



Examining the relationship between knowledge management and entrepreneurship in German football sports clubs

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ABSTRACT

The main objective of this research was to investigate the relationship between knowledge management and entrepreneurship among the managers of German football sports clubs. The present study is quantitative, applied research in nature, and descriptive-correlational in method. The statistical population of the study consisted of all managers of German football sports clubs, among which 214 managers were selected as the research sample using the cluster sampling method. To collect data, two questionnaires were used, namely the Lawson's Knowledge Management questionnaire and the Scarborough and Zimmer Entrepreneurship Scale. Descriptive statistics including mean and standard deviation and inferential statistics including Pearson correlation, regression analysis, independent t-test, and one-way analysis of variance were used to analyze the data using SPSS software. The results indicated a positive and significant relationship between knowledge management and entrepreneurship among private sports club managers ($r=0.79$). Furthermore, there was a significant relationship between the components of knowledge management (creation, sharing, and application of knowledge) and entrepreneurship, and among these three components, the application of knowledge had the highest correlation with entrepreneurship.

Keywords: knowledge management, entrepreneurship, sports managers, football.

INTRODUCTION

In the present era, the pace of change in advanced sciences and technologies has increased to the extent that many intellectuals believe that the speed of human learning has surpassed the innovation of products produced with high-level technology and the creation and development of knowledge. Therefore, even if the responsible organization allocates all its strategies, time, and human capital to learning, it may still not be able to cope with the challenges it faces (Nevo & Chan, 2007). Nowadays, organizations cannot rely solely on their tangible assets, such as technology, especially in technical departments. Tangible assets are usually available, but they do not potentially create a competitive advantage, in other words, they are the basic prerequisite for doing business. Knowledge is a vital resource and a factor in success in such environments. Knowledge has long been considered a key resource for organizations, and its effective management is essential (Mladkova, 2012).

Knowledge management is a structured and planned approach for sharing and storing knowledge as an organizational asset, aimed at enhancing the organization's capabilities, speed, and effectiveness in delivering products or services to customers in line with business strategy (Plessis, 2008). Knowledge is a critical and sustainable resource in the field of technology and entrepreneurship (Nonaka, 1991). It should be noted that the current world requires quick responsiveness.

Real-time adaptability, quick decision-making, and, above all, the need for personal growth are all influenced by rapid changes and developments in science and technology on the one hand and the transformation of sports into an industry on the other, creating new challenges for sports practitioners that require the use of creative approaches and methods. In this context, the role of entrepreneurship and the existence of entrepreneurs is crucial. Entrepreneurship can provide opportunities for job creation based on expansion for all segments of society through the discovery and expansion of business opportunities. (Ball, 2005).

In today's competitive complexity, entrepreneurship is considered one of the main advantages for the survival of organizations. All organizations need new and innovative ideas, which breathe life into the organization and save it from nothingness and destruction. Organizational knowledge and entrepreneurship in the fast-paced contemporary world are excellent opportunities for organizations that are not familiar with it and employ it, and at the same time, a serious threat to organizations that have been neglectful of environmental developments and are not familiar with them. Currently, knowledge management and entrepreneurship are considered new and popular concepts, and a process that helps organizations to access important information and expertise that are part of the organization's memory.

Adding understanding and memory to information is called knowledge. In this context, knowledge defines insights gained from information and data that can be effective and divisible in various ways and conditions. Knowledge involves minimizing the collection and reading of information and increasing access to it, and this is done by eliminating irrelevant data. In general, knowledge is a flow of combined experience, value, conceptual information, and insight that provides a framework for evaluating and combining experiences and information (Davenport and Prusak, 1998).

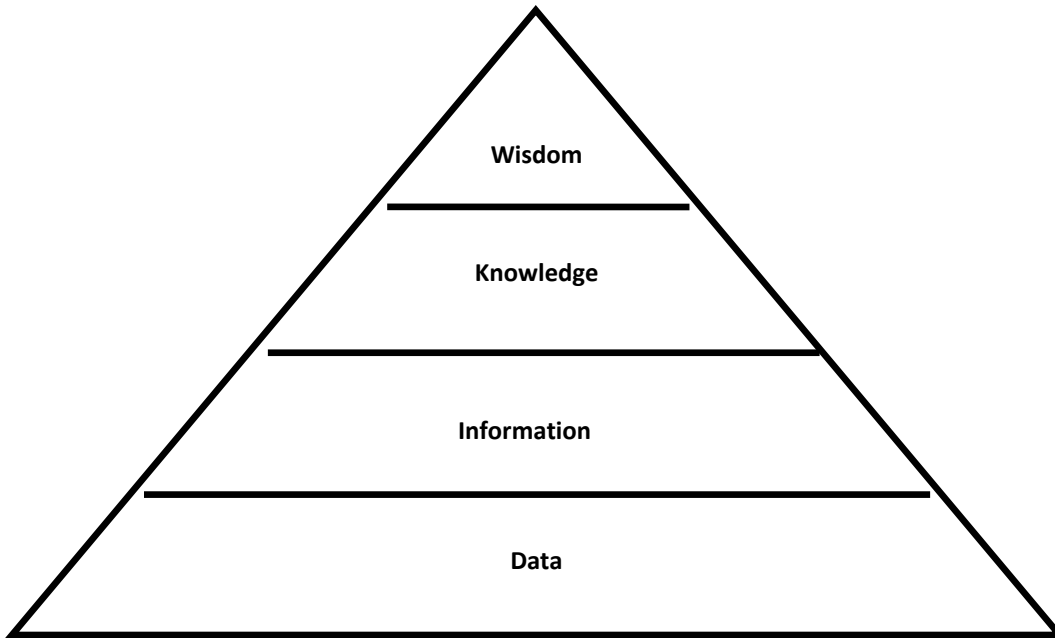


Figure 1. "Knowledge Hierarchy Pyramid (Firestone and McElroy)"

Table 1. Different Definitions of Knowledge Management (collected by the researcher)

Researchers	Year	Knowledge management definitions
Barron	2000	"A systematic and integrated approach for identifying, managing, and sharing the intangible assets of an organization. This approach includes assets such as databases, documents, policies, and documented methods."
Hales	2001	"The process through which an organization acquires the ability to convert data into information, information into knowledge, and effectively utilize the acquired knowledge in their decision-making."
Wig	2002	"Establishing the necessary processes to identify and acquire the required data, information, and knowledge from both internal and external environments of the organization, and transferring them into organizational decisions and actions."
Shankar et al	2003	"Knowledge management is the process of identifying and leveraging an organization's knowledge assets to transfer business benefits to customers or the organization."
Gupta	2004	"A set of processes that include the creation, dissemination, and utilization of knowledge."
Sabherwal & Sabherwal	2005	"A set of actions required to obtain the necessary knowledge resources."
Sousa & Hedriks	2006	"Knowledge management examines policies, strategies, and techniques to demonstrate the effectiveness of the organization, optimize the necessary conditions for improving performance, and promote innovation and collaboration among employees."
Jolly & Therih	2007	"Knowledge management is based on the idea that employees process knowledge that can lead to excellent organizational performance."
Fernandez & Leidner	2008	Knowledge management refers to the identification and utilization of collective knowledge within an organization to aid in competition.
King	2009	Knowledge management involves planning, organizing, motivating, and controlling individuals, processes, and systems within an organization to ensure that knowledge assets are effectively utilized to increase.
Liao & Wn	2010	Knowledge is employed as a primary source of competitive advantage in companies. Therefore, the ability to manage knowledge refers to knowledge management processes in an organization that develops and uses knowledge within the company.
Carlos et al	2011	The process of creating, collecting, organizing, disseminating, and utilizing knowledge within an



		organization, or the art of creating value from the intangible assets of the organization.
Keran et al	2013	The process that transforms intellectual assets and knowledge into lasting value.

The main dimensions of the knowledge management process

1. Creating and acquiring knowledge.

Creating knowledge refers to the process of generating new knowledge by individuals and also manifesting and connecting it to the organization's knowledge system. In general, creating knowledge refers to an organization's ability to generate new and useful ideas and solutions. Knowledge creation can be defined as a process of creating new or replacing and improvement of existing organizational knowledge through social relationships and organizational collaborations. This process occurs at individual and organizational levels and leads to the creation of new implicit or explicit knowledge (Alavi & Lidner, 2001).

2. Knowledge sharing

Knowledge sharing is a necessary condition for transforming information and experiences into something that the entire organization can use. Distributing knowledge is the process of sharing and spreading the knowledge that is currently being implemented in the organization.

Knowledge sharing can be defined as a systematic activity for exchanging knowledge and experience among members of a group or organization with a common goal. In other words, knowledge sharing is the process of identifying, distributing, and utilizing existing knowledge to solve problems more efficiently, quickly, and cost-effectively than in the past. The goal of knowledge sharing can be to create new knowledge through the combination of different existing knowledge with better utilization of it (Hold, 2007). Knowledge sharing among individuals is a process that employs organizational learning and is based on collaboration, and honesty, providing opportunities for employees to develop new activity ideas for improving knowledge sharing, as well as encouraging managers to experiment and take risks (Girdauskiene & Savaneviciene, 2012).

3. Application of Knowledge

Many believe that the competitive advantage in an organization is not in the knowledge available, but rather in the application of that knowledge that can create that advantage for the organization (Sadra and Gable, 2010). Knowledge utilization and application refer to the extent to which shared knowledge is used in organizations, and organizations are authorized to collect references, returns, and knowledge resources (Liao and Wu, 2010). The whole purpose of knowledge management is to ensure that the available knowledge in the organization is used effectively for its benefit. Therefore, steps must be taken to leverage valuable skillsets and knowledge assets. Using both explicit and implicit knowledge, whether from within or outside the organization, is a more effective way to achieve organizational goals (Monavvarian, 2010). For the process of applying and leveraging knowledge, indicators such as utilizing learning processes from experiences and mistakes, developing new products, having the ability to solve new problems, making knowledge accessible to those who need it, the existence of interconnected and relevant knowledge resources in problem-solving (Liao and Wu, 2009), encouraging employees to apply knowledge, individuals' interest in applying knowledge in their



work activities, the existence of a strong culture of knowledge application, the existence of systematic processes for using individual knowledge in organizations, employees' interest in performing knowledge-based activities, and the extent of using the set of experiences gained from previous work projects are important. (Danayi-Fard and Selseleh, 2010).

Knowledge Management Models

Knowledge management is a complex and dynamic topic, and the success of knowledge management requires a systemic approach that considers all the factors, components, and processes of knowledge management (Abtahi and Salavati, 1385). The implemented knowledge management system should establish communication between individuals so that they can think together and spend time sharing information, perspectives, and experiences that are useful for their organization (Maladkhova, 2012). Many organizations believe that knowledge is their most important asset, but in practice, they adhere to it less. One of the main reasons for this is that organizations do not know how to approach knowledge management, and for this purpose, various models of knowledge management are examined in this section.

Hisig model

The Hisig model (2000) consists of four processes: creation, storage, dissemination, and utilization of knowledge:

- A) Knowledge creation: This relates to the ability to learn and communicate. In developing this ability, the sharing of knowledge experiences and creating connections between topics are of key importance.
- B) Knowledge storage: Organized storage capabilities enable fast information retrieval, access to information for other employees, and effective knowledge sharing. In this system, necessary knowledge must be easily stored for everyone's use.
- C) Knowledge dissemination: The process of disseminating knowledge helps to develop a collective spirit in which individuals feel connected as colleagues in pursuing common goals and are interdependent in their activities.
- D) Knowledge utilization: This process begins with the idea that creating knowledge is best accomplished through the concrete application of new knowledge. This element completes the central process of unified knowledge management.

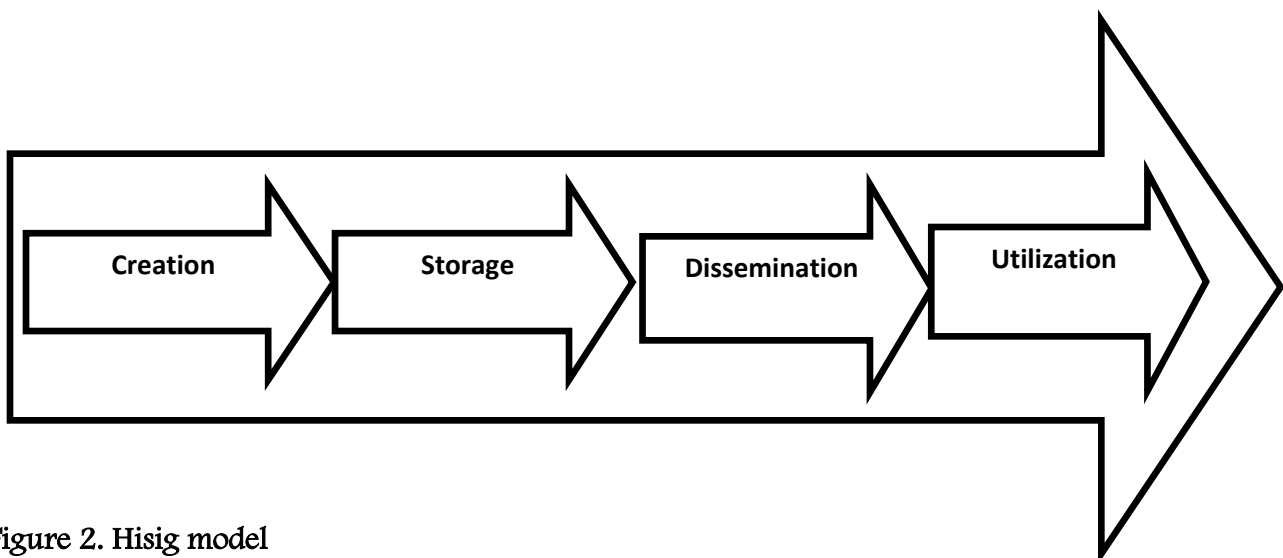


Figure 2. Hisig model

The 7C model

The 7C model was introduced by the American Society for Quality and Productivity in 1996. It is based on seven words, all starting with the letter "C," hence it is known as the 7C model. The components of the model are as follows:

- 1- Creation: Create and develop knowledge
- 2- Capture: Identify and document the best ideas.
- 3- Contribute: Share your ideas to help others.
- 4- Collaborate: Exchange knowledge at a general level.
- 5- Consume: Use all collective knowledge for what needs to be done.
- 6- Communicate: Help others understand the knowledge and its external value.
- 7- Culture: Promote a knowledge-sharing culture throughout the organization.

The Knowledge Management Stage Model (Lin, 2007):

Stage 1 - Action: The company recognizes the importance of knowledge and is motivated to take knowledge management actions.

Stage 2 - Development: The company invests in knowledge management infrastructure to facilitate and encourage knowledge activities.

Stage 3 - Maturity: The company creates a knowledge network for internal and external members.

The conceptual framework model for developing Knowledge Management Capability (KMC) indicators in the effectiveness of knowledge management

KMC consists of two perspectives on the capabilities of knowledge management to implement effective knowledge management:

- The resource-based perspective, emphasizes technology, structure, and culture.
- The knowledge-based perspective, which emphasizes skills, learning, and information.

In this model, indicators from both the resource-based and knowledge-based perspectives are combined and then applied to the knowledge management process, ultimately affecting the effectiveness of knowledge management (Ajeeratpongpan et al., 2010).

Entrepreneurship

Entrepreneurship is a relatively new word and its literal meaning does not fully capture its true essence. The term "entrepreneurship" is used instead of the French word "entreprendre," which means "to commit." There have been various definitions offered for entrepreneurship, some of which are mentioned here: Peter Drucker (the father of modern management) defines entrepreneurship as systematic innovation, which includes the development of new concepts and techniques, standardizing products, applying tools and design processes, and building work based on education and analysis.

The entrepreneurship process

The stages through which the entrepreneurial action is carried out are called the entrepreneurship process. As seen in the figure below (Figure 3), the entrepreneurship process consists of 6 stages that start with identifying the opportunity and end with harvesting and exploiting it. An important point to note in this process is that throughout the process and at each stage after the individual entrepreneur identifies the opportunity, he or she also receives feedback from the environment and uses it to identify future opportunities in subsequent stages.



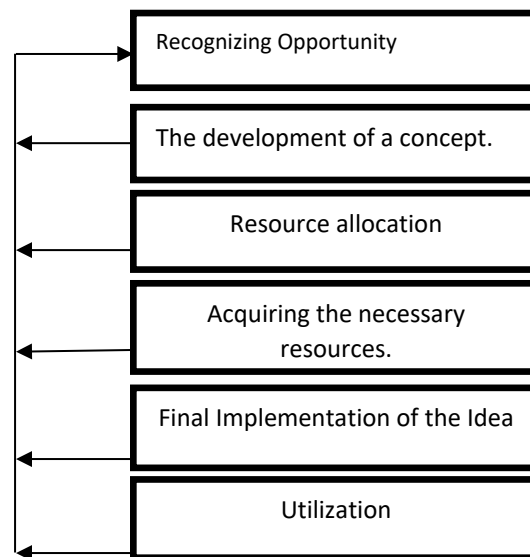


Figure 3. The Process of Entrepreneurship

Nyawali and Fogel's Integrated Entrepreneurship Model

Nawawi and Fougere, through their studies, have identified four main environmental factors that have a significant reinforcing or weakening effect on the process of creating new startups. These four factors include:

- 1) Government policies and approaches
- 2) Economic and social conditions
- 3) Occupational and entrepreneurial skills
- 4) Financial and non-financial support.

All of these factors have a direct relationship with the creation of new companies. The proposed model by these two researchers and the relationships between these factors are illustrated in the image (Ahmadpour Dariani, 1391).



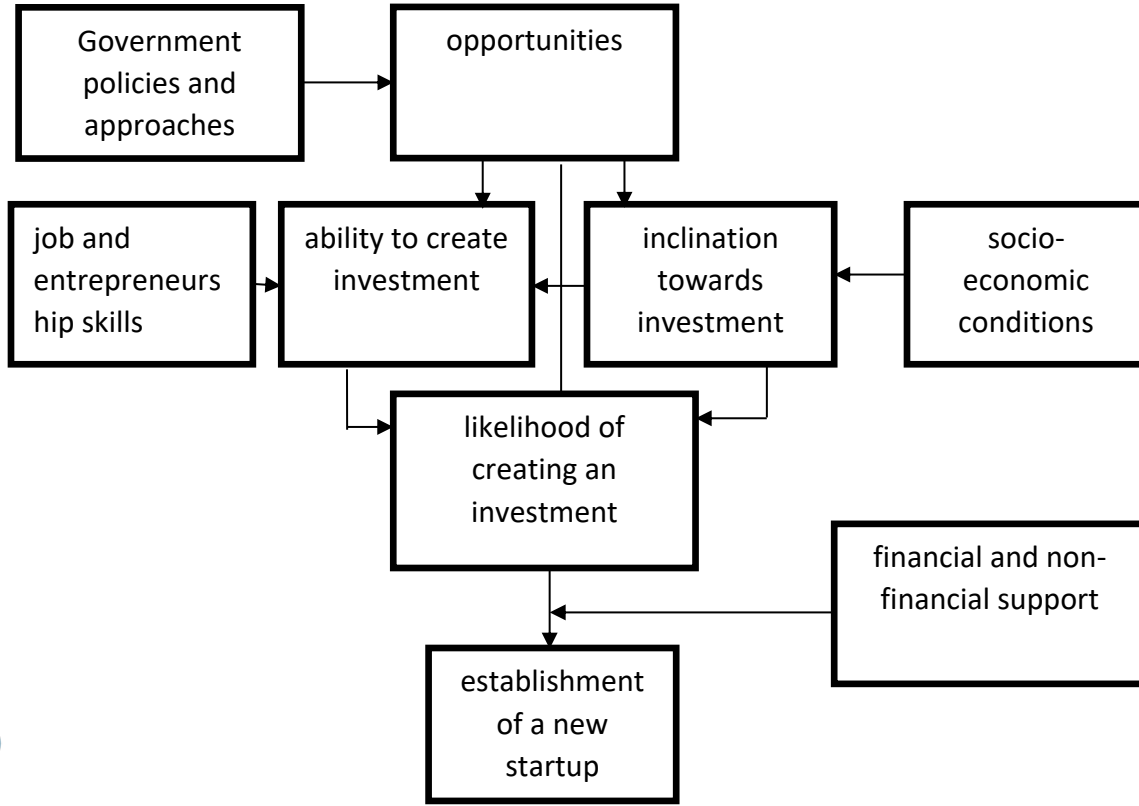


Figure 4. Main elements in creating a startup company.

The barriers to entrepreneurship

Entrepreneurship is recognized as an effective strategy for the economic and social development of countries. It refers to the process of identifying and exploiting opportunities for value creation in various economic, social, and cultural domains, and is considered the basis for sustainable and comprehensive development. Nowadays, the development of entrepreneurship is the most practical and actionable strategy for overcoming economic and social problems. Identifying and removing barriers to entrepreneurship is essential for its development. The obstacles and challenges to entrepreneurship development in organizations are examined in terms of three dimensions: demotivating factors, legal obstacles, and the business environment, as well as the nature of the organizational structure.

A) Entrepreneurship Demotivating Factors:

- 1- High financial risk (fear of losing personal capital).
- 2- Access to financial resources for investment (fear of being unable to obtain sufficient financial resources to start a business).
- 3- Administrative barriers (concerns about not being able to meet legal requirements).
- 4- Social costs and risks (concerns about the potential loss of social security).
- 5- Administrative corruption.
- 6- Lack of skills (fear of not having suitable and sufficient skills and experience).

B) Legal barriers to entrepreneurship development in areas such as banking, taxation, labor law, exports and imports, intellectual property, and patent registration.

C) Evaluation of the business environment from the perspective of selected entrepreneurs.

Examining the obstacles and problems of entrepreneurship without a complete understanding of the business environment will not be effective. According to selected entrepreneurs, the shortcomings of the business environment for new and growing companies are, in order of importance:

1- Lack of necessary commercial, specialized, and professional infrastructures for new and growing companies.

2- Lack of support for social and cultural norms of entrepreneurship.

3- Lack of appropriate physical infrastructure for new and growing companies.

4- Lack of sufficient financial support for new and growing companies.

D) Organizational barriers and limitations.

The most important organizational dimension of entrepreneurship barriers is the nature of large organizations that have difficulties in performing entrepreneurial activities due to their size and specific nature. The need for short-term profits and inappropriate reward methods are other barriers to entrepreneurship.

Methodology

The research method is descriptive and in terms of research objective, it belongs to the category of applied research, and due to measuring the relationship between variables, it is of the correlation type. The correlation study aims to study the approximate changes of one or more variables with the approximate changes of one or more other variables. Therefore, considering the objectives and nature of the research subject, the research method is of this type. The questionnaire was used to collect primary data for testing hypotheses, as well as reviewing the literature to complete the background section. The questionnaires were distributed to all private clubs by region, and after regionally categorizing the clubs and sampling, the questionnaires were distributed among the managers of the clubs. After repeated follow-ups, a total of 107 questionnaires were collected.

Knowledge Management Questionnaire: This questionnaire was developed by Sharon Lawson (2003). Its validity has been confirmed by experts and its reliability has been calculated by researchers several times. In this study, Cronbach's alpha coefficient was obtained by the researcher as 0.73. The questionnaire consists of 24 questions, each set of four questions respectively addressing the components of knowledge production, acquisition, organization, storage, dissemination, and utilization.

Table 2. Knowledge Management Questionnaire (Sharon Lawson, 2003)

Row	Components of Knowledge Management.	Questionnaire items
1	Knowledge creation	1 to 4
2	knowledge acquisition	5 to 8



3	knowledge organization,	9 to 12
4	knowledge retention.	13 to 16
5	knowledge dissemination	17 to 20
6	knowledge application	21 to 24

The questionnaire was developed by Scarborough and Zimmerer (1990) and provides a framework for assessing an individual's entrepreneurial traits. The validity and reliability of the questionnaire have been confirmed by experts and the source of the questionnaire. It consists of 10 multiple-choice questions, and each respondent receives different scores based on their selection of choices for each question. After adding up the scores for all ten questions, the level of entrepreneurship for each manager is determined (with a maximum score of 100). The scoring and interpretation of results are explained as follows.

The interpretation of the entrepreneurship questionnaire results is shown in Table 3.

Table 3. Interpreting the Results entrepreneurship questionnaire

Entrepreneurial Profile (EP)	Score
Exceptional Entrepreneur	Above 85
Entrepreneur	65-84
Potential Entrepreneur	40-64
Non-Entrepreneurial or Low Entrepreneurship	0-40

Findings

Table 4. Descriptive statistics of variables

Variables	Number	Minimum	Maximum	Mean	SD
Entrepreneurship level.	214	46	98	74.59	10.02
knowledge management	214	51	109	86.33	10.77
knowledge creation;	214	6	20	14.93	2.59
knowledge acquisition;	214	6	20	15.18	2.63
knowledge organization	214	8	19	13.21	2.66
knowledge retention	214	4	19	14.05	2.7
knowledge sharing	214	4	20	14.56	2.91

knowledge utilization	214	4	20	14.41	3.23
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As can be seen in Table 4, the mean and standard deviation of the variable of entrepreneurship level are 74.59 and 10.02, respectively. The mean and standard deviation of knowledge management are 86.33 and 10.77, respectively.

Table 5. Kolmogorov-Smirnov normality test

Variables	Parameter	Degree of Freedom	Sig. Level
Entrepreneurship level.	.053	214	.2
knowledge management	.043	214	.2
knowledge creation;	.192	214	.102
knowledge acquisition;	.205	214	.110
knowledge organization	.26	214	.125
knowledge retention	.197	214	.118
knowledge sharing	.181	214	.106
knowledge utilization	.237	214	.127



As can be seen in Table 5, according to the assumption of normality for the main variables and their components, it has been confirmed with a significance level greater than 0.05 ($p > 0.05$).

There is a relationship between knowledge management and entrepreneurship level among private club managers.

Since both variables are measured on a continuous scale, we will use the Pearson correlation test to determine the relationship between them.

Table 6. Correlation between entrepreneurship level and knowledge management among private club managers

Statistical index of the variable	The correlation coefficient	r^2	Sig. level
Entrepreneurship level and knowledge management	.79**	.62	.001

The results of the Pearson correlation test between knowledge management and entrepreneurship level in private club managers indicate a positive and significant correlation with a coefficient of 0.79 and a significance level of 0.001. According to Table 6, 62% of the variance in entrepreneurship level can be explained by knowledge management.

There is a relationship between knowledge creation and the level of entrepreneurship among managers of private clubs

Table 7. The correlation between entrepreneurship level and knowledge creation among managers of private clubs

statistical index of the variable	The correlation coefficient	r^2	Sig. level
Entrepreneurship level and knowledge creation	.43**	.18	.001

According to Table 7, the Pearson correlation coefficient test between the knowledge creation component and the level of entrepreneurship in private club managers shows a positive and significant relationship with a coefficient of 0.43 and a significance level of 0.01. 18% of the variance in entrepreneurship is explained by the knowledge creation component.

There is a relationship between knowledge sharing and the level of entrepreneurship among managers of private clubs.

Table 8. Correlation between knowledge sharing and the level of entrepreneurship among managers of private clubs

statistical index of the variable	The correlation coefficient	r^2	Sig. level
Entrepreneurship level and knowledge sharing	.46**	.21	.001

According to Table 8, the Pearson correlation coefficient between the knowledge-sharing component and the level of entrepreneurship is 0.46, indicating a positive and significant relationship at the 0.01 level of significance ($p < 0.01$). 21% of the variance in entrepreneurship is explained by the knowledge-sharing component.

There is a relationship between knowledge application and entrepreneurship level among managers of private clubs.

Table 9. Pearson correlation test between the knowledge application and the level of entrepreneurship in private club managers

statistical index of the variable	The correlation coefficient	r^2	Sig. level
Entrepreneurship level and knowledge application	.63**	.39	.001

According to Table 9, the Pearson correlation coefficient test between the two variables of knowledge application and entrepreneurship in private club managers shows a significant and positive relationship with a coefficient of 0.63 and a significance level of 0.001 ($p < 0.01$). 39% of the variance in entrepreneurship is explained by knowledge application.

Additional findings:

The level of entrepreneurship among private club managers can be predicted through knowledge management components.

Table 10. Tolerance and Variance Inflation Factor (VIF) Statistics for testing the multiple collinearity assumption among the independent variables of the study.

Variables	The statistic of linearity	
	tolerance power	Inflation factor variance
Knowledge management	.667	1.5
Knowledge creation	.685	1.46
Knowledge acquisition	.801	1.24
Knowledge organization	.738	1.35
Knowledge retention	.666	1.5
Knowledge sharing	.707	1.41

Power tolerance and variance inflation factor (VIF) are statistical measures used to examine the assumption of multicollinearity between independent variables in a multiple-regression analysis. Multicollinearity is the high mutual correlation between independent variables (components of knowledge management) and it should be examined before conducting the analysis. To test this assumption, two statistics of power tolerance and VIF are used. If the tolerance value for a particular variable is less than or equal to 0.1, it indicates the presence of multicollinearity. Another way to measure the tolerance of a variable is to calculate its VIF. Higher values of VIF indicate greater variance and the regression weight of that variable in predicting the dependent variable. VIF values greater than 10 indicate the presence of multicollinearity. In our study, the tolerance and VIF values are within desirable ranges, indicating the absence of multicollinearity between independent variables.

Table 11. variance for testing the significant prediction of entrepreneurship through knowledge management

Model	Sum of Squares	Degrees of Freedom	Mean Square	F	Significance level
Residual Sum of Squares (RSS)	13969.98 7435.64 21405.63	6 207 212	2328.33 35.92	64.81	.001

Based on Table 11, which shows the results of the analysis of variance for testing the significant prediction of entrepreneurship through knowledge management components, entrepreneurship can be predicted at least through one of the knowledge management components with



$F_{(6,207)}=64.81$ and a significance level of 0.001. This means that the model is significant in predicting entrepreneurship at least based on one of the knowledge management components.

Table 12. Multiple Linear regression analysis to predict the level of managers' entrepreneurship through knowledge management components.

Steps	Non-standardized coefficients		Standardized coefficients	T	Sig. Level
	B	standard error of the mean (SEM)	Beta		
Knowledge management	12.8	3.44		3.71	0.00
Knowledge creation	.59	.17	.15	3.46	.001
Knowledge acquisition	.52	.17	.13	3	.003
Knowledge organization	.82	.17	.22	4.79	.001
Knowledge retention	.74	.18	.2	4.05	.001
Knowledge sharing	.52	.15	.15	3.3	.001
Knowledge management	1.1	.14	.14	7.39	.001

Using the results shown in Table 12, which presents the analysis of variance to demonstrate the significance of predicting entrepreneurship through knowledge management components, it can be concluded that entrepreneurship can be predicted through at least one of the knowledge management components, with $F_{(6,207)}=64.81$ and a significant level of 0.001. This means that the model is significant in predicting entrepreneurship through at least one of the knowledge management components.

Regarding Table 12, which presents the results of multiple regression analysis for predicting managers' entrepreneurship through knowledge management components, all six components of knowledge management were successful in predicting entrepreneurship with a significance level of less than 0.001. The knowledge application component, with the highest Beta of 0.35 and a significant level of 0.001, predicts managers' entrepreneurship the most accurately ($p<0.01$). The knowledge acquisition component, with the lowest Beta and a significant level of 0.03, can still predict managers' entrepreneurship ($p<0.05$).

Table 13. Correlation and multiple regression coefficients for predicting the variable of entrepreneurship level through knowledge management components

	R	R ²	Adjusted R-squared	Standard error of the mean squared error
Model	.8	.65	.64	5.99

Table 13 shows the results of the multiple regression analysis correlation coefficients for predicting the criterion variable of managers' entrepreneurial level through a combination of knowledge management components. The knowledge management components with an R^2 value of 0.65 can predict the variance of managers' entrepreneurial levels. This means that 65% of the variance of the criterion variable (managers' entrepreneurial level) is explained by the regression model.

There is a relationship between knowledge management and entrepreneurship among private club managers.

To investigate this hypothesis, the correlation between knowledge management and entrepreneurship variables was calculated, which according to the results in Table 6 is equal to 0.79, indicating a relatively high and significant correlation at the alpha level of 0.01.

In general, according to the results of the Pearson correlation coefficient between the knowledge management components and entrepreneurial level, it can be inferred that all knowledge management factors including creation, sharing, and application of knowledge had a significant positive correlation with the level of entrepreneurship. The existing correlation coefficient indicates that in private clubs, knowledge management plays an important role in increasing the level of entrepreneurship among managers, and the stronger the knowledge management, the more noticeable the entrepreneurship will be. Therefore, organizations with higher levels of knowledge management can enhance their ability to respond to rapid variables and develop innovative ideas in product and service development (Scarborough, 2003).

Nunaka (1991) states that in a world where uncertainty is the only certainty, knowledge is the only sustainable source of competitive advantage. Knowledge creates innovation, and innovation is essentially a knowledge-driven process. Innovation is also a fundamental aspect of the entrepreneurship process, therefore, it can be concluded that knowledge management can play a vital role in supporting and fostering entrepreneurship. Knowledge management helps knowledge to be relevant in decision-making through information and knowledge gathering, planning, guidance, and sound decision-making, resulting in competitive advantages for individuals, and ultimately, significantly increasing entrepreneurship (Dindarlo, 1390). Knowledge management is a systematic process for finding, selecting, organizing, summarizing, and presenting information to increase the understanding and comprehension of employees in their particular areas of interest. Knowledge management helps organizations acquire, understand, and gain insights from their own experiences.

There is a relationship between knowledge creation and the level of entrepreneurship among private club managers

The results of the statistical analysis show that with 99% confidence, it can be said that there is a positive and significant correlation between knowledge creation and the level of



entrepreneurship. The correlation coefficient ($r = 0.43$) obtained is significant at the 0.01 alpha level. Therefore, it can be concluded that the higher the level of knowledge creation and innovation among managers, the higher their level of entrepreneurship, and vice versa. A manager who is weaker in knowledge creation will have a lower level of entrepreneurship.

The power of an organization in the future will be based on its knowledge power, and those organizations that focus on creating knowledge and supporting it in the organizational context will benefit more from this power (Mitchell & Boyle, 2010). Knowledge creation is not a process that can be displayed on a map. It can be seen as a process of creating new knowledge or replacing and improving existing knowledge through social relationships and organizational collaborations. This process occurs at individual and organizational levels and leads to the creation of new implicit or explicit knowledge (Alavi & Lidner, 2001).

In general, knowledge creation refers to an organization's or individual's ability to generate innovative and useful ideas and solutions, which is a key factor in creating innovation and entrepreneurship. Various research studies show that knowledge management, in general, and each of its dimensions, including knowledge production and creation, knowledge development and improvement, knowledge distribution and dissemination, knowledge application, and knowledge preservation and storage, are related to entrepreneurship.

There is a relationship between knowledge sharing and the level of entrepreneurship among managers of private clubs

The results of the statistical analysis of the second hypothesis indicate with 99% confidence that there is a positive and significant relationship between the knowledge-sharing component and the level of entrepreneurship. The obtained correlation coefficient of 0.46 is significant at the alpha level of 0.01. Therefore, it can be concluded that with an increase in knowledge sharing, the level of entrepreneurship among managers also increases, and vice versa, reducing knowledge sharing among managers can reduce the level of entrepreneurship.

Knowledge sharing, as a knowledge-based activity, is the most fundamental tool through which employees can exchange their knowledge bilaterally, and contribute to the deployment, innovation, and ultimately the competitive advantage of the organization (Wang and Noe, 2010). Entrepreneurship also supports creative, innovative, risky, and leading activities of the organization, leading to the creation of new products or services, tools or processes, innovative management methods, and ultimately the growth and dynamism of the organization.

There is a relationship between the application of knowledge and the level of entrepreneurship among private club managers

The results of the third hypothesis test show that with 99% confidence, it can be proven that there is a significant and positive correlation between the application of knowledge and the level of entrepreneurship. This is because the correlation coefficient obtained ($r=0.63$) is significant at the 0.01 alpha level. Therefore, it can be concluded that increased application of knowledge leads to a significant increase in the level of entrepreneurship, and conversely, decreased application of knowledge in the organization leads to a decrease in the level of entrepreneurship. The application of knowledge is a key element in the knowledge management process. According to the knowledge-based view, the value of individual and organizational knowledge is mainly hidden in its application (King et al., 2008). Developing new products and processes and innovation requires the deployment and integration of knowledge from various departments.



Employing more knowledge allows companies to continuously convert their organizational skills into products and services (Sarin & McDermott, 2003). Innovation involves the collection, dissemination, and use of both explicit and tacit knowledge (Hung et al., 2010). Therefore, an innovative organization has a strong connection with the deployment of its knowledge resources (Brockman & Morgan, 2003). Organizations with higher levels of knowledge management can enhance their ability to respond to rapid changes and develop innovative ideas in their products and services. Effective knowledge management facilitates knowledge communication and innovation processes and fosters innovation by improving perspectives and developing new capabilities (Lakshman, 2009).

If all components of knowledge management are implemented but the knowledge application component is not implemented, it cannot have much impact on entrepreneurship. To use knowledge in clubs, trust and collaboration must exist between managers and other stakeholders, so group work and collaboration among managers, employees, and other stakeholders are encouraged in such places. Along with teamwork and participation in decision-making, managers, and employees can present new ideas and, with more discussion and conversation, discover necessary opportunities among the ideas presented and, in this way, they can present a new product and process.

According to King et al. (2008), the knowledge management process begins with acquiring and creating knowledge, continues with sharing and transferring knowledge, and leads to innovation and effectiveness in the organization through the application of knowledge.

In the study by Vedadi and Abdolalian (1390), it was shown that among the four dimensions of knowledge management, the application of knowledge had the greatest impact on organizational innovation. The findings of this study are consistent with the results of research by Biglari (1387), Nasrollahi (1391), and Donga (2009).



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does not have

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