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**Research Article** 

# The Impact of Intellectual Capital on the Establishment of Ventures for Saudi Small Entrepreneurs: GEM Data Empirical Scrutiny

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#### Abstract

The study investigated the effect of intellectual capital on entrepreneurs' entrepreneurial intention in Saudi Arabia. It employed the 2016 General Entrepreneurship Monitor (GEM) data gathered by the General Adult Population Survey (APS) from 4053 respondents in Saudi Arabia and analyzed it using binominal logistic regression. The study revealed that networking (relationship with entrepreneurs), opportunities recognition, knowledge, and skills positively impact entrepreneurs' entrepreneurial intention. Owning and managing an enterprise surprisingly did not affect the respondents' entrepreneurial intention. Furthermore, age reported a significant negative connection with entrepreneurial intention, and gender showed no effect. Finally, the education categories all revealed a negative impact on entrepreneurial intention except for some secondary classes. The study adds contribution in the context of intellectual capital and entrepreneurial intention. It also provides policymakers and other stakeholders directions on the importance of intellectual capital in effecting entrepreneurial intention. The study is limited to Saudi Arabia's context only, and it includes merely a few items selected for measuring intellectual capital and entrepreneurship, which may hamper its generality. Future studies may focus on other contexts with moderators and mediator variables.

**Keywords** Entrepreneurial Intention, Intellectual Capital, Saudi Arabia, Entrepreneurs, Ventures.

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# Introduction

The continuous instability in the status of economies, particularly in the developing ones, emphasizes the need to develop new policies that address significant economic challenges such as unemployment and poverty. Lately, there has been a focus on researching new job opportunities and improving people's standards through entrepreneurship, start-ups, and SMEs. Entrepreneurship plays a crucial role in creating income-generating activities (Ahmad & Xavier, 2012), ultimately contributing to the economy's overall growth, productivity and maximizing social welfare (Baumol & Strom, 2007). Regardless of their types, small businesses' establishment results in the nation's growth (Arenius & Minniti, 2005). Despite the belief that entrepreneurship might distinguish it from the traditional small and medium enterprises, they both have a common goal of creating employment opportunities and filling a specific demand. On its side, entrepreneurship promotes innovation, competition, technological changes, jobs and suggests a way out of the poverty circle (Audretsch & Thurik, 2001).

Despite the significance of entrepreneurship for economic development, it is yet to prepare gualified entrepreneurs to benefit from the market's available economic opportunities. Successful entrepreneurs must be solid grounded with enough knowledge, qualifications, experiences, and skills to form their human capital (A. S. Alshebami & Khandare, 2014; Zeghal & Maaloul, 2010). The human capital of an individual is part of their intellectual capital, which is believed to act as crucial means for the success of businesses and for obtaining competitive business advantage, good performance, and value (Maditinos, Chatzoudes, Tsairidis, & Theriou, 2011; Shih, Chang, & Lin, 2010). Both explicit knowledge and tacit knowledge are considered components of the intellectual capital, which are essential for directing the entrepreneurs and their behavior and attitude. Hence, ensuring the support of intellectual capital assumes importance for the success and growth of entrepreneurial enterprises. Because individuals with a high level of knowledge, skills, and relationships will have more possibility of starting their enterprises (Khan, Arafat, Raushan, Saleem et al., 2019) and become more successful in managing the business (Davidsson & Honig, 2003). For an entrepreneur to have an entrepreneurial intention, it generally depends on three perceptions, i.e., economic opportunity, social, cultural perception, and finally, the individuals' perception (Liñán, Santos, & Fernández, 2011).

Intellectual capital is defined as the group of intangible assets that help the enterprises attain a competitive advantage, maximize their income and achieve sustainability (Bontis, 1998, 2001; Hormiga, Batista-Canino, & Sánchez-Medina, 2011; Sveiby, 1997). In simple terms, converting available knowledge, skills, experiences, and qualifications into valuable results yield good results in the end. It has been classified into different components, making it challenging to select the appropriate ones.

The continuous fluctuation in the oil prices in Saudi Arabia leads to a massive deficit in the state budget and a substantial increase in the unemployment rate that is reaching about 6%. Thus, there was a need to switch its policies from depending on oil to other non-oil resources. Accordingly, the government and other institutions started developing entrepreneurship and the SMEs sectors as they are critical in developing the economy. Saudi Arabia's government introduced the so-called 2030 Saudi vision to transform from an oil-based economy to a knowledge one. The vision included entrepreneurship development, SMEs' support, digital innovation, establishing business incubators, supporting start-ups, improving households' savings, and other objectives (A. S. Alshebami, 2021; ESCWA, 2020) The 2030 Saudi vision will equip Saudi individuals with the market's needed education and technical skills (Forbes, 2018). All these initiatives being dependent upon the knowledge economy will contribute to economic development, increase the nation's intellectual wealth, and improve people's lives (World Bank, 1998). The government also established King Abdul-Aziz and his Companions Foundation for giftedness and Creativity to equip individuals with knowledge and skills to start small enterprises. Particularly with the availability of about 70% of Saudi with business opportunities and 32% who have the entrepreneurial intention to create a venture (Bosma & Kelley, 2019).

Saudi Arabia is considered a suitable investment country with rapid growth, a competitive economy, and a light administrative burden, making it a practical economy for entrepreneurship and start-ups. However, providing physical support and infrastructures only without improving the individuals' intellectual sometimes may not produce the desired outcomes. This is to say, Saudi Arabia, even though it provides a lot of support to the entrepreneurship and SMEs sector, still needs to build Saudi entrepreneurs' intellectual capital as it is considered a significant driver for human

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success. Extant literature about intellectual capital in Saudi Arabia is minimal, and the available literature reported exciting results. For example, Alshumaimri, Aldridge, and Audretsch (2012) state individuals with low human capital tend not to start their new businesses. Abdull Razak and Tobiagi (2016) also revealed that there are still many questions about intellectual capital and its performance in Saudi Arabia, which have not been answered. Other studies concentrated on analyzing the relationship between the intellectual capital and the performance of firms (Hamdan, 2018) and financial performance (Al-Musalli & Ismail, 2012), and banking performance (Abdull Razak & Tobiagi, 2016). Furthermore, international studies also concentrated on intellectual capital and economic performance (Ling, 2013) and innovation performance (Agostini, Nosella, & Filippini, 2017).

Primarily, the previous literature focused, for example, on the connection between entrepreneurial education and entrepreneurial intention, has been examined by A. Alshebami, Al-Jubari, Alyoussef, and Raza (2020). And on identifying entrepreneurship challenges for women by Danish and Smith (2012). Other studies investigated the role of Islam in entrepreneurial activities (Kayed & Hassan, 2010). To elaborate more, encouraging the small enterprises' inception and identifying the factors contributing to their establishment assume very significant. For that, researchers such as (Hayton, 2005; Hormiga et al., 2011; Link & Ruhm, 2011; Musteen & Ahsan, 2013) have attempted to explore the relationship between the role of intellectual capital and venture success. Others investigated the impact of intellectual capital on creating ventures (Matricano, 2016; Ramos-Rodríguez, Medina-Garrido, & Ruiz-Navarro, 2012). This is to say, improving the individuals' level of knowledge makes up their intellectual capital, pushing their capacity toward understanding the surroundings, identifying the available opportunities, applying their existing experience and skills, and benefiting from them in creating new ventures.

Accordingly, based on the above discussion, it seems interesting to investigate the connection between Saudi entrepreneurs' intellectual capital and entrepreneurial intention due to its importance and fill the available gap. The organization of the article starts with the introduction and continues with the theoretical background and hypotheses development. The third section looks at the methodology of the study, followed by the hypotheses testing part. The sixth section discusses the study's implications. Finally, the article is concluded with the conclusion and limitations of the study.

# Literature Review and Hypotheses Development

### Entrepreneurial Intention

Due to the importance of understanding how individuals behave in particular situations, particularly in business establishments, researchers have recently started assessing the key factors motivating people toward becoming entrepreneurs. An entrepreneurial intention is a group of motives that direct the individuals to behave in a certain way towards establishing new enterprises or venture creation (Shane, Locke, & Collins, 2003). It is also defined as that state of mind which directs available experience and action for the business concept (Bird, 1988). There have been many factors and perceptions that generally affect the intention to start a new venture, such as the individual's perception, the cultural perception, and economic opportunities (Liñán et al., 2011). These three perceptions play a critical role in the venture creation process due to significant individual interaction aspects. For that, there has been a passion in understanding the propensity toward entrepreneurship in the recent period (Ajzen, 1991; Baron, 2004; Bird, 1988; Krueger Jr, Reilly, & Carsrud, 2000; Lee & Wong, 2004; Matricano, 2016; Shaver & Scott, 1992). Accordingly, this article investigates the role of intellectual capital in predicting entrepreneurs' entrepreneurial intention in Saudi Arabia.

### Networking (Relationship with other Entrepreneurs).

Availability of resources, knowledge, skills, and other factors guide entrepreneurs to start their ventures. According to the role theory, other aspects such as knowing entrepreneurs and having networking with experienced individuals will also increase the knowledge and information of entrepreneurs about enterprises' establishment and entrepreneurial intention. Social capital also supports this, emphasizing the necessity to benefit from the available social structure, membership,

and networks (Lin, Ensel, & Vaughn, 1981). Entrepreneurs who receive support from their social networks such as community, family, and organizational relationships are expected to benefit from their education, experience, and financial capital (Coleman, 1988; Loury, 1987).

Individuals with solid networking existing entrepreneurs will receive the appropriate business plan, essential information, and resources for starting their ventures (Larson & Starr, 1993). It will also link them with other entrepreneurs who might be of interest and benefit for the new experience (Ramos-Rodríguez et al., 2012). People who possess human capital are expected to have more entrepreneurial activities (Davidsson & Honig, 2003). Since individuals reside in cultures, thus culture should encourage risk-taking, value creativity, and reward entrepreneurship by allowing individuals with these features to communicate readily with each other and provide them with the resources they need to move forward for their ideas (Khorsheed, 2015). Therefore, from the above review, it could be concluded that there assumes essential to investigate the relationship between networking and entrepreneurial intention, for that, the following hypothesis is developed: H1. There is a positive connection between networking and the entrepreneurial intention of entrepreneurs in Saudi Arabia.

### **Opportunities Recognition**

Individuals require motivation to look around and start thinking and grabbing available opportunities. An environment surrounded by business opportunities easily identified by entrepreneurs allows them to evaluate their ability positively or negatively toward entrepreneurship and the establishment of business ventures (Ajzen, 1991). This is confirmed by the theory of planned behavior, demonstrating that actions are guided by individuals' attitudes and the degree of favorability or un-favorability toward this action. The ability to recognize opportunities encourages individuals to start their enterprises (McMullen & Shepherd, 2006; Shane et al., 2003), and it also increases the entrepreneurial intention of entrepreneurs (Khan, Arafat, Raushan, Saleem, et al., 2019).

Entrepreneurial opportunities exist when an individual can determine a good idea and change it into the entrepreneurial concept or enhance an existing venture that contributes to a customer, societal value, and produces entrepreneurial revenues (Lumpkin & Lichtenstein, 2005). A few previous studies evaluated the relationship between entrepreneurial intention and opportunity recognition (Ardichvili, Cardozo, & Ray, 2003; Herath, 2014). Act of recognition and discovery of knowledge creation can be used in a business establishment (Alvarez & Barney, 2008; Matricano, 2016). Accordingly, and based on the previous literature and discussion, it is aimed to explore the relationship between entrepreneurial intention of Saudi entrepreneurs. For that, it is assumed the following hypothesis:

H2. There is a positive relationship between opportunity recognition and the entrepreneurial intention of entrepreneurs in Saudi Arabia.

### **Knowledge and Skills**

Minimal knowledge and skills are required for an individual to carry out an activity regardless of its type. According to the human capital theory, available knowledge increases individuals' cognitive abilities, ultimately leading to more potential income-generating activities (Becker, 2009). People with high knowledge and skills will trace available entrepreneurial opportunities better than those with insufficient knowledge and skills. Learning can be attained through various formal and informal sources such as schools, universities, job experience, and others (Becker, 2009). Experience can generate more skills and knowledge for the individuals that will likely increase individuals' entrepreneurial intention (Ucbasaran, Wright, & Westhead, 2003). However, special education does not always mean that a person will have entrepreneurial abilities (Murphy, Shleifer, & Vishny, 1991). Examining the connection between an individual's knowledge and skills and entrepreneurial intention is interesting since previous studies (Khan, Arafat, Raushan, Khan et al., 2019) revealed a positive relationship. Therefore, the study investigates whether the knowledge and skills predict the entrepreneurial intention of the entrepreneurs in Saudi Arabia or not. Hence, the following hypothesis is assumed:

H3: There is a positive connection between knowledge and skills and the entrepreneurial intention of entrepreneurs in Saudi Arabia.

### Owning and managing Enterprises

Having adequate theoretical knowledge about particular activity assumes importance, but obtaining practical experience and training assume more significance in guiding an individual's attitude and behavior toward action. Managerial experiences are crucial in encouraging entrepreneurial intention (Robinson & Sexton, 1994) and establishing nascent enterprises (Davidsson & Honig, 2003). Experienced individuals recognize available economic and business opportunities better than others (Cooper & Park, 2008; Markman & Baron, 2003; Phillips & Pugh, 2015; Shane et al., 2003; Westhead, Ucbasaran, & Wright, 2005) and ultimately have the good entrepreneurial intention (Khan, Arafat, Raushan, Khan, et al., 2019). Individuals owning an enterprise or any business may have the ability to generate ideas for the company through their previous experiences (Alsos & Kaikkonen, 2004), resulting in the desire to start a venture with high confidence and support knowledge and experiences resulting in risk reduction. Therefore, and from the above review, it is understood that the availability of expertise and experience may increase individuals' entrepreneurial intention. Hence, it seems interesting to investigate the effect of intellectual capital represented by knowledge and expertise on Saudi entrepreneurs' entrepreneurial intention. Accordingly, the following hypothesis is formulated:

H4: There is a positive relationship between owning and managing an enterprise and entrepreneurs' entrepreneurial intention in Saudi Arabia.

# Methodology

### The Study Model



Figure 1: Hypothesized Model **Source:** Author's elaboration

Figure 1 shows the study model that examines the effect of Intellectual Capital represented by entrepreneurial opportunities, knowledge & skills, networking with other entrepreneurs, and owning and managing an enterprise. It also shows a few selected control variables, i.e., age, gender, and education level, to support the relationship.

### Measures of the Study

The study employed the secondary data provided by the General Entrepreneurship Monitor (GEM) in 2016. A cross-sectional data was gathered by the General Adult Population Survey (APS) for 4053 respondents. The survey contains a considerable number of questions from which we selected the study measures.

### Data Analysis & Hypotheses Testing

The study explored the effect of intellectual capital on entrepreneurs' entrepreneurial intention in Saudi Arabia. Accordingly, it employed the binominal logistic regression to analyze the results

being the most suitable tool.

#### **Description of Constructs**

#### Table 1

Description of the constructs of the study

Dependent variables	Description				
	Are you, alone or with others, currently trying to				
Entropropourial Intention	start a new business, including any self-	If yes = $1$			
	employment or selling any goods or services to	No = 0			
	others?				
	Independent Variables				
	Knowledge of people who had business in the	If yes = $1$			
	past two years.	No = 0			
	Perception of business opportunities for starting a	If yes = $1$			
Intellectual Capital	business.	No = 0			
intellectual Capital	Perception of obtaining knowledge and skill	If yes = $1$			
	required for starting a new business.	No = 0			
	Previous ownership and business management	If yes = $1$			
	experience.	No = 0			
	Control Variables				
Condor	Conder	If Male = 1,			
Gender	Gender	Female = 2			
Age	Age of Respondents	Birth Year			
	There are 5 categories for education:				
	0 = None, 1 = Some secondary education,	Logistic Regression			
Education	2 = secondary degree, 3 post-secondary category Reference				
	education,	will be none.			
	4 = University Bachelor or higher				

Source: Primary Data

Table 1 demonstrates the description of the study variables, i.e., dependent variable (entrepreneurial intention), independent variable (intellectual capital), and control variables (age, gender, and education.

#### **Descriptive Statistics of the Study Data**

Table 2 demonstrates the study variables representing the independent and dependent variables in addition to the control variables. The table shows that 72% of respondents personally know some people who started a business in the past two years, which might support them in starting their venture. It also disclosed that 82% of the respondents see good opportunities for starting a business in the area where they live, confirming the availability of a good business environment in Saudi Arabia. The table also shows that about 71% of the same respondents have the knowledge, skill, and experience required to start a new business indicating a high level of confidence the respondents have in themselves. However, regarding having business experience in selling or management, the result showed that only about 4% of the respondents revealed their ability to manage or sell products and services to others, emphasizing the need to provide necessary training and experiences for them. The table concludes that about 13% of the respondents expect to start their enterprises or start selling any products or services to others to ensure employment for themselves. At last, the average age of the respondents is 35 years which is a bit young society.

#### Table 2

The Descriptive Statistics					
	Ν	Minimum	Maximum	Mean	Std. Deviation
Do you know someone					
business in the past two	4027	0	1	.72	.451
years? In the next six months, will					
for starting a business in the	3807	0	1	.82	.386
area where you live? Do you have the					
knowledge, skill, and experience required to start	3884	0	1	.71	.455
a new business? Are you, alone or with others, currently the owner					
of a business you help manage, self-employed, or selling any goods or services	4042	0	1	.04	.205
to others? Are you, alone or with others, currently trying to start a new business, including any self- employment or selling any goods or services to others?	4041	0	1	.13	.341
Gender	4053	1	2	1.45	.497
Age	4049	18	64	35.06	10.641
Educational Level	3988	0	6	3.13	1.399
Valid N (listwise)	3577				

Source: Primary Data

### Hypotheses Testing and Discussion

#### Table 3

Logistic Regression (DV= Entrepreneurial Intention)

	В	SE.	Wald	df	Sig.	Exp(B)
Networking.	.628	.148	17.890	1	.000	1.873
Opportunities Recognition.	.695	.196	12.600	1	.000	2.003
Knowledge & Skills.	.733	.149	24.224	1	.000	2.081
Owning & Managing Enterprises.	082	.239	.118	1	.731	.921
Educational Level:			13.318	4	.010	
- Some Secondary	.960	.410	5.492	1	.019	2.612
- Secondary	.303	.365	.689	1	.407	1.354
- Post-Secondary	.165	.373	.195	1	.659	1.179
- Graduate	.382	.368	1.079	1	.299	1.466
Gender.	.113	.103	1.185	1	.276	1.119
Age.	015	.005	9.226	1	.002	.985
Constant	-3.508	.476	54.365	1	.000	.030

Source: Primary Data

Table 3 demonstrates the binominal logistic regression result that attempted to explore the

relationship between selected items of intellectual capital and Saudi Arabia entrepreneurs' entrepreneurial intention. The analysis results are summarized as below:

**The first hypothesis** that attempted to investigate the effect of networking on entrepreneurs' entrepreneurial intention in Saudi Arabia is proved significant (p < 0.01). The result showed that having a relationship with existing entrepreneurs increases the probability of becoming entrepreneurs by 1.8 times. This finding is in line with (Ahmad & Xavier, 2012; Fernández, Liñán, & Santos, 2009; Honjo, 2015; Khan, Arafat, Raushan, Khan, et al., 2019; Liñán et al., 2011). Other studies, i.e., Mancilla and Amorós (2015); Matricano (2016); Pathak, Laplume, and Xavier-Oliveira (2015); Puriwat and Tripopsakul (2015); Ramos-Rodríguez et al. (2012) are also in line with the findings of the study.

**The second hypothesis** focused on exploring the impact of opportunities recognition on entrepreneurs' entrepreneurial intention in Saudi Arabia is proved significant (p < 0.01). The findings reported that opportunities recognition increases the probability of becoming entrepreneurs and starting enterprises two times more than other individuals. The result coincides with (Ahmad & Xavier, 2012; Fernández et al., 2009; Honjo, 2015; Khan, Arafat, Raushan, Khan, et al., 2019; Liñán et al., 2011). Other research also support the findings of our study, such as Nishimura and Tristán (2011); Pathak et al. (2015); Puriwat and Tripopsakul (2015); Ramos-Rodríguez et al. (2012); Vidal-Suñé and López-Panisello (2013).

**The third hypothesis** investigated the effect of knowledge and skills on entrepreneurs' entrepreneurial intention in Saudi Arabia, and it is also proved significant with (p < 0.01). The findings reported that those individuals with a higher level of knowledge and skills might have the possibility of becoming entrepreneurs by two times more than other people without knowledge and skills. The result coincides with Ahmad and Xavier (2012); Fernández et al. (2009); Guzmán-Alfonso and Guzmán-Cuevas (2012); Honjo (2015); Liñán et al. (2011); Matricano (2016); Nishimura and Tristán (2011); Pathak et al. (2015); Puriwat and Tripopsakul (2015); Vidal-Suñé and López-Panisello (2013).

The fourth hypothesis analyzed the relationship between enterprises' management level, ownership, and entrepreneurial intention. This result is not in line with previous findings (Mickiewicz, Stephan, & Shami, 2021; Ramos-Rodríguez et al., 2012). This surprising result might be attributed to Saudi individuals' poor experience managing enterprises due to high dependence on foreign workers or some cultural constraints that do not allow individuals to work in specific jobs and direct them to government jobs.

Regarding demographics constructs, the education level categories all showed a non-significant relationship with entrepreneurial intention except for some secondary, which showed a significant positive relationship (p < 0.05). It confirms that entrepreneurs with secondary education will have 2.6 times the opportunity to become entrepreneurs reporting the highest effect on entrepreneurial intention among other study variables. On the other hand, age reported a significant negative connection with entrepreneurial intention (p < 0.01). This might be because an increase in age will reduce the possibility and willingness of individuals to start a business by .985 times. This finding is confirmed by (Fernández et al., 2009). Gender is also reported a non-significant relationship with entrepreneurship intention (p > 0.05).

#### Table 4

Omnibus Tests of Model Coefficients

	J3 10313 01 10			
		Chi-square	df	Sig.
	Step	132.860	10	.000
Step 1	Block	132.860	10	.000
·	Model	132.860	10	.000
		N	Aodel Summary	
Step 1		-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
		2710.077ª	.036	.066

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

**Source:** Primary Data

Table 4 shows the result of the omnibus test that indicates the model's acceptability; therefore, if the omnibus values are lesser than 0.05, it shows that the model is accepted with a good fit. The result reported that they are all below 0.05, which means there is a good fit for the model.

#### Table 5

Hosmer and Lemeshow Test				
Chi-square	df	Sig.		
10.180	8	.253		

#### Source: Primary Data

For confirming the goodness of the fit of the model, the Hosmer and Lemeshow test is conducted. Table 5 shows that the Hosmer and Lemeshow test's sig value is higher than 0.05, confirming the model's applicability and fitting.

# Implications

### **Theoretical Implications**

The study adds a new contribution to the available literature about entrepreneurial intention and intellectual capital in the context of Saudi Arabia. It shows the importance of intellectual capital in shaping entrepreneurial intention and entrepreneurship development in Saudi Arabia. It is an additional theoretical contribution to the minimal literature about intellectual capital in the study's context. It also provides insight and motivations to other researchers to continue researching the concept of intellectual capital and other variables related to entrepreneurship and considering the findings of this study.

### **Practical Implications**

This study provides an insight to policymakers such as the government of Saudi Arabia, financial institutions, universities, technical colleges, private sectors, researchers, and other interested stakeholders in the field of entrepreneurship and intellectual capital on the significance of intellectual capital in shaping the entrepreneurial intention and preparing individuals to become successful entrepreneurs. The study confirms the positive effect of networking on entrepreneurial intention necessitating policymakers to connect Saudi entrepreneurs with other interested individuals in starting their venture by providing the necessary conferences, training halls, lectures, incubators, and different possible ways to deliver required knowledge and skills.

The study also emphasizes the need to provide knowledge and skills necessary for preparing Saudi individuals to become successful entrepreneurs and compete with foreign expatriates in the market by changing individuals' negative mentality and attitude toward specific jobs in society. Also, universities, colleges, and schools need to redesign their curriculum to include entrepreneurship and creative thinking subjects compulsory for the students. The government should also provide a suitable business environment and reduce procedures for starting a business, particularly the micro and small ones, to encourage entrepreneurs to have their ones and help them quickly identify any possible business opportunities. The study shows no effect of experience in owning or managing a business on entrepreneurial intention. This result is not logically possible; however, this could be attributed to the poor experience and knowledge; Saudi entrepreneurs have to not put more weight on it.

# Conclusion

Due to the importance of entrepreneurship and the small and medium enterprises sector, researchers are eager to investigate the impact of different aspects on entrepreneurship and people's intention to start their businesses and become successful entrepreneurs. Intellectual capital is an essential element in improving individuals' knowledge and working more effectively and efficiently. It is assumed to play an active role in entrepreneurship development as it provides individuals with knowledge, skills, relationship, and other necessary features. Therefore, the study attempted to explore whether intellectual capital impacts entrepreneurs' entrepreneurial



intention in Saudi Arabia, considering a few selected control variables to show their effect. The study reported intellectual capital's ability in predicting entrepreneurial intention except with the ownership and management of enterprises. The study recommends establishing training centers and incubators for entrepreneurs to allow them to start their business ventures. Since intellectual capital, specifically the knowledge, skills, entrepreneurial opportunities, and networking, all show a significant positive relationship with entrepreneurship. Schools, colleges, and other educational institutions should introduce entrepreneurship subjects and training courses in their syllabus to prepare individuals and their mentality for starting enterprises. Saudi individuals need to be supported culturally, financially, and technically by providing them the necessary knowledge, skills, training, success stories, and easing the process of starting a business by waving taxes and other governmental constraints.

Further, there is a need to eliminate a few general societal beliefs, habits, and traditions that hinder Saudi entrepreneurs from entering the market and compete with foreign expatriates. The private sector, mainly the financial institutions hand by hand with the government, should provide the necessary support to the Saudi individuals to start their businesses and provide them with vital funds and other technical and financial support. The technical and vocational colleges available in the country also need to update their curriculum to include essential knowledge and skills capable of advancing individuals with the market's requirements.

### Limitations

The study is limited to Saudi Arabia's context only, which may hamper its generality in other areas. It did not include other variables or any mediation or moderators' variables while testing the model. The intellectual capital items are few, and the entire data depend on single-item measures.

### List of Abbreviations

DV: Dependent Variable, IV: Independent Variable, IC: Intellectual Capital

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### References

- Abdull Razak, R., & Tobiagi, S. (2016). Intellectual Capital Disclosures Practices in Saudi Arabia Financial Institution. Sarah, Intellectual Capital Disclosures Practices in Saudi Arabia Financial Institution (April 4, 2016). Retrieved from <u>https://ssrn.com/abstract=2758515</u>
- Agostini, L., Nosella, A., & Filippini, R. (2017). Does intellectual capital allow improving innovation performance? A quantitative analysis in the SME context. *Journal of Intellectual capital*, 18(2), 400-418. Doi:<u>https://doi.org/10.1108/JIC-05-2016-0056</u>
- Ahmad, S. Z., & Xavier, S. R. (2012). Entrepreneurial environments and growth: evidence from Malaysia GEM data. Journal of Chinese Entrepreneurship, 4(1), 50-69. Doi:https://doi.org/10.1108/17561391211200939
- Ajzen, I. (1991). The theory of planned behavior. Organizational behavior and human decision processes, 50(2), 179-211. Doi:<u>https://doi.org/10.1016/0749-5978(91)90020-T</u>
- Al-Musalli, M. A. K., & Ismail, K. N. I. K. (2012). Intellectual capital performance and board characteristics of GCC banks. Procedia Economics and Finance, 2, 219-226. Doi:<u>https://doi.org/10.1016/S2212-5671(12)00082-2</u>
- Alshebami, A., Al-Jubari, I., Alyoussef, I., & Raza, M. (2020). Entrepreneurial education as a predicator of community college of Abqaiq students' entrepreneurial intention. Management Science Letters, 10(15), 3605-3612. Doi:http://dx.doi.org/10.5267/j.msl.2020.6.033
- Alshebami, A. S. (2021). The Influence of Psychological Capital on Employees' Innovative Behavior: Mediating Role of Employees' Innovative Intention and Employees' Job Satisfaction. Sage Open, 11(3), 1–14. Doi:<u>https://doi.org/10.1177%2F21582440211040809</u>



- Alshebami, A. S., & Khandare, D. (2014). Microfinance in Yemen "Challenges and Opportunities ". International Journal in Management & Social Science, 2(12), 400-413. Retrieved from https://www.academia.edu/download/51044621/1st final paper-published one.pdf
- Alshumaimri, A., Aldridge, T., & Audretsch, D. B. (2012). Scientist entrepreneurship in Saudi Arabia. The Journal of Technology Transfer, 37(5), 648-657. Doi:<u>https://doi.org/10.1007/s10961-011-9230-y</u>
- Alsos, G. A., & Kaikkonen, V. (2004). Opportunity recognition and prior knowledge: a study of experienced entrepreneurs. Paper presented at the 13th Nordic Conference on Small Business Research. Retrieved from <u>https://www.researchgate.net/publication/228314132</u>
- Alvarez, S. A., & Barney, J. B. (2008). Opportunities, organizations, and entrepreneurship. *Strategic* entrepreneurship journal, 2(4), 265-267. Doi:<u>https://doi.org/10.1002/sej.61</u>
- Ardichvili, A., Cardozo, R., & Ray, S. (2003). A theory of entrepreneurial opportunity identification and development. *Journal of business Venturing, 18*(1), 105-123. Doi:<u>https://doi.org/10.1016/S0883-9026(01)00068-4</u>
- Arenius, P., & Minniti, M. (2005). Perceptual variables and nascent entrepreneurship. Small Business Economics, 24(3), 233-247. Doi:<u>https://doi.org/10.1007/s11187-005-1984-x</u>
- Audretsch, D. B., & Thurik, R. (2001). Linking entrepreneurship to growth. OECD Science, Technology and Industry Working Papers 2001/02, 1-34. Doi:<u>https://dx.doi.org/10.1787/736170038056</u>
- Baron, R. A. (2004). The cognitive perspective: a valuable tool for answering entrepreneurship's basic "why" questions. *Journal of business Venturing*, 19(2), 221-239. Doi:https://doi.org/10.1016/S0883-9026(03)00008-9
- Baumol, W. J., & Strom, R. J. (2007). Entrepreneurship and economic growth. Strategic entrepreneurship journal, 1(3-4), 233-237. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1002/sej.26
- Becker, G. S. (2009). Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education: University of Chicago Press. Retrieved from https://books.google.com.pk/books?id=9t69ilCmrZOC
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention. Academy of Management review, 13(3), 442-453. Doi:<u>https://doi.org/10.5465/amr.1988.4306970</u>
- Bontis, N. (1998). Intellectual capital: an exploratory study that develops measures and models. Management decision, 36(2), 63-76. Doi:<u>https://doi.org/10.1108/00251749810204142</u>
- Bontis, N. (2001). Managing organizational knowledge by diagnosing intellectual capital: framing and advancing the state of the field. *Knowledge management and business model innovation*, 267-297. Doi:<u>https://doi.org/10.4018/978-1-878289-98-8.ch016</u>
- Bosma, N., & Kelley, D. (2019). Global entrepreneurship monitor 2018/2019 global report. Global Entrepreneurship Research Association (GERA). Retrieved from https://www.gemconsortium.org/report/gem-2018-2019-global-report
- Coleman, J. S. (1988). Social capital in the creation of human capital. American journal of sociology, 94, S95-S120. Doi:<u>https://doi.org/10.1086/228943</u>
- Cooper, S. Y., & Park, J. S. (2008). The impact of incubator organizations on opportunity recognition and technology innovation in new, entrepreneurial high-technology ventures. International Small Business Journal, 26(1), 27-56. Doi:https://doi.org/10.1177%2F0266242607084658
- Danish, A. Y., & Smith, H. L. (2012). Female entrepreneurship in Saudi Arabia: opportunities and challenges. International journal of gender and entrepreneurship, 4(3), 216-235. Doi:http://dx.doi.org/10.1108/17566261211264136
- Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. Journal of business Venturing, 18(3), 301-331. Doi:https://doi.org/10.1016/S0883-9026(02)00097-6
- ESCWA. (2020). Intellectual Property for Fostering Innovation in the Arab World. Retrieved from <u>https://archive.unescwa.org/publications/intellectual-property-innovation-arab-region</u>
- Fernández, J., Liñán, F., & Santos, F. J. (2009). Cognitive aspects of potential entrepreneurs in Southern and Northern Europe: An analysis using GEM-data. Revista de economía mundial(23), 151-178. Retrieved from <u>https://www.redalyc.org/pdf/866/86612461008.pdf</u>
- Forbes. (2018). Best Countries for Business 2018: Saudi Arabia. Retrieved from <u>https://www.forbes.com/places/saudi-arabia/?sh=506db9944e5c</u>

- Guzmán-Alfonso, C., & Guzmán-Cuevas, J. (2012). Entrepreneurial intention models as applied to Latin America. Journal of Organizational Change Management, 25(5), 721-735. Doi:<u>https://doi.org/10.1108/09534811211254608</u>
- Hamdan, A. (2018). Intellectual capital and firm performance: Differentiating between accounting-based and market-based performance. International Journal of Islamic and Middle Eastern Finance and Management, 11(1), 139-151. Doi:https://doi.org/10.1108/IMEFM-02-2017-0053
- Hayton, J. C. (2005). Competing in the new economy: the effect of intellectual capital on corporate entrepreneurship in high-technology new ventures. *R&D Management*, 35(2), 137-155. Doi:https://doi.org/10.1111/j.1467-9310.2005.00379.x
- Herath, H. (2014). Conceptualizing the role of opportunity recognition in entrepreneurial career success. International Journal of Scientific Research and Innovative Technology, 1 (3), 73-82. Retrieved from <a href="https://www.ijsrit.com/uploaded\_all\_files/2482256290\_i8.pdf">https://www.ijsrit.com/uploaded\_all\_files/2482256290\_i8.pdf</a>
- Honjo, Y. (2015). Why are entrepreneurship levels so low in Japan? Japan and the World Economy, 36, 88-101. Doi:<u>https://doi.org/10.1016/j.japwor.2015.08.002</u>
- Hormiga, E., Batista-Canino, R. M., & Sánchez-Medina, A. (2011). The role of intellectual capital in the success of new ventures. *International Entrepreneurship and Management Journal*, 7(1), 71-92. Doi:<u>https://doi.org/10.1007/s11365-010-0139-y</u>
- Kayed, R. N., & Hassan, M. K. (2010). Islamic entrepreneurship: A case study of Saudi Arabia. Journal of developmental entrepreneurship, 15(04), 379-413. Doi:https://doi.org/10.1142/S1084946710001634
- Khan, A. M., Arafat, M. Y., Raushan, M. A., Khan, M. S., Dwivedi, A. K., Khan, M. M., & Saleem, I. (2019). Role of intellectual capital in augmenting the start-up intentions of Indians—an analysis using GEM data. *Journal of Global Entrepreneurship Research*, 9(1), 1-14. Doi:https://doi.org/10.1186/s40497-019-0146-6
- Khan, A. M., Arafat, M. Y., Raushan, M. A., Saleem, I., Khan, N. A., & Khan, M. M. (2019). Does intellectual capital affect the venture creation decision in India? *Journal of Innovation and Entrepreneurship*, 8(1), 1-15. Doi:<u>https://doi.org/10.1186/s13731-019-0106-y</u>
- Khorsheed, M. S. (2015). Saudi Arabia: from oil kingdom to knowledge-based economy. Middle East Policy, 22(3), 147-157. Doi:<u>https://doi.org/10.1111/mepo.12149</u>
- Krueger Jr, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. Journal of business Venturing, 15(5-6), 411-432. Doi:https://doi.org/10.1016/S0883-9026(98)00033-0
- Larson, A., & Starr, J. A. (1993). A network model of organization formation. *Entrepreneurship theory* and practice, 17(2), 5-15. Doi:<u>https://doi.org/10.1177%2F104225879301700201</u>
- Lee, S. H., & Wong, P. K. (2004). An exploratory study of technopreneurial intentions: A career anchor perspective. *Journal of business Venturing*, 19(1), 7-28. Doi:<u>https://doi.org/10.1016/S0883-9026(02)00112-X</u>
- Lin, N., Ensel, W. M., & Vaughn, J. C. (1981). Social resources and strength of ties: Structural factors in occupational status attainment. *American sociological review*, 46(4), 393-405. Doi:https://doi.org/10.2307/2095260
- Liñán, F., Santos, F. J., & Fernández, J. (2011). The influence of perceptions on potential entrepreneurs. International Entrepreneurship and Management Journal, 7(3), 373-390. Doi:https://doi.org/10.1007/s11365-011-0199-7
- Ling, Y.-H. (2013). The influence of intellectual capital on organizational performance—Knowledge management as moderator. *Asia Pacific Journal of Management,* 30(3), 937-964. Doi:https://doi.org/10.1007/s10490-011-9257-5
- Link, A. N., & Ruhm, C. J. (2011). Public knowledge, private knowledge: the intellectual capital of entrepreneurs. *Small Business Economics*, 36(1), 1-14. Doi:<u>https://doi.org/10.1007/s11187-009-9179-5</u>
- Loury, G. C. (1987). Why should we care about group inequality? Social philosophy and policy, 5(1), 249-271. Doi:<u>https://doi.org/10.1017/S0265052500001345</u>
- Lumpkin, G. T., & Lichtenstein, B. B. (2005). The role of organizational learning in the opportunityrecognition process. *Entrepreneurship theory and practice*, 29(4), 451-472. Doi:<u>https://doi.org/10.1111%2Fj.1540-6520.2005.00093.x</u>
- Maditinos, D., Chatzoudes, D., Tsairidis, C., & Theriou, G. (2011). The impact of intellectual capital on firms' market value and financial performance. *Journal of Intellectual capital*, 12(1), 132-151. Doi:<u>https://doi.org/10.1108/14691931111097944</u>

- Mancilla, C., & Amorós, J. E. (2015). Entrepreneurship in regions: differentiated impacts of the socio cultural and gender types. Academia Revista Latinoamericana de Administración, 28(1), 45-76. Doi:https://doi.org/10.1108/ARLA-04-2013-0031
- Markman, G. D., & Baron, R. A. (2003). Person–entrepreneurship fit: why some people are more successful as entrepreneurs than others. *Human resource management review*, 13(2), 281-301. Doi:https://doi.org/10.1016/S1053-4822(03)00018-4
- Matricano, D. (2016). The impact of intellectual capital on start-up expectations. Journal of Intellectual capital, 17, 654-674. Doi:<u>http://dx.doi.org/10.1108/JIC-04-2016-0040</u>
- McMullen, J. S., & Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. Academy of Management review, 31(1), 132-152. Doi:https://doi.org/10.5465/amr.2006.19379628
- Mickiewicz, T., Stephan, U., & Shami, M. (2021). The Consequences of Short-Term Institutional Change in the Rule of Law for Entrepreneurship. *Global Strategy Journal*. Doi:<u>https://doi.org/10.1002/gsj.1413</u>
- Murphy, K. M., Shleifer, A., & Vishny, R. W. (1991). The allocation of talent: Implications for growth. The quarterly journal of economics, 106(2), 503-530. Doi:<u>https://doi.org/10.2307/2937945</u>
- Musteen, M., & Ahsan, M. (2013). Beyond cost: the role of intellectual capital in offshoring and innovation in young firms. Entrepreneurship theory and practice, 37(2), 421-434. Doi:https://doi.org/10.1111%2Fj.1540-6520.2011.00477.x
- Nishimura, J. S., & Tristán, O. M. (2011). Using the theory of planned behavior to predict nascent entrepreneurship. Academia. Revista Latinoamericana de Administración(46), 55-71. Retrieved from <u>https://www.redalyc.org/pdf/716/71617238005.pdf</u>
- Pathak, S., Laplume, A., & Xavier-Oliveira, E. (2015). Inbound foreign direct investment and domestic entrepreneurial activity. *Entrepreneurship & Regional Development*, 27(5-6), 334-356. Doi:https://doi.org/10.1080/08985626.2015.1058424
- Phillips, E., & Pugh, D. (2015). EBOOK: How to Get a PhD: A Handbook for Students and their Supervisors: McGraw-Hill Education. Retrieved from https://books.google.com.pk/books?id=xMkvEAAAQBAJ
- Puriwat, W., & Tripopsakul, S. (2015). The comparative study of attitudes toward entrepreneurial intention between ASEAN and EUROPE: An analysis. *IJABER*, *13*(6), 4485-4494. Retrieved from <u>https://serialsjournals.com/abstract/99531\_4485-4494.pdf</u>
- Ramos-Rodríguez, A. R., Medina-Garrido, J. A., & Ruiz-Navarro, J. (2012). Determinants of hotels and restaurants entrepreneurship: A study using GEM data. *International Journal of Hospitality Management*, 31(2), 579-587. Doi:<u>https://doi.org/10.1016/j.ijhm.2011.08.003</u>
- Robinson, P. B., & Sexton, E. A. (1994). The effect of education and experience on self-employment success. Journal of business Venturing, 9(2), 141-156. Doi:<u>https://doi.org/10.1016/0883-9026(94)90006-X</u>
- Shane, S., Locke, E. A., & Collins, C. J. (2003). Entrepreneurial motivation. Human resource management review, 13(2), 257-279. Doi:<u>https://doi.org/10.1016/S1053-4822(03)00017-2</u>
- Shaver, K. G., & Scott, L. R. (1992). Person, process, choice: The psychology of new venture creation. *Entrepreneurship theory and practice*, 16(2), 23-46. Doi:https://doi.org/10.1177%2F104225879201600204
- Shih, K. H., Chang, C. J., & Lin, B. (2010). Assessing knowledge creation and intellectual capital in banking industry. *Journal of Intellectual capital, 11*(1), 74-89. Doi:<u>https://doi.org/10.1108/14691931011013343</u>
- Sveiby, K. E. (1997). The intangible assets monitor. Journal of Human Resource Costing & Accounting, 2(1), 73-97. Doi:<u>https://doi.org/10.1108/eb029036</u>
- Ucbasaran, D., Wright, M., & Westhead, P. (2003). A longitudinal study of habitual entrepreneurs: starters and acquirers. *Entrepreneurship & Regional Development, 15*(3), 207-228. Doi:<u>https://doi.org/10.1080/08985620210145009</u>
- Vidal-Suñé, A., & López-Panisello, M.-B. (2013). Institutional and economic determinants of the perception of opportunities and entrepreneurial intention. *Investigaciones Regionales-Journal of Regional Research* (26), 75-96. Retrieved from <a href="https://www.redalyc.org/pdf/289/28928246004.pdf">https://www.redalyc.org/pdf/289/28928246004.pdf</a>
- Westhead, P., Ucbasaran, D., & Wright, M. (2005). Decisions, actions, and performance: do novice, serial, and portfolio entrepreneurs differ? *Journal of small business management*, 43(4), 393-417. Doi:<u>https://doi.org/10.1111/j.1540-627X.2005.00144.x</u>



World Bank. (1998). World Development Report 1998/1999 : Knowledge for Development: New York: Oxford University Press. Retrieved from <a href="http://hdl.handle.net/10986/5981">http://hdl.handle.net/10986/5981</a>

Zeghal, D., & Maaloul, A. (2010). Analysing value added as an indicator of intellectual capital and its consequences on company performance. *Journal of Intellectual capital, 11*(1), 39-60. Doi:https://doi.org/10.1108/14691931011013325