Building a Proposed Model for Knowledge Management in Iraqi Universities: Babylon University Model

Ihsan Ali Al Ramah^a, ^aGeneral Secretariat of the Central Library, University of Babylon, Iraq, Email: ^{a*}alihsanhl@gmail.com

This study aims to extrapolate some of the global models of knowledge management and then build a proposed model for knowledge management in Iraqi universities; specifically in the University of Babylon. The study then recommendeds to implement the model to serve as a quantum leap in knowledge management and as a gateway to the economy, which was built on knowledge.

Key words: *Knowledge management, knowledge management model, knowledge capital.*

Introduction

Knowledge reflects as an important means to promote higher education institutions and distinguish them among their counterparts. It is a great step towards their transformation into an economy based on knowledge. It has become clear that capital knowledge is the most effective way for transforming higher education into productive, strong and competitive institutions. It is possible to invest in knowledge as a knowledge system that helps to manage it is vital and dynamic. Therefore, firstly is to plan and adopt managerial knowledge models to identify all priorities and foundations for their success. Therefore, this research came as an attempt to build a proposed model of knowledge management at the University of Babylon. The research was based on two topics, the first is theoretical and the second is practical, in which it shows the steps to build the proposed knowledge management model.

The Problem of the Research

Our universities are living in a great managerial confusion that hinders the investment of their knowledge and knowledge capital, so that, there is wasting in money and efforts. There are no

scientific methods for the administration of working hard to advance their development. Therefore, we need scientific management models and programs which govern these universities towards knowledge management.

The Importance of the Study

The study is forming a practical step towards building the knowledge management model in Iraqi universities in general and the University of Babylon in particular. So to adopt the concept of a university invested in its culture and strategies, the possibility of access to the economy is based on knowledge in the future.

Objectives of the study

1. Extrapolation of global knowledge management models.
2. Building a proposed model for knowledge management at the University of Babylon.

Knowledge Management

It has become clear that the future administration of the whole world will adopt new organised administrative features rather than bureaucratic ones that will prevail this century. The most important of these is the tendency to apply the concepts of knowledge management, innovation and creativity instead of blind imitation. This has been reflected in some universities where the concept of universality in its programs and courses, such as international administration and international finance. It is also shown in other universities through their educational curricula according to the requirements of the market with small and medium enterprises. However, some universities are carrying curricula and programs to move to other countries (Water, 2008). The institution, which is regarded as a knowledge institution, is essentially an active and fundamental resource; it has a principle asset. This principle is based on achieving it's competitive objectives. Therefore, it needs a methodology for how to deal with this resource and the knowledge asset it possesses (Summaries et al., 2011). The scientific and educational institutions aim at excellence and competitiveness in the design and planning of strategies that achieve quality and competitive advantage; as well as their keen attention to the knowledge systems strategy due to the rapid change in the business environment which is difficult to predict. Therefore, these organisations must meet these challenges with effective planning methods and models of the studied scientific planning, so it should be concerned with the key element in it - knowledge capital. Thus it must build knowledge based on knowledge capital in its various plans and strategies because the correct use of knowledge and information resources is one of the most important elements of success and excellence of these institutions (Taher, 2012). As such, knowledge management is a big challenge for organisations to improve their performance and promote their human capital through the following:

1.Reducing expenses and raising their holdings to generate new revenue.

2. Coordinating the activities of different organisations towards achieving their objectives.

3. Maintaining outstanding organisational performance based on experience and knowledge and working to improve it.

4. An effective tool to invest knowledge capital from easy access to those who need it.

5. Confronting constant changes in the external environment of stimulation and regeneration itself (The Swiss salary, 2011); (Xu and Yaying).

Knowledge Management (Definition)

It is a process of extraction and investment of knowledge capital in an organisation, with a view to achieve efficient and innovative decisions in order to provide them with a competitive edge. It is also to gain customer loyalty and commitment. However, it is an institutional process aimed at coordinating and integrating data and information processing processes, technologies used, human resources and the factors surrounding the organisation (The Management, 2005). Therefore it is a systematic process of establishing, nurturing and maintaining the organisation to best utilise its individual and collective knowledge to achieve the mission and objectives of the organisation and to achieve sustainable competitive advantage and high performance (DeLong, 2004). From this, we can define knowledge management as: "a scientific management methodology that takes on the management of the whole organisation. It is integrated and distinguished between the affected parties and always seeks to achieve the highest distinction in the performance of individuals and the organisation It also ensures all their scientific and material rights.

Features of Knowledge Management Models

Any model of knowledge management must have some key features to enable it to achieve the objectives for which it was designed and the most important are the following (Bennett and Bennett, 2003). It must have:

1. The ability to accommodate the necessary changes either by deletion or increment or both.

2. The inclusion of all the basic requirements to sustain it.

3. The ability to provide organisations with the necessary knowledge to ensure their continuity and sustainability.

4. The availability of human resources represented by experts and specialists.

5. Align among the organisation's objectives with their strategic plan, activities, work procedures and knowledge management systems.

6. The efficiency of leaders in providing the regulatory environment that leads to the generation of knowledge and sharing it.

I think it is important that there is a high level of confidence from the higher authorities and the implementers of the proposed models in order to succeed in the management of knowledge in the various organisations.

**Types of the Models of Knowledge Management**

Many researchers have built diverse models of knowledge management in an attempt to understand and guide knowledge management activities in different institutions. Their aim was to direct these institutions to build well-established knowledge strategies that would help them achieve their goals, solve their various problems, and be more flexible and accommodative to changes around them (Zatta, 2011). Therefore, from this basis can be divided and according to our view as follows:

First: Universal Models

- **The Jason Gupta Model** (Abdullah, 2015)**:** Both "Jason" and "Gupta" proposed a paradigm from which to see knowledge management as a strategic process to achieve the goal of excellence. This model assumed five main components for producing an effective knowledge management process:

  1. **Harvesting**: An activity that results in the competitive advantage of organisations gaining access to knowledge from inside or outside organisations.
  2. **Filtering**: It is a process of purification of information and knowledge that is obtained by an organisation. If it is not of any benefit to them and the exclusion of the other, the organisation should not compile and code all the knowledge they have obtained just for the sake of it, so that their plan must match the mission and objectives and vision of the organisation.
  3. **Configuration**: After testing the knowledge management system to determine the strategic benefit envisaged, the organisation has reached a stage to develop mechanisms to store, utilise and develop this knowledge and should assist in generating a competitive advantage for the organisation.
  4. **Dissemination**: The facilitation of communication and the process of developing the culture of the organisation are the main factors influencing the proper dissemination of knowledge.
  5. **Application**: Achieving the competitive advantage of organisations is the application of knowledge management in the best form of images.

- **The Marquart Model** (Gupta, 2006): This model consists of six stages covering the transfer of knowledge to the beneficiary based on a comprehensive view of knowledge

management in the organisations and the following steps as follows: supply; generation; storage; use and analysis of information; transport and publishing; authentication and implementation. This is shown in the following figure:

Figure 1. Marquart Model
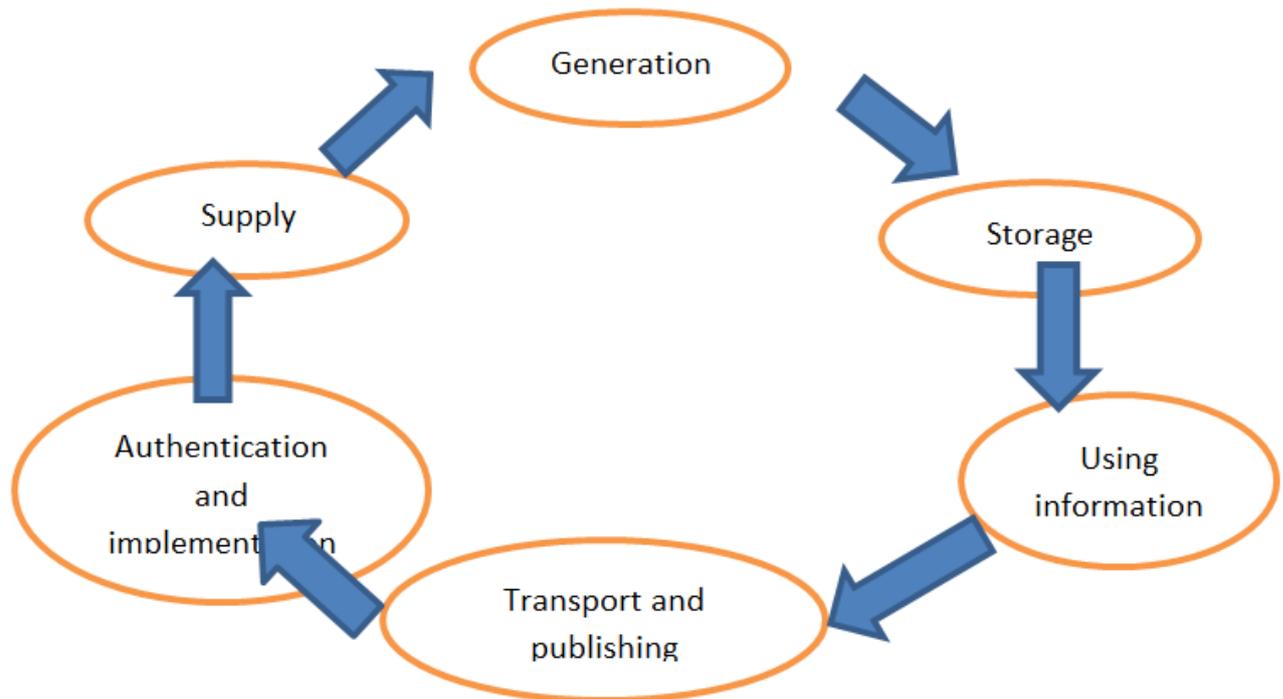
This model shows that organisations learn enough and effectively from the growth of the above processes, so they are interactive and overlapping processes because the information is distributed from multiple channels. Each channel has a specific time frame and a different one. As well as knowledge management, it must be reviewed and revised where knowledge management is at the heart of building the educational organisation, which leads knowledge through each of these six stages.

- **The Potts and Brogan model** (Al-Bilawi and Salama, 2007): The best ways to manage and evaluate knowledge are from the cognitive value chain. However, the effectiveness is assessed at each step and this process is considered successful if it performs ideally.

- **The Mo'al Model** (Denmes, 2001): This model deals with three things: 1. What is important in the knowledge culture, 2. What are the main objectives and 3. What are the most important criteria that can be achieved.

- **The Massey et al. Model** (Bilawi): Knowledge management is one of the processes of organisational change. It's success cannot be separated from the success of the change

process, which in turn is reflected in an organisation's performance as a whole and deals with a set of elements (knowledge management strategies and, main management effects).

- **The Wig Model** (Oleg, 1993): This model achieves four main objectives, 1. knowledge building, 2. retention, 3. collection, and 4. their use. It also focuses on identifying and linking functions and activities in organisations to produce services and products.

- **Skyrme Model** (Ali et al., 2019): This model is based on two power engines and seven strategic supporters. The first is to know what we know to avoid repeating innovation or failure to solve the problem previously solved. The second force is concerned with innovation and new knowledge and transforming it into new products and services. The success factors in this model are in short: the organisation's ability to respond to the needs of the beneficiaries; what is important in the attitudes, values and preferences in knowledge management; the development of an innovative culture; the access to experience, the registered experience and the possibility of its use; the exploitation and development of knowledge capital; the quality of external and internal relations.

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Organisation of the American Administration Model (Hanley, 2000): 1. knowledge discovery, 2. knowledge capture and 3. organisation knowledge sharing. The model also deals with the building of two types of formal networks:

> 1. **The Interest Community**: They are not necessarily from within the knowledge management program.
> 2. **The Practice Community**: Those who bear the burden of implementing the program.

Second: Special Models

• **The University Production Model** (Tori):It is an investment method practiced in a number of international universities which is developed so that to increase the resources of the services was provided to the beneficiaries, while maintaining their cultural and scientific obligations towards the community at the same time, the cooperation between universities and productive organisations can be in the form of (joint projects, both material and human, contracts concluded, strategic alliances, material support from industrial and production bodies in return for consultancy services provided by the university, exchange of experts).

• **The Intellectual Property Model** (Daniel, 1997): This model is concerned with the management of intellectual property in the organisations through five successive steps agencies as follows:

1. Implement a Strategy to identify the role of knowledge in work and investment in intellectual assets to create new knowledge.

2. Evaluate the strategies to be used by competitors.
3. Open a special file of knowledge to determine what you own and what you use.
4. Evaluate the current knowledge of the organisation and its cost and whether it can be maximised.
5. Gather the knowledge file and then re-process in the same order.

The Virtual University Model (Liu, 1997): This model deals with ways of investing the Internet, exchanging information, and the forms of interaction of elements of the various educational process, so that the geographical and temporal barriers disappear. The results of this model to new approaches is the result of the moment of the latest global scientific developments, then the various experiences are available to all, so interacting with the demands of the renewed labour market to achieve lifelong self-education.

We see that the spatial models are the closest to implementation in institutions of higher education because they have the appropriate elements to promote them. This is controlled by the adoption of one of them to manage knowledge in it.

Table 1: The infrastructure of knowledge capital at the University of Babylon

N	The ingredients	Weighted mean	standard deviation	Coefficient of variation	severity of response%	level
1	Research Partnership	1.85	0.92	0.496	37	Agreed
2	Media Marketing	1.94	0.85	0.440	38.7	Agreed
3	Laws	1.90	0.87	0.456	37.94	Agreed
4	Academic support	1.76	0.84	0.475	35.2	Agreed
5	Training and education	1.99	0.93	0.469	39.8	Agreed
6	Community trust	1.93	0.80	0.417	38.5	Agreed
7	Strategic Planning	2.32	0.80	0.420	46.4	Agreed
8	research and development	2.32	0.974	0.420	46.4	Agreed
9	Information Technology	2.32	1.02	0.441	46.3	Agreed

Table (1) Shows the following:

Practical Aspect of the Study
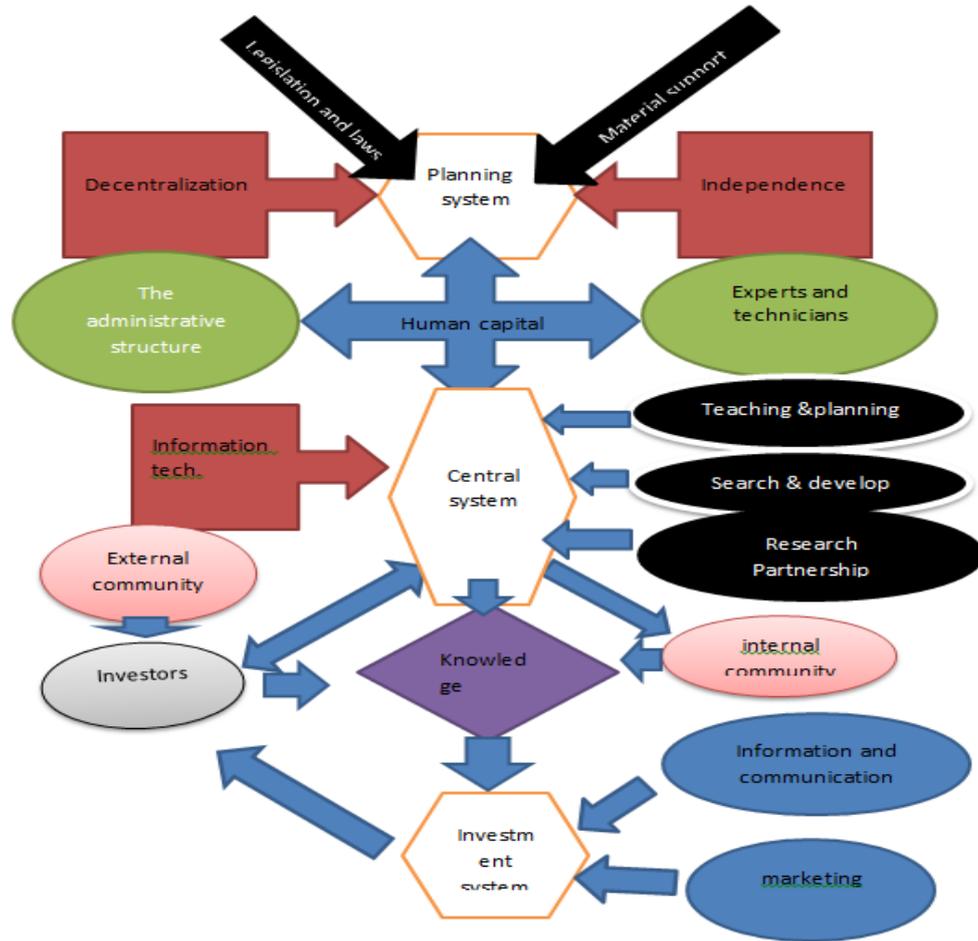*Infrastructure at the University of Babylon*

The Iraqi universities, especially the University of Babylon, are characterised by a weak infrastructure which supports the capital of knowledge, as stated in the study of the researcher (Ihssan, 2018) about this problem where he took the opinion of a sample of the teachers of the University of Babylon and as shown from the results in the following table and in short in in very short summary:

The infrastructure at Babylon University is weak and all of its components are fixed in the previous table. The sample of the study agrees. Therefore, this university needs a holistic approach, in light of the table above, to build a knowledge management model which is capable of raising the knowledge capital.

Proposed Knowledge Management Model

Before we strive to achieve comprehensive and sustainable development in the country, we must first achieve comprehensive development in our universities, such as infrastructure, to promote knowledge capital so that it is ready for investment. This requires a combination of all material, technical, scientific and administrative efforts, which it is a large tool to push for an upward growth of the capital elements of knowledge in the Iraqi universities. Therefore, the study built a model of knowledge management that can be applied in the management of knowledge capital towards investment based on the principles of the university invested as shown in the figure below:

Figure 1. Proposed Knowledge Management Model (University Invested)

Figure (1) shows the following:

Planning system: In order to be strategic planning for the management of knowledge effectively, the University of Babylon should promote the following:

❖ Decentralisation: That the relationship disassembles with the Ministry of Higher Education and Scientific Research to a certain extent so that it has its specificity as an institution in its own right to make its academic decisions and objectives. The aim is to achieve them from the strategic plans drawn without affecting anyone.

❖ Independence: It is a product of decentralisation that gives the university the characteristic of privacy and independence from the rest, therefor decentralisation and independence are two sides of the same coin that achieves the same purpose.

❖ The Investor University: The priorities of the goals set out in the strategy of the university are the concept of "the university invested" which must be committed to and educate for it within the corridors of the university.

❖ Knowledge Management: The mean of the university is to enter the knowledge economy, which it is to prove in the university strategy and the work on education and dissemination among the university community as well as instilling their vision of knowledge, of seminars, conferences and workshops. It is possible to open a department specialised in knowledge management within the Faculty of Management and Economics in the University of Babylon based on Arab and international experiences to promote this idea and use it, then develop it to serve the university on the one hand and development on the other hand.

❖ Administrative structure: the things that support the management of knowledge; the availability of a structure suitable for the conduct of administrative work for an integrated system of departments, divisions and units; an assistant to the university president specialised in marketing and investment with higher certificates and in an entry level position. In addition to this, we need different fields of specialisation. The most important of these are the knowledge workers and their intermediate role in attracting knowledge and excellence in their expertise, as well as specialists in promotion, media, marketing, intellectual property laws, patents, contracts and others.

❖ The development of the strategy requires financial and moral support in order to implement the goals set and the goals to be achieved, represented by funds, gifts, bonuses and other support of the higher authorities.

❖ The experts and technicians have a great role in drawing and setting the strategic planning and directing it to serve the university, so their presence is important and effective for achieving the purposes prescribed and must be drawn from the outside community in case they are not available at the university.

❖ The important things that support the strategy are the laws and legislations that give an important purpose for achievement; so, the legislation of effective and supportive laws is necessary for its success.

❖ Inputs: The human capital of university students of all types and levels, professors, employees and new technicians who need management, support, care, guidance and investment when they enter the university system.

Central System: represents the heart in the university as well as being the central processing unit at the university, which takes the following things:

❖ To carry out university education at all stages (bachelor's, master's and doctorate), requires professors, experts, specialised technicians and advanced curricula that mimic the reality of national development.

❖ Conducting university training within the relevant developmental and industrial bodies and all students, as well as training new university professors who need this within the courses held by the university in its scientific centres or others who are outside the country if needed.

❖ Find ways to live in the development institutions of university professors because it is the best for them to extrapolate the industrial and development of the country as well as to stand on the dilemmas of industry and local development and find ways to solve them by researches and studying it from time to time.

❖ Appling scientific research, master's thesis and doctoral dissertations, which should reflect the reality of industry and development and its problems as well as scientific consultations.

❖ The provision of knowledge incubators, laboratories, materials and devices which are necessary for the work of the best experimental scientific methods.

❖ Working with the principle of research partnerships with the beneficiaries to achieve the complementarity and mutual benefit, also expertise necessary for both partners to produce an active knowledge capital that drives a forward development and investment system.

❖ The university system needs a technical system composed of experts, equipment, communications, internal and external networks, databases and information banks. It manages the work of the system so that we obtain a knowledge capital (express and implicit) from attracting, holding, transferring and storing all creative or useful information or creative results to be ready for investment internally (the university) and externally in the beneficiaries of the institutions of development and industry.

Investment System: We cannot call the knowledge that it is the capital knowledge only by investment in development and industry.

❖ The investment of knowledge capital requires a media system, full communication and specialised staff with experience in dealing with it from the media and communication tools allocated to it (university website, university radio, bouquets, conferences, etc.).

❖ The marketing mechanism should study the market and the choices of the customer and his aspirations and desires, which are the beneficiaries.

❖ We need a legal system that invests in and guarantees rights, regulates contracts and work according to appropriate legal standards.

❖ In order to invest in knowledge capital, it must be supported by the social trust of the University of Babylon as well as the trust of the beneficiaries so that we can invest in it.

❖ The return from investment materially and morally will support the university many times and continuously because the knowledge capital is inflated directly with its investment.

❖ The result is that the University of Babylon will enjoy the positive independence that qualifies for development and competitiveness with other local, Arab and international universities, so that it becomes productive universities.

❖ From the above we can summarise briefly in the following model:

Figure 2. The short knowledge management model
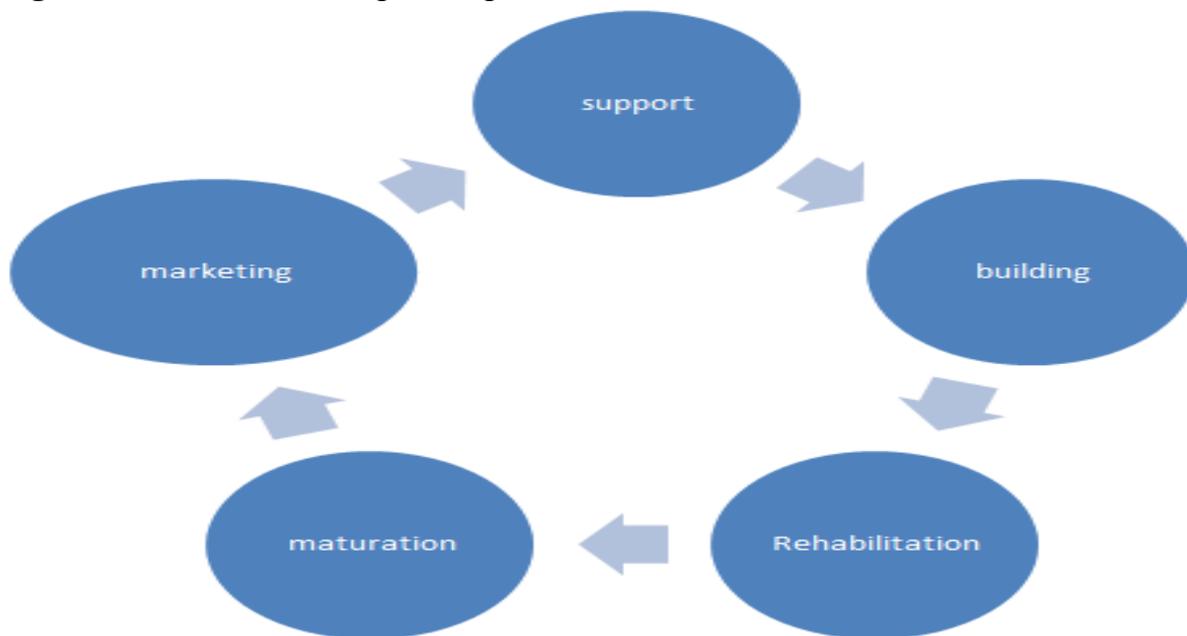
Above it was shown in Figure (2):

1. **Support**: It means all material, moral and legislative support.
2. **Building**: It is intended to build human capital capable of creativity and development.
3. **Rehabilitation**: It is intended to qualify all the requirements of human and technical success for creativity and development.
4. **Maturity**: It means all knowledge capital ready for investment and has all the specifications qualified for it.
5. **Marketing**: It is intended to invest capital knowledge internally or externally, so that the university can obtain the benefits of materiality and morality through the consolidation of external relations service to the university community of all kinds and material through the material returns. This results in a large balance supporting them on a continuous basis.

Recommendations of the Study

1. Implementation of the proposed knowledge management model at the University of Babylon.
2. Mainstream the implementation of the proposed model in the Iraqi universities if it's successful or not.
3. Follow all the infrastructure requirements of the previous proposed model.

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