Knowledge Entrepreneurship versus Opportunity Entrepreneurship Driver of Economic Performance in Saudi Arabia

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ABSTRACT

This paper understands the role of Knowledge-Based-Entrepreneurship (KBE) in changing the economy of Saudi Arabia into a knowledge-based economy. The ambition of this paper is to align entrepreneurship theorizing with the Saudi market needs by redirecting our entrepreneurship thinking away from the opportunistic metaphors to more creative and knowledge thinking. This paper reconceptualizes the entrepreneurship view. It is empirically compared between two dominant streams of theorizing on entrepreneurship: the opportunity view versus the knowledge view. A Mediation Model Path Test has been applied to examine the relationships. The analysis indicates that the opportunistic view is not adequate as a platform for entrepreneurial responding to Saudi economic changes. Instead, an alternative perspective is developed as Knowledge-Based -Entrepreneurship. The findings reveal that (KBE) has a positive and significant impact on economic performance. It is also found that (KBE) has a mediating effect on entrepreneurship more than the opportunistic effect. This perspective emphasizes the importance of building entrepreneurial knowledge infrastructure, that creates multiple forms of value. This paper contributes to the knowledge in the field of entrepreneurship by offering an alternative view of entrepreneurship grounded. It goes beyond investigating the economic support of adopting the Knowledge-Based-Entrepreneurship compared to the Opportunity-Based-Entrepreneurship.

Keywords: Knowledg Entrepreneurship, Opportunity Entrepreneurship, Economic Performance, Saudi Arabia Economy.
Type of Paper: Research paper

Introduction

The vision 2030 of Saudi Arabia has been involved in three central themes; vibrant society, a thriving economy, and an ambitious nation. The second theme, '' the thriving economy'' targets at {…}''creating many economic opportunities for all entrepreneurs via building an education system aligned with market needs. Moreover, diversifying and growing the Saudi economy by creating many job opportunities, privatizing some government services., improving the business environment. In addition to, attracting the best investments globally''. As stated by the ministry of labor and social development report (2016). All the policies, procedures, strategies, and rulers of Saudi Arabia must be unified to deal well with the real decline in the strategic role of petroleum in the future. Many objectives have been developed for supporting the achievement of that vision. Some objectives are directly supporting entrepreneurship as such; reducing the rate of unemployment, to be 7% instead of 11.6 %. Increasing the contribution of SMEs from 20% to be 35% of GDP. Increasing the women's participation in the workforce from 22% to reach 30 %. Moving from the current position of Saudi Arabia as the 19th largest economy in the world to the 15th top economy.

Increasing the public investment fund's assets from SAR 600 billion to over 7 trillion. Also, increasing the private sector's contribution from 40 % to 65% of GDP. And, raising the share of non-oil exports in GDP from 16% to 50% for reducing the economy's reliance on oil by boosting investment in the private sector (Jane, 2017). However, the government has been achieved some successes especially, in generating non-oil growth and encouraging some Saudis to work in the private sector. The implementation of these policies is still in its initial stages. It must be supported by a rapid economic restructuring. Many authors suggested the significant role of entrepreneurship as a primary driver of the economic performance and the diversified economy as such Sarasvathy (2001), Baron (2006), and Wassim (2016). Therefore, this paper understands the significant role of entrepreneurship in the implementation of Saudi vision 2030 as a driver of economic performance. On the other hand, many authors as, Steffen et al. (2016), and Dean & McMullen (2007, p. 54) claim that the concept of entrepreneurship is inadequate and may lead to many environmental problems. They significantly support the need to reconceptualizes entrepreneurship regarding the requirement of the economic change, this calling for developing a new form of entrepreneurship called the Knowledge-Based- Entrepreneurship (KBE) as an alternative to the opportunity view that is geared to win some battle. So this paper investigates the significance of knowledge-entrepreneurship vs. opportunity- entrepreneurship as a driver of the economic performance in Saudi Arabia. The rest of this research has been organized into five main sections. Firstly, we will give a broad overview of the strategic importance of a knowledge-based economy for Saudi Arabia. The question of why changing Saudi Arabia into a knowledge economy essentially will be discussed. Secondly, a discussion concerning the most useful distinction between knowledge-based vs. opportunity-based entrepreneurship will be focused on, in addition to clarifying the meaning of knowledge-based entrepreneurship will be broadly discussed. The methodological considerations will be discussed in the third section. Then the proposed model will be developed and tested in the fourth section. Finally, the central section contains some conclusions reflecting and outlining a modest attempt to re-conceptualize the concept of knowledge-entrepreneurship (KBE) that offers a proper response to the current changes in the economy of Saudi Arabia.

The Strategic Importance of Knowledge-based Economy for Saudi Arabia

"Saudi Arabia oil supply could be depleted by 2030 ", this fact has been noted by Abdel Salam Al-Suhaimi, a public affairs officer for the Saudi Electricity Company. As he stated, the oil prices are continuously fluctuating in response to the global economic and political changes. All the oil-exporting countries including Saudi Arabia were considerably impacted by this reduction, regarding the reduction of oil payment revenues, and the economic slowdown. On the other side, most plans that had been established to protect the Saudi economy during turbulent times had little effect since the sale of oil still accounts for more than 80% of Saudi Arabia's national income (Kimanthi et al. 2012). Based on the latest development plan (2010-2014) a spending initiative worth SR1, 444bn (US$385.2bn) aims at realizing the average annual GDP growth of 5.2%. GDP per capita income has been increased from SR46, 200 (US$12bn) in 2009 to around SR53, 200 (US$14bn) in 2014. The primary contribution to this growth is the non-oil private sector, which the government expects to grow 6.6% per year, on average, during the next 5-years will increase its share of GDP to be 61% from rather than 48% (Saudi Arabia Labour Market Report, 2016). Many pieces of evidence suggested that countries with diversified economic structures will be more robust. During the 2008/2009 global economic recession, economies with a more diversified structure of exports weathered better international trade shocks. In regions with a higher export ratio such as the Middle East and Africa, the loss in export revenues in 2009 amounted to about30%. With oil prices unlikely to show substantial growth going forward, the need for economic diversification in Saudi Arabia has become necessary. On the other side, many valuable studies as Callen et al. (2014) contend that greater diversification would reduce vulnerability to volatility. Moreover, uncertainty in the global oil market, increase productivity and sustainable growth, help increase private sector employment, and establish the non-oil economy that will be needed in the future when revenues from oil begin to decline. Thus the need to create an economy that is diversified, resilient, and sustainable is an urgent priority for Saudi 2030 vision. Since the knowledge economy has been defined as" an economy in which knowledge creation and exploitation are playing the predominant part in the creation of wealth." (UK department of trade & industry 1998); Recently the World Bank also used the term "KE" to describe the economy that generates distributing and applying knowledge to enhance its growth and development. Practically; Co-operation and Development (OECD,) World Bank (WB) and Asia-Pacific Economic Co-operation (APEC), and others have provided practical steps to build the knowledge economy in both the developed and the developing countries (Elshafie, 2018). On the other side many theories have been developed to explain and support the benefits of the knowledge economy as such; the new growth theory, and its central idea of the change of knowledge as a result of conscious economic activities, endogenous rather than exogenous to the economy. In the light of, the significant externalities of knowledge, the synergy will be a recognition of the knowledge as the only source of sustainable long-term economic growth. Another theory is the national innovation system (NIS) theory, in which the processes of creation, modification, and diffusion of innovations of an economy are the results of activities and interactions of many different organizations that make a system of innovation as a full dentition. Also, the triple helix

theory, which focuses on three essential functions for any socio-economic system includes; first novelty production; second wealth generation and retention; third control at the interfaces of these sub-dynamics. In addition to many knowledge-gap models that have been developed, as such the technology gap model, technical knowledge gap, the digital gap model. The core assumption of those models is that the lagging countries differ from the leading ones mostly because the former have less knowledge than the latter. For the catching-up of lagging countries, it needs specific capabilities. Based on this theory knowledge plays a significant triple role in the knowledge economy; knowledge-as-asset, knowledge-as-relation, and knowledge-as-capability (Duc and Katsuhiro, 2009). Knowledge-As-Asset provides the most comfortable way to reconcile with orthodox economic theories. Knowledge is considered as input and output in the production function. However, innovation-induced dynamics of the knowledge economy. Many authors e.g. Dolfsma and Soete (2006) have agreed that the possession of assets without activities does not guarantee a prosperous economy. ; Knowledge-as-Relation also has the advantage of providing the overall systemic picture of the complex structure of the knowledge economy and coherence within the structure. However, many different factors cause a lack of focus in the picture. Knowledge of capability, Enables a reflection of the dynamic knowledge economy. Many studies suggested that the concept of capability can provide a link to the three views of knowledge. Organizational capabilities comprise human capital, social capital (relationships), and organizational capital (processes, technologies, and databases). Towards this end, transforming the Saudi economy into a knowledge-based economy via supporting and encouraging investment in the high knowledge-intensive sectors would be preferred.

Factors support the compatibility of knowledge Based Entrepreneurship (KBE) with the Saudi market;

1. Saudi 2030 vision is committed to building a stronger workforce through significant investments in education and sustainability. Therefore, the Saudi government has allocated SR137.6bn (US$36.7bn) to be spent on human resources development and SR9bn (US$2.4bn) to be spent on educational development. These spending plans include building community colleges and more career training institutes, as well as additional public schools and technological facilities. That ensures the availability of sufficiently qualified Saudi entrepreneurs in the future. (Saudi Arabia Labour Market Report, 2016)

2. The ambitious objectives of Vision 2030 require Saudi Arabia to unleash its entrepreneurial potential and create a large number of entrepreneurial firms in knowledge-based sectors, adding more value.

3. Saudi government follows the best practice of western capitalism that has made steps to decentralize the economy. As a result, the entrepreneurial spirit has begun to take shape within the Kingdom. As evidence of this transformation, franchising has tremendously grown, and many Saudi brand names as ex. (Kudu) are already well entrenched in the Saudi market over the past five years. (Saudi Arabia Franchise Statistics," 2010).

4. However, the importance of Saudi franchising, there is still a shortage since Saudi Arabia has the lowest total entrepreneurial activity rate about 9.3 % GEM (Kelley et al., 2011). Additionally, most of the existing entrepreneurial are fast food franchises that account for more than 60% of the total Saudi franchise market. American firms have a significant share with more than 70% of all franchised operations in the Saudi market; fast food; clothing outlets; hotels; car leasing; laundry services and printing. ("Saudi Arabia Franchise Statistics,"2010). That means entrepreneurial knowledge activity in Saudi Arabia is still weak.

5. Saudi Arabia also recognizes the small and medium-sized enterprises (SMEs) as essential catalysts of economic development as they contribute to exports, create jobs, and support innovation. By the end of 2030, the unemployment rate is expected to drop from11.6% to 7%, and women participation in the workforce is expected to increase by 30% relative to 22% at present. (Saudi Arabia Labour Market Report, 2016).

6. New Saudi Laws and regulations would be made flexible to grow interests in SME entrepreneurship, privatization, and investments in new knowledge industries (Ministry of Saudi Arabia Labour Market Report, 2016).

Knowledge Based-Entrepreneurship (KBE)

Based on the resource-based view of the firm, the knowledge-based view, which has subsequently emerged, knowledge is the most valuable strategic resource a company has. It has become an essential tool in shaping the firm's ability to create and sustain its competitive position. Thus becoming knowledge-based entrepreneurship is seen as a mandatory condition of success in the era of the knowledge economy. We argued that a new conceptualization of entrepreneurship must emphasize embeddedness in knowledge as a strategic resource. For this research, Knowledge- Entrepreneurship has been defined as entrepreneurship that is driven by an entrepreneur who is capable enough to apply his/her knowledge practices and skills to create, share, distribute and develop new knowledge in terms of new goods and services. Rather than, maximizing the monetary profit as the target of most traditional economic entrepreneurship, Knowledge entrepreneurship then focus on improving innovation. This viewpoint agreed with Lumpkin & Dess (1996) who defined entrepreneurship as the act of pursuing new ways of doing things in a real context, or more concretely, also Kanter (1983) who pointed at the entrepreneurs as they always operate at the edge of their

competence, focusing more on what they do not yet know rather than controlling what they already know. ***Theoretically***, only a few types of research have been applied the term 'knowledge entrepreneur'. Under the title of "Surfing the long wave: knowledge entrepreneurship in Britain", The Demos Think-Tank has published a report using the term knowledge entrepreneurship to indicate that the entrepreneur is starting an enterprise that is based on knowledge work "The knowledge entrepreneur" target at persuading the policymakers in the UK, why it is important to have an entrepreneurial society. This report was the direct cause behind a collection of case studies in the UK creative IT services (Leadbetter & Oakley, 2001). Also, Coulson (2003) introduced his book called "The knowledge entrepreneur", which describes knowledge-based opportunities as distinct from (classical) resource-based opportunities. He also puts forward a list of things a knowledge entrepreneur needs to understand, starting with the ability to acquire, develop, share, manage and exploit, knowledge and tools, and it ends by the ability to manage knowledge workers, network organizations, and virtual teams. In the same manner, Stan Skrzeszewski (2006) in his book titled 'The Knowledge Entrepreneur' describes how to embrace the entrepreneurship paradigm in the librarian profession, focusing on "The Entrepreneurial Librarian". As he pointed for true knowledge entrepreneurship, the knowledge entrepreneur is identifying and realizing an opportunity, rather than exploiting existing intellectual capital.

Rowley (2000) also in her paper titled "From learning organization to knowledge entrepreneur" addressed how organizational learning can be meaningfully conceptualized. she elaborates on the concept of the knowledge entrepreneur. In her understanding, an organization that is a knowledge entrepreneur recognizes the multi-faceted nature of knowledge. This understanding expresses the role of knowledge entrepreneurship as " bridges between people and systems". Bouchikhi & Kimberly (2001) also describes a near future where knowledge entrepreneurs are "working under a diversity of employment contracts and attachments". In their paper entitled "It's difficult to innovate: The death of the tenured professor and the birth of the knowledge entrepreneur" they claim that the knowledge entrepreneurs will be hired and compensated based on their ability to imagine, execute, and use the results of research to develop original educational products". ***Empirically,*** knowledge entrepreneurship has been supported by many studies as such; Batra (2010) who study service entrepreneurship and claims that the success of service providers requires identifying gaps in the knowledge expertise. For him, many actions must undertake (1) transfer knowledge to new staff, (2) ensure information/knowledge sharing is a component of organizational culture, and (3) ensure the organization can capture best practices. He concluded that involving employees in learning and knowledge management will lead to new practices and ideas. Also, Senges (2007) Developed a knowledge entrepreneurship model to explain the

main factors that directly influence the knowledge entrepreneurship ability, these factors include; environmental awareness; the internal needs analysis; the organization's attitude towards the risk; strategic thinking and planning; the new project support; communication; furthermore, the organizational condition. This result is supported by many authors such, Carland and Carland (2000) who proposed that entrepreneurial ideas be the outcome of knowledge and experience, followed by a creative insight, which allows an individual to identify new goods or services. In their understanding of the primary key success factors that influencing the American IT industry in developing new products. In a trial to clarify the importance of knowledge in the practical implementation of an entrepreneurial business strategy Coulson-Thomas (2004) claimed that unless organizations develop learning systems, successful innovation is an unrealistic performance goal. Tseng, et, al., (2008) also, study the Taiwanese hotel industry as an innovative approach, they concluded that the entrepreneurial activities in service-sector organizations would usually focus on strategies to create new or improved services and enhance internal processes. In the same manner, Batra (2010) claims that for exploiting knowledge to support entrepreneurial behavior, all employees must have the capability to exploit new knowledge. The importance of knowledge management is especially addressed when an organization is reliant upon entrepreneurial behavior as the basis for evolving and implementing a strategy to overcome major environmental threats or exploit opportunities (Chaston, 2004). This result agreed with Fuentes et al. (2010) who concluded that the importance of knowledge is demonstrated by the fact that the number of potential opportunities recognized by the entrepreneur is strongly influenced by prior knowledge derived from exploiting other business opportunities. and. Palacios, et., al. (2009) claimed that collaborative knowledge management is a critical factor influencing the level of entrepreneurial behavior in the biotechnology and telecommunications industries. Through knowledge management activities, new knowledge will be created by an entrepreneur. This point is supported theoretically, by many authors as Trott (1998) who concluded that firms that focus on innovation would be economically more survival. Responding to many authors as such Ian, 2012). He found the ambition is to align entrepreneurship with the need for more environmental and social resilience by redirecting our entrepreneurial thinking away from the opportunistic resource consumption metaphors and from the idea of creative destruction to creative renewal. And Hudsonm (2010) who argued that we must appraise the current mainstream conceptualizations of entrepreneurship; the opportunistic discovery view of entrepreneurship and the emerging resourcefulness perspective (Baker and Nelson, 2005; Sarasvathy, 2008). Morever, Steffen, et al. (2016) formulated a new image of entrepreneurship referred to as re-sourcing., that perspective is shifted from opportunities to

resources viewpoint. This research investigates the concept of Knowledge-Based Entrepreneurship (KBE) as an alternative to Opportunity-Based Entrepreneurship. It will investigate the Knowledge-Based Entrepreneurship (KBE) as a primary driver of economic performance in Saudi Arabia, through the central infrastructures; Knowledge- Entrepreneur (KE), Knowledge Culture (KC), and Knowledge Technology (KT). The Knowledge Based-Entrepreneurship (KBE) will be investigated by the following hypothesis.

H1 Knowledge-Based Entrepreneurship (KBE) has high significant effect than Opportunity-Entrepreneurship (OBE) on the knowledge economy performance

Knowledge-Entrepreneur (KE)

Based on the term knowledge-worker that was first coined by Peter Drucker (1959). We argue that a knowledge entrepreneur is a person who primarily works, develops, and uses his knowledge in the workplace.", he must apply what he has learned in systematic education, that is, concepts, ideas, and theories, rather than using his manual and muscle skills. The growing importance of knowledge to the workplace is stimulating the transformation of both the character of the work activities people undertake and the nature of organizations. This new pattern of work and workers has become a critical area of interest for organizations, academics, and policymakers. Savage (1995) describes this knowledge focus as the third wave of human socio-economic development, terming it 'the knowledge age,' in which the ownership of knowledge and the ability to use that knowledge to create or improve goods and services is only the source of the wealth. It can be noticed that the new pattern of work has increased the knowledge intensity of entrepreneurship by creating a greater need for intellectual skills, resulting in an enormous expansion in the number of knowledge-entrepreneur. Indeed, Drucker (1999 p.79) suggests that in the knowledge era, k- workers are rapidly becoming the largest group in the workforce of every developed country. They may already compose 60 percent of American workers. It is a fact that they are becoming the most valuable assets of the 21st-century institution. Thus we could say that they will form the root of knowledge-based entrepreneurship. Therefore, the central challenge for developing a knowledge economy these days is no longer to create many productive workers; it will be to create successful knowledge–entrepreneurs. The knowledge entrepreneur then must have sufficient personal knowledge capital to be able to create value and/or wealth through the use of that knowledge capital. This definition is highly dependent on existing intellectual capital and the result of 'wealth creation and/or improved services. (Skrzeszewski, 2006, p. 3). The knowledge entrepreneur must know more about the subject at hand than his or her client or boss. It is based on the ability to communicate, present, or more importantly, apply the knowledge asset. In this context, the knowledge entrepreneur can be addressed as a person who owns the production means in his/her head (tacit knowledge). He may be considered as a

capital asset and needs to grow. Therefore, they may achieve many benefits through a variety of roles that they can perform. As examples; analyzing data to establish relationships; assessing input to evaluate complex or conflicting priorities; identifying and understanding trends; making the connection; understanding cause and effect; ability to brainstorm thinking broadly; and producing a new capability and creating or modifying a strategy. The knowledge entrepreneur l will be addressed by the following hypostasis

H1:1 Knowledge-Entrepreneur has a positive effect on the economic performance

Knowledge Technology (KT)

Knowledge entrepreneurship depends mostly on new IT applications to support the capture, storage, retrieval, and distribution of explicit knowledge. The most common type of this application is building repositories of a specific type of knowledge for use in particular business functions for instance; knowledge of best practices in operations management; knowledge on products, markets; and knowledge of lessons learned in product development. Besides the implementation of IT applications, there are many specific roles and positions created to advance the KM agenda within entrepreneurship. Skrzeszewski (2006) elaborates on how information technology is a key trend to be exploited by knowledge entrepreneurs, his librarian perspective shows a growing need for relevant and usable digital information products. At the same time, there is a growing problem of information overload. Therefore, there is an attendant need to organize and package information for users, to put the information in context, and to digitize all forms and formats of information all major entrepreneurial opportunities. In this way knowledge technologies push users to think beyond their current boundaries, thus facilitating innovation. Furthermore, enriching entrepreneurship's ability to keep competitive in the long run. Therefore, what technology can offer to entrepreneurship, as well as its impact on performance became a critical point of inquiry. A recent study concerning the degree to which computer-based technology for supporting knowledge chain activities has yielded a competitive advantage for organizations shows that 46%- 63% of respondents recognized technology as key for competitive advantage (Holsapple & Singh, 2001). The American Productivity and Quality Center (APQC,1999) suggested that for organizations to succeed in KM initiatives, a suitable IT infrastructure must be established to enable them to accomplish their goal. Many studies have been supported the benefits of KT as such; enhancing the decision-making process. Increasing k- transfer speed, minimizing the cost of information accessibility and, supporting collaboration (Garavelli et al., 2002). Improving communication among organizational units (Holsapple, 2005). Therefore, knowledge technology will be addressed via the following hypothesis

H1:2 The economic performance will be profoundly influenced by the knowledge technology

Knowledge Culture (KC)

knowledge culture is one particular variety of organizational culture (OC) which represents "a way of organizational life that enables and motivates people to create, share and utilize knowledge for the benefit of the organization" (Oliver & Kandadi, 2006, p.8). Building on the RBV, knowledge- culture as an internal resource cannot be easily created, bought, substituted, or imitated by competitors. Thus, k- culture can lead to sustainable competitive advantages. Barney (1991) supports this idea, by stating, "firms that do not have the required culture cannot engage in activities that will modify their culture and generate sustained superior performance. Regarding the importance of the k- culture, therefore it is appropriate to depend on k-culture as an indicator to measure the success of the knowledge organizations since the value of k- culture is embedded in its role as KM processes facilitator. Leidner et al. (2006) make a direct attempt to answer the question of how organizational culture may influence KM initiatives through their case study of two companies. The results indicate that organizational culture influences the values of organizational members' attributes to individual versus cooperative behavior: it also influences the evolution of KM initiatives and the migration of knowledge. Thus, we can propose the Knowledge

entrepreneurship culture as the social context (norms, behavior, and practices), which in turn determines who has been expected to control what knowledge, as well as who must share it, and who can hoard it. many authors suggest that sharing knowledge can only work if and only if the culture of the organization promotes it (Lucas, 2006). Knowledge culture may also increase the interpretation ability. Defined as, "the process through which information is given meaning" (Huber, 1991, p.102), hence varying interpretations lead to applications and use of knowledge fundamentally different from the original contributors' use, that in turn leads to conflict and decreases the ability to apply knowledge. Thus, the role of culture is to create a context for social interaction through which values, norms, and practices shape highly consistent individual interpretations and increase the effectiveness of knowledge application (De Long & Fahy,2000). In this context knowledge, entrepreneurship culture can be recognized in terms of; learning culture, sharing culture, and doing culture, which can influence KM processes in entrepreneurship. The Knowledge Entrepreneurship Culture will be addressed through the following hypothesis

H1:3 The knowledge culture has a significant effect on the economic performance

Based on the literature the Knowledge-based Entrepreneurship can be conceptualized as shown in figure (1)
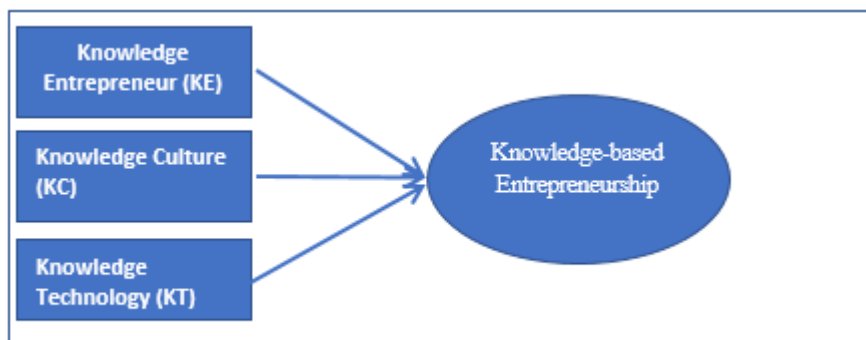

Figure 1 Knowledge - Based Entrepreneurship

Knowledge Entrepreneurship vs. Opportunity Entrepreneurship

The Theory of the firm is dominated by two important approaches: The Transaction Cost Economics (TCE) and the Resource-Based View (RBV). Since the theory of the firm seeks to answer two central questions; what is the purpose of firms? (why do firms exist?). Moreover, what determines their scale and scope? The (TCE) traces the existence of the firm to the thinking, planning, and contracting that accompany any transaction. The existence lnef firms results from the failure of market efficiency regarding the different transaction costs of negotiating, monitoring, and enforcing contracts. According to the opportunity-based view, the existence of entrepreneurship is explained as resulting from opportunism. The higher the level of uncertainty and transaction cost, the higher the threat of opportunism. Then, any opportunity is seen as a price difference at a given moment in time and primarily takes the form of arbitrage. (Steffen, et al.,2016),

Many empirical types of research have been performed to investigate the nature of entrepreneurial cognition, about opportunities. Most of these researchers derived from the assumption of the entrepreneur as a discoverer of opportunities (Baron, 2004, 2006, Gaglio and Katz, 2001). Based on Kirzner (2009) some occasions help in defining the opportunity entrepreneur as one who discovers and exploits opportunities without any account of the passage of time or any resources. Such opportunistic behavior is geared to produce competitive advantage, to win competitors, regardless of what is irretrievably consumed in the process. Therefore, the entrepreneur can be seen as a discoverer of opportunities. Many critiques have been met the opportunities view. Some researchers are questioning the idea that entrepreneurs merely react to market conditions and that opportunities simply pre-exist to be exploited (Anderson, 2000). Others found the opportunity-based view of entrepreneurship is too much

obsolete (Hudsonm 2010, Sarasvathy, 2011, Steffen, et al.,2016), since natural resources, especially the natural oil resources are finite. On the other side, however, the (TCE) neglects the ability of a firm to foster innovations, learning, and knowledge-creating processes for new products. That is the central theme of the resource-based view of the firm, which explains and predicts why some firms can establish positions of sustainable competitive advantage and, in so doing, earn superior returns. This view explains the existence of the firm as a unique bundle of resources and nuclear capabilities where the essential task of management is to maximize value through the optimal deployment of existing resources and capabilities. Those firms with hard to imitate resources will earn rents and gain a sustained competitive advantage that other firms find too costly to imitate. Thus unique skills, routines, and resources are treated as the most critical resources that establish a dynamic capability or competence (Prahalad &Hamel 1990, Emphasis is placed on the firm's internal processes. Building on the resource-based view, the knowledge-based theory can be taken in place of the (TCE) as the base of the theory of the firm Barney, 1991). A vital task of the organization then is to accumulate and protect valuable knowledge or capability, that defines as the organization's capacity to convert its inputs into valuable outputs. Thus, the management must enhance the organization's capacity to produce efficiently by updating or advancing knowledge. Therefore, a conventional assumption and prescription in the literature are that the boundaries of the firm should encompass these valuable competencies and core knowledge. By internalizing valuable knowledge, the organization's task is to exploit and protect knowledge. However, the critical knowledge-based question the management faces is not how to organize and exploit already developed knowledge and capability, but rather how to efficiently generate new knowledge and capability (Barney, 1991). Many researchers have been supporting the role of knowledge in explaining the existence of the firm. Some authors see knowledge as

essentially individual, with the firm's function being to integrate the many types of personal specialist knowledge required to produce its products and services (Grant, 1996). Others, as such Spender (1996) see knowledge as inherently collective and the firm acting as a system of knowledge production and application. These authors see organizational knowledge as emerging from interactions between members of a firm, and between the firm and the environment. Others consider knowledge as existing both in individuals and in the collective. In addition to Kough and Zander (1996) support the role of the firms in providing a social community (identity) that motivates the individual to cooperate. For Nonaka and Toyama (2000) the firms have fundamental dualities; objective and subjective epistemologies, dialogues and practices, thinking and action. The differences within firms reflect the differences in a firm's purpose and strategy, its visions of the future, and its driving objectives from leadership. Conversely, Connor and Prahalad (1996) make a reasonable justification for the knowledge-based view of the firm, arguing that even if there were no role for opportunism in economic relations, then firms would still exist as mechanisms for knowledge integration. They assumed that firms are distinguished from markets by the employment relationship, which affects the knowledge applied to business activity in two ways; first through knowledge substitution of the manager's wisdom for that of employees, second, through flexibility, which represents the cost of altering an individual's responsibilities toward new learning. If knowledge provides positive net value, then firms will be preferred to markets. Also, Kough and Zader (1996) argue that firms exist because people have a preference for the moral communities and shared identities they supply. Nahapiet and Ghoshal (1998) add that organizations have an advantage over markets because they can mobilize social capital embedded in human relations to create intellectual capital, which increases the efficiency of action and decreases transaction costs. At the same time, organizations provide an institutional setting for human interactions, which also fosters social capital. Thus the opportunity entrepreneurship seems to lose in favor of knowledge entrepreneurship, and this issue will be addressed through the following hypothesis.

Table 1 Knowledge-Based VS. Opportunity Based Entrepreneurship		
Entrepreneurship-view	Opportunistic Based view	Knowledge-based view
Orientation	Resource consumption	Resource creation
Basic resources	Capital assets	Knowledge assets
Fit situation	Certain condition – stability situation	Uncertain conditions- changes & crisis
Focus	One dimension (economic outcomes)	Multi dimensions (economic- environmental –social values- cultural)
Infrastructure • **Entrepreneur** • **Culture** • **Technology**	Manual entrepreneur Opportunity culture Information technology	Knowledge entrepreneur Knowledge Management culture Knowledge technology
Fundamental mechanism	Discovery and exploitation of assets (asset opportunity)	Creative, experimental moreover, iterative recombination of knowledge
Originality	Obsolete	Potential way forward
Theory that support	the transaction cost economics (TCE)	The resource-based theory of the firm (KBV) knowledge-based theory of the firm
Outcomes	Efficient market allocation	Create new markets

H1:4 opportunity-based Entrepreneurship has no significant effect on economic performance.

The most distinctive differences between knowledge and opportunity-based Entrepreneurship have been explained in table 1.

Research Methodology

To test the above hypotheses, the empirical analysis adopted the mediation model, which defines as a hypothesized causal chain in which one variable affects a second variable that, in turn, affects a third variable. The intervening variable, M, is the mediator. It "mediates" the relationship between a predictor, X, and an outcome. Graphically, mediation can be depicted by figure (2) in the following way:
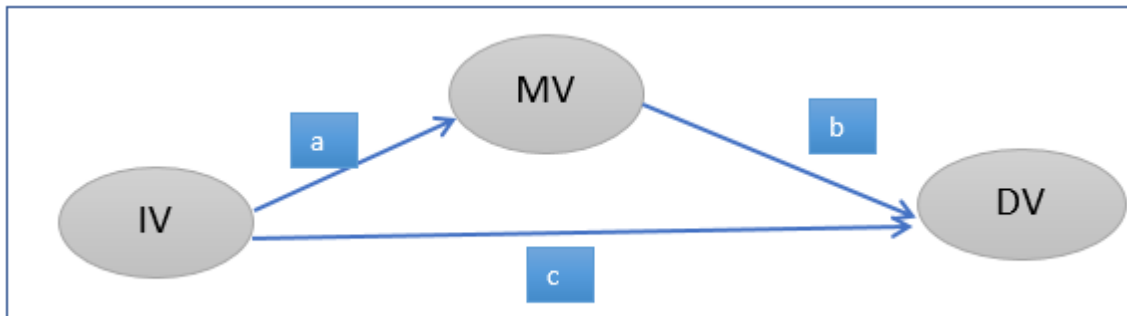

Figure 2 the Mediation Model Paths

Variables and Data Analysis

To judge if the economic performance of Saudi Arabia is enhanced more by knowledge-based entrepreneurship or opportunity-based entrepreneurship, many explanatory variables were chosen, according to the previous literature review and the characteristics of the Saudi economy. The data have been chosen, depending on the availability, to cover the period 1981 to 2017. The following table (2 A, B, C) indicate the specification of variables and their data sources.

Table 2 (a) Variables and Data Analysis			
Variables		**Definition**	**Data Sources**
The Independent V₁: Knowledge-Based. Entrepreneurship (KBE)			
Knowledge-Entrepreneur	K_1	Number of Postgraduate Attainments, which include: High Diploma, Fellowship, Master, and PhD	Saudi Ministry of Educatio (High Education Statistics)
Knowledge Culture	K_2	Number of Scholarship Abroad Graduates, Represents the temporary migration as one of the main transmission channel of knowledge culture from abroad. (Levitt, 1998; Faist, 2000)	
Knowledge Technology: was indicated by four variables:	K_3	Scientific Research Public Expenditure (Million Saudi Riyal)	Saudi General Authority for Statistics
	K_4	Number of Patent Applications	
	K_5	High Technology Imports:(Million Saudi Riyal) Including optical, photographic, measuring, checking, precision, medical & surgical instruments & apparatus, clocks & watches, musical instruments, sound records & reproducers & parts thereof.	World Bank, World Development Indicators (WDI)
	K_6	The Allocation of The Ministry of Communications and Information Technology From The State Budget. (Million Saudi Riyal)	Saudi Arabian Monetary Authority (SAMA)

Table 2 (b) Variables and Data Analysis

Variables		Definition	Data Sources
The Independent V2: Opportunity Based Entrepreneurship (OBE)			
Loans	O_1	The loans from the Saudi Industrial Development Fund for financing the new firms.(Million Saudi Riyal)	(SAMA)
Financial Development	O_2	The Amount of Money Supply M2, includes cash and checking deposits, savings deposits, money market securities, mutual funds, and other time deposits.(Million Saudi Riyal). (Samargandi, et al, 2014)	
Economic Resources and Infrastructure Development	O_3	The Governmental Budget Allocations) Million Saudi Riyal), Towards Economic Resource Development and Infrastructure Development, are important in facilitating the establishing of new industries and supporting their sustainability. (Agénor & Alpaslan, 2014)	
Degree of Diversity	O_5	The Percentage of Non-Oil Output Sector to Total GDP in constant prices in the year 2010) Million Saudi Riyal). In line with the efforts of Saudi Arabia to diversify its economy, the establishment of new firms increases.	
Macroeconomic Stability	O_6	The Nominal Oil Price (Arabian Light in USD), While Saudi Arabia intensively depends on oil revenues in financing its budget, any fluctuation in the oil prices reflects primarily on the stability of macroeconomic variables that is required to sustain the demand and supply of the market and enabling the firm to successfully do its activities.	
Economic Growth	O_7	Income (GDP) at constant prices in year 2010) Million Saudi Riyal). As an indicator of the purchasing power of the economy. Therefore, the ability of the firm, to sell its products domestically.	

Table 2 (C) Variables and Data Analysis

Variables		Definition	Data Sources
The Mediator M: Entrepreneurship			
Innovative Industries	M	The Number of Operating Industries Units, in printing and copying recorded multimedia, basic pharmaceutical products & pharmaceuticals, computers & electronic & optical products, and electrical equipment. According to Mueller, Pamela (2005), start-ups in innovative industries reflect Knowledge-related entrepreneurship.	(SAMA)
Dependent Variable Y: Economic Performance			
High-Technology Exports	Y	The products with high R&D intensity, such as in aerospace, computers, pharmaceuticals, scientific instruments, and electrical machinery. (% of manufactured exports). The economic performance, in its relation with the level of entrepreneurship, could be best represented by high technology exports as an important output. (Kanellos, 2013)	World Bank, (WDI)

Statistical Models

Two statistical methods that are commonly jused to test mediated effects: multiple regression and structural equation modeling (SEM) have been applied by AMOS and SPSS Programs.

● **The first model** examines the mediated effect of the independent variables that represent opportunity on knowledge economy through entrepreneurship variable.

● **The second model** examines the mediated effect of the independent variables representing the knowledge on knowledge economy through entrepreneurship variable.

Data initialization

First, we need to check whether there is a linear relationship between the independent variables and the dependent variable. Scatter plots have been checked. All independent variables have a nonlinear relationship with the dependent variable so the data is converted to the logarithmic formula.

The **First model**; the dependent variable has been converted to the logarithm.

$$M_i = \delta_0 + \delta_1 K_1 + \delta_2 K_2 + \delta_3 K_3 + \delta_4 K_4 + \delta_5 K_5 + \delta_6 K_6 + e_{i1} \ldots\ldots\ldots\ldots\ldots\ldots . (1)$$
$$LnY_i = \gamma_0 + \gamma_1 M_i + e_{12}$$

$$LnY_i = \gamma_0 + \gamma_1(\delta_0 + \delta_1 K_1 + \delta_2 K_2 + \delta_3 K_3 + \delta_4 K_4 + \delta_5 K_5 + \delta_6 K_6 + e_{i1}) + e_{12}$$

$$LnY_i = \gamma_0 + \gamma_1\delta_0 + \delta_1\gamma_1 K_1 + \delta_2\gamma_1 K_2 + \delta_3\gamma_1 K_3 + \delta_4\gamma_1 K_4 + \delta_5\gamma_1 K_5 + \delta_6\gamma_1 K_6 + \gamma_1 e_{i1} + e_{i2} \ldots\ldots\ldots . (2)$$

The **Second model**, all variables have been converted

$$LnM_i = \beta_0 + B_1 LnO_1 + B_2 LnO_2 + B_3 LnO_3 + B_4 LnO_4 + B_5 LnO_5 + B_6 LnO_6 + B_7 LnO_7 + e_{i1} \ldots\ldots\ldots\ldots\ldots\ldots . (3)$$

$$LnY_i = \gamma_0 + \gamma_1 LnM_i + e_{12} \ldots\ldots\ldots . (4)$$

$$LnY_i = \gamma_0 + \gamma_1(\beta_0 + B_1 LnO_1 + B_2 LnO_2 + B_3 LnO_3 + B_4 LnO_4 + B_5 LnO_5 + B_6 LnO_6 + B_7 LnO_7 + e_{i1}) + e_{12}$$

$$LnY_i = \gamma_0 + \gamma_1\beta_0 + B_1\gamma_1 LnO_1 + B_2\gamma_1 LnO_2 + B_3\gamma_1 LnO_3 + B_4\gamma_1 LnO_4 + B_5\gamma_1 LnO_5 + B_6\gamma_1 LnO_6 + + B_7\gamma_1 LnO_7 + \gamma_1 e_{i1} + e_{i2} \ldots\ldots\ldots (5)$$

The effect of mediation (indirect effect) represents the changes which IV's produced on Y transmitted through M and is usually estimated by the product of the coefficients β_i or δ_i and γ_1, while the direct effect is the effect of the opportunity on the mediator (M) at a fixed level of the mediator and is estimated by the coefficient β_i or δ_i.

Two groups of Paths have been developed for each model:
1- The IV's predicts the mediator
2- The mediator predicts the DV

At the initial estimation of the first and second models, variables $(K_1, LnO_2, LnO_3 \text{ and } LnO_5)$ suffer from high multicollinearity according to the values of the Variance Inflation Factor (VIF)

$$VIF_{K_1} = 30.381, VIF_{LnO_2} = 226.171$$
$$VIF_{LnO_3} = 37.128, VIF_{LnO_5} = 247.245$$

That's why they were excluded from the final models.

Results Analysis

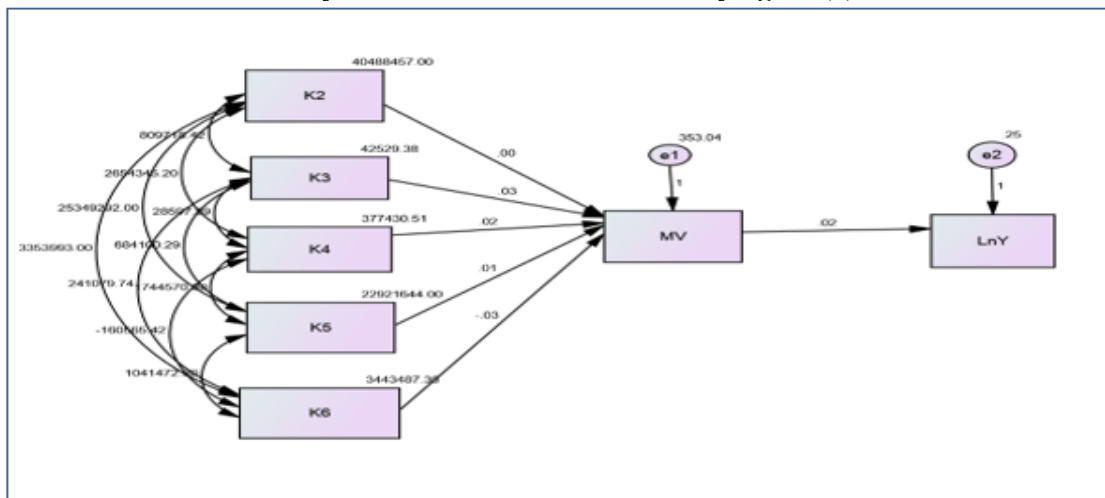### Analysis of model 1 can be showed by figure (3)

Figure 3 Mediation Model (Variables, Regression Coefficients, and Covariance)

Table 3 Estimated Regression Results of Model (1)

Relationship direction			Coefficients	S.E.	C.R.	P	The results
MV	<---	K2	.003	.001	2.216	.027	When K2 goes up by 1, MV goes up by 0.003. The relationship is significant.
MV	<---	K3	.027	.034	.806	.420	When K3 goes up by 1, MV goes up by 0.027. The relationship is not significantly.
MV	<---	K4	.018	.008	2.298	.022	When K4 goes up by 1, MV goes up by 0.018. The relationship is significant.
MV	<---	K5	.010	.002	6.145	***	When K5 goes up by 1, MV goes up by 0.01. The relationship is significant.
MV	<---	K6	-.029	.003	-9.517	***	When K6 goes up by 1, MV goes down by 0.029. The relationship is significant.
LnY	<---	MV	.022	.001	23.092	***	When MV goes up by 1, LnY goes up by 0.022. The relationship is significant.

The total effect: The total effect of (IV) on MV due to both direct (unmediated) and indirect (mediated) effects of (IV) on MV. The total effect of (IV) on LnY is due to both direct (unmediated) and indirect (mediated) effects of (IV) and MV on LnY.

Table 4 Total Effect

	K6	K5	K4	K3	K2	MV
MV	-.029	.010	.018	.027	.003	.000
LnY	-.001	.000	.000	.001	.000	.022

Using tables 1 and 2 we get the following models

$$(\widehat{M}_i) = \hat{\delta}_1 K_2 + \hat{\delta}_2 K_3 + \hat{\delta}_3 K_4 + \hat{\delta}_4 K_5 + \hat{\delta}_5 K_6 \dots (6)$$

$$(\widehat{M}_i) = 0.003K_2 + 0.027K_3 + 0.018K_4 + 0.01K_5 - 0.029K_6 \dots (7)$$

$$R^2 = .953 \quad F = 126.998 \quad Sig = 0.000$$

The predictors of MV explain 95.3 percent of its variance. The error variance of MV is approximately 4.7 percent of the variance of MV itself.

$$Ln\hat{Y}_i = (\widehat{\delta_1 \gamma_1})K_2 + (\widehat{\delta_2 \gamma_1})K_3 + (\widehat{\delta_3 \gamma_1})K_4 + +(\widehat{\delta_4 \gamma_1})K_5 + (\widehat{\delta_6 \gamma_1})K_6 \dots (8)$$

$$Ln\hat{Y}_i = 0.000K_2 + 0.001K_3 + 0.000K_4 + 0.000K_5 - 0.001K_6 \dots (9)$$

$$Ln\hat{Y}_i = \hat{\gamma}_1 M_i + e_{12} \dots (10)$$

$$Ln\hat{Y}_i = .022M_i \dots (11) \qquad R^2 = 0.937$$

The predictors of LnY explain 93.7 percent of its variance. The error variance of LnY is approximately 6.3 percent of the variance of LnY itself.

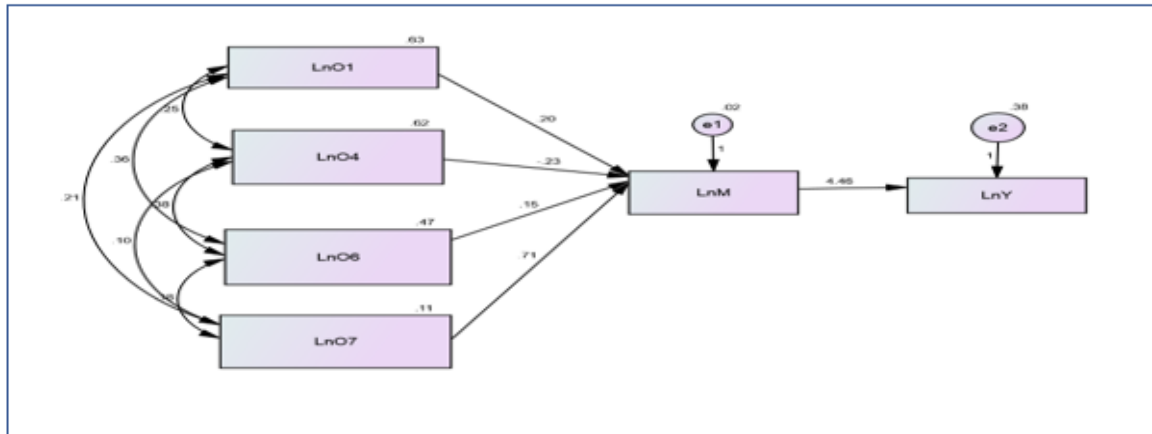**Analysis of model 2 can be shown by figure (4)**

Figure 4 Mediation Model (Variables, Regression Coefficients, and Correlation Coefficients)

Although most regression coefficients were significant and all hypotheses were satisfied, when the auto-correlation test was performed, the result has an auto-correlation problem.

By comparing the calculated value of the test (DW = 1.053) with values Tabulated(N=37 K=4 α=0.05: d_L = 1.19 d_U = 1.8) it is less than the minimum value Tabulated, which indicates the presence of a positive correlation. To address this problem, the First –order Autoregression model was used. It depends on finding the first difference for each variable. When using the difference data, the results were as (figure 5) shows;
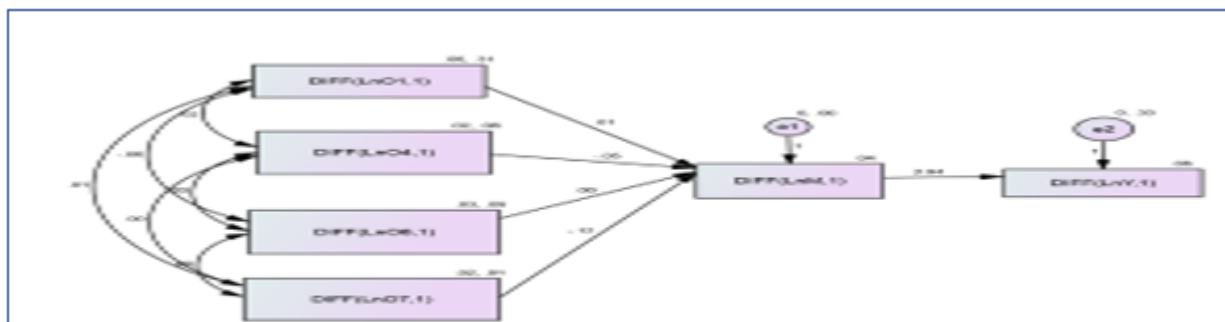

Figure 5 Mediation Model (Variables, Regression Coefficients, and Correlation Coefficients)

Table 5 Estimated Regression Results of Model (2)

Relationship direction	Coefficients	S.E.	C.R.	P	The results
LnM_1 <--- LnO1_1	.008	.010	.854	.393	When LnO1_1 goes up by 1, LnM_1 goes up by 0.008. The relationship is not significantly.
LnM_1 <--- LnO4_1	-.053	.018	-2.978	.003	When LnO4_1 goes up by 1, LnM_1 goes down by 0.053. The relationship is significant.
LnM_1 <--- LnO6_1	-.004	.018	-.228	.820	When LnO6_1 goes up by 1, LnM_1 goes down by 0.004. The relationship is not significantly.
LnM_1 <--- LnO7_1	-.121	.060	-2.010	.044	When LnO7_1 goes up by 1, LnM_1 goes down by 0.121. The relationship is significant.
LnY_1 <--- LnM_1	2.937	3.027	.970	.332	When LnM_1 goes up by 1, LnY_1 goes up by 2.937. The relationship is not significantly.

Table 6   Total Effects

	LnO7_1	LnO6_1	LnO4_1	LnO1_1	LnM_1
LnM_1	-.121	-.004	-.053	.008	.000
LnY_1	-.354	-.012	-.155	.024	2.937

$$R^2 = .026$$

Using tables 3 and 4 the following models have been developed:

$$Ln\big(\widehat{M}_i(-1)\big) = 0.008LnO_1(-1) - 0.053LnO_4(-1)$$
$$- 0.004LnO_6(-1) - 0.121LnO_7(-1) \dots \dots (12)$$
$$R^2 = 0.315 \qquad F = 3.568 \quad Sig = 0.017$$

It is estimated that the predictors of LnMV(-1) explain 31.5 percent of its variance. In other words, the error variance of LnMV(-1) is approximately 68.5 percent of the variance of LnMV(-1) itself.

$$Ln\widehat{Y}_i(-1) = 0.024LnO_1(-1) - 0.155LnO_4(-1) - 0.012LnO_6(-1)$$
$$- 0.354LnO_7(-1) \dots \dots \dots \dots (14)$$

It is estimated that the predictors of LnY explain 2.6 percent of its variance. In other words, the error variance of LnY is approximately 97.4 percent of the variance of LnY itself.

Validate assumption:

Normality: check the normality of residuals can be performed using a normal curve. Figures (6 &7) shows that the points generally follow the normal curve with no strong deviations. This indicates that the residuals are normally distributed.
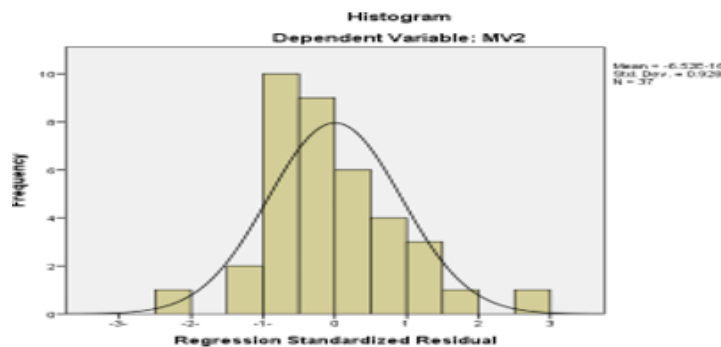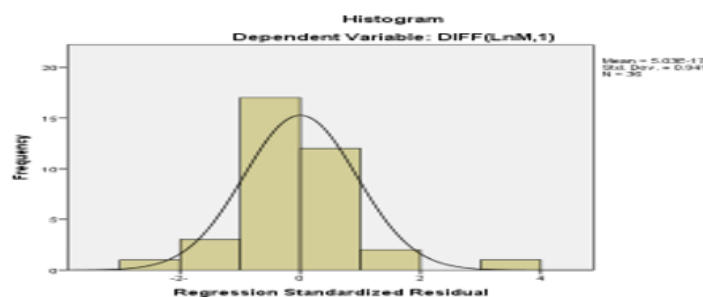

Figure 6 Distribution of Residuals Model (1)

Figure 7 Distribution of Residuals Model (2)

No Multicollinearity: VIF < 10 for all variables (Model 1 and 2)

Homoscedasticity: (equal variance)

The variance estimate for all variables is significantly different from zero at the 0.001 level and the variance of error terms is constant {Model (1) = 4.243, Model (2) = 4.185} for all values of the independent variables. According to the graph of the estimated residual values with the independent variables, there is no regular form, so we do not expect a difference in variance Figures (8, 9).
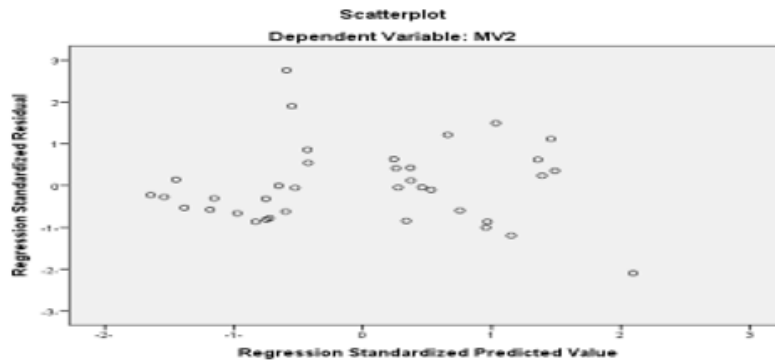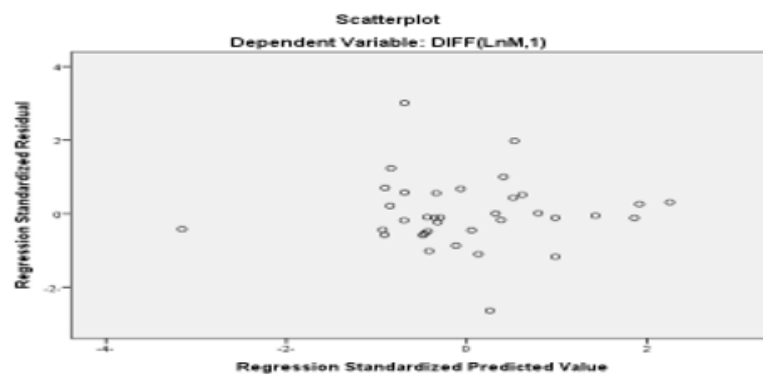

Figure 8 Homoscedasticity test Model (1)

Figure 9 Homoscedasticity test Model (2)

Auto-correlation: (Independence of errors)

Model (1): Dependent Variable: MV IV's (K2, K3, K4, K5, K6)

According to the Breusch-Godfrey Serial Correlation LM Test results, the prob of Test (0.0856) which is greater than the significance level 0.05, we accept the null hypothesis that there is no auto-correlation.

F-statistic = 2.678575	Prob. F(2,29) = 0.0856

Dependent Variable: LNY   IV: (MV (-1))

The prob of Test 0.3000 which is greater than the significance level 0.05, we accept the null hypothesis that there is no auto-correlation.

F-statistic =1.252036	Prob. F(2,31)= 0.3000

Model (2) :Comparing the calculated value of the test (DW = 1.984) with values Tabulated by n=37   K=4   α=0.05 (d_L = 1.19 d_U = 1.8) we find $d_u < DW < 4 - d_u$, which indicates there is no auto-correlation.

Discussion and Implications

The most important results achieved were as follow; The First Model: We started with 6 variables. We excluded only one variable K1 the rest of the variables were results as; K2, K4, K5: Had a significant effect on the median variable. K6: Its effect is significant but indicated contrary to the theory. K3: Has no significant effect. The coefficient of determination, which determines the percentage of the effect of the variables that represent the knowledge of the mediation variable, is 95 % and the knowledge economy 94 %. The Second Model We started with 7 variables excluded only 3 variables and the rest variables results were either insignificant or contrary to the theory of referring. The coefficient of determination which determines the percentage of the effect of the variables that represent the opportunity on the mediation variable is 32 % and the knowledge economy 2 %, As a result we safely conclude that the variables that represent knowledge were more significant and affect the knowledge performance than the variables that represent the opportunity.

Table 7 Goodness of fit comparison between the two models

Goodness of fit measures	Criteria	First model	Second Model
The coefficient of determination R^2	The per cent of total variation of the dependent variable explained by the set of independent variables	The percentage of the effect of the knowledge variables of the mediation variable is **95 %** and the knowledge economy **94 %**.	The percentage of the effect of the opportunity variables on the mediation variable is **32 %** and the knowledge economy **2.6 %**.
F-test	The overall statistical significance of the model	$F = 126.998$ $sig = 0.000$ The two models are statistically significant, but the first model is more statistically significant than the second model	$F = 3.565$ $sig = 0.017$

All the hypnosis has been accepted as listed bellow

Table 8 Hypotheses Results

Hypothesis	The Decision
$H_{1:1}$ Knowledge -Entrepreneur is positively correlated with economic performance	According to **Equations 7 and 10** we note that the positive signs of the regression coefficients we **accept** the hypothesis
$H_{1:2}$ The economic performance will be profoundly influenced by the knowledge technology	The value of the determination coefficients of the knowledge model indicates a strong effect so **we accept** the hypothesis ($R^2 = 95\%$ and 94%)
$H 1:_3$ The knowledge culture has a significant effect on the economic performance	The relationship is significant at the 0.05 level (p-value =0.027 less than α=0.05), we **accept** the hypothesis
$H1:_4$ The Opportunity-Based Entrepreneurship has no significant effect on the economic performance.	According to Equation 14, the coefficient of determination $R^2 = 0.026$. This indicates a weak effect , we **accept** the hypothesis
H_1: Knowledge – based Entrepreneurship has more significant effect than the Opportunity-Based Entrepreneurship on the Economic Performance in Saudi Arabia	According to tests of goodness, we **accept** the hypothesis First model: $F = 126.998$ sig = 0.000 $R^2 = 95\%$ and 94% "table** Second model: $F = 3.565$ $sig = 0.017$ $R^2 = 32\%$ and 2.6% "table**

Conclusion

This paper draws attention to dysfunctions in the current theorizing on Entrepreneurship; Opportunity Based View (OBV) in light of the Saudi economy. the authors offer an alternative Knowledge-Based View (KBE). In doing so, the paper points to the significant role of knowledge-entrepreneurship as a conduit of Saudi Arabia into a knowledge country, through its significant impact on economic performance. Understanding of knowledge producers, knowledge entrepreneurship culture; and knowledge technology, as a primary infrastructure of knowledge-based entrepreneurship, will be discussed. Using the mediation model, we test some related hypotheses and conclude that knowledge-based entrepreneurship has a higher significant impact on performance. These results suggested additional elements to the theoretical discussions regarding the importance of knowledge entrepreneurship as a framework to understand knowledge entrepreneurship and its effects in changing Saudi Arabia into a knowledge county. Building on the knowledge-based view of the firm, this study develops a model in which knowledge entrepreneurs, knowledge culture, and knowledge technology, support entrepreneurship, versus the opportunity-based view about a high level of economic performance. The Structural Equation Model (SEM) with Path analysis model test was used in this paper to investigate the effect of two alternative approaches of entrepreneurship; the knowledge-based entrepreneurship and the opportunity-based entrepreneurship to empirically investigate which model has a more significant effect on the economic performance in Saudi Arabia. Using a conceptual framework of knowledge entrepreneurship and opportunity Based entrepreneurship the research investigates the more significant driver of the economic performance in Saudi Arabia. The research generated some important results, firstly; there is evidence of a positive relationship between (Knowledge entrepreneurial, Knowledge culture & Knowledge technology) and entrepreneurship. These results agree with the most recent results of entrepreneurship research that suggested that the knowledge factors play a key role in explaining the entrepreneurship activity. Secondly; the main idea of this research that Knowledge entrepreneurship has a greater impact on the economic performance than opportunistic entrepreneurship has been supported by many researchers as such (Brown, & Ulijn, 2004, and McDonald 2002), who directly claimed that knowledge entrepreneurship not only improves the performance but also increase the ability of organizational survive. Thus we safely suggest that the knowledge. entrepreneurship could be a key factor in achieving high economic performance. Thirdly; For Saudi Arabia to enhance its economic performance the policymakers must redefine the strategies that encourage this type of entrepreneurship for achieving high economic performance. they must be more interested in encouraging the knowledge -entrepreneurial, they must create a need for more environmental awareness towards

building the knowledge entrepreneurship culture and applying and support more intensive knowledge entrepreneurship technology to achieve high performance. Fourthly, since there is a shortage of models, theories, and experiences that researchers, educators, and public actors can promote, we need to stop pushing one-dimensional models and images of entrepreneurship depicting opportunism. Yet we need alternative models and images to be developed, thus a major concern of this study is to generate a new model to help entrepreneurs and policymakers assess not just the economic factors that affect the outcomes but also the cultural, technological, and human impacts of entrepreneurial activities. Such a model would also prove a valuable knowledge viewpoint instead of the opportunistic view of entrepreneurship. Finally, the empirical evidence provided by this research opens new avenues in other countries to enhance their economic performance by applying the Knowledge-entrepreneurship instead of the opportunistic view as a key derives of economic performance on the country level. Since the study is quantitative using data emanating from the Saudi economy, further empirical study would be useful to verify and complement the results in other countries.

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