



# Impact of Knowledge Sharing and Knowledge Retention on Employees Development through the Mediation of Sustainable Competitive Advantage and Moderation of Transformational Leadership

Muhammad Imran Hanif<sup>1\*</sup>, Hiba Sagheer<sup>2</sup>, Sameen Mehak<sup>2</sup>

<sup>1</sup>Putra Business School, University of Putra Malaysia, Malaysia, <sup>2</sup>Institute of Banking and Finance, Bahauddin Zakariya University Multan, Pakistan. \*Email: [mimranhanif@bzu.edu.pk](mailto:mimranhanif@bzu.edu.pk)

Received: 14 April 2020

Accepted: 25 June 2020

DOI: <https://doi.org/10.32479/irmm.9931>

## ABSTRACT

In advanced time, firms realize that procuring the past information and sharing them among the representatives will increment the improvement and development of the employees and it is the path to pick up a Sustainable Competitive Advantage in a showcase. The study points to center on the development of the workers through supporting the competitive edge. This could be done by legitimate utilize of past information and encounter which is procured and shared among the individuals of an organization. Leaders also play an imperative part within the Knowledge Sharing and Retaining but Transformational Leaders does not make an energetic environment through which they can offer assistance to form sound learning handle. It is since transformational leaders frequently don't know almost the conduct and states of mind of the representatives, their needs and wishes. This study is quantitative and close-ended questions were utilized to expound the relationship of the factors. Information was collected from a test estimate of 200 respondents of the telecommunication sector. The regression technique was used to test the hypothesis relationship. The findings of this study show that Knowledge Sharing, Knowledge Retention has a significant positive relation with employee development and sustainable competitive advantage mediates significantly between them. While, transformational leadership does not significantly moderate the relation between knowledge sharing, knowledge retention, and sustainable competitive Advantage. Further, it describes limitations and the direction for the future.

**Keywords:** Knowledge Sharing, Transformational Leadership, Sustainable Competitive Advantage, Knowledge Management, Employee Development

**JEL Classifications:** M1, L1, M0

## 1. INTRODUCTION

Knowledge is a basic imperceptible resource of a firm and a basic building block for establishing Sustainable Competitive Advantage genuinely and energetically. Information is considered as a key asset, and as such, it must be overseen to advance the competitive execution within an organization (Bolisani and Bratianu, 2017). Knowledge Sharing not as it maximized the capacity of the firm to oversee information but moreover makes a difference to pick up a competitive advantage. In the 21<sup>st</sup> century, the economic

value of an organization is increasing and attaining sustainable competitive advantage (SCA) will be mind-boggling, testing and information based undertakings (Halawi et al., 2005). The SCA intends to have key adequacy and assets as its source (El Shafeey and Trott, 2014). Knowledge Management is a cutting edge weapon that is an association's generally valuable and amazing asset (Stewart, 1997). One source through which we can sustain competitive advantage is by overseeing information (Holsapple and Singh, 2001). This kind of executive involves the existing knowledge of the organization, how an organization uses this

knowledge and how can the organization learn new knowledge (Prusak, 1996). Porter and Millar (1985) said that the primary wellspring of the upper hand is data. The meaning of KM is to oversee information utilizing vital and organized strategy. This strategy permits scholastic institutions and organizations to ease the trade of information, Knowledge Retention (Kaba and Ramaiah, 2017). Knowledge management portrays all strategies to deliver information, to store it, to disperse information and to apply data reinforced by the recognizable verification of data and the definition of information goals in all districts and levels of the firm.

There's a term "Knowledge Sharing" now has been replaced by "Knowledge Distribution". Nowadays organizations are motivating their employees to gain knowledge so a competitive advantage can be achieved. Sustainability plays a very crucial role in building and achieving long term goals and prospects. Employees would like to have those skills which lead them towards growth, they focus on those core competencies which will differentiate them from other people. In competitive surroundings of the present world, it is compulsory to experiment with the change in an organization, to differentiate ourselves from other members who collectively lead towards the growth of employees as well as the organization. Legitimate leadership is required to oversee the information that's holding from representatives.

There's a concept of Transformational Leadership utilized in this study. Transformational Leadership came into being from the hypothesis of political administration within the late '70s. Transformational Leadership is a vital leadership style that is utilized in numerous organizations these days. It advances the collective intrigued of workers that offer assistance to accomplish collective objectives (Bolivar-Ramos et al., 2012). So, leadership helps employees to share knowledge and retain them so the development of employees can take place. Employee development plays a significant role in any organization. Nowadays competition is getting harder and harder within seconds. The firm has to be aware of the employees, their needs should enhance their knowledge and skills to deal with the competition in a market. Employees perform well when they know they have supporting leaders that will guide them on the right path and will provide them freehand to create new ideas. This scenario will happen if the proper distribution of knowledge takes place and employees became aware of the changing environment. But research on employee development is limited and little information exists in which employees became the crucial factor for sustaining advantage by knowledge distribution and retaining. Prior research does not shed light much on the employee development perspective which is the key role in maintain and boosting the competitiveness of the firm. This study center on Employee Development which must be set up and execute in each firm.

### 1.1. Problem Statement

The basic purpose of this research focuses on the development of employees through sustaining the competitive advantage in an organization. The development of workers is exceptionally imperative for any organization to pick up the competitive

advantage and it takes put when knowledge is shared and retained appropriately. Transformational leaders offer assistance workers to share and disperse appropriate information in arrange to attain the objectives and success. Past research does not center more on the development and growth of the workers by sharing and retaining the information. Information is named as data, thoughts, arrangements that can be circulated in an organization so that the representatives can perform way better by sustaining the advantage.

### 1.2. Research Questions

This study bothered the sharing and retention of knowledge which enhance the development of employees in the telecommunication sector. Further, we describe research questions as:

1. What is the influence of knowledge sharing on employee development?
2. What is the influence of knowledge retention on employee development?
3. How can we enhance the development of employees by sustaining a competitive advantage?
4. How transformational leadership helps employees in sharing and retaining knowledge?

### 1.3. Importance of the Study

The noteworthiness of the study is to analyze the needs and wishes of the telecom sector to develop their employees by retaining and sharing knowledge. The Telecom industry also needs Knowledge sharing and knowledge retention methods for the growth of their employees. Employees ought to have information almost what's going in an organization, how they will learn the knowledge to effectively accomplish the competitive advantage.

### 1.4. The Objective of the Study

- To assess the influence of knowledge sharing and knowledge retention on employee development
- To examine how transformational leadership affects the knowledge sharing and retaining process
- To examine how employee development can sustain competitive advantage.

## 2. LITERATURE REVIEW

### 2.1. Knowledge Sharing

Knowledge sharing is defined as the collaboration of the organization to exchange new ideas, learn new things and information that's pertinent (Nick and Serenko, 2009). It further describes Bartol and Srivastava (2002) an interchange of information throughout a firm where an employee gives relevant information to each of them. Knowledge sharing reflects as "social intercommunication of culture, involving the exchange of employee knowledge, experiences, and skills through the whole department or organization" (Lin, 2007,). Explicit or objective knowledge and tacit or personal knowledge are both casually and conventionally shared between workers (Holste and Fields, 2010). Appropriately, an organization that can energize shared information practices among workers groups and inside the organization as a whole is anticipated to deliver unused thoughts

and contemplations that are valuable for creating modern business opportunities. Knowledge management is characterized as a practice of creating, getting, dispersing and utilizing information for boosting organizational execution. According to Hanif et al. (2016), knowledge management incorporates three crucial methods that are knowledge procurement, sharing and application. Organizations must make a guarantee that they get, exchange and misuse information in their operations; to form execution superior. Knowledge sharing is the way to extend the esteem of information through spreading. It can be characterized as the strategy that bolsters the spread of information and makes a difference to form the work environment information seriously. learned employees get the elemental learning from different sources in a way that prompts update execution and makes a difference in completing worker's tasks viably (Hanif et al., 2018). Knowledge sharing makes a difference in employees to create more thoughts by being impacted by other thoughts. This handle comes about in the era of more attainable and workable thoughts (Cai et al., 2018).

Shahid et al. (2018) consider Knowledge Sharing as an independent variable, which had a positive relationship with organizational commitment. Knowledge is portrayed as a portion of organization resources that leads an organization towards superior execution (Andreeva and Kianto, 2012; Obeidat et al., 2012). Successful organizations are required to have the capability to pick up, store and share information for the accomplishment of competitive advantage. Information sharing may be the basic key that management can utilize to coordinate their firms (Han et al., 2016). knowledge sharing is winning standards in a firm, there are more openings for leaders to urge many solutions, conclusions, proposals, thoughts and data from workers when the leader's lock-in participative choice building (Rawung et al., 2015). Loebecke et al., (2016) states that Pioneers with transformational and true behaviors are too way better to illuminate issues and accomplish changes when firms individuals encounter a high degree of information sharing. Phong and Le (2018) considers Knowledge Sharing as the dependent variable, Transformational Leadership as an independent. He concludes that transformational leadership has a positive relation with knowledge sharing. Wang and Noe (2010) explain knowledge sharing as knowledge sharing stated as providing the task information, develop unused ideas and actualizing policies and strategies. Yang (2007) suggests that knowledge sharing happens when people inquire others to share the knowledge that helps them in the future to gain new skills and to develop competencies from others. Many scholars have argued that knowledge sharing promotes the development of employees that will result in a competitive advantage. "organizations need to take steps to bring together individuals with common interests and improve their likelihood of success in knowledge sharing" (Sunyoung and Kim 2018). Reid (2003) argues that Knowledge Sharing not only maximizes the capacity of an organization to share and oversee knowledge but also provides a solution to gain a competitive advantage. So, both have a positive relationship with each other. If Knowledge Sharing increases, it will enhance the competitive advantage (Hamzah et al., 2018). Two constructs lie under Knowledge Sharing that is Knowledge Collecting and Knowledge Donating.

### *2.1.1. Knowledge collection*

The important application of Knowledge Sharing is the collection of knowledge sharing of knowledge is a remarkable part of knowledge management (Park 2006). The expansion and sharing of knowledge within the firm affect the performance of the workers also. Firm gather information from internal and external means (Dahlgard and Mi Dahlgard-Park, 2006), so they have to collect and upgrade the knowledge that occurs continuously. But if the management is poor and not good for the collection of knowledge, it will lead to competitive risk (van den Hooff and Van Weenen, 2004). The reasons for this may be the lack of interest of both management and employees (Yi-Ying et al., 2019). Firms can collect knowledge internally to support competitive advantage that would help in the development of employees.

### *2.1.2. Knowledge Donation*

Darroch and McNaughton (2002) suggest many researchers have found that we can utilize the knowledge and distribute/donate it within an organization. Knowledge donation alludes to the activity of workers to pass on their mental capital in an association (Othman and Sohaib, 2016) Knowledge sharing and knowledge donation has been a vital ingredient for Sustaining the competitive advantage and employee development.

## **2.2. Knowledge Retention**

As indicated by Kirsch (2008), Knowledge Retention center around the information that is a danger of loss, and their effect upon in general authoritative execution, and afterward creating useful plans to hold that information. The main reason for KR is to drain the minds of people who are leaving an organization, retiring, or switching to the new one.

The following are vital questions that are inquired when talking almost Knowledge Retention and hazard of the loss of that knowledge. These are:

1. What is the reason for the loss of knowledge?
2. What action plan should be taken to gain/retain that lost knowledge?
3. What are the effects on the organization of losing that knowledge?

Knowledge Retention is an integral part of the information management process (Quang et al. 2016). Liebowitz (2009) states the KR techniques coordinates in everyday work, which based on the execution period: responsive (brief period), control (medium period) and preventive (long period).

One way to access the lost knowledge is to interview the employees before they leave. This technique is or maybe a responsive one, and it demonstrates not be an effective and efficient method since it will not result to extract genuine value in preserving information. As Liebowitz, 2009 states: One strategy is to have a possible plan. Possibility plan means a strategy to exchange the information of the retirees of 1-3 years in development sometime recently their retirement period. This can be considered to be a medium period information retention technique. Another may be the obstructive strategy, which will start after retirement and will proceed until take off. Gaghman, (2017) states that numerous

leaders and supervisors are mindful of the information loss, although, they thought retaining information and keeping the specialists inside the association a basic and tricky situation. In truth, holding information inside the association requires an appropriate understanding of the person's behavioral variables that affect implied information retention within the association. Besides, centering on information retention as the portion of the KM technique improves firms' efficiency, effectiveness and progresses its competitive advantage. Winkelen and McDermott (2008) state that earlier research demonstrates that employee turnover may be due to renunciations, retirement, cutbacks may be a major reason for information loss inside corporations, and other reasons incorporate the hesitance of employees to lock in information sharing and overwhelming employee work pressures. In practiced workforce in service divisions like telecommunication organizations endure from information loss. The lack of knowledge can result in service disasters and disappoint customers served by new and unpractised employees. As a result, these industries will suffer the loss of customers and their relationship approaches like CRM. (Jiang et al., 2009). As the main reason for retaining the knowledge is to grow the collective memory of a firm. Through Knowledge Retention, the employee can learn from past failures and successes that will give out the positive results (Liebowitz, 2009). Lost of knowledge is a critical problem in an organization, Events like 9/11 in which whole departments and with their valuable knowledge were lost, it makes a firm tactful of losing their knowledge. Shahid et al. (2018) consider Knowledge Retention as an independent variable, which shows a positive relationship with organizational commitment. The purpose of practicing Knowledge Retention is the growth of the memory of the organization but it becomes a challenge to retain knowledge before it walks out of the door. Employees can learn from past experiences to gain a positive result. It will encourage the development of the employees as they could avoid the wrong paths (Liebowitz, 2009).

### 2.3. Sustainable Competitive Advantage

Competitive advantage has been important to an organization because experts and researchers have paid much attention to this. Firms are attempting to position themselves and attempt to have a sustainable competitive advantage, by supplementing the quality to utilize opportunities and neutralize dangers, and can dodge or fix asset liability that exist within the company. Sustainable competitive advantage may be a process that must compete today without conciliating the ability of corporations to meet the prerequisites to compete within the future. It is significantly important that the larger part of organizations ought to realize finishing competitive advantages across division will be the most challenging errand within the century. With the furious increment in worldwide competition, accomplishing SCA and maintaining competitive advantage picks up more centers. SCA not dependent on assets and physical resources like it utilized to be. Presently it is more compelling in centering on the mental capital instep (Halawi et al., 2005) The thought that information ought to be expressly seen as a basic asset for competitiveness isn't modern (Bolisani and Bratianu, 2017). There may be a part of instability that organizations got to bargain inside the competitive environment of nowadays. The most objective of a firm is to handle these kinds of change means sustainability. Information is the most

resource of competitive advantage inside an organization since it gives new openings to them and it permits them to solve issues. Teece et al. (1997) states in case an organization needs to have way better information than their competitors at that point they may blend ordinary capabilities and assets in special and unique ways, which would result in giving their customers better value as compared to the competitors sustainable competitive advantage is gained through unique values which are creating a strategy that any other competitor is unable to signify and that strategy cannot be duplicated for a long period. Chaharbaghi and Lynch (1999) state that no cooperation has unlimited resources. Given these confinements, cognizant management of existing assets is needed also it leads setting itself exterior day-to-day management of long term advancement assets to bring key advantages (Papula and Volná, 2013). The SCA may be an energetic process that can endure today's competitive requests whereas not having to change the firms' ability to fulfill their needs within the future. Modern associations perceive the need for viable human assets practices for achieving sustainable competitive advantage (Omar et al. 2018). A high execution work framework contributes to the abilities and capacities of the employees in a way that encourages problem understanding and inventive work behaviors. Corporations within the present situation require those workers who are not as they were sound but too are well equipped with passionate skills and social abilities (Jyoti and Hardeep Chahal, 2015).

Sustainability of competitive advantage comes from interconnected activities that make uniqueness. SCA includes core competencies, competencies, and capabilities Linton et al. (2007). Developing intrigued in sustainability has been found in both the scholarly community and industry.) Uniqueness, and subsequently the plausibility of a longer legitimacy of the competitive plan of action lies inside the firm. Sustainability is brought up and influenced by the capacity of a company to set up accurately it's inside assets which can be tangible and intangible resources that collectively can maximize the value of the cooperation. Guthrie et al., (2004) states that in a knowledge-based economy, the value of the cooperation not only lies on the goods and services they produced but also on human capital Concurring to the source-based view of the corporation, sustainable competitive advantage is being accomplished by the persistent improvement of existing and by making of new company's' assets and capabilities in reaction to rapidly changing market conditions (Jeevan and Chahal, 2015). Unique resources are made by employees through their abilities because every employee has unique skills that differentiate them from others (Pearce and Robinson, 2000). It is a capacity that is gotten through particular components and assets that makes a difference a firm to perform the next level of them (Chacarbaghi and Richard, 1999).

### 2.4. Employee Development

McCauley and Hezlett (2001) define employee development as "the expansion of the competencies of person to perform/function viably and productively in the organization." There are few development activities incorporate like work experiences, knowledge sharing, aptitudes, and capacities of representatives that would help them to develop professionally. Employee development is crucial in keeping up and creating the capabilities of both individual workers

and the organization as an entire. Employee development built up by an employer-employee relationship (Jill et al., 2019) Malinen et al., (2013) discussed different development methods that help the employees to enhance their core capabilities and core competencies like webinars, social media exchange, etc. Information sharing cultivates skill building of employees. As they are inexperienced and new to the working environment, they may not be mindful of the organization's conventions, culture, and desires (Gregory and Williams, 2009). They require help from peers, bosses to get it hierarchical points of view and mingle viably. Employees exceedingly value communication that supports the free flow of information to cultivate roads of experiential learning for quick development (Gursoy et al., 2008; Martin, 2005). Transformational leaders also utilize a visionary and inventive style of leadership that motivates workers to create free choices and creative in their work (Fehmidah and Nielson, 2009). In 21<sup>st</sup> century, the greater interest evolves to understand the enhancement and promotion employee development so the opportunities can be accessed (Hurtz and Williams, 2009).

### 2.5. Transformational Leadership

TL is one of the administrative practices that has gotten to be progressively overwhelming in both public- and private-sector associations in later a long time (Yukl, 2013). Transformational leadership is the style of leadership that affects the performance of followers significantly. Barrick et al., 2015 state that the noteworthiness and significance of transformational leadership come from its part in improving organizational efficiency and advancement. It has appeared in a few experimental tasks that firms that implement transformational styles of administration are productive more at distinctive levels like person, group, unit, or organization. Transformational leaders can increase and enhance the interest of their representatives, alter the recognitions, desires, and inspirations of their workers to work towards the common aim and to see far away from their self-interest for the betterment of the team (Bass, 1985). TL is the motivator for their followers that will help them to recognize the goals and work for the benefit of an organization rather than their self-interest (Bass, 1985). Leaders play a very significant role to promote the knowledge sharing of a firm. It also has a positive relationship with Knowledge Collection and Knowledge Donation. Transformational leaders train their employees to become more creative and perform efficiently. Transformation leaders make it possible for workers to work constructively in a demanding and inventive job environment (Bilal et al., 2019). Wang et al. (2017) conclude that employees can seek help and advice from their leaders to gain success. Parker and Wu (2014) conclude that leaders have a strong influence on the ability of employees that enhance the motivation of employees. Wang et al. (2017) suggests that transformational leaders inspire the employees, motivates them to achieve the vision and purpose by providing them the freedom to set and attain the goal. Transformational Leadership is divided into four constructs:

1. Inspirational motivation: It means to inspire the employees and motivates them to have a vision and goal that is to be attained (Francis and Dubinsky, 1994). They challenge supporters with high benchmarks and do conversation optimistically with excitement. (Bass and Riggio 2006)
2. Idealized influence: It means achieving a collective mission by focusing on the beliefs, values (Bruce and Gardner, 2005). Such

leaders can inculcate confidence in authoritative individuals, and foster cooperation with others. Transformational pioneers who express certainty within the hierarchical vision, share risks with supporters, appear a sense of reason, illustrate tall guidelines of ethical conduct, underscore achievement and maintain a strategic distance from manhandling control (Bass and Riggio 2006)

3. Individual consideration: Employees become a high performer when they gain the attention of their leaders, leaders also consider employees as individuals and satisfy their individual needs (Dionne et al., 2004). Transformational pioneers construct personal relationships with devotees, appear certainty and bolster, consider their aptitudes, capacities and show recognition for their work by using individual consideration (Saenz, 2011)
4. Intellectual stimulation: Leaders challenge the values and ideas of their employees so that their ideas will become more effective (Den Hartog et al., 1997). Transformational pioneers empower supporters to try unused approaches and to reframe issues to discover unused arrangements (Bass and Riggio 2006).

The firm can sustain competitive advantage if the employees are provided with the freedom to implement the change that will motivate the employees and leads towards the development (Muhammad et al., 2016).

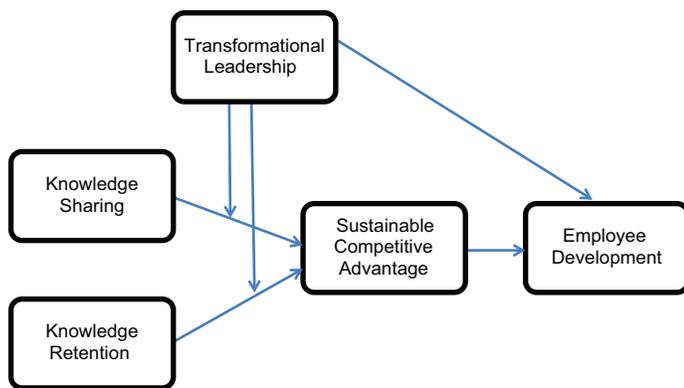
## 3. HYPOTHESIS DEVELOPMENT AND THEORETICAL FRAMEWORK

The above argument shows a positive correlation between variables but to examine their relations clearly, following hypothesis will be tested:

- H<sub>1</sub>: Knowledge sharing has a significant positive relation with sustainable competitive advantage.
- H<sub>2</sub>: Knowledge retention has a significant positive relation with sustainable competitive advantage.
- H<sub>3</sub>: Transformational leadership strongly moderates the effect between knowledge sharing and sustainable competitive advantage.
- H<sub>4</sub>: Transformational leadership strongly moderates the effect between knowledge retention and sustainable competitive advantage.
- H<sub>5</sub>: Sustainable competitive advantage has a significant positive relation with employee development.
- H<sub>6</sub>: Knowledge sharing has a significant positive relation with employee development.
- H<sub>7</sub>: Knowledge retention has a significant positive relation with employee development.
- H<sub>8</sub>: Transformational leadership has a significant positive relation with employee development.
- H<sub>9</sub>: Sustainable competitive advantage mediates the effect between knowledge sharing and employee development.
- H<sub>10</sub>: Sustainable competitive advantage mediate the effect between knowledge retention and employee development.

Theoretical frameworks is presented in Figure 1.

**Figure 1:** Theoretical Framework



## 4. METHODOLOGY

### 4.1. Research Design

The method of this study is basic and quantitative which investigates the relationship of variables. The qualitative technique wasn't suitable since the expectation of this research was to look at the relationship, or relationship, between the factors. The mixed technique approach was not suitable since these sorts of research are directed at guaranteeing qualities of the subjective and quantitative inquire about are supportive with shortcoming not covering which might skew the investigation. Close-ended questions are involved in the quantitative study to measure the response. (Singh and Sharma, 2011). This study focuses on the explanatory approach which will examine the cause and effect relationship between dependent and independent variables.

### 4.2. Data Collection

This study focused on the primary method. The sample of this study includes the employees of the telecommunication sector of Multan, Pakistan. They were the middle-level employees and trainees that need the knowledge to be shared and retained to work best in an organization. This study connected structured questions that permitted for the data collection that's less demanding to quantify as the same questions were inquired of all respondents. The information collection for this research included by the utilizing an online study tool for recording survey member reactions. The main reason for focusing this sector is that the telecommunication sector is growing rapidly, innovative and the biggest revenue generator. From the early 21<sup>st</sup> century, the worldwide telecom segment has continually developed well primarily due to, technological progressions, globalization, and powerful competition and expanding patterns of smartphone appropriation. Pakistan's telecom segment has progressed as well generally because of speculation liberalization, useful arrangements, and competition. The data was collected by using the online method. Questionnaires were emailed to the employees to collect the responses. The employees were then asked to forward the questionnaire among the employees to collect data.

### 4.3. Sampling Technique and Size

This study consists of 200 employees in the telecom sector. Nonprobability sampling techniques are used. Two methods were implemented in this study, purposive sampling and snowball sampling. Purposive sampling is used because it

focused on only the middle-level employees and trainees (Ali Yaseen et al., 2015). Employees were asked to forward the questionnaire to other employees who follow the snowball sampling method (Hanneman et al., 2001).

### 4.4. Time Setting

Information is collected by utilizing the cross-sectional strategy. In a cross-sectional strategy, information is collected at a particular period.

### 4.5. Measurement of the Study

#### 4.5.1. Knowledge sharing

KS involves two constructs that are knowledge collection and knowledge donation. Knowledge collection includes seven items and the other construct knowledge donation includes six items (Cai, 2018).

#### 4.5.2. Knowledge retention

The scale was adapted from Jayachandra et al., 2011. Only two items were included which are "Do you follow best practice while recruiting a person – right person for the right job?" and "Do you have a career plan implemented in your company?"

#### 4.5.3. Sustainable competitive advantage

SCA consist of seven items. Sample of them is as "the quality of the products or services that your company offers is better than that of the competitor's products or services" or "overall, your company's growth is better than the competitors" (Saeidi et al., 2018).

#### 4.5.4. Employee development

Employee development consists of ten items. Sample of them is as "my developmental activities help me to identify, analyze, forecast and plan the changes needed in the organization." Or "I am an expert in solving the problems of my job and understand the rationale behind such steps" (Sensenig et al., 2011).

#### 4.5.5. Transformational leadership

TL consists of four constructs or sub-variables like idealized influence, inspirational motivation, intellectual motivation, and individual consideration. The items are twenty in number. Each construct consist of five items (Ding and Luo, 2018). But this study focus on the major variable that is transformational leadership.

### 4.6. Analyses

This research investigation uses the regression technique to analyze the results. This strategy has been used by utilizing the SPSS version 20 software. This study uses first-order variables to investigate their impacts on each other. Second-order constructs are not analyzed in this study. First, we test the reliability of the items and validity of the items before testing the statistical analysis. To guarantee the validity of the study and reliability of this study, we embraced items developed and utilized in earlier observational studies. We first test the reliability and validity of the scale by examining the Cronbach alpha value which surpasses the value of 0.07, a standard of (Hair et al., 2006). It means that our scale is reliable, consistent and valid. The greater the alpha value, the higher will be the reliability of the items. Second, we analyze the

data by factor analysis. This is often the sample measure test. The goodness of data is built up by the factor analysis method. The KMO value ought to be >0.7, as the KMO value is 0.815, which implies that the test measure is satisfactory. Bartlett's centrality value is <0.05. Henceforth, the ampleness of the test estimate implies it has a significant value of Bartlett's test. The demographic characteristics of the test are represented in Table 1. The larger part of the test was obtained from males that's 54% males and 46 % females which implies in Pakistani telecommunication sector masculinity overwhelms. The 48% of age group was in a run between 19 and 24 and so on. The majority of respondents worked <1 year that is 43.4%. It implies the information was collected from the new candidate and the learners.

**Table 1: Demographics**

	Frequency	Percent
Gender		
Male	108	54.3
Female	91	45.7
Age		
19-24	96	48.2
25-34	74	37.2
35-50	25	12.6
Above 50	4	2
No of years worked in org		
<1	86	43.4
1-5	71	35.9
5-10	30	15.2
Above 10	11	5.6

**Table 2: Descriptive statistics**

	n	Minimum	Maximum	Mean	Std. deviation
KS	200	1.08	5.00	2.5504	0.62522
TL	200	1.10	4.70	2.5133	0.59932
KR	200	1.00	5.00	2.6375	0.92960
SCA	200	1.00	5.00	2.6071	0.76627
ED	200	1.10	5.00	2.6075	0.62622
Valid N (list wise)	200				

**Table 3: Model summary**

Model	R	R Squared	Adj R Squared	Std. The error of the estimate	Durbin-Watson
1	0.609 <sup>a</sup>	0.371	0.368	0.60927	1.804

a. Predictors: (Consistent), KS

b. Dependent variable: SCA

ANOVA					
Model		Sum of Squares	df	Mean Squared	Sig.
1	Regression	43.348	1	43.348	0.000 <sup>b</sup>
	Residual	73.499	198	0.371	
	Total	116.847	199		

a. Dependent variable: SCA

b. Predictors: (Consistent), KS

Coefficients							
Model		Coefficients unstandardized		Coefficients standardized		T	Sig.
		B	Std. error	Beta			
1	(Constant)	.703	.181			3.878	0.000
	KS	.746	.609	.609		10.806	0.000

Dependent variable: SCA

**4.6.1. Correlations Analysis among Variables**

The computation of descriptive statistics is explained before performing the statistical analysis. In Table 2, variables are computed with their mean, maximum values, minimum values, and standard deviation. The mean value of KS is 2.55, the standard deviation is 0.62, KR mean value is 2.6, the standard deviation is 0.92, TL means the value is 2.51 and the standard deviation is 0.59. SCA mean value is 2.60 and the standard deviation is 0.76. ED mean value is 2.6 and the standard deviation is 0.62. It is portrayed by the most extreme and least values that all the values lied between 1 and 5 of the Likert scale. Relationships among the factors are tried by Pearson's relationship demonstrate which appears positive connection among the factors. The VIF values of all factors are <5 concurring to later research, which appears that no multicollinearity exists among factors.

**4.7. Regression Analysis**

We first test our hypothesis by using the regression analysis. Two models were built up to test the theory, direct effect model and the interaction effect model. The main effect demonstrate was planned to test the hypothesis H<sub>1</sub>, H<sub>2</sub>, H<sub>5</sub>, H<sub>6</sub>, H<sub>7</sub>, H<sub>8</sub>, and the interaction impact was outlined to test the hypothesis H<sub>3</sub>, H<sub>4</sub>, H<sub>9</sub>, H<sub>10</sub>. Regression analysis tests the relationship of a dependent with independent factors. Linear regression strategy was utilized to test the relationship one by one with one independent variable with one dependent variable. Hair et al., 2006 states that the relationship among variables differs when the model involves the moderation and mediation effect but the mediation also plays an important role between two variables.

**4.7.1. Relationship between KS and SCA**

The result is shown in Table 3 that there's a significant relation between Knowledge Sharing and sustainable competitive advantage as P < 0.05, B = 0.609, VIF = 1.00, implies no multicollinearity issue exist. R square = 0.37 implies there's 37% of Sustainable Competitive Advantage variable is explained by the Knowledge Sharing variable. Durbin Watson's value is 1.8 as the value is significant since it lies between zero and 4. Values from

to <2 show positive relationship and values from 2 to 4 show a negative relationship. So the result authenticates H<sub>1</sub>.

H<sub>1</sub>: There is a significant positive relation between knowledge sharing and sustainable competitive advantage (accepted).

#### 4.7.2. Relationship between KR and SCA

The result shown in Table 4 that there's a significant relationship between knowledge retention and sustainable competitive advantage as R square=0.22, implies as it were 22% of sustainable competitive advantage is explained by knowledge retention, P < 0.05 sig, B = 0.46, VIF = 1.00, DW = 1.701 significant. So the result authenticates the hypothesis. So,

H<sub>2</sub>: Knowledge retention has a positive and significant relationship with sustainable competitive advantage (Accepted).

##### 4.7.2.1. The moderation analysis of transformational leadership

The moderation analysis is done by utilizing the process of AF Hayes because it is an exceptionally prevalent strategy to test the moderation and mediation concept. Model 1 is used to test the moderation influence of variables whereas model 4 is used to test the mediation impact of factors. Table 5 shows the interaction model. As P > 0.05(B = -0.12), t = -1.65, zero lies between lower level certainty interval (LLCI) and upper-level certainty interval (ULCI), so the researcher chooses to dismiss the hypothesis since there's no positive significant moderation impact of TL.

TL weakens the relationship between knowledge sharing and sustainable competitive advantage. So,

H<sub>3</sub>: Transformational leadership strongly moderate the relation between knowledge sharing and sustainable competitive advantage (Rejected).

Table 6 shows the interaction effect of TL between knowledge retention and sustainable competitive advantage. As P > 0.05 (B = 0.08), t = 1.24, zero lies between the lower level and upper-level certainty interval. The correlation between them is positive but there is no significant effect exists. TL weakens the relationship between knowledge retention and sustainable competitive advantage. So, the researcher decides to reject this hypothesis.

H<sub>4</sub>: Transformational leadership strongly moderated the effect between knowledge retention and sustainable competitive advantage (Rejected).

##### 4.7.3. Relationship between SCA and ED

Table 7 displays the significant relationship between sustainable competitive advantage and employee development. Employee development is regressed upon sustainable competitive advantage as R square = 0.27, P < 0.05, B = 0.52, VIF = 1.00, DW = 1.9 significant, DW value lies between 0 and 4 and it shows a positive relationship between them. So the result authenticates the hypothesis.

**Table 4: Model summary**

Model	R	R squared	Adj. R square	Std. The error of the estimate	Durbin-watson
1	0.469 <sup>a</sup>	0.220	0.216	0.67858	1.701

a. Predictors: (Consistent), KR  
b. Dependent variable: SCA

ANOVA						
Model		Sum of squares	Df	Mean squared	F	Sig.
1	Regression	25.674	1	25.674	55.756	.000 <sup>b</sup>
	Residual	91.173	198	.460		
	Total	116.847	199			

a. Dependent variable: SCA  
b. Predictors: (Consistent), KR

Coefficient							
Model		Coefficients unstandardized		Coefficients standardized		T	Sig.
		B	Std. error	Beta			
1	(Constant)	1.588	0.145			10.977	0.000
	KR	0.386	0.052	0.469		7.467	0.000

a. Dependent variable: SCA

**Table 5: Moderation**

	Co. eff.	se	t	p	LLCI	ULCI	Decision
Constant	-0.5139	0.5409	-0.9502	0.3432	-1.5805	5527	
KS	0.7941	0.2176	3.6493	0.0003	0.3650	1.2233	Reject
TL	0.7542	0.2131	3.5393	0.0005	0.3340	1.1744	Reject
Int_1	-0.1201	0.726	-1.6540	0.0997	-0.2632	0.0231	Reject

**Table 6: Moderation**

	Co. eff.	se	t	P	LLCI	ULCI	Decision
Constant	1.0771	0.5068	2.1253	0.0348	0.0776	2.0765	
KR	-0.0046	0.1814	-0.0252	0.9799	-0.3624	0.3532	Reject
TL	0.3794	0.2077	1.8266	0.0693	-0.0302	0.7889	Reject
Int_1	0.0857	0.0688	1.2450	0.2146	-0.0500	0.2214	Reject

**Table 7: Model summary**

Model	R	R squared	Adj. R square	Std. The error of the estimate	Durbin-watson		
1	0.525 <sup>a</sup>	0.276	0.272	0.53427	1.947		
a. Predictors: (Consistent), SCA							
b. Dependent variable: ED							
ANOVA							
Model		Sum of squared	Df	Mean squared	F	Sig.	
1	Regression	21.521	1	21.521	75.395	0.000 <sup>b</sup>	
	Residual	56.518	198	0.285			
	Total	78.039	199				
a. Dependent variable: ED							
b. Predictors: (Consistent), SCA							
Coefficients							
Model		Coefficients unstandardized		Coefficients standardized		T	Sig.
		B	Std. error	Beta			
1	(Constant)	1.489	0.134			11.086	0.000
	SCA	0.429	0.049	.525		8.683	0.000
a. Dependent variable: ED							

**Table 8: Model summary**

Model	R	R squared	Adj. R square	Std. The error of the estimate	Durbin-watson		
1	0.592 <sup>a</sup>	0.350	0.347	0.50608	1.877		
a. Predictors: (Consistent), KS							
b. Dependent variable: ED							
ANOVA							
Model		Sum of Squared	Df	Mean Squared	F	Sig.	
1	Regression	27.327	1	27.327	106.694	0.000 <sup>b</sup>	
	Residual	50.712	198	0.256			
	Total	78.039	199				
a. Dependent variable: ED							
b. Predictors: (Consistent), KS							
Coefficients							
Model		Coefficients unstandardized		Coefficients standardized		T	Sig.
		B	Std. error	Beta			
1	(Constant)	1.096	0.151			7.274	0.000
	KS	0.593	0.057	0.592		10.329	0.000
a. Dependent variable: ED							

H<sub>5</sub>: Sustainable competitive advantage has a positive and significant relation with employee development (Accepted).

**4.7.4. Relationship between KS and ED**

Table 8 displays that there is a significant relationship exist between knowledge sharing and employee development. As P < 0.05, VIF = 1.2, B = 0.5, DW = 1.8 significant. ED was regressed on KS which shows there is a positive significant relationship between them. So the result authenticates the hypothesis.

H<sub>6</sub>: Knowledge sharing has a positive and significant relation with employee development (Accepted).

**4.7.5. Relationship between KR and ED**

Table 9 displays that there is a significant relation between knowledge retention and employee development. ED is regressed on KR which shows that R square = 0.25, P < 0.05 (B = 0.50), DW 1.7 Significant. So the result authenticates the hypothesis. So,

H<sub>7</sub>: Knowledge retention has a significant positive relation to employee development (Accepted).

**4.7.6. Relationship between TL and ED**

Table 10 displays that there is a significant positive relation between transformational leadership and employee development. ED was regressed on TL which shows that R square = 0.28, P < 0.05(B = 0.53), DW = 1.9 sig. As Watson’s value is significant so the result authenticates the hypothesis. So,

H<sub>8</sub>: Transformational leadership has a significant positive relation with employee development (Accepted).

**4.7.6.1. The mediation role of sustainable competitive advantage**

Table 11 shows that mediator SCA plays a positive significant role in this model. First, the direct effect of knowledge sharing has a significant positive effect on employee development ( $\beta = 0.43$ , P < 0.001, t = 6.1775). Second, the direct effect of knowledge retention has a significant positive effect on employee development ( $\beta = 0.22$ , P < 0.001, t = 5.0780). In indirect effect, sustainable competitive advantage mediates the relation between knowledge sharing and employee development ( $\beta = 0.15$ , P < 0.05.). Sustainable competitive advantage also mediates the significant

**Table 9: Model summary**

Model	R	R Squared	Adj. R Square	Std. The error of the Estimate	Durbin-Watson
1	0.502 <sup>a</sup>	0.252	0.248	0.54300	1.724

a. Predictors: (Consistent), KR

**ANOVA**

b. Dependent Variable: ED

Model		Sum of squares	Df	Mean square	F	Sig.
1	Regression	19.659	1	19.659	66.674	0.000 <sup>b</sup>
	Residual	58.380	198	0.295		
	Total	78.039	199			

a. Dependent variable: ED

b. Predictors: (Consistent), KR

Model		Coefficients unstandardized		Coefficients standardized		T	Sig.
		B	Std. error	Beta	Std. error		
1	(Constant)	1.716	0.116			14.821	0.000
	KR	0.338	0.041		0.502	8.165	0.000

a. Dependent variable: ED

**Table 10: Model summary**

Model	R	R squared	Adj. R square	Std. The error of the estimate	Durbin-watson
1	0.534 <sup>a</sup>	0.285	0.281	0.53099	1.920

a. Predictors: (Consistent), TL

b. Dependent variable: ED

**ANOVA**

Model		Sum of squared	DF	Mean squared	F	Sig.
1	Regression	22.212	1	22.212	78.778	0.000 <sup>b</sup>
	Residual	55.827	198	.282		
	Total	78.039	199			

a. Dependent variable: ED

b. Predictors: (Consistent), TL

**Coefficients**

Model		Coefficients unstandardized		Coefficients standardized		T	Sig.
		B	Std. error	Beta	Std. error		
1	(Constant)	1.206	0.162			7.436	0.000
	TL	0.557	0.063		0.534	8.876	0.000

a. Dependent variable: ED

**Table 11: Mediation**

	Coefficient	t-value	LLCI	ULCI
Direct effect				
KS→ED	0.43**	6.1775	0.29	0.57
KR→ED	0.22**	5.0780	0.13	0.30
Indirect effect				
KS→SCA→ED	0.15*		0.79	0.23
KR→SCA→ED	0.11*		0.68	0.17

KS, KR, SCA, ED, \*P<0.05, \*\*P<0.001

relation between knowledge retention and employee development ( $\beta = 0.11$ ,  $P < 0.05$ ) the upper and lower percentile of both does not include zero which means that sustainable competitive advantage is the significant mediator between KR, ED, and KR, ED. With the increment in knowledge sharing, employee development also increases. Knowledge retention increased which will increase employee development. SCA helps them to increase their competitive advantage in the marketplace. So,

H<sub>5</sub>: Sustainable competitive advantage strongly mediate the effect between knowledge sharing and employee development (Accepted)

H<sub>10</sub>: Sustainable competitive advantage strongly mediate the effect between knowledge retention and employee development (Accepted).

## 5. DISCUSSION

The main goal of this quantitative study was to embellish the role of Knowledge Sharing and Knowledge Retention on the development of the employees and further to investigate that to what extent Transformational Leadership influence the relation between knowledge sharing, knowledge retention and sustainable competitive advantage as a moderator. We moreover examine the intervening part of sustainable competitive advantage between knowledge sharing, knowledge retention, and employee development. As, there is no significant moderation effect of transformational leadership between knowledge sharing, knowledge retention, and sustainable competitive advantage. Transformational leadership has a positive correlation with knowledge sharing and sustainable competitive advantage but the correlation of transformational leadership with knowledge

retention and sustainable competitive advantage is negative. So the TL as a moderator does not play its role in improving the retaining and sharing of knowledge to achieve a competitive advantage. TL, as an arbitrator does not, play its part in moving forward the retaining and sharing of information to realize the competitive advantage. Because Ma and Jiang, 2018 state the research of the effectiveness of leadership style of transformational leadership is limited and indecisive in the Asian context. Other top-down leadership styles may be more effective (Gumusluoglu et al., 2017).

These findings uncover that broad HR functions can help organizations to develop their competitive advantage. The finding of positive relation of knowledge sharing, knowledge retention, and employee development gives the evidence that the past knowledge will result in evolution the employees and the employees will come to know that from the past knowledge they can endure the competitive advantage which will distinguish them from the rival organization and will help them in growth. Since sustainability lead towards accomplishing long term objectives. With the increment in retaining and sharing of knowledge, the development of the employee will be expanded. Within the knowledge-based economy, KS and KR may be a key figure for organizations to attain a competitive advantage. At long last, the analyst investigates in this study that employee development had picked up small consideration within the past studies which are a vital viewpoint for the growth of the organization since on the off chance that the firm has a human asset that's competent and developed enough, they can meet any challenges within the future world. Subsequently, Knowledge Sharing and Knowledge Retention may be a basic key that the managers can utilize to upgrade the advancement of the worker.

## 6. THEORETICAL IMPLICATION

This study includes theory to the existing literature in the following ways. To begin with, the knowledge sharing and knowledge retention impact on employee development has not been tried in past studies. Second, employee development needs attention in past studies as the outcome variable. Third, knowledge sharing and knowledge retention have not been tried within the telecommunication sector in a non-western nation like Pakistan to consider employee development. By looking at the knowledge sharing and knowledge retention, we conclude that these can help the employees to pick up data, thoughts, and solutions from other co-workers. Employees can at that point arrive at the right solution by this data and which leads them towards brilliance. Forth, by conducting the moderation analysis, we conclude that Transformational Leadership does not fortify the relationship between Knowledge Sharing, Knowledge Retention, and Sustainable Competitive Advantage. Fifth, the operationalization of Transformational Leadership is very distinctive from past considers. We inspected Transformational Leadership as a high order variable rather than examining its second-order construct. This move empowers us to postulate and assess the impact of the common concept that speaks to a few facts of a specific theory, instead of the impact of its measurements independently (Alsaad et al., 2015) Lastly, previous studies do not conduct any research

by mediating the sustainable competitive advantage which is quite significant in the business world which makes this study novel. By sustaining the competitive advantage, employees can develop those skills which will be difficult to replicate. Hence, this study contributes to important aspects of the business world. By maintaining the competitive advantage, workers can create those aptitudes which can be troublesome to reproduce. Thus, this ponder contributes to the imperative viewpoints of the trading world.

## 7. PRACTICAL IMPLICATION

This study moreover has various practical implications. First, knowledge sharing and knowledge retention techniques ought to be implemented within the telecommunication divisions of Pakistan since these methods can cultivate the advancement of employees. These developing nations ought to embrace and create context-specific information management capacities for their particular public division firms while taking into thought the relevant factors. Secondly, knowledge management activities within the public sector like the commerce sector could too offer assistance within the strategy detailing, and evaluation of strategy Third, the researcher conducts an investigation of factors dimensions that are first-order items that uncover more particular and point by point findings. Forth, managers ought to create distinctive sorts of programs and training due to which Knowledge Sharing and retaining ended up simpler and the employees can know what information must be shared among the individuals. They will be able to create and utilize their core competencies more precisely.

## 8. LIMITATIONS AND FUTURE RESEARCH

- The first limitation of this current research is that this study is restricted to the telecommunication sectors of Multan only, hence future study ought to look at this phenomenon and actualize this study on the telecom segments of other cities. It ought to also be implemented in the banking division of Pakistan because it may affect employee execution and can help to advocate the conduct of advanced workers (Hanif et al., 2018)
- Second, this study is conducted in under developing countries like Pakistan. Future research should include developed countries
- Third, this research utilized a cross-sectional period analysis, and thus the irregular connections may show up to alter or indeed lose its value within a long period. A longitudinal considers would offer assistance to overwhelmed this restriction and solidify results
- Forth, this study utilized only first-order items. Second-order items ought to be utilized in advance studies to profoundly managing the relationship with each other
- Lastly, the leadership style of transformational leadership may not be effective in knowledge sharing and knowledge retention compared with sustainable competitive advantage. Future research might include other top-down leadership styles like supportive leadership, strategic leadership, and visionary leadership.

## 9. CONCLUSION

This research accomplished its goals. In this research, the study sheds light on knowledge sharing and knowledge retention in enriching the development of the employees through sustainable competitive advantage. As if the past knowledge and expertise prevail in an organization, it leads them towards a higher competitive advantage in the business world. The finding suggests that if the knowledge is retained and shared properly, employees will become developed and Sustainable Competitive Advantage mediates this effect. Moreover, transformational leadership does not have any influence as the moderator between knowledge sharing, knowledge retention, and sustainable competitive advantage. It is because a certain level of transformational leadership may be required to influence its effect on the employees. In the modern era, a firm should dominate itself in the market place by realizing the needs and enhancing the core competencies of the employees which will take place only when their human resource has a dream to achieve excellence for themselves as well as for the organization.

## REFERENCES

- Ali Yaseen, S.A. (2015), Knowledge management and organizational performance: Study from telecommunication companies in Somalia. *Research Journal of Social Sciences*, 8(13), 60-67.
- Alsaad, A., Mohamad, R., Ismail, N.A. (2015), Perceived desirability and firm's intention to adopt business to business E-Commerce: A test of the second-order construct. *Advanced Science Letters*, 21(6), 2028-2032.
- Andreeva, T., Kianto, A. (2012), Does knowledge management matter? Linking KM practices, competitiveness, and economic performance. *Journal of Knowledge Management*, 16(4), 617-636.
- Avolio, B.J., Gardner, W.L. (2005), Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly*, 16(3), 315-338.
- Bairi, J., Manohar, B.M., Kundu, G. (2011), Knowledge retention in the IT service industry. *Journal of Systems and Information Technology*, 13(1), 43-65.
- Barrick, M.R., Thurgood, G.R., Smith, T.A., Courtright, S.H. (2015), Collective organizational engagement: Linking motivational antecedents, strategic implementation, and firm performance. *The Academy of Management Journal*, 58(1), 111-135.
- Bartol, K.M., Srivastava, A. (2002), Encouraging knowledge sharing: The role of organizational reward systems. *Journal of Leadership and Organizational Studies*, 9(1), 64-76.
- Bass, B., Riggio, R. (2006), *Transformational Leadership*. 2<sup>nd</sup> ed. Mahwah, NJ: Lawrence Erlbaum Associates.
- Bass, B.M. (1985), *Leadership and Performance Beyond Expectation*. New York: Free Press.
- Bilal, A., Masood, M., Umrani, W.A. (2019), The role of job crafting and Knowledge sharing on the effect of transformational leadership on innovative work behavior. *Personnel Review*, 48, 1186-1208.
- Bolisani, E., Bratianu, C. (2017), Knowledge strategy planning: An integrated approach to manage uncertainty, turbulence, and dynamics. *Journal of Knowledge Management*, 21(2), 233-253.
- Bolivar-Ramos, M.T., Garcia-Morales, V.J., Garcia-Sanchez, E. (2012), Technological distinctive competencies and organizational learning: Effects on organizational innovation to improve firm performance. *Journal of Engineering and Technology Management*, 29, 331-357.
- Bruce, A., Gardner, W.L. (2005), Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly*, 16, 315-338.
- Cai, S., Qinfang, L., Xin, F., Guowei, D. (2018), Paying for Knowledge: Why are People Paying for Live Broadcasts in Online Knowledge Sharing Community? *Proceedings PACIS*, p286.
- Chacarbaghi, L. (1999), In: Porter, M.E., editor. *Competitive Advantage: Creating and Sustaining Superior Performance 1980*. Mumbai: Free Press. p45.
- Chaharbaghi, K., Richard, L. (1999), Sustainable competitive advantage: Towards a dynamic resource-based strategy. *Management Decision*, 37(1), 45-50.
- Dahlgaard, J., Mi Dahlgaard-Park, S. (2006), Lean production, six sigma quality, TQM and company culture. *The TQM Magazine*, 18(3), 263-281.
- Darroch, J., McNaughton, R. (2002), Examining the link between knowledge management practices and types of innovation. *Journal of Intellectual Capital*, 3(3), 210-222.
- Den Hartog, D.N., Van Muijen, J.J., Koopman, P.L. (1997), Transactional versus transformational leadership: An analysis of the MLQ. *Journal of Occupational and Organizational Psychology*, 70(1), 19-29.
- Dionne, S.D., Francis, J.Y., Leanne, E.A., William, D.S. (2004), Transformational leadership and team performance. *Journal of Organizational Change Management*, 17, 177-193.
- El Shafeey, T., Trott, P. (2014), Resource-based competition: Three schools of thought and thirteen criticisms. *European Business Review*, 26(2), 122-148.
- Fehmidah, M., Nielson, K. (2009), How do transformational leaders influence followers' affective well-being? Exploring the mediating role of self-efficacy. *An International Journal of Work, Health, and Organization*, 23, 313-329.
- Francis, J.Y., Dubinsky, A.J. (1994), Transformational leadership theory: Using levels of analysis to determine boundary conditions. *Personnel Psychology*, 47, 787-811.
- Gaghman, A. (2017), *Impact of Knowledge Behavioral Factors on Tacit Knowledge Retention*. MBA Dissertation.
- Gregory, M.H., Williams, K.J. (2009), Attitudinal and motivational antecedents of participation in voluntary employee development activities. *Journal of Applied Psychology*, 94(3), 635-653.
- Gumusluoglu, L., Karakitapoğlu-Aygün, Z., Scandura, T.A. (2017), A multilevel examination of benevolent leadership and innovative behavior in R&D contexts: A social identity approach. *Journal of Leadership and Organizational Studies*, 24(4), 479-493.
- Gursoy, D., Maier, T.A., Chi, C.G. (2008), Generational differences: An examination of work values and generational gaps in the hospitality workforce. *International Journal of Hospitality Management*, 27(3), 448-458.
- Guthrie, J.P., Datta, D.K., Wright, P.M. (2004), Peeling Back the Onion Competitive Advantage Through People: Test of a Causal Model, CAHRS Working Paper No. 4-9. Ithaca, NY: Cornell University, School of Industrial and Labor Relations, Center for Advanced Human Resource Studies. Available from: <http://www.digitalcommons.ilr.cornell.edu/cahrswp/15>.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., Tatham, R.L. (2006), *Multivariate Data Analysis*. 6<sup>th</sup> ed. London, United Kingdom: Pearson Education.
- Halawi, L.A., Aronson, J.E., McCarthy, R.V. (2005), The resource-based view of knowledge management for competitive advantage. *Journal of Knowledge Management*, 3(2), 75-86.
- Hamzah, E., Emeagwalib, O.L., Alsaad, A., Alzghoulb, A. (2018), The impact of transformational and authentic leadership on innovation in higher education: The contingent role of knowledge sharing. *Telematics and Informatics*, 35(1), 55-67.
- Han, S.H., Seo, G., Yoon, S.W., Yoon, D.Y. (2016), Transformational

- leadership and knowledge sharing. *Journal of Workplace Learning*, 28(3), 130-149.
- Hanif, M.I., Hanif, M.S., Kamran, A., Shao, Y. (2016), Knowledge sharing and innovation performance affected by HR generic strategies: An empirical study of SMEs in China and Pakistan. *IBT Journal of Business Studies*, 12(12), 101-123.
- Hanif, M.I., Hanif, M.S., Rao, Y., Nawaz, M.K. (2018), The impact of knowledge management, information technology, and HRM on employee performance, evidence from banking sector. *International Journal of Research and Innovation in Social Sciences*, 2, 52-56.
- Hanif, M.I., Shao, Y. (2018), Collaborative innovation of strategic emerging industries: A case study of the new generation of information technology enterprises in China. *IBT Journal of Business Studies*, 13(2), 101-123.
- Hanneman, R. (2001) Introduction to Social Network Methods. Available from: <http://www.faculty.ucr.edu/~hanneman>.
- Holsapple, C.W., Singh, M. (2001), The knowledge chain model: Activities for competitiveness. *Expert Systems with Applications*, 20, 77-98.
- Holste, J., Fields, D. (2010), Trust and tacit knowledge sharing and use. *Journal of Knowledge Management*, 14(1), 128-140.
- Hurtz, G.M., Williams, K.J. (2009), Attitudinal and motivational antecedents of participation in voluntary employee development activities. *Journal of Applied Psychology*, 94, 635-653.
- Jayachandra, B., Manohar, B.M., Kundu, G.K. (2011), Knowledge retention in the IT service industry. *Journal of Systems and Information Technology*, 13(1), 43-65.
- Jeevan, J., Chahal, H. (2015), Sustainable Competitive Advantage: A Road to Success. New Delhi: Excel India Publishers, p1-6.
- Jiang, B., Baker, R.C., Frazier, G.V. (2009), An analysis of job dissatisfaction and turnover to reduce global supply chain risk: Evidence from China. *Journal of Operations Management*, 27(2), 169-184.
- Jill, E.E., Noe, R.A., Brian M. Saxton a John Carroll University (2019), The future of employee. *Human Resource Management Review*, 2019, 100732.
- Kaba, A., Ramaiah, C.K. (2017), Demographic differences in using knowledge creation tools among faculty members. *Journal of Knowledge Management*, 21(4), 857-871.
- Kirsch, D. (2008), Available from: [http://www.it.toolbox.com/wiki/index.php/knowledge\\_retention](http://www.it.toolbox.com/wiki/index.php/knowledge_retention).
- Liebowitz, J. (2009), *Knowledge Retention: Strategies and Solutions*. Boca Raton: CRC Press.
- Lin, H.F. (2007), Knowledge sharing and firm innovation capability: An empirical study. *International Journal of Manpower*, 28, 315-332.
- Linton, J.D., Klassen, R., Jayaraman, V. (2007), Sustainable supply chains: An introduction. *Journal of Operations Management*, 25(6), 1075-1082.
- Loebbecke, C., van Fenema, P.C., Powell, P. (2016), Managing inter-organizational knowledge sharing. *The Journal of Strategic Information Systems*, 25(1), 4-14.
- Ma, X., Jiang, W. (2018), Transformational leadership, transactional leadership, and employee creativity in entrepreneurial firms. *The Journal of Applied Behavioral Science*, 54(3), 302-324.
- Malinen, S., Wright, S., Cammock, P. (2013), What drives organisational engagement? A case study on trust, justice perceptions and withdrawal attitudes. *Evidence-Based HRM: A Global Forum for Empirical Scholarship*, 1(1), 96-108.
- Martin, C.A. (2005), From high maintenance to high productivity: What managers need to know about Generation Y. *Industrial and Commercial Training*, 37(1), 39-44.
- McCauley, C.D., Hezlett, S.A. (2001), Individual development in the workplace. In: Anderson, N., Ones, D., Sinangil, H., Viswesvaran, C., editors. *Handbook of Industrial, Work, and Organizational Psychology*. London: Sage.
- Muhammad, K.I., Ilyas, M., Aslam, U., Rahman, U.U. (2016), Organizational learning through transformational leadership. *The Learning Organization*, 23, 232-248.
- Nick, B., Serenko, A. (2009), A causal model of human capital antecedents and consequents in the financial services industry. *Journal of Intellectual Capital*, 10(1), 53-69.
- Obeidat, B., Shannak, R., Masa'deh, R., Al-Jarrah, I. (2012), Toward a better understanding of Arabian culture: Implications based on Hofstede's cultural model. *European Journal of Social Sciences*, 28(4), 512-522.
- Omar, R.M., Nassara, I.A., Almsafir, M.K. (2018), Knowledge management processes, and sustainable competitive advantage: An empirical examination in private university. *Journal of Business Research*, 94, 320-334.
- Othman, F.A., Sohaib, O. (2016), Enhancing innovative capability and sustainability of Saudi firms. *Journal of Sustainability*, 8, 1-16.
- Papula, J., Volná, J. (2013), *Core Competence for Sustainable Competitive Advantage, Multidisciplinary Academic Research*. Praha: MAC Prague Consulting.
- Parker, S.K., Wu, C.H. (2014). Leading for proactivity: How leaders cultivate staff Who make things happen. In: Day, D.V., editor. *Oxford Handbook of Leadership and Organizations*. Oxford: Oxford University Press. p380-399.
- Pearce, J.A., Robinson, R.B. (2000), *Strategic Management, Formulation, Implementation, and Control*. 7<sup>th</sup> ed. Boston: Irwin, McGraw-Hill.
- Phong, B.L., Lei, H. (2018), The mediating role of trust in stimulating the relationship between transformational leadership and knowledge sharing processes. *Journal of Knowledge Management*, 22(3), 521-537.
- Porter, M., Millar, V. (1985), How information gives you a competitive advantage. *Harvard Business Review*, 73, 149-160.
- Prusak, L. (1996), The knowledge advantage. *Strategy and Leadership*, 24(2), 6-8.
- Quang, M.D., Rosenthal-Sabroux, C., Grundstein, M. (2016), A Reference Model for Knowledge Retention within Small and Medium-sized Enterprises. In: *Proceedings of the International Conference on Knowledge Management and Information Sharing*.
- Rawung, F.H., Wuryaningrat, N.F., Elvinit, L.E. (2015), The influence of transformational and transactional leadership on knowledge sharing: An empirical study on small and medium businesses in Indonesia. *Asian Academy of Management Journal*, 20(1), 123-145.
- Reid, F. (2003), Creating a knowledge-sharing culture among diverse business units. *Employment Relations Today*, 30(3), 43.
- Saeidi, P., Sofian, S., Saeidi, S.P., Nilashi, M., Mardani, A. (2019), The impact of enterprise risk management on competitive advantage by moderating role of information technology. *Computer Standards and Interfaces*, 63, 67-82.
- Saenz, H. (2011), Transformational leadership. In: Bryman, A., Collinson, D., Grint, K., Jackson, B., Bien, M., editors. *The Sage Handbook of Leadership*. London: Sage, p299-310.
- Sensenig, K.J. (2011), Result Oriented Leadership. Available from: [http://www.dalecarnegie.com: http://www.dalecarnegie.com/assets/1/77/resultoriented\\_Leader\\_ship\\_sensenig\\_trg.com.pdf](http://www.dalecarnegie.com: http://www.dalecarnegie.com/assets/1/77/resultoriented_Leader_ship_sensenig_trg.com.pdf).
- Shahid, R., Muhammad, S., Saddam, H., Faisal, N., Minhong, W., Murad, A., Shehnaz, T. (2018), Knowledge management, organizational commitment, and knowledge worker performance: The neglected role of knowledge management in the public sector. *Business Process Management Journal*, 25(5), 1463-7154.
- Singh, A., Sharma, V. (2011), Knowledge management antecedents and its impact on employee satisfaction: A study on Indian telecommunication industries. *The Learning Organization*, 18(2), 115-130.
- Stewart, T.A. (1997), *Intellectual Capital: The New Wealth of Organizations*. New York: Doubleday.

- Sunyoung, P., Kim, E.J. (2018), Fostering organizational learning through leadership and knowledge sharing. *Journal of Knowledge Management*, 22(6), 1408-1423.
- Teece, D.J., Pisano, G., Shuen, A. (1997), Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- van den Hooff, B., de Leeuw van Weenen, F. (2004), Committed to share: Commitment and CMC use as antecedents of knowledge sharing. *Knowledge and Process Management*, 11, 13-24.
- Wang, H.J., Demerouti, E., Le Blanc, P. (2017), Transformational leadership, adaptability, and job crafting: the moderating role of organizational identification. *Journal of Vocational Behavior*, 100, 185-195.
- Wang, S., Noe, R.A. (2010), Knowledge sharing: A review and directions for future research. *Human Resource Management Review*, 20(2), 115-131.
- Winkelen, C., McDermott, R. (2008), Facilitating the handover of knowledge. *Knowledge Management Review*, 11(2), 24-27.
- Yammarino, F.J., Dubinsky, A.J. (1994), Transformational leadership theory: Using levels of analysis to determine boundary conditions. *Personnel Psychology*, 47, 787-811.
- Yang, J.T. (2007), Knowledge sharing: Investigating appropriate leadership roles and collaborative culture. *Tourism Manage*, 28(2), 530-543.
- Yi-Ying, C., Hodgkinson, I., Hughes, P., Chang, C.Y. (2019), The mediation between participative leadership and employee exploratory innovation: Examining intermediate knowledge mechanisms. *Leadership and Organization Development Journal*, 40, 334-355.
- Yukl, G. (2013), *Leadership in Organizations*. 8<sup>th</sup> ed. Upper Saddle River, NJ: Pearson Education.