

The Mediating Effect Of Emotional Intelligence Between Knowledge Management And Entrepreneurship

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Abstract

The current research aims to identify the mediating role of emotional intelligence between knowledge management and entrepreneurship. The field of research is Iraqi universities. A random sample of (87) lecturers was selected, and an electronic questionnaire was used to collect data. The hypothetical model was formulated and variable models were built using structural modeling, and hypotheses were tested using regression coefficients and structural modeling. The research reached a set of conclusions, the most important of which is that emotional intelligence is an important and vital factor in the relationship between knowledge management and entrepreneurship, as emotional intelligence supports creativity and cognitive innovation, which is positively reflected in performance and access to entrepreneurship.

Keywords: knowledge management, emotional intelligence, entrepreneurship.

Introduction

Entrepreneurship has attracted a great deal of research attention due to its importance in economic development and growth. The current context in which entrepreneurs operate requires them to assume a leadership role as business leaders in order to try to keep organizations alive. This growing reality has motivated researchers to delve deeper into understanding the origin of entrepreneurial orientation and its impact on the organization. Entrepreneurship can provide certain benefits that put them in a better position to compete with other organizations (Palomeque et al., 2020). In a world that is increasingly complex in its systems, requirements, and processes. This overlap is particularly critical in entrepreneurship, where flexibility and high-touch interpersonal dynamics often win out. For entrepreneurs, emotional intelligence can give them the ability to skillfully maneuver complex social dynamics that help build strong relationships that foster greater knowledge sharing and innovation. Furthermore, knowledge management processes implemented with emotional intelligence in mind can enhance learning in organizations when emotions shape knowledge by transforming tacit knowledge into intelligence for action. In a rapidly evolving economy, understanding that emotional intelligence is the key to sustainable business growth is crucial for individual growth and overcoming challenges (Shafait et al., 2021). However, knowledge of the factors that promote entrepreneurial attitude in entrepreneurs is still limited, and therefore a deeper understanding of this topic is necessary. During the 1990s, studies on entrepreneurship failed to demonstrate the existence of specific personality traits in entrepreneurs. Scholars of the subject limited their efforts to describing the entrepreneur as a person capable of creating special and highly superior intellectual and behavioral processes. (Palomeque et al., 2020). Emotional intelligence is a very important topic in the context of knowledge management and entrepreneurship, as it can play a decisive role in the success of leaders and

managers in achieving goals and controlling complex circumstances (Blázquez et al., 2022). Accordingly, this research aims to identify the mediating role of emotional intelligence between knowledge management and entrepreneurship

Literature Review Emotional Intelligence

Technological progress has led to the emergence of business intelligence systems in the mid-nineties of the twentieth century by the Gartner Group, which prepared a cornerstone for global economic institutions (Antunes & Barateiro, 2022), as systems that help in storing, analyzing and retrieving information to a large extent and support knowledge acquired from competitors in addition to new technologies used in products and improving processes (Abusweilem & Abualoush, 2019) and supporting decision support systems and transforming data into information and knowledge of great benefit that increases the efficiency of decisions at various administrative levels (Olszak, 2022) and helps organizations act correctly in the face of competitors and superior competitive performance that allows for appropriate response at the right time (Djerdjouri, 2020).

Emotional intelligence is defined as "the individual's ability to understand others around him, appreciate their feelings, adapt and be flexible towards the changes surrounding him, and deal positively with daily problems in a way that enables him to withstand the psychological pressures he is exposed to, and control and manage his feelings efficiently (Lievens, F., & Chan, 2017)

It is the ability to monitor one's own feelings and emotions and the emotions of others to distinguish between them and use information to guide his thinking and actions (Salovey, et al., 1990) On the other hand, it is defined as the ability to pay attention and perceive well the emotions and feelings (Rivers et al., 2020)

Accordingly, emotional intelligence is defined as the ability to deal with

emotional information by receiving, absorbing, understanding and managing these emotions. Therefore, one of the characteristics of an emotionally intelligent person is that he possesses a lot of emotional vocabulary and knows the precise use of this vocabulary in dealing with his emotions and the emotions of others.

The Importance Of Emotional Intelligence

In recent years, emotional intelligence has been a widely discussed topic in the field of management, and has been described as an indicator of success in job performance and leadership ability (Bharathi, 2013), and its contribution to increasing the effectiveness of organizational performance through the ability to understand and anticipate the process of selecting human resources in organizations. (Robbins & Judge, 2013). Therefore, it has become necessary to learn how to manage one's own emotions and the emotions of others (through what is provided by acquiring emotional intelligence skills) in order to work efficiently (Hämäläinen & Saarinen, 2007) and effectively within contemporary organizations. Since learning emotional intelligence increases people's self-efficacy, organizations must make an effort in continuous training and development (George and Jones, 2012). From the above, it is clear that those organizations that have succeeded in the business world today take a more proactive approach in developing a positive internal and external climate. Hence, emotional intelligence is defined as “a set of personal abilities or skills that help a person to know his feelings and emotions, control them well” .

Dimensions Of Emotional Intelligence

Shiri et al., 2014 indicates that there are four basic dimensions of emotional intelligence, which are:

1. Emotional Awareness

The ability to read one's feelings and realize the impact of those feelings and

individual reactions and respond to different situations, and self-awareness is an influential element in one's feelings and has an impact on the decision-making process. The dimension includes the individual's knowledge of his strengths and weaknesses and recognizing his feelings and self-emotions, as self-awareness is the basis of self-confidence.

2. Social Skills

It means dealing well and effectively with others based on understanding and knowing their feelings, it means how people express their feelings, and the extent of their success or failure in expressing these feelings, and the positive and strong influence on others by realizing their emotions and feelings, and knowing when to lead and when to follow others (Boyatzis, 2019)

3. Emotional Management

It means knowing how to deal with and process the feelings that hurt and disturb him, and this treatment represents the basis of emotional intelligence

4. Relationship Management

All other abilities are profoundly and powerfully influenced by emotional intelligence, whether positively or negatively; since a person's emotional state affects his mental capacity and overall performance, it is important to know and understand the feelings of others in order to achieve emotional harmony with them. It also means that a person can read the feelings of others from their faces, expressions and images, and not just from what they say. (Ferahtia, 2021).

The components of the dimensions can be summarized as in Table 1.

Table 1: Emotional Intelligence Dimensions

Emotional intel. dimension	Awareness	Skills
Emotional Awareness	Self-awareness Emotional self-awareness Accurate self-assessment Self-confidence	Self-management Self-control Conscientiousness Initiative Achievement Trustworthiness
Social Emotional Awareness	Social awareness Empathy Service orientation Organizational-awareness	Social skills Leadership Influence Developing others
Emotional Management	Self-awareness Emotional self-awareness Self-supportive	Independence Adaptability Less impulsiveness
Relationship Management	Positive social attitudes Empathy	Good relations Social extroversion

Source: (Shiri et al., 2014)

Knowledge Management

In principle, knowledge as culture is spread and acquired through three channels, like any communication process: reason/language; experience/action; and perceptual/symbolic. One of the characteristics of excellent knowledge workers is that they combine these three aspects well in learning and communication (Abellon and Rojo, 2004). As knowledge becomes increasingly important as a new factor of production, knowledge has become a basic element of economic and social development, because knowledge is produced from a combination of information, experience, value and internal regulations (Rodríguez, 2006; Davenport and Prusak, 2001, cited in Romero, 2016). Knowledge management focuses on leadership effectiveness (Girard & Girard, 2015). There are multiple definitions of knowledge management, among which the most famous authors. Table 2 shows some definitions of knowledge management in the literature.

Table 2 Definitions Of Knowledge Management

Author	Definition
Ortiz de Urbina, (2000).	Knowledge management is defined as a set of processes that use knowledge to identify and use existing intangible assets and generate new assets.
Alvarado (2005)	Knowledge management has a tactical and operational perspective, is more detailed and focuses on the promotion and management of knowledge-related activities, such as the creation, acquisition, transformation and use of knowledge. Its function is to plan, implement, operate, direct and control all knowledge-related activities and procedures, which are necessary for effective management of intellectual capital.
Rodriguez, (2006); Fainholc, (2006)	Knowledge management is always carried out within the organizational framework, and the person who carries out this management is the internal or external promoter or person responsible for the normal functioning of the process in the organization.
Malhotra (2008)	It embodies the organizational process of seeking the collaborative combination of data and information processing through the capabilities of information technology and human creativity and innovation.
Minakata (2009).	From the moment employees clearly express their knowledge to the organization, knowledge becomes a human capital asset and is made possible through infrastructure and communication intermediaries, so that the knowledge generated is meaningful to the company.
Mijangos Noh, Cabrera and Suguey (2012)	Knowledge management is a strategic process, guided and operated by discipline and skills, that advantageously promotes the realization of established objectives. This process is used to put tacit knowledge and explicit knowledge into practice and maximize the value of the organization.
Calderon, (2017)	Knowledge management in organizations such as higher education institutions means the conversion of information into knowledge, which leads to an increase in the amount of organizational knowledge production.

Source: Adapted from Chatti, MA (2012) .

Accordingly, knowledge management is defined as “a collection of organizational procedures known as knowledge management aids in the discovery, creation, application, and organization of knowledge as well as its

dissemination, utilization in a variety of administrative tasks, decision-making, and problem-solving”.

Importance Of Knowledge Management

1. Helping organizations benefit and learn from past experiences and mistakes. Contributing to developing the organization's ability to innovate.
2. Good knowledge management becomes a huge help in making decisions within an organization. For example, further developing a rich transactive memory system (TMS) at the management level enhances a firm's ability to implement entrepreneurial orientation. These types of systems allow teams to know who has relevant expertise so they can point to the right person when information is needed in those pivotal moments of decision making. (Hensellek et al., 2020).
3. With a growing body of literature linking organizational efficiency to the knowledge that an organization owns, it has become one of the most important assets in the current age of information to maneuver through the complexity of the operational landscape (Shamia et al., 2018).
4. KM enhances productivity by enabling better decision making via multiple dimensions of workflow processes. Using knowledge model that have been employed to promote performance excellence (Madi, 2019).

Knowledge Management Dimensions

The literature indicates that there are many dimensions that belong to knowledge management, and the most common of them are those related to knowledge management processes, which consist of the following (Mannan et al., 2013):

1. Knowledge Creation

These are the processes that mean: all the processes that refer to the generation and acquisition of knowledge, but in different ways and from different sources.

Purchasing refers to obtaining knowledge through direct purchase or through contracts for use and employment. Absorption refers to the ability to understand and assimilate apparent knowledge, and captivity refers to obtaining the latent knowledge in the minds and brains of creators, and innovation refers to generating new, undiscovered and uncopied knowledge, and discovery refers to identifying available knowledge (Madi, 2019)

2. Knowledge Capture

It is obtained from various sources (experts, specialists, competitors, customers, databases, or through the organization's archives), using benchmarking methods, attending conferences and workshops, using experts, periodicals, publications, e-mail, and individual learning. In addition, it must be taken into consideration that learning or acquiring knowledge in organizations is not always intentional. There is knowledge that is obtained by chance and is useful and important to the organization. Here, the organization is responsible for identifying the importance of this knowledge, then storing and retrieving it in the best possible way (Rasham, 2017).

3. Knowledge Sharing

The organization will not recoup its expenses if knowledge is not sufficiently distributed and disseminated. Distributing tacit knowledge that exists in employees' minds and experiences is the biggest barrier for knowledge management, if disseminating explicit knowledge using technological technologies is a simple procedure (Madi, 2019).

4. Knowledge Application

Work is the source of knowledge, as is the ability to impart it to others. Learning and explanation are necessary for knowledge, and learning occurs via application and experimentation, which raises and develops the amount of knowledge. Because of this, applying knowledge must come first, and no task is

complete without mistakes. This is the only thing the firm needs to comprehend. Although an effective knowledge system is a good first step toward learning, it is not sufficient to guarantee business success. (Madi, 2019).

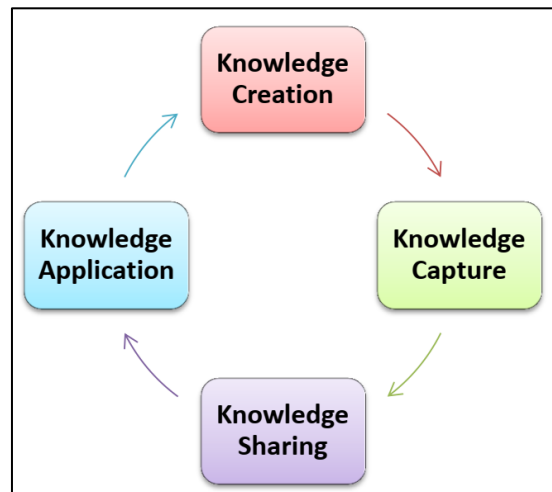


Figure 1: Cycle of Knowledge Management

Source: (Mannan et al., 2013)

Entrepreneurship

The field of entrepreneurship has been gaining increasing in recent years, and entrepreneurship has become an outcome of complex economic and social factors, psychological, technological, legal and others (Turner & Gianiodis, 2018) .An entrepreneur is a person who has the qualities of taking initiative and accepting failure and risk, and has the ability to request resources, equipment, people and other assets, and make them something valuable, and provide something creative and new. Entrepreneurship applies to organizations of all types and sizes, as entrepreneurs seek to exploit available opportunities and create new projects (Shahzad et. al,2010). The concept of entrepreneurship refers to the process of creating something new of value (Merlo & Auh, 2009) . The organization tends to accept entrepreneurial processes, practices, decision-making and characteristics that lead to creativity, risk-taking and initiative.

Many researchers see that there is an overlap between small organizations and entrepreneurship as synonymous terms. The concept of entrepreneurship has expanded and instead of focusing on the individual who owns the organization, it has focused on the entrepreneurial orientation of processes, practices and activities in decision-making that leads to entering new markets (McGuinness,2008) .

Entrepreneurial processes include uncertainty, where the entrepreneur works to capture opportunities and invest resources (Noerhartati, 2018), as in Figure 2.

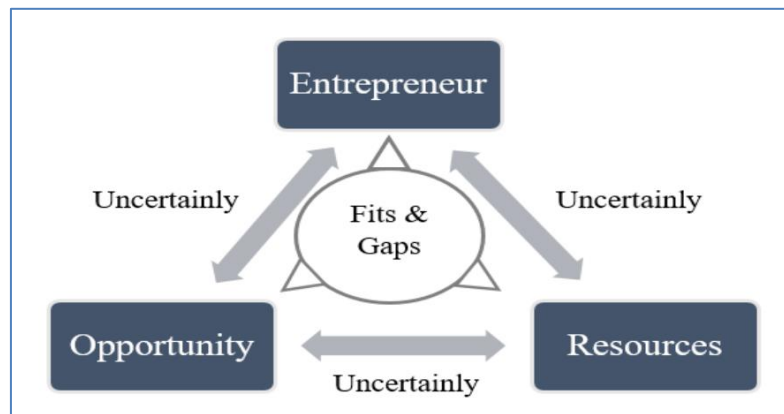


Figure 2: Process of Entrepreneurship

Source: (Noerhartati, 2018)

Methodology

Model and Instrument

The study tool was an electronic questionnaire that was distributed to a sample of Iraqi university professors, where the number of questionnaires was (86) questionnaires, which included questions about the study variables within the model in Figure 3, which consists of three variables: the independent variable Knowledge Management (KM), which consists of four dimensions, the mediating variable Emotional Intelligence (EI), which consists of four dimensions, and the dependent variable Entrepreneurship (ENT), which was

addressed as a one-dimensional variable.

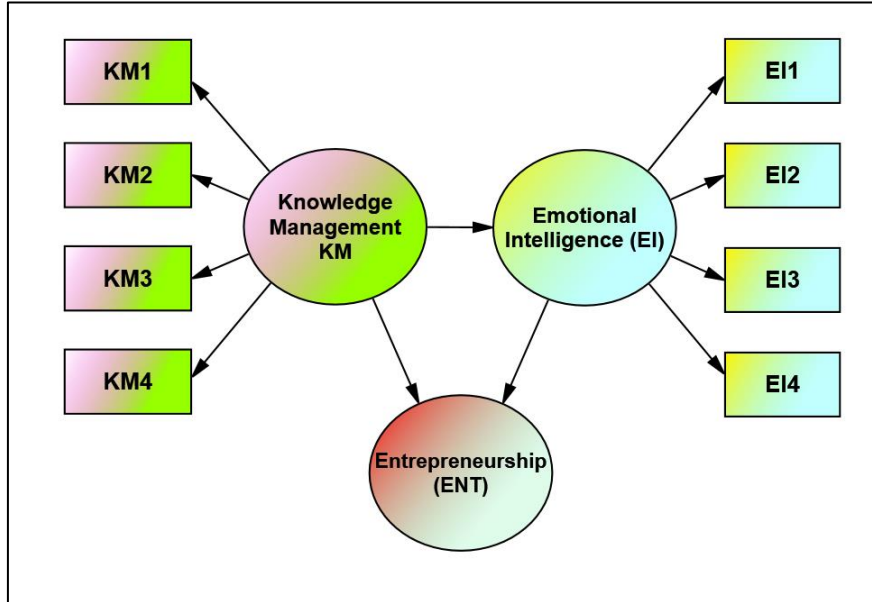


Figure 3 : Study Model

Reliability

Cronbach's alpha coefficient was used to determine the extent to which the items were capable of measuring what they were designed for and Cronbach's alpha test was performed. Studies indicate that acceptable values require the reliability value to be greater than (0.70), and Table 3 indicates that the reliability value for KM is (0.784), EI (0.773), ENT (0.864) and the overall reliability value (0.869), and these values meet the acceptable stability conditions.

Table 3: Reliability Test

Var.	Items	Cronbach Alpha
KM	16	0.784
EI	16	0.773
ENT	10	0.864
All	32	0.869

Normal Distribution

Verifying the distribution type test is necessary because it helps the researcher choose the appropriate statistical tools for his field of study and is one of the most important requirements for obtaining accurate and expressive results. Within the statistical field, there are two types of data distributions that are used in the analysis. The first is related to the normal distribution and the other type is related to the abnormal distribution. The importance of determining this revolves around using normal or non-parametric statistics. Table 4 indicates the results of the normal distribution of the data, as the data follows the normal distribution, with the value of kurtosis and skewness between the values (+1.96) and (-1.96).

Table 4: Normality Test

Variable	min	max	skew	kurtosis	Variable	min	max	skew	kurtosis
q16	2.000	5.000	-.377	-.689	q8	3.000	5.000	-.601	-.840
q15	2.000	5.000	-.381	-.603	q7	2.000	5.000	-.337	-.293
q14	2.000	5.000	-.303	-.791	q6	3.000	5.000	-.288	1.422
q13	2.000	5.000	-1.175	1.952	q5	3.000	5.000	.135	1.063
q12	2.000	5.000	-.381	-.153	q4	2.000	5.000	-.411	-.530
q11	2.000	5.000	-.471	-.073	q3	2.000	5.000	-.760	.634
q10	2.000	4.000	-1.045	.020	q2	2.000	5.000	-.518	.290
q9	2.000	5.000	-.423	-.211	q1	2.000	5.000	-.117	-.487
Multivariate				26.771					
m16	1.000	5.000	-.682	.033	m8	2.000	5.000	-.172	-.314
m15	1.000	5.000	-.548	-.349	m7	3.000	5.000	-.081	-.127
m14	1.000	5.000	-.342	-.358	m6	2.000	5.000	.014	-.861
m13	2.000	5.000	-.961	.591	m5	2.000	5.000	-.421	-.269
m12	2.000	4.000	-.795	-.755	m4	2.000	5.000	-.237	-.600
m11	2.000	5.000	-.304	-.475	m3	3.000	5.000	.020	-.222
m10	2.000	5.000	-.372	-.270	m2	2.000	5.000	-1.137	1.186
m9	2.000	5.000	-.387	-.359	m1	2.000	5.000	-.494	-.163
Multivariate				23.769					
z10	2.000	5.000	-.030	-.755					
z9	2.000	5.000	-.029	-.803					
z8	2.000	5.000	-.232	-.452					
z7	2.000	5.000	-.345	-.168					
z6	2.000	5.000	-.308	-.507					
z5	2.000	5.000	-.293	-.410					
z4	2.000	6.000	-.297	.346					
z3	2.000	5.000	-.326	-.453					
z2	2.000	5.000	-.912	1.044					
z1	1.000	5.000	-.484	-.601					
Multivariate				22.228					

Construct Validity

To identify the construct validity, Confirmatory Factor Analysis is used to verify the construct validity of the scales used in this study. Confirmatory factor analysis (CFA) is one of the applications of structural equation modeling. The procedures followed in this analysis are to determine the hypothesized model, which consists of latent variables, which represent the hypothesized dimensions of the scale, from which arrows are drawn to the second type of variables, known as measured variables, which represent the items specific to each dimension. It is assumed that the phrases are indicators of the latent variables. The statistical program was used to apply this method. The SMARTPLS program was used to identify the construct validity, and it is required that the loadings be greater than 0.50 and that the significance level for each be less than 0.05.

Figure 3 indicates the structural validity of the variables and indicates that the loadings were greater than 0.50 and that all the paragraphs were significant and less than 0.05.

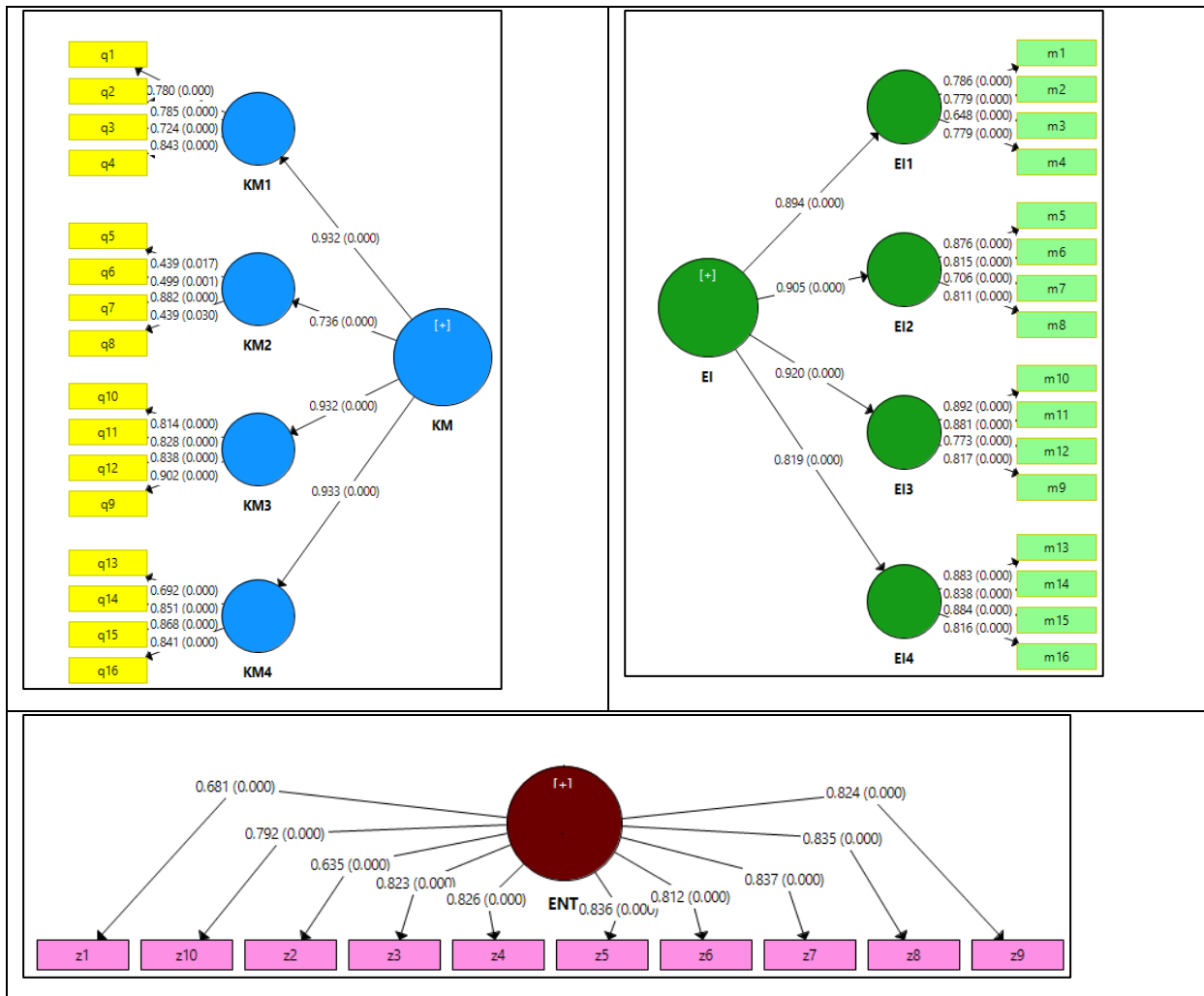


Figure 4: Validity of the Models

Results

Correlation

Correlation coefficients are used to discover the strength and direction of the relationship between variables. A positive correlation between two variables represents that an increase in one variable is met by an increase in the other variable. The value of (P) will be relied upon to test the significance of the simple correlation coefficient. Table 5 indicates the results of the correlation relationships and indicates a positive correlation between (KM) and (ENT) at the overall level. The value of the general correlation coefficient was recorded as (0.771 **), in addition to the fact that the sub-relationships were positive, and

that these relationships were significant based on the value of the (P) test, which was less than (0.05). There is also a positive correlation between (EI) and (ENT) at the overall level. The value of the general correlation coefficient was recorded as (0.866 **), in addition to the fact that the sub-relationships were positive, and that these relationships were significant based on the value of the (P) test, which was less than (0.05). There is also a positive correlation between (KM) and (EI) at the overall level. The value of the general correlation coefficient was recorded as (0.845 **), in addition to the fact that the sub-relationships were positive, and that these relationships were significant based on the value of the (P) test, which was less than (0.05).

Table 5: Correlation Matrix

V.	KM1	KM 2	KM 3	KM 4	EI1	EI 2	EI 3	EI 4	KM	EI	ENT
KM 1	1	.631**	.799**	.830**	.763**	.708**	.693**	.486**	.931**	.740**	.665**
P		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
N	86	86	86	86	86	86	86	86	86	86	86
KM 2	.631**	1	.562**	.563**	.620**	.484**	.509**	.505**	.720**	.599**	.513**
P	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
N	86	86	86	86	86	86	86	86	86	86	86
KM 3	.799**	.562**	1	.822**	.757**	.720**	.761**	.616**	.921**	.806**	.745**
P	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
N	86	86	86	86	86	86	86	86	86	86	86
KM 4	.830**	.563**	.822**	1	.793**	.764**	.750**	.578**	.935**	.810**	.753**
P	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
N	86	86	86	86	86	86	86	86	86	86	86
EI1	.763**	.620**	.757**	.793**	1	.790**	.775**	.613**	.835**	.886**	.756**
P	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
N	86	86	86	86	86	86	86	86	86	86	86
EI2	.708**	.484**	.720**	.764**	.790**	1	.811**	.588**	.774**	.891**	.783**
P	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
N	86	86	86	86	86	86	86	86	86	86	86
EI3	.693**	.509**	.761**	.750**	.775**	.811**	1	.641**	.782**	.911**	.809**
P	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000

N	86	86	86	86	86	86	86	86	86	86	86
EI4	.486**	.505**	.616**	.578**	.613**	.588**	.641**	1	.617**	.833**	.704**
P	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
N	86	86	86	86	86	86	86	86	86	86	86
KM	.931**	.720**	.921**	.935**	.835**	.774**	.782**	.617**	1	.845**	.771**
P	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
N	86	86	86	86	86	86	86	86	86	86	86
EI	.740**	.599**	.806**	.810**	.886**	.891**	.911**	.833**	.845**	1	.866**
P	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000
N	86	86	86	86	86	86	86	86	86	86	86

Mediating Effect 1

According to the structural model at the factor level in Figure 5, Table 6, the results indicate that there is a positive relationship between (KM) and (ENT). The effect value is (0.124). This relationship is not significant as the significance level value more than (0.05).

There is a significant effect of (EI) on (ENT) as the effect value reached (0.762) and this relationship is significant as the significance level value reached within the permissible limit and less than (0.05).

As for the effect of the relationship between (KM) and (EI), the results indicate that the effect is positive and its value reached (0.850) and that this relationship is significant as the significance level value reached within the permissible limit and less than (0.05).

The summary of the analytical indicators above shows that the effect of KM on ENT was very weak, with a value of (0.124), while the effect of the relationship between KM on ENT through EI was (0.647). These results indicate that the effect of the mediating relationship is greater than the effect of the individual relationships, and this proves the hypothesis that there is a mediating effect.

Table 6: Path Analysis For The Mediating Relationship

Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
KM -> EI	0.850	0.849	0.033	26.066	0.000
EI -> ENT	0.762	0.756	0.127	5.982	0.000
KM -> ENT	0.124	0.13	0.147	0.839	0.402
KM -> EI -> ENT	0.647	0.641	0.106	6.126	0.000

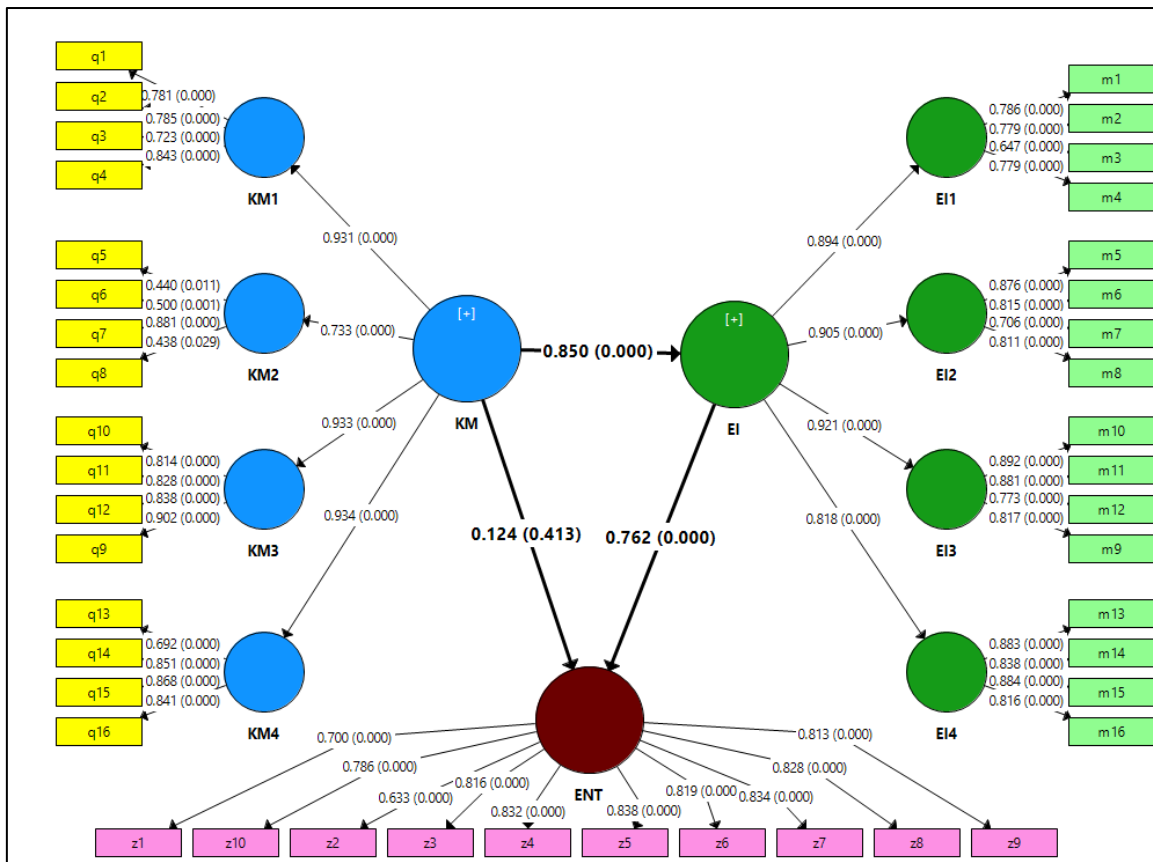


Figure 5: Mediating Effect

Conclusions and Recommendations

Conclusions

1. There is a positive relationship between knowledge management and emotional intelligence, as integrating emotional intelligence into curricula contributes to enhancing communication, cooperation and knowledge sharing skills
2. There is a positive relationship between emotional intelligence and

entrepreneurship, as it contributes to managing relationships, enhancing trust and promoting creativity in the university environment.

3. There is a positive relationship between knowledge management and entrepreneurship through the mediating role of emotional intelligence, as emotional intelligence facilitates knowledge exchange and trust building processes, which supports the generation of ideas, knowledge sharing and improving decisions.

4. The relationship between knowledge management and entrepreneurship is a vital topic in today's business world. Knowledge management plays a crucial role in transforming knowledge into added value, while entrepreneurship is associated with creativity, risk-taking and building new projects.

5. Focusing on emotional intelligence contributes to creating a culture of continuous learning and supports individuals' ability to adapt to change and challenges, which increases their flexibility and ability to innovate.

6. Knowledge management enhances entrepreneurship by providing a strong knowledge base. Knowledge management helps entrepreneurs make informed decisions, identify new market opportunities, and develop innovative products and services.

Recommendations

1. Develop emotional intelligence skills among professors and students and provide training programs and workshops that encourage communication and effective participation

2. Encourage a culture of knowledge sharing by universities creating electronic platforms, forums, and websites that allow students and professors to share creative ideas

3. Stimulate cooperation between departments and colleges to integrate knowledge and exploit emotional intelligence in exchanging ideas, which enhances creativity and innovation

4. Create entrepreneurial programs or competitions that rely on knowledge management and encourage emotional intelligence, such as graduation projects or student entrepreneurial activities
5. Establish advisory units within universities to support entrepreneurial students and guide them in using knowledge effectively, and teach them how to develop their emotional intelligence to achieve success.
6. Encourage students to implement entrepreneurial projects by providing financial and moral support and providing supervision and advice.

References

1. Abusweilem, M., & Abualoush, S. (2019). The impact of knowledge management process and business intelligence on organizational performance. *Management Science Letters*, 9(12), 2143-2156.
2. Antunes, A. L., Cardoso, E., & Barateiro, J. (2022). Incorporation of ontologies in data warehouse/business intelligence systems-a systematic literature review. *International Journal of Information Management Data Insights*, 2(2), 100131.
3. Bharathi, L. K., (2013). "The Concepts of Emotional Intelligence with Reference to Employee's Performance". *Global Journal of Commerce and Management Perspective*, Vol. 2, No. 4, pp. 8-11.
4. Blázquez Puerta, C. D., Bermúdez-González, G., & Soler García, I. P. (2022). Human systematic innovation helix: Knowledge management, emotional intelligence and entrepreneurial competency. *Sustainability*, 14(7), 4296.
5. Boyatzis, R. E., Goleman, D., Gerli, F., Bonesso, S., & Cortellazzo, L. (2019). Emotional and social intelligence competencies and the intentional change process. In *Cognitive Readiness in Project Teams* (pp. 147-169). Productivity Press.
6. Djerdjouri, M. (2020). Data and Business Intelligence Systems for Competitive Advantage: prospects, challenges, and real-world applications. *Mercados y Negocios*, (41), 5-18.

7. Ferahtia, A. (2021). See discussions, stats, and author profiles for this publication. Net/publication/350567414 surface water quality assessment in semi-arid region (el hodna watershed, algeria) based on water quality index (WQI).
8. George, B., & Desmidt, S. (2015). Towards strategic-decision quality in Flemish municipalities: the importance of strategic planning and stakeholder participation. In 2015 EGPA Annual Conference.
9. Girard, J., & Girard, J. (2015). Defining knowledge management: Toward an applied compendium. *Online Journal of Applied Knowledge Management*, 3(1).
10. Hämäläinen, R. P., & Saarinen, E. (Eds.). (2007). *Systems intelligence in leadership and everyday life*. Systems Analysis Laboratory.
11. Irfan Shahzad and others, "Global Financial Crisis and its Effect on Entrepreneurship":
12. Kollmann, T., Stöckmann, C., Peschl, A., & Hensellek, S. (2016). How Management Teams Foster the Transactive Memory System-Entrepreneurial Orientation Link. In *Academy of Management Proceedings* (Vol. 2016, No. 1, p. 16230). Briarcliff Manor, NY 10510: Academy of Management.
13. Lievens, F., & Chan, D. (2017). Practical intelligence, emotional intelligence, and social intelligence. *Handbook of employee selection*, 342-364.
14. Madi, Alham (2019) Knowledge management processes and their role in developing human resources competencies, *Noor Journal of Economic Studies*, Issue 8.
15. Mannan, B., Jameel, S. S., & Haleem, A. (2013). Knowledge management in project management: An ISM approach (p. 77). LAP LAMBERT Academic Publishing.
16. Mcguinness, Tony (2008) Dynamic Capabilities For Entrepreneurship And Innovation In Marketing-Driven Organizations, Work paper Submitted To The Seventh International Congress.
17. Merlo, Omar and Auh, Seigyoung (2009) The Effects Of Entrepreneurial Orientation, Market Orientation, And Marketing Subunit Influence on Firm Performance, Work paper Judge Business School, University Of Cambridge, Usa.

- 18.Noerhartati, E. (2018). Evaluation of entrepreneurship education on development program of product sorghum. *Int. J. Eng. Technol*, 7(3.30), 400-404.
- 19.Olszak, C. M. (2022). Business intelligence systems for innovative development of organizations. *Procedia Computer Science*, 207, 1754-1762.
- 20.Palomeque, M., Plaza, J., & Tapia, N. (2020). Emotional intelligence and entrepreneurship: brief approach to understanding. *Revista Universidad y Sociedad. Scielo*, 12 (4).
- 21.Rasham Ibrahim, (2017) “Knowledge Management, its Obstacles and Application Models”, National Scientific Forum on the Impact of Knowledge Management on Human Resources Development, Dr. Yahya Fares University, Medea, Algeria, November 16.
- 22.Rivers, S. E., Handley-Miner, I. J., Mayer, J. D., & Caruso, D. R. (2020). 29. Emotional Intelligence. by RJ Stenberg. 2nd Edition. Cambridge: Cambridge University Press, XXII, 1250, 709-735.
- 23.Robbins, S. P., & Judge, T. A. (2013). *Organizational Behavior* (17th Editi). England: Pearson Education Limited.
- 24.Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, cognition and personality*, 9(3), 185-211.
- 25.Shafait, Z., Yuming, Z., Meyer, N., & Sroka, W. (2021). Emotional intelligence, knowledge management processes and creative performance: modelling the mediating role of self-directed learning in higher education. *Sustainability*, 13(5), 2933.
- 26.Shamia, M. J., Al Shobaki, M. J., Abu-Naser, S. S., & Amuna, Y. M. A. (2018). Using the Asian Knowledge Model “APO” as a Determinant for Performance Excellence in Universities-Empirical Study at Al-Azhar University-Gaza.
- 27.Shiri, A. T., Chitakunye, P., & Fields, Z. (2014). Emotional intelligence: A critical success factor for selling funeral policies. *Mediterranean Journal os Social Sciences*, 5.
- 28.Turner, T., & Gianiodis, P. (2018). Entrepreneurship unleashed: Understanding entrepreneurial education outside of the business school. *Journal of Small Business Management*, 56(1), 131-149.