم المتوازن على تكيف نموذج الأعمال في شركات الطيران الخاصة المصرية

د.جيهان أحمد عمر

ملخص البحث باللغة العربية

يهدف البحث إلى دراسة أثر كلا من الرؤية الاستراتيجية و نمط التعلم المتوازن على تكيف نموذج الأعمال (Business model adaptation)، وذلك بصورة مباشرة أو بصورة غير مباشرة بتوسيط ديناميكية نموذج الأعمال(Business model dynamics). طبقت الدراسة علي اقدم عشر شركات طيران خاصة مصرية وذلك خلال ازمة كورونا. تم الاعتماد في جمع البيانات على تصميم قائمة استقصاء تم توزيعها على المديرين العاملين في الشركات محل البحث باستخدام اسلوب الحصر الشامل. تم تجميع عدد (165) قائمة استقصاء كانت صالحة للتحليل الاحصائي. تم اختبار فروض البحث باستخدام اسلوب تحليل المسار (Path analysis technique). اظهرت النتائُج الإحصائية وجود تأثير ايجابي معنوى للمتغير المستقل الأول الرؤية الاستراتيجية لأعضاء الإدارة العليا على تكيف نموذج الأعمال مباشرة او بصورة غيرمباشرة من خلال توسيط ديناميكية نموذج الأعمال، بينما لم يتأكد التأثير المباشر للمتغير المستقل الثاني نمط التعلم المتوازن للإدارة العليا علي تكيف نموذج الأعمال، وبالتالى تأكد الدور الوسيط لديناميكية نموذج الأعمال في تدعيم هذه العلاقة.

الكلمات الدالة: الرؤية الإستراتيجية – نمط التعلم المتوازن – ديناميكية نموذج الأعمال – تكيف نموذج الأعمال – شركات الطيران الخاصة المصرية – أزمة كورونا.