

BARRIERS AND FACILITATORS AND THE ROLE OF KNOWLEDGE BROKERS AT KNOWLEDGE SHARING AMONG STUDENT "A CASE STUDY IN THE UNIVERSITY"

BİLGİ PAYLAŞIMININ ÖĞRENCİ ARASINDA BİLGİ BRUKERLERİNİN ROLÜ VE ENGELLEYİCİ VE DESTEKLEYİCİ FAKTÖRLERİ "ÜNİVERSİTEYE DAYALI BİR UYGULAMA"

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ABSTRACT

Knowledge sharing is an essential part of new organization that plans to innovate and improve organizational performance in the competitive market place. Sharing of information has been described by various scholars to present solution or opening new ideas about its function and importance. This work attempts to describe knowledge sharing and its component from perspective and focuses on the sharing systems within the knowledge based organizational groups. Institutes as the main member of knowledge creation organization is highly dependent on the performance of information sharing groups. In this study, a quantitative research approach is used, and primary data is collected by conducting a survey. The collected data is analyzed in SPSS and Smart-PLS by applying different statistical tests such as correlation, regression model and path coefficient. Research findings of the report indicate that there are strong and positive effects of knowledge broker on reducing the role of barriers and improve the facilitator's role.

Keywords: Knowledge Sharing, Knowledge management, Knowledge sharing facilitators, Knowledge sharing Barriers, Knowledge Brokers

ÖZ

Bilgi paylaşımı, rekabetçi piyasadaki organizasyon performansı yenilemeyi ve geliştirmeyi planlayan yeni organizasyonun önemli bir parçasıdır. Bilginin paylaşılması, çeşitli bilim adamları tarafından çözüm sunmak ya da işlevi ve önemi hakkında yeni fikirler açmak için tanımlanmıştır. Bu çalışma, bilgi paylaşımını ve bileşenini perspektiften tanımlamaya ve bilgi tabanlı örgütsel gruplar içindeki paylaşım sistemlerine odaklanmaya çalışır. Bilgi yaratma örgütünün ana üyesi olan enstitüler bilgi paylaşım gruplarının performansına büyük ölçüde bağlıdır. Bu çalışmada niceliksel bir araştırma yaklaşımı kullanılmış ve bir anket yürütülerek birincil veriler toplanmıştır. Toplanan veriler, korelasyon, regresyon modeli ve yol katsayısı gibi farklı istatistiksel testler uygulanarak SPSS ve Smart-PLS' de analiz edilmiştir. Raporun Araştırma bulguları kolaylaştırıcının rolü engelleri rolünü azaltmak ve iyileştirmek üzerine bilgi acentesi güçlü ve olumlu etkileri olduğunu göstermektedir.

Anahtar kelimeler: Bilgi Paylaşımı, Bilgi Yönetimi, Bilgi Paylaşımı Kolaylaştırıcıları, Bilgi Paylaşımı Engelleri, Bilgi Komisyoncuları

1. INTRODUCTION

Modern conditions of marketplaces are forcing organizations and institutes to deal with rapid changes, make more profit and reach steady improvement according to the customers' demands and the various option in marketplace. Recent years new theory of economy was established that is called knowledge-based-economy. This economy is an economy based on knowledge and ideas, in which the key factor of prosperity and

economic growth is the superior knowledge capitalization. The knowledge economy is the use of knowledge to generate tangible and intangible values. The term was popularized by Peter Drucker as the title of Chapter 12 in his book *The Age of Discontinuity* (1969). A key concept of the knowledge economy is that knowledge. It can be defined as: Production and services based on knowledge-intensive activities that contribute to an accelerated pace of technical and scientific advance, as well as rapid obsolescence. The key component of a knowledge economy is a greater reliance on intellectual capabilities than on physical inputs or natural resources.

Recently, the concept of intellectual capital has been identified as a key resource and driver of organizational performance and value creation (Marr et al., 2004). Organizations perform well and create value when they implement strategies that respond to market opportunities by exploiting their internal resources and capabilities (Penrose, 1959).

Knowledge sharing has been highly regarded as an important process in enhancing organizational performance as emphasized by Nonaka and Takeuchi (1995) on their SECI knowledge circle. However, knowledge sharing is not easy to be implemented. Sharing knowledge requires willingness, trust, conducive and suitable environment for the effective knowledge sharing to take place. This study is to investigate the impact of intellectual capital dimensions, namely human capital, structural capital and relational capital on knowledge sharing in the small and medium enterprises.

2. LITERATURE REVIEW

The capacity of organizations and people inside them directly impact on participating at knowledge transaction, especially organizational knowledge, is distinguished as one of the contributing components to organizational power. Sharing of knowledge helps people and organizations develop new kind of knowledge. This enables them to talk about it and understand specific subjects which can empower the age of new knowledge (Ferine, 2003).

2.1. Knowledge

The oxford dictionary defines meaning of knowledge as follow: reality, information, and abilities obtained through involvement and training; the hypothetical or practical comprehension of issue. (oxforddictionaries.com / definition / knowledge). Armstrong (2009) demonstrated a valuable and complete definition for knowledge that related to individuals understanding about items, thoughts, ideas, strategies, practices and the way works are finished. Regardless of different meanings of knowledge, there is common part that related to the quality of awareness and comprehension about somebody or something, for instance realities, information, clarifications, data or talents and capacities which is collected among trainings, catching, comprehension, finding or learning results.

Wang and Noe (2010) indicated that knowledge has more significant and key part at organizational levels as a basic response resource. Associations in this deeply increased competition need to utilize all their ability, assets, adaptability and administration to remain at a safe area and benefit. To accomplish this preferred standpoint, they need to find finding staffs with articular information, aptitudes, or capacities, in addition on sharing Knowledge.

In 2007 research distributed by Danny. P (2007), which clarified the cause of DIKW, pyramid. For better understanding the parts of information and profiting it, there is a division and separation system that called DIKW pyramid. It is otherwise called the DIKW chain of importance, it is also known as the DIKW hierarchy, wisdom hierarchy, knowledge hierarchy, information hierarchy, and the data pyramid.

It is comprehensively utilized by theoreticians, in Software engineering, Administration Data Frameworks and in the authority, as they talked about, the data chain of command, and the "Knowledge Pyramid" is one of the fundamental, conceded and broadly utilized as a part of the data and information written works. In meaning of information, usage of knowledge management frameworks and the meaning of information and data at IT, the DIKW pyramid has utilized for planning systems (Rowley, 2007).

2.2. Type of Knowledge - Tacit knowledge and Explicit Knowledge

Tacit knowledge First time characterized by Polanyi (1966). Tacit knowledge is a sort of implicit, undocumented and secured of knowledge held by typical individual, due to the feelings and emotions, individual encounters, explore, singular recognition, knowledge, dreams, contemplation's and customized data .it is gained generally through investment with other individuals among various normal activities. Borgatti and Cross (2003) described that different qualifications can be made among "know how",

knowledge about substance," know what ", knowledge about procedures and "know who". Different refinements can be made among "comprehend what", knowledge about substance.

The second type of knowledge as indicated by the experts is explicit knowledge. It is knowledge that can be recorded, arranged, acquires, analyzes, recovers and verbalized. Moreover, it can be discussed and registered as literacy, digits, mathematical and consistent rules. Explicit knowledge is anything but difficult to flow and circulate. It can be founded in documents, in the internet, and other seeable and unwritten sources. As indicated by Nonaka (1994) explicit knowledge is about that sort of knowledge that can be transferable and translatabe in formal terms, for example, archives, orderly and principled language. It is just a sort of whole learning domain.

Table 1: The Characteristics of Tacit and Explicit Knowledge

Explicit knowledge	Tacit knowledge
Intentional normal, specialized	Intellectual, empirical learning
Well-organized	Individual
Constant extent	Setting delicate/particular
Contents self-determining	Powerfully made
Give external existence or form to	Unconscious assimilation
Smoothly qualified	Hard to collect or modify
Simple to codification	Hard to divide up

Source: (Nanka ,1994)

2.3. Knowledge Management

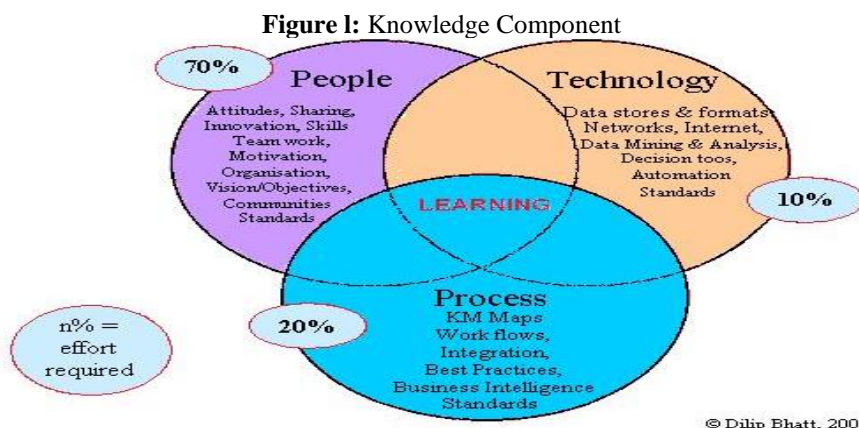
Knowledge Management is an idea and a term that characterized two decades prior, generally in 1990. Simply one may state that it implies arranging an organization's information and knowledge comprehensively, however that sounds somewhat vague, and shockingly enough, it isn't the entire picture. Early in the KM development, Davenport (1994) offered the still broadly cited definition:

"Knowledge management is the way toward catching, disseminating, and adequately utilizing knowledge." As indicated by Girard, JoAnn L. (2015), Knowledge management (KM) is the path to creating, contributing, operating and managing the information and data of an organization. Likewise, Knowledge management is a procedure that must record for the mechanism and structures that is needful to deal with knowledge, at the same time, focusing on the procedures and executants of the knowledge that is trying to supervise.

Generally, the dominant part of various definitions is Knowledge Management in Glossary: Knowledge Management and Sharing have the terms in like way and related viewpoints like making, dealing with, sharing, and using data and experiences, catch, update, and reuse information to achieve hierarchical targets, exact administration of strategies, composed approach to manage the creation.

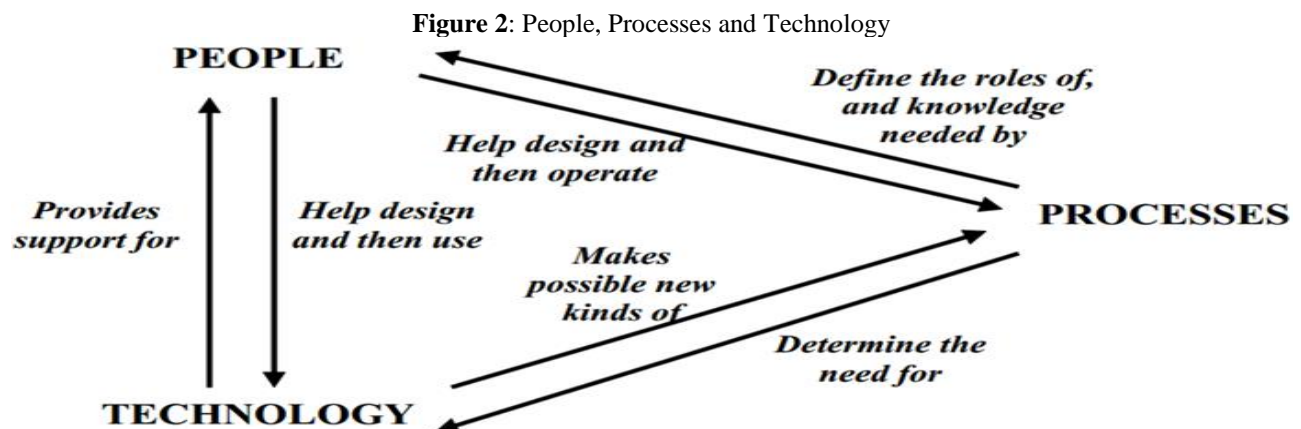
2.4. Elements of Knowledge Management and KM Assessment

Bhatt (2000) proposed details the components and its sub-components of knowledge management. Individuals, Process and technological issues that are isolated to the many parts help to give better technique. All the models are attempting to accomplish and actualize a capacity which disagree and bear on the competitive condition. Based on actual practices and encounters of the major worldwide KM contextual investigations, the component for KM can be generally and directly categorized into three classes- Individuals, Processes, and technology.



Source: (Dilip Bhatt, 2000)

These three components interface together, each of them having a bilateral association with each of the other two. For example, Individuals are engaged with planning and then working at Processes, while Processes determines the parts of, the knowledge required by Individuals (Armstrong, 2006).



Source: (Edwards, 2009)

2.5. Knowledge - Sharing Barriers

Barriers may show themselves in various kind and diversity, they can be characterized in many classes according to the circumstance that organizations look with the projects or issues amid the activity mode. The two-major categorizing method have examined among analysts, one has the global perspective about prohibition and group them as internal and external barriers, and the other goes further at the knowledge management model's component as personal, organizational and technological barriers. The two orders are helpful to building up the knowledge management frameworks (Martinez, 2016).

Martinez (2016) recommended two of them as external to the project (however internal to the organization) and internal to the project, although, they are firmly related. The external barriers would incorporate all those obstacles that keep the exchange of knowledge over the organization (the between project level). The internal barriers would concentrate on the deterrents that make knowledge sharing between individuals from the group troublesome

Andreas Riege, (2005) categorized the major barriers at personal and organizational level as follow:

- ✓ Timing issues and problems to knowledge sharing
- ✓ Danger of sharing may create bad condition or endanger job consistency.
- ✓ Weak communication between team.
- ✓ Absence of public media and network.
- ✓ Differences in management levels.
- ✓ Shortage of trust climate among individuals.
- ✓ The differences and multi-cultural issues and structures.
- ✓ Low quality and complex expertise or administrative issues.
- ✓ Inappropriate official and unofficial atmosphere to participate in sharing.
- ✓ condition of rewarding system at organization.
- ✓ Solid organization culture does not have sufficient assistance to sharing.
- ✓ Conflicts and harmful competition between business section.
- ✓ Large scale of structure and possibility of unmanageable.
- ✓ Lack of knowledge about IT technology and applications.
- ✓ Lack of proper internal and external supports related to IT systems.
- ✓ Imaginary expectation of IT framework's ability at doing tasks from staffs.
- ✓ Construction of IT systems without recognition the correct need.
- ✓ Lack of sufficient awareness of new and updated IT frameworks and systems.

2.6. Knowledge Sharing Facilitators

The most challenges for any organization are about using knowledge (Gupta and Govindarajan, 2000). if knowledge sharing can be applied it may prompt expanded creative execution, and decrease the capital and assets wasting (Bohn, 2000) . However, knowledge sharing does not easy and simple task. Individuals ability at preparation and participate in knowledge sharing is a main obstacle for economical knowledge

sharing exercises, Therefore the quantity of articles, books and courses breaking down how to conquer these boundaries have happened, and how to defeat them.

Knowledge sharing is encouraged by the working of motivators, implying that additional motivators increase additional expenses and diminish-a specific kind of knowledge sharing conduct (Cabrera and Cabrera, 2002). An essential part of sharing is the tools and procedures that provide motivations and connections to expand person's ability in sharing of knowledge. Motivators for encouraging sharing could be tangible and intangible prizes, and an expanding measure of research focuses on that non-monetary prizes are much more critical than monetary prizes (Osterloh and Frey, 2000).

A few analysts show that emphasizing monetary depended rewards can create better facilitating tools for knowledge sharing (Foss, 2003), however the directing method of wining at examination among knowledge sharing systems depicts the fact that knowledge may be considered as yielding force, and despite the fact that people appear to act naturally enthusiasm chasing, knowledge sharing can be facilitated by non-financial related prizes.

As Torsilieri (2001), was underscored, there is very difficulties in reporting any positive consequences of using knowledge sharing tools, strategies and theories Motivations are beneficial because make individuals to participate in various leveled work that theses job is possible to take and done. In different words, individuals will be leaded to participate in knowledge sharing when they get something as a byproduct of the knowledge they share. What they share depends on which model is used and accepted by organization reward system. (Cabrera and Cabrera, 2002).

2.7. Knowledge Broker

According to the accepted definitions, knowledge broker is a mediator that can be in the form of an association, or group of people or man, that expects to create connections and systems between makers and clients of knowledge by giving connection route to the source of knowledge. There are such enormous quantities of different definitions for term of knowledge broker due to the field that it used, each of them has the consistent center of vision, part and limits. Knowledge handling is a developing field where the focus is the creation, exchange and use of information between individuals (Holgate, 2012).

Migle and Caroline (2001), defined at published paper that entitled 'The Theory and Routine with respect to Knowledge Brokering in Canada's Health Framework' dispersed by Canadian Health Administrations Exploration Establishment (CHSRF) in 2003 evidently analyze the information dealer's ability to support association, find, process and modify learning in different settings.

The idea of knowledge brokering is additionally proposed by Pawlowski and Robey's (2004) where the knowledge broker is a knowledge exchange facilitator. Knowledge agents act as facilitators and help systems to exchange knowledge, in some case their action is the art of connecting and establishing relationship between collectors of information, providing exchange stream between engaged people, creating and consulting about new method of exchange among the process. (Wenger, 1998).

The primary goal of a knowledge broker is to transmit and consider discoveries from the academic exercises in which knowledge is required, for example, organizations, industry, health administrations and open by associating the knowledge generators to the individuals who required it (Holgate, 2012).

There is one general hypothesis that a knowledge broker does not act as manager among the recorded in whom they act, also they have close or direct relationship with pioneers. The knowledge broker may be arranged outside of the customary authoritative chain of command, (for instance, regarding assigning the financial plan or execution managing the outcomes). They will move between validate headway and practice change; they may try to be reasonable in picking data and chances to affect the people who are organized in either side of the evidence practice limit (Lomas J, 2007).

3. RESEARCH METHODOLOGY

The questionnaires of this study are based on the pervious articles and researches in the field of knowledge management issues, knowledge sharing elements such as facilitators and barriers and about knowledge brokers and its role at sharing process. the questionnaire is divided in three parts and selected from different sources. the first part is about incentives and motivators at knowledge sharing or generally classified as facilitators. In this section the most dominant aspects and are selected and customized for this study.

One of the most used sources is an article that published by Christine N.T and T. Ramayah (2014) as “The role of motivators in improving knowledge-sharing among Academics”, their works on the essential problems that empower and motivating academics to share knowledge and classified issues as intrinsic motivators and extrinsic ones. Intrinsic motivators consist of commitment; enjoyment in helping others and extrinsic motivators consists of reputation; organizational rewards, also the other sources used in the facilitators and barriers part commonly because of the intense relationship of them in the sharing process.

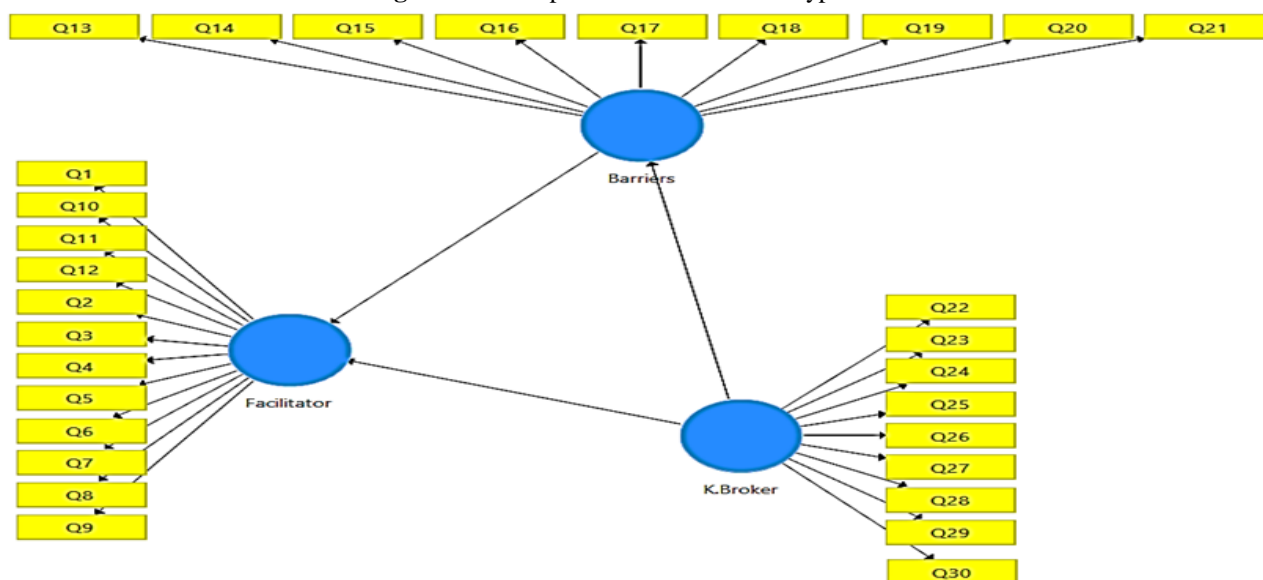
3.1. Hypotheses and Conceptual Model

According to the literature and the empirical research, evaluation the role of knowledge broker at knowledge sharing with respect to the facilitators and barriers that includes internal and external source, is the main target of research. for this aim research model, variables and relationships among them will be described, and main hypotheses are as below:

H1: The knowledge brokers have positive impacts on reducing barriers and obstacles effect during the knowledge sharing among students.

H2: The knowledge broker has impacts on compensating lack of facilitator’s effect during the knowledge sharing among students.

Figure 3: Conceptual Model for Main Hypotheses



3.2. Data Collection Tools and Method Research Variable

In the literature section the articles, books, magazines and websites were used, also the needed data to analyze the hypothesis were collected by questionnaires.

The questionnaires were designed as standards including 2 parts: the first part includes general information about volunteers such as, gender, work experiences, nationality, age and educational level. The second part that divided to 3 sub-groups includes facilitators, barriers and knowledge broker. The facilitator part was 12 questions; the barriers part 9 questions and knowledge broker 9 question, totally 30 questions.

Table 2: Questions Detail

NO.	Variable	Number of questions	Questions order
1	Barriers	12	Q1-Q12
2	Facilitators	9	Q13-Q21
3	Knowledge Broker	9	Q22-Q30
	Total	30	Q1-Q30

3.3. Data Analysis Method

In this segment path multiplication rule was utilized to straight and indirect impacts in the portrayed model; the variable (Knowledge. Broker) directly affects another (BARRIERS) and additionally in indirect impact (from K. BROKER to Facilitator to Barriers). The direct impact is the institutionalized basic coefficient, also called the internal model stacking of Broker on Barriers. The impact of indirect path is related to the result of the route multiplier for Knowledge Broker to Facilitators and the route multiplier for Barriers to Facilitators.

Partial Least squares (PLS) have the other name as “Forecast of Hidden Combination “because of related universal technique. It is better to consider the possibility of being various type of Y ingredient and various type of X ingredient, so when the arrows interfacing ingredients to the models indexes it happen reflective like become visible.

For confirmative Factor Analysis, there will be a column vector, y , including p dependent variables. We will have a similar situation with the vector x that is a q by 1 column vector. In SEM (Structural Equation Model) terms, it is said that y contains the internal variables and x contains the external variables. An internal variable is one that appears at least once as the dependent variable in an equation. On the other hand, variables that do not appear on the left-hand side are external, or "given." In other words, all variances of, and covariances between, exogenous variables are determined outside of the system. They are not at issue. The variances and covariances of the endogenous variables are being modeled as a function of the exogenous variables. The basic model looks like,

$$y = By + \Gamma x \quad (3.1)$$

The p by p B matrix contains the coefficients of the regressions of y variables on other y variables with 0's on the diagonal which implies that a variable cannot cause itself. The p by q matrix Γ contains the coefficients of the y 's on the x 's. The error vector, ζ , is p by These errors are different than factor analysis errors; they represent *errors-in-equations*, in the way that these equations are specified. Thus, they are also called *specification errors*.

Now let us define:

$$V(x) = E(xx') = \Phi \quad (3.2)$$

$$V(\zeta) = E(\zeta\zeta') = \Psi \quad (3.3)$$

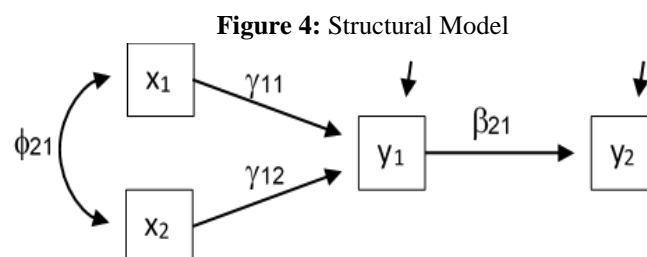
we have “reused” the Ψ matrix from Chapter 9. In confirmatory factor analysis, Ψ was used for the factor covariance matrix. In fact, the use of Ψ as the covariance matrix of the ζ 's is actually consistent with its Chapter 9 meaning. At this point we are ready to deduce what is known as reduced form. Reduced form requires that we solve for the y vector, as below:

$$y = By + \Gamma x + \zeta \quad (3.4)$$

$$y - By = \Gamma x + \zeta \quad (3.5)$$

$$(I - B)y = \Gamma x + \zeta \quad (3.6)$$

Now let us look at the path diagram for a causal model.



Source: (Smart Pls.com)

Structural model:

$$y_1 = \gamma_{11}x_1 + \gamma_{12}x_2 + \zeta_1 \quad (3.7)$$

$$y_2 = \beta_{21}y_1 + \zeta_2 \quad (3.8)$$

4. ANALYSES

In this section the results of the preliminary analyses are described, whereby the focus is on the descriptive statistics, factor analysis, reliability analysis, outliers and normality of distributions. There were 120 distributed questionnaires among students and 96 of those responded completely, 15 had missing data and 9 did not answered, so the all analysis is based on 96 completed papers.

4.1. Composite Value of Reliability

The Composite value of reliability is a better probability related Cronbach’s alpha in the same validity in a reflective model. That will be supported as a measure of dependability according to the fact that Cronbach's alpha may over-or have a poor opinion of scale dependability quality, often the last specified. Also, composite dependability may stimulate higher assessments of honest and goodness of significant quality in Smart PLS, compared to Cronbach's alpha. The value related to the composite reliability is between 0 and 1. Having a good results in the descriptive tests need to value outstanding than 0.6 (Button, 1998), according to Henseler and Sarstedt, (2012) , the values same or greater than 0.70 is adequate to the testes that have confirmatory purposes, finally when the value is the same or bigger than 0.80 is good confirmatory research (Daskalakis and Mantas, 2008). The values more than 0.90 can be inferred that different variables have little effect to each other, instead of showing the exact correlation among factors.

Figure5: Composite Reliability

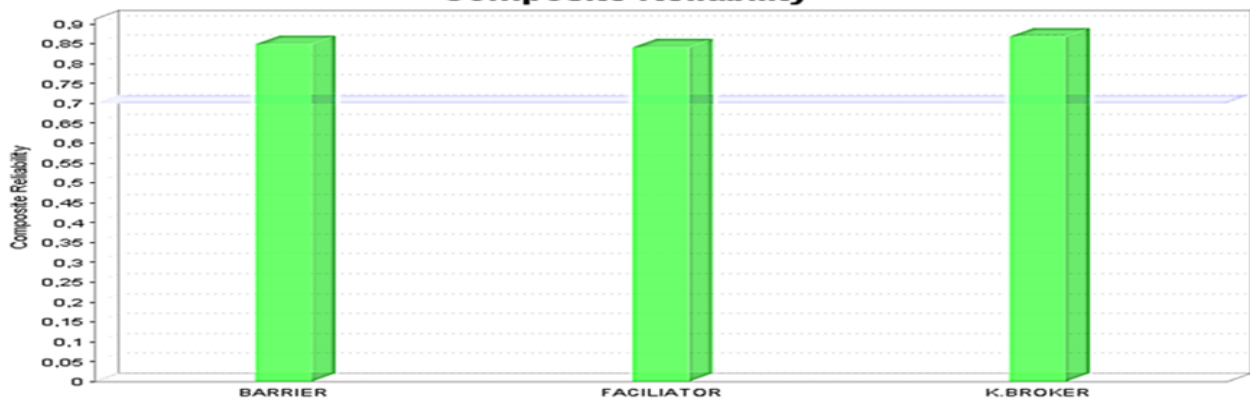
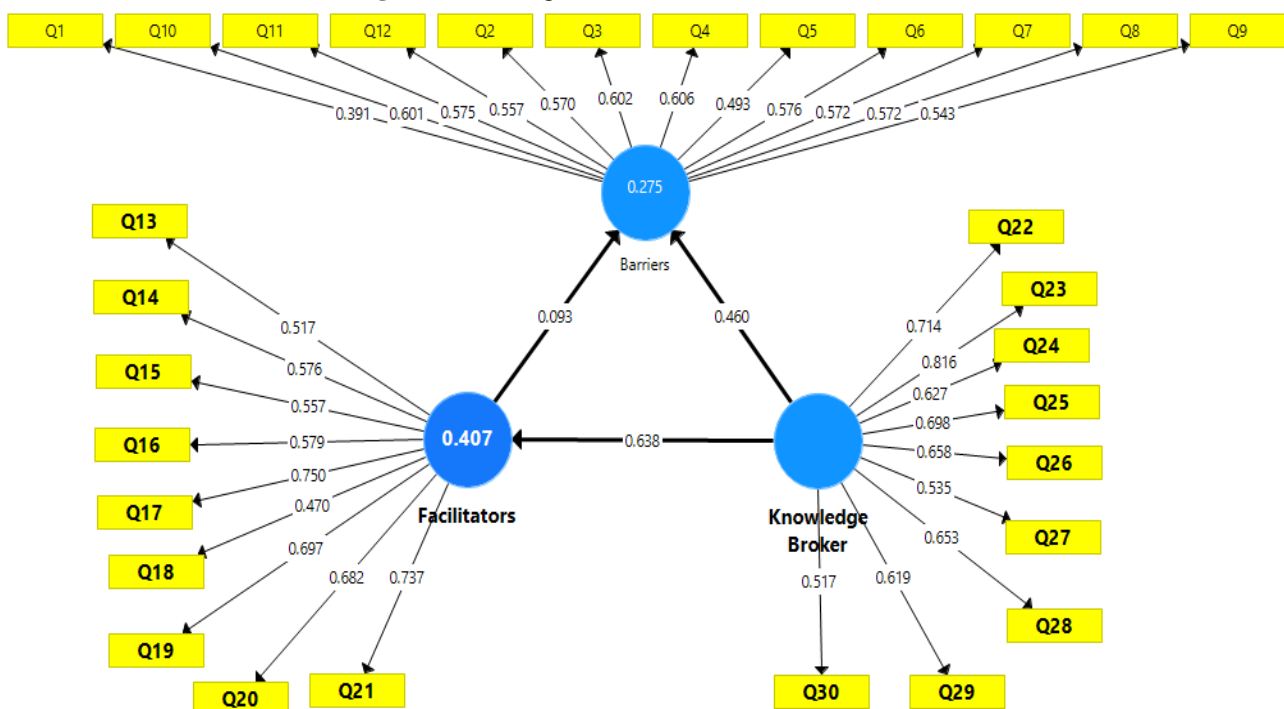


Table 3: Construct Reliability and Validity

Variable	Cronbach’s Alpha	Composite Reliability
BARRIER	0.802	0.850
FACILIATOR	0.800	0.841
K. BROKER	0.830	0.869

As a result, and according to the values, the dependability, because of the value 0.80 is appropriate for supporting investigation.

Figure 5: PLS Algorithms Test (Facilitator to Barrier)



In this segment path multiplication rule was utilized to direct and indirect impacts in the portrayed model; the variable (Knowledge Broker) directly affects another (BARRIERS) and additionally in indirect impact (from K. BROKER to Facilitator to Barriers). The direct impact is the institutionalized basic coefficient, also called the internal model stacking of Broker on Barriers. The impact of indirect path is related to the result of the route multiplier for Knowledge Broker to Facilitators and the route multiplier for Barriers to Facilitators. Partial Least squares (PLS) have the other name as “Forecast of Hidden Combination “because of related universal technique.

Table 4: Total Effect (Facilitator to Barrier)

Path Coefficients			
Variable	Barriers	Facilitators	Knowledge Broker
Barriers	---	---	---
Facilitators	0.093	---	---
Total Indirect Effects			
Variable	Barriers	Facilitators	Knowledge Broker
Barriers	---	---	---
Facilitators	---	---	---
Knowledge Broker	0.059	---	---
Total Effects			
Variable	Barriers	Facilitators	Knowledge Broker
Barriers	---	---	---
Facilitators	0.093	---	---
Knowledge Broker	0.519	0.638	---

According to the results, When the facilitators mentioned as main element of sharing process and Knowledge broker as complementary variable ,Facilitators have very little direct and indirect impact on the barriers , but Knowledge Broker direct path coefficient effect on the barriers is 0.519 and on the facilitators is 0.638 .It means in this case facilitators are not the main issues to overcome barriers ,in the other hand using Knowledge Broker makes more impact on both side .So the total effects of K.B on the barriers drops to 0.519 and on the facilitators 0.093 by choosing the facilitators as a main variable .also it shows that the impact of facilitators on the barriers is very little 0.081.

Figure 6: PLS Algorithms Test (Facilitator to Barrier)

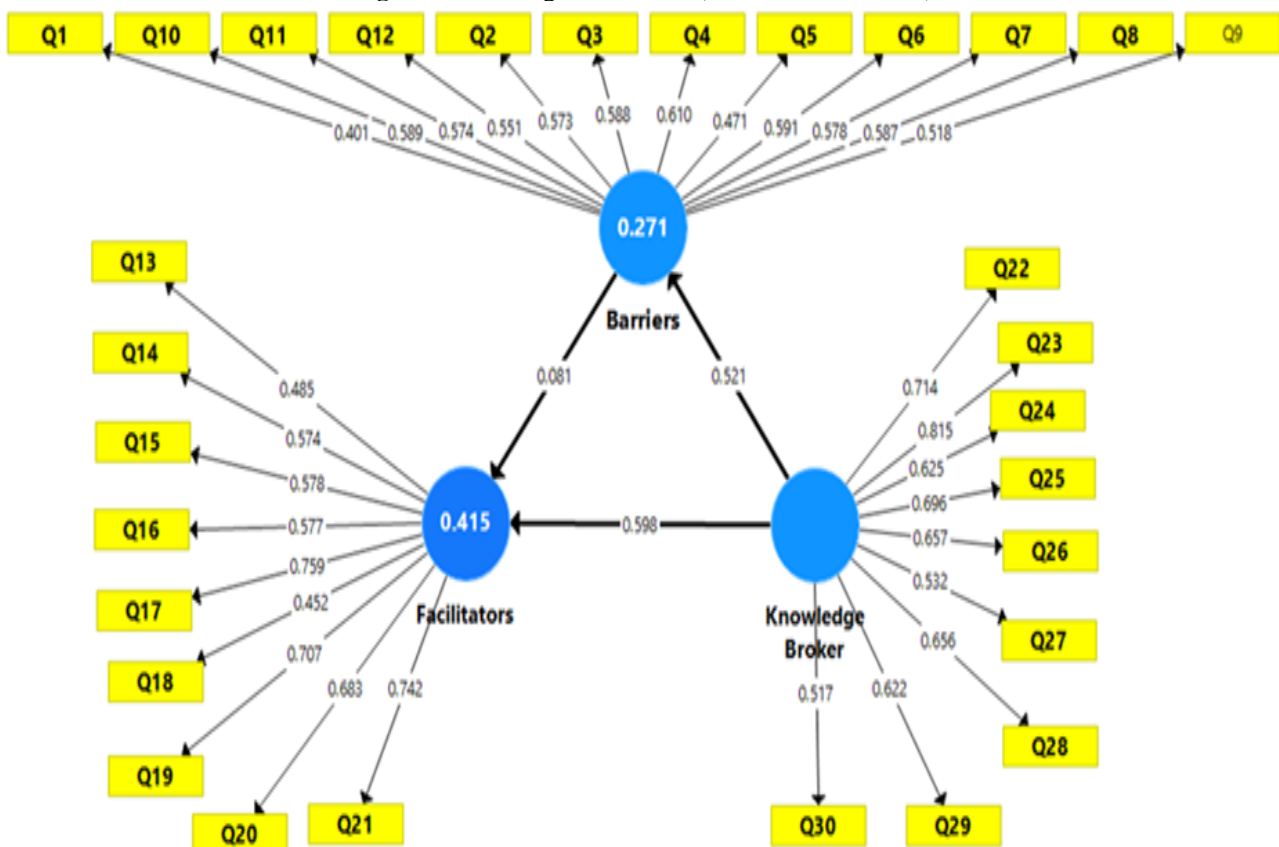


Table 5: Total Effect (Facilitator to Barrier)

Path Coefficients			
	Barriers	Facilitators	Knowledge Broker
Barriers	---	0.081	---
Facilitators	---	---	---
Knowledge Broker	0.521	0.598	---
Total Indirect Effects			
	Barriers	Facilitators	Knowledge Broker
Barriers	---	---	---
Facilitators	---	---	---
Knowledge Broker	---	0.042	---
Total Effects			
	Barriers	Facilitators	Knowledge Broker
Barriers	---	0.081	---
Facilitators	---	---	---
Knowledge Broker	0.521	0.640	---

Figure 7: PLS algorithms test (Barrier to Facilitator)

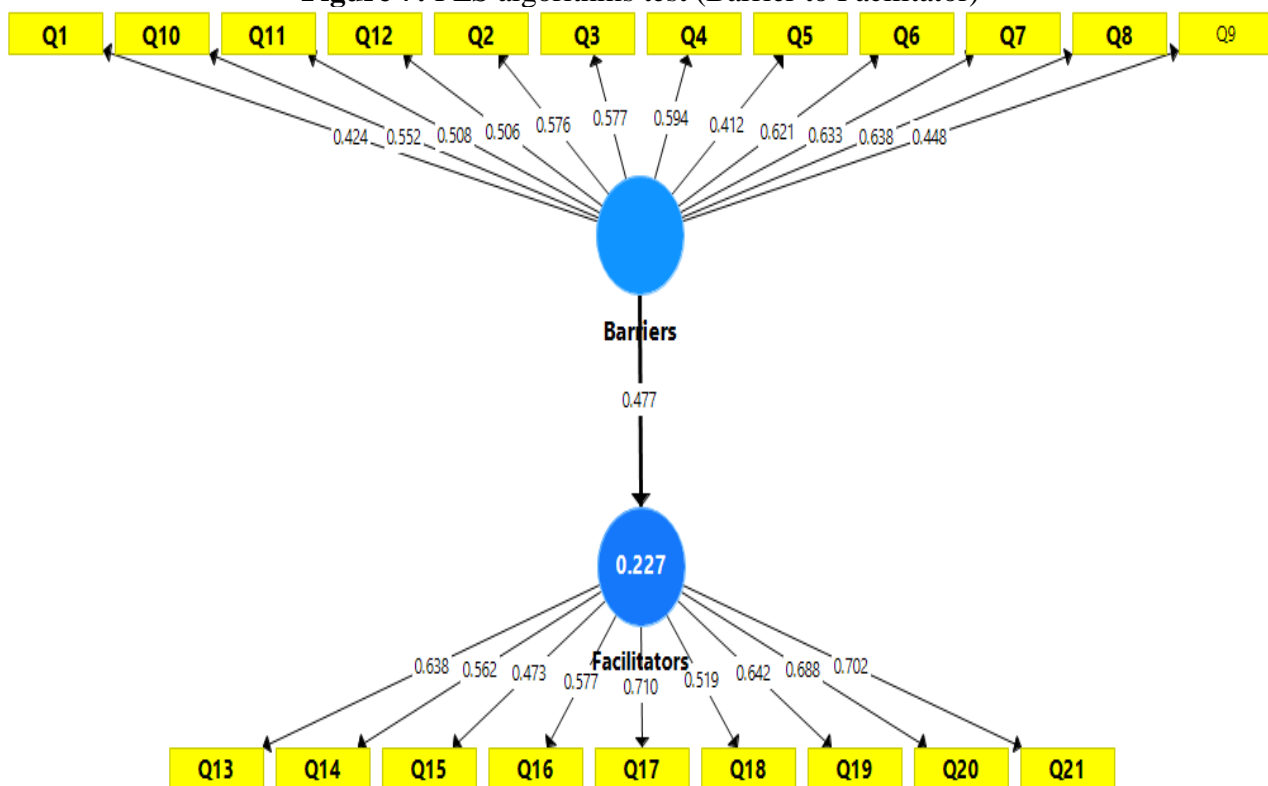


Table 6: Path Coefficients

Variables	Barrier	Facilitator
Barrier	--	0.477
Facilitator	--	---

According to the test results without having Knowledge broker as a controller variable the effect of barrier on facilitators increase highly, the number that represent effect is 0.477 in this situation compare two the 4.5.2 results, 0.093 is very notable .it shows that knowledge broker part has significant impact on solving the problems that have origin as barriers and reduce its impact on the lack of facilitators.

5. CONCLUSION

The aim of this study was to discover how the role of knowledge broker in knowledge sharing process by respect to the facilitators and barriers inside organizations. The purpose of it was to determine if there was any positive relationship between the knowledge broker and reduction of barriers impact and increasing the facilitators’ impact. To find out this, the university was selected as a case study and students as responders.

Inside any organization the various elements that influence knowledge sharing can be classified as two main group facilitators and barriers. These two parts play important role of knowledge creation, transition and converting it to the useful asset. The impact of those on each other is naturally fix and it seems the correlation between them is very strong. By adding the third part as knowledge broker that creates flexible connection among creators of knowledge and consumers of it the equation and impact between facilitators and barriers will be changes. Knowledge broker role is something like catalyst or enhancement tool related to facilitators, it helps the factors intensify and have more effective role at knowledge sharing process directly or indirectly by effecting on barriers of knowledge sharing. Based on the findings from this study the following recommendations were made:

it seems increasing facilitators factors cannot help to reduce barriers completely because of two important reason:

The first reason is that factors are restricted by organizations culture, individual's expectation and technological limitation and these limitations sometimes are more than management capacity to solve them.

The second reason is correlation between facilitators factor directly or indirectly with barriers factors, it means in some cases increasing one factor as facilitator hiddenly turns to barriers factor, for example rewards or prices can have impact on organization financial condition and turn to obstacle.

Knowledge broker can help the organizations and management strategies to act between borders of facilitators and barriers by finding solution among involved team for knowledge sharing. Also, by creating connection between team members it can be able to identify gaps, evaluate expectation, establish creative conversation to find solution, reduce obstacles and finally create environment that opposite effects of barriers and facilitators that have correlation with each other reach the minimum level of impact.

According to the results, it is better universities to start full study about knowledge sharing issues such as awareness, applications, elements and any related concept to it from entire people among the university whether they are staffs, students, managers or outside partners and market places.

having organized knowledge broker systems as expertise, communities or new section of operation part to determine the fundamental issues at sharing process among engaged individuals inside universities and outside it will help them at reaching their goals.

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