

Chapter no 1

1. Introduction

1.1 Background of the Study

The birth of the new economy is perhaps the most spectacular commercial development of the last decade. The speed and dynamism of the new marketplace have provided a competitive incentive for businesses to concentrate and reconcile their knowledge in order to generate long-lasting value. To maintain a competitive advantage, several businesses are launching comprehensive knowledge management initiatives.

Knowledge management has gained favor across a diverse range of disciplines, as well as among practitioners, because of the numerous empirical studies that have proven the beneficial influence that knowledge management has on the innovative capabilities of organizations, as well as their overall performance, and as a result, their competitive advantage (see, for example, Shujahat et al. 2017). Since these interrelationships have been confirmed by a significant amount of empirical and quantitative research (for example, Darroch & McNaughton 2002), the positive nature of the linkages between Knowledge Management, innovation, and the performance of organizations is now universally accepted.

According to the conclusions of the research that was done on the current body of literature, the individual knowledge management engagement construct is crucial to the performance of both knowledge-based systems and knowledge management architecture, even though it has been neglected. "Individual knowledge management engagement" refers to the idea that an individual worker's involvement in an organization's activities related to knowledge management (Tseng and Fan, 2011; Cabrera et al., 2006). The two research that, to the best of the authors' knowledge, have studied this concept are Tseng and Fan (2011) and Cabrera et al (2006). Because of this, adopting an experimental approach to treating this specific and generally overlooked problem may be seen to be a somewhat novel contribution. Knowledge management architecture, which consists of knowledge management processes and knowledge management infrastructure, is insignificant for improved organizational

performance and innovation unless a knowledge worker interacts with and utilizes these components, particularly the knowledge management infrastructure, to acquire, share, and use the knowledge for timely and effective completion of job tasks, innovation, and, as a result, knowledge management architecture is insignificant for greater organizational performance and innovation.

Knowledge workers may learn, create, share, and utilize information gathered via knowledge management architecture in a manner that increases decision-making, task efficiency, and ultimately productivity if they personally participate in knowledge management (Shujahat et al. 2017b; Tseng and Fan 2011; Cabrera et al. 2006). Numerous studies have been conducted, and the results of these studies imply that knowledge management is directly responsible for innovation (e.g., Shujahat et al. 2017a, b; Kianto et al. 2016; Curado and Bontis 2006; Syazwan Abdullah et al. 2006; Gold et al. 2001). Therefore, engagement in knowledge management at the person level, which can be thought of as either a subset or a subcomponent of knowledge management, ought to have a favorable influence on creative output as well. Although empirical research has made substantial contributions to this field, there has been a dearth of recent studies examining the relationship between knowledge infrastructure capabilities, information sharing, and self-concordance and individual knowledge management participation. In the context of Pakistan's automobile industry, the current study investigates the influence of knowledge sharing on individual knowledge management engagement and knowledge infrastructure capability, as well as the role of self-concordance in the relationship between knowledge sharing and individual knowledge management engagement.

1.2 Objective of Study:

This research will investigate the dual function. Individual participation in Knowledge Management is absent in the Pakistani car industry, which is one of the primary reasons why the industry may not be localised. The requisite degree of expertise can only be attained if workers participate in knowledge-based activities; however, K-engagement is impossible without the necessary infrastructure and self-motivation. This research will assess the function of information sharing as a bridge between the capacities of the knowledge infrastructure and personal knowledge management participation in the Pakistani car sector. This research will also assess the function of self-concordance as a mediator in the link

between information sharing and individual knowledge management participation in the Pakistani car sector.

1.3 Problem Statement:

In this research, we will assess the effect of manager performance on the Pakistani car sector. In comparison to our neighbouring nations, the car sector is always advancing. In Pakistan, however, the costs of automobiles manufactured by various companies, independent of their features and construction quality, are rising despite not being in accordance with the norms. The performance of our technical and mechanical managers in the car sector is not competitive in comparison to the worldwide market. They must be taught to build the automobiles in their entirety in Pakistan. In our car business, managers lack the skills necessary to effectively manage information management and sharing capabilities. This research will assess the effect of individual knowledge management engagement on manager performance, as well as the effect of information sharing inside a company on gaining a competitive advantage in the market and societal well-being. In this approach, the vehicle sector will acquire a competitive advantage in the market and deliver new and efficient services to clients.

Numerous studies have been conducted on the impact of individual knowledge management, knowledge process skills, and infrastructure. But there is still a great deal of room for more study on the influence of knowledge management, knowledge process skills, and infrastructure on emerging nations. Eskandani et al. (2015) said that real knowledge management may facilitate the process. It facilitates the processes of knowledge acquisition, conversion, application, and preservation. And upgrades criteria of progress current. It enhances the imaginative execution by cultivating new mentalities and skills.

Regarding the short- and long-term consequences of individual knowledge management for the Healthcare business, there is still a great deal of room for investigation. By doing more study, we might determine if the knowledge infrastructure has a good or negative impact on the enhancement of competence. In the health sector, examining infrastructure and process capacities as well as the influence of knowledge management and knowledge engagement on industrial competence might be an intriguing approach. (Haughom, MD, and Consultant, 2014) Describe how problem-solving and optimum decision-making in the health care

industry are significantly reliant on the availability of information in order to offer the best possible health care and meet organisational objectives.

If an organisation has knowledge process capabilities, it generates a high degree of individual knowledge. If hospitals concentrate on care procedures one by one, they may completely shift the game and meet the difficulties confronting healthcare. The Pareto Principle describes how processes have a disproportionately large influence. According to the Pareto Principle, identifying the 20% of processes responsible for 80% of the impact is the greatest problem for any business. This may sound like a huge undertaking, but according to the Pareto principle, 20 percent of these procedures will likely have 80 percent of the effect. Therefore, the difficulty for any firm is to determine the 20% of factors that are crucial. Lesser knowledge capacities result in undesirable effects, such as poor knowledge management involvement among individuals. To sustain the infrastructure knowledge management (KM) process, the organisation must efficiently store, reconcile, convert, and transfer information (sanchez & Mahoney, 1996).

According to a research by the Ministry of Sector and Manufacturing's Engineering Development Board, the automobile components industry lacks a competitive mechanism in terms of production system and technology owing to localization restrictions. It is also poorly constructed (lacking the tiered supplier base). In addition, the rate of foreign investment in the components sector is slower than in Thailand and India. Due to a lack of manufacturing of modernisation equipment, machine tools have a significant impact on the machining of components. Before quality standards can be developed, manufacturing procedures and other critical activities must be standardised. According to the Users Survey, 70% of users agreed with a more stringent inspection method, although a large number of users ranked price as the most important factor in purchase choices. Inconsistent transitions from nationalisation to privatisation and localization to tariff control define the Pakistani government's policies for the growth of the automobile sector. The government's strategy of allowing used automobile imports fell short of its primary objective, which was to meet rising local demand. However, the present circumstance, in which domestic production capacity exceeds market demand, poses an unanticipated barrier to the growth of the local sector.

1.4 Research Purposes:

Determine the impact of knowledge infrastructure capabilities on personal knowledge management involvement in the automotive industry.

Determine the impact of Knowledge infrastructure capabilities of Knowledge sharing in the automotive sector.

Analyze how information sharing functions in the automotive industry as a bridge between knowledge infrastructure capabilities with individual knowledge management involvement.

To assess the moderating effect of auto industry self-concordance on the association between knowledge sharing and individual knowledge management participation.

1.5 Investigative Questions:

Here are the suggested study questions:

1-Does the effect of Knowledge infrastructure on individual knowledge management participation?

2-How does Knowledge infrastructure capabilities influence knowledge sharing?

3-Has the function of information sharing as a mediator between knowledge infrastructure capabilities and individual knowledge management involvement ceased to exist?

4-Is the link between knowledge sharing and individual knowledge management participation moderated by self-concordance?

1.6 Gap of the study:

Even while much research has been undertaken on Knowledge Infrastructure Capability and Knowledge Process Capability, individual knowledge management involvement has received very little attention. Therefore, greater investigation into the relationships between Knowledge Process Capability, Individual Knowledge Management, and Knowledge Infrastructure Capability participation in emerging nations is necessary (Shujahat et al. 2019). Numerous studies have been undertaken on knowledge management and despite the studies on individual knowledge management, the knowledge management methodology

involvement and knowledge worker productivity is scarce. This variable will also provide favorable results when used to moderate and mediate the relationship between variable usage and individual knowledge management participation. Individual knowledge management involvement is a key concept for knowledge management's theoretical growth, practical application, and expansion of research, but very little is known about it (Butt, et al., 2018).

Numerous research has examined the relationship between knowledge infrastructure capabilities and human knowledge management participation. According to Individual knowledge management engagement, knowledge worker productivity, and innovation performance in knowledge-based organizations: the implications for knowledge processes and knowledge-based systems, Knowledge-worker productivity and the second-order notions of individual knowledge management involvement were not taken into consideration. This study should investigate and examine the models. Second, the outcomes of the research can only be generalised when duplicated in diverse circumstances by other studies. Third, there may be positive moderating factors or contingency variables that influence the correlations and hypotheses of this research, such as organisational commitment and supervisor relationship. The purpose of this research is to determine the effect of these factors. Fourth, there is a paucity of research on individual knowledge management participation, which is a key knowledge management architectural element for the development of theory and practical consequences. Researchers might explore extending their study. Fifth, it is necessary to investigate and evaluate the individual and organisational facilitators of individual knowledge management involvement. There isn't sufficient and conclusive evidence to test the impact of knowledge management on the productivity of knowledge workers or to pinpoint the mechanism underlying this relationship, according to a review of earlier studies on the relationships between knowledge management processes and knowledge workers' productivity.

1.7 Study Objectives:

This study's objective is to assess the relationship between knowledge infrastructure capabilities and personal knowledge management engagement., and workplace managers in Pakistan's car sector, with information sharing serving as a mediator and self-concordance as a moderator. Despite the fact that several research has been conducted in this field, our study will explore the influence of information sharing on the knowledge infrastructure capabilities and individual knowledge management involvement of personnel working in Pakistan's

diverse car industries. This research is based on the knowledge-based perspective of the company theory and the knowledge-worker productivity theory developed by Drucker.

1.8 Importance of the Research:

Importance from a managerial perspective: Pakistan's automobile sector provides 2.8% to its GDP and 30 billion rupees in taxes and levies to the national exchequer. In Asia Pakistan has the fastest-growing automobile sector. Production and sales climbed by 172.5% and 171%, simultaneously, in between 2014 and 2018., due to the Automobile Industry Developmental Policy that was implemented in 2016. The Economic Coordination of Committee (ECC) approved the "Car Policy 2016-21, which offers the tax benefits for new auto sector businesses to build manufacturing facilities, was announced on March 18, 2016. Several automakers, such as Renault, Nissan, Kia, SsangYong, Volkswagen, and Hyundai, but not just those, have indicated interest in joining the market. This study will assist them in becoming resourceful and inventive while completing their duties. This research will benefit them in terms of knowledge development and information exchange among managers, allowing them to fulfil their duties with more dedication and loyalty. This research will also contribute to the invention and production of high-quality automobiles in the Pakistani automotive sector.

Academic Importance: Numerous research have been undertaken in this field, but little is known about the mediating function of information sharing in the workplace and how it would affect the knowledge infrastructure capabilities and innovative thinking of workers in Pakistan's car sector. This research will add to the literature via empirical investigation of the moderating function of self-concordance and the mediating role of knowledge sharing in the workplace.

This study will contribute to the literature by determining what policies and training sessions will be conducted by organizations to train the technical, electrical, and mechanical managers in the industry so that they can enhance their capabilities and manufacture final products in accordance with the standards of our neighbouring nations.

This research will add to the literature about the influence of knowledge sharing on managers' commitment to knowledge management. This research will also aid managers in the process of knowledge development and information sharing inside the firm.

Chapter 2

2. Literature review

The organisational capacity hypothesis was developed by Gold et al. (2001), and their research investigates how effectively knowledge management can be carried out when seen from the perspective of organisational capability. This theory analyses how successful knowledge management may be by looking at it from the viewpoint of how competent organisations are. Specifically, this theory investigates how effective knowledge management may be. It was his opinion that the infrastructure and process skills of a company's knowledge management were the most important factors that determined the likelihood of effective knowledge management inside an organisation. On the other hand, some of the capabilities of the process include the collection, conversion, application, and preservation of knowledge. The infrastructure capabilities are comprised of the cultural, structural, and technological capabilities, while the process capabilities are comprised of the cultural, structural, and technical capabilities.

2.2 theoretical underpinning

2.2.1 Knowledge-based view of the firm theory:

In order to avoid simplifying things too much, the knowledge-based viewpoint of the firm theory asserts that an organisation is the sum of all relevant knowledge resources that it has with the objective of achieving a competitive advantage in the market (Shujahat et al. 2017a, b; Monteiro et al. 2017; Inkinen 2016; Garrido-Moreno et al. 2015; Grant 1996). This is due to the fact that the resource in question is very difficult to manufacture in an identical form, despite its high value and the fact that it is extremely rare. In light of this, the competitive organisational performance of the company that makes an effort to generate, share, and employ these knowledge resources will rise with sustainability. This is in contrast to the competitive performance of the company's competitors, who do not make such an effort,

which will rise with the company's lack of sustainability (Shujahat et al. 2017a, b; Costa and Monteiro 2016).

The knowledge-based viewpoint of the business theory is a theory that emphasizes the best organizational skills and the limited resources that firms now possess as the main sources of knowledge production. This knowledge gives a competitive advantage and aids in strategy building. A theory that concentrates on the limited resources that firms now possess is the knowledge-based point of view of the firm theory. The knowledge based viewpoint of the firm theory is a theory that places an emphasis on the limited resources that companies now possess as well as the highest levels of organisational expertise as the primary drivers of knowledge production (Wernerfelt, 1984). An enhancement of an organization's capacity to generate, disseminate, archive, and utilise knowledge resources would result in an improvement of the organization's performance in situations that are highly competitive. Individual knowledge management is a notion in which individuals connect with one another and engage with knowledge management in order to develop, share, apply, and conserve information; as a direct consequence, workers participate in activities that are relevant to knowledge management. Individual knowledge management is a notion in which individuals connect with one another and engage with knowledge management in order to develop, share, apply, and conserve information. Individual knowledge management may also be thought of as community knowledge management (2015).

2.1.1 Knowledge Infrastructure Capabilities:

According to the findings of the studies that have been conducted on the topic, the phrase "knowledge management infrastructure capabilities" is interchangeable with the phrases "knowledge assets" and "knowledge enablers" (Hassanien and Dale, 2013). It is the foundation of knowledge management and serves as the foundation for the improvement and enhanced efficiency of all organisational operations related to the deployment of the most modern KM systems. Knowledge management serves as the foundation for the improvement and enhanced efficiency of all organisational operations related to the deployment of KM systems. The management of information is the fundamental component of efficient organisational functioning (Zaied, 2012). The infrastructure for knowledge management,

which serves as the foundation for these activities and is constructed above it, is the foundation upon which knowledge management activities are created (Hajir et al., 2015). In order to support the capabilities of the knowledge management infrastructure, there is a need for a cohesive ecosystem consisting of technology, culture, and organisation. This ecosystem is needed to support the knowledge management infrastructure's capabilities. The range of data processing, storage, including communications technologies and systems (such as computers, servers, databases, and some other information devices) in addition to the processes that enable them to effectively communicate with one another are referred to as "technology infrastructure.". Databases, servers, computers, and many other information devices are all examples of the kinds of technologies and systems that fall under this category (Pannu,2017).

According to Martn de Castro et al. (2011), Ho et al. (2014), and Hajir et al. (2015), organisational culture is a collection of rules, norms, values, assumptions, and beliefs that are possessed by employees within an organisation and influence how they think and make decisions. This is because organisational culture is a collection of rules, norms, values, assumptions, and beliefs that are possessed by employees within an organisation. This is due to the fact that organisational culture is a conglomeration of the rules, norms, values, and beliefs that are held by staff members working inside a company. According to these authors, the idea of organisational culture may be summed up as a collection of the rules, customs, values, and beliefs that are held by employees working for a certain organisation. These rules, conventions, values, and beliefs are held by those working for the organisation. Every business has its own unique culture that distinguishes it from that of its competitors (Iftikhar et al.,2003). According to Masa'deh et al. (2019), who investigated this phenomenon, efforts at knowledge management are doomed to fail if the culture of an organisation does not readily embrace change. These researchers discovered that this was the case. The culture of an organisation should be such that it encourages its employees to interact, share information, coordinate their efforts, and learn new things together as a group, according to Masa'deh (2016).

It is the formal assignment of work responsibilities, positions, functions, and authority that exists inside an organisation, such as policies, processes, hierarchical connections, sector borders, and so on. This may also be referred to as a job description. In certain circles, this is

also referred to as the "official assignment of labour." [Note: This idea is also known as "work task allocation" in some communities (Gold et al.,2001; Hajir et al., 2015).

In order for businesses to effectively compete in the markets that they have chosen, they need to make efficient use of the information that is currently available to them while simultaneously developing new information that places them in a favourable position within those markets. Only then will they be able to compete effectively. In order to accomplish this, businesses need to have "absorptive capacity," which is the ability to utilise previous knowledge to recognise the value of new information, process it, and apply it to the acquisition of new knowledge and skills. In other words, this ability allows businesses to learn from their mistakes and acquire new knowledge and skills. In other words, businesses need to be able to make use of the knowledge they already possess in order to assess the importance of newly acquired information (Cohen, Absorptive capacity: a new perspective on learning and innovation. *Administrative Science Quarterly*, 1990). The basic processes that give birth to any and all new forms of resources, including new types of knowledge, include synthesis of previously existing resources and exchange of those resources with one another (Nonaka I. , A dynamic theory of organisational knowledge creation. *Organization Science*, 1994). Without the existence of social capital, it is not feasible to develop new information or knowledge. This is because social capital makes it possible to combine and share information that already exists (Nahapiet, 1998). The phrase "the sum of actual and prospective resources contained within, accessible through, and created by a social unit's network of interactions" is what is meant to be referred to when using the word "social capital." To be more specific, "the quantity of real and potential resources contained inside a social unit's network of interactions." [Citation needed] A range of infrastructures, including those that are technical, institutional, and cultural in character, make it possible for individuals to make the most of the social capital that is available to them. (Nonaka I. a., 1995), (O'Dell C. a., If only we knew what we know: identification and transmission of internal best practises., 1998), and Sanchez refer to the existence of norms and trust mechanisms as "structural infrastructure." [Citation needed] (Nonaka I. a., 1995), (O'Dell C. a., If only we knew what we know: identification and transmission of internal best practises., 1998), and (Nonaka I. a., 1998) are references to previous studies (1996). The public locations that people gather in make up the cultural component of the neighbourhood (Appleyard, 1996, DeLong, 1997, Leonard, 1998, Von Krogh, 1998). Within the realm of the technical component, the organisational connections that may be made easier by means of technology are where the emphasis is

focused (Brown, 1998, Davenport, 1998, Davenport T.a., 1998, Leonard D. 1995, Leonard. D, 1998, Teece, D., 1998). In order for an organisation to achieve the highest possible level of productivity from its physical infrastructure, it is necessary to implement knowledge management (KM) methods that can store, modify, and share information within the organisation (Almeida. P, 1996, Appleyard, M.M, 1996, Grant, R, 1995, Leonard, D. 1995, Nonaka, I., and Konno, N. 1998, Nonaka, I., and Takeuchi, H. 1995, Porter-Liebskind, J. 1996, Spender, J.C 1996, Szulanski, G 1996). As a direct result of these actions, the organisation is now in a position to more effectively collect, reconcile, and distribute information across the organisation. Grant (1995) outlines a framework that may be used to characterise the process-oriented components that compose knowledge integration. This framework is presented in the following way: This particular construction may be located in this location. According to this idea, the accomplishment of information integration is stated to be dependent on three distinct factors in order to be successful. The effectiveness of the integration, the extent to which it takes place, as well as its flexibility are all aspects that fall under this category. The degree of effectiveness that may be achieved by integration is directly proportional to the number of separate processes that are involved as well as the frequency with which they take place. When a company raises the frequency with which it carries out the activities linked to its knowledge management, the standards become more regular, and when this frequency is increased even more, the process of integration becomes more effective. When a company's knowledge management methods get more complex, the company's knowledge integration will become less effective due to the growing number of exceptions that need to be managed. This is because the number of exceptions that need to be controlled increases. Assuming that all operations that are necessary in advance have been successfully finished, the degree of integration may be assessed based on the breadth of information that can be included in it. This evaluation is based on the assumption that all procedures have been properly completed. To summarise, although this is by no means the least important point, what is meant by the term "integration flexibility" is the capability of an organisation to integrate the information that it has. When combined, the infrastructure and process perspectives provide a useful theoretical framework for determining the underlying components that make up organisational competency. This framework can be found in (Combining the Infrastructure and Process Views). Comparing and contrasting the two points of view is one way to accomplish this goal. In the sections that are to come, we are going to go even further into the particulars of the subject matter, as well as the theoretical underpinnings that support these qualities.

In the past, a significant number of research projects on this topic have been carried out utilising a wide variety of methods for the collection of data, the performance of testing processes, and the establishment of theoretical foundations. The results of this inquiry are likely to provide a significant amount of new information to the current body of knowledge, which is why its outcomes are being predicted to have such an impact.

2.1.2 Knowledge Sharing:

The act of employees exchanging their unique information, skills, and experiences with one another is referred to as "knowledge sharing," and it is an integral part of many workplace cultures. It ensures that employees have access to the company's information whenever they need it, and some of its benefits include the protection of the company's intellectual assets in addition to the growth of productivity.

Because of this, knowledge is a highly strategic resource, and because of this, some management endeavours necessitate placing a particularly strong emphasis on knowledge as a resource (Davenport and Prusak, 1998; Nonaka and Takeuchi, 1995). It is possible for psychological, organisational, and system-related elements to have an effect on the level of participation that a person has in the process of sharing information with other workers who are employed by the company. Self-efficacy, openness to experience, perceived support from colleagues and supervisors, and, to a lesser extent, organisational commitment, job autonomy, perceptions about the availability and quality of knowledge management systems, and perceptions of rewards associated with sharing knowledge were significant predictors of self-reports of participation in knowledge exchange. Self-reports of participation in knowledge exchange were significantly predicted by self-efficacy, openness to experience, perceived support from colleagues and supervisors, and perceptions of rewards associated with sharing knowledge. Information sharing was substantially predicted by self-efficacy, openness to experience, perceived support from coworkers and supervisors, and perceptions of incentives associated with sharing knowledge, according to people's own accounts of their engagement in knowledge sharing (Butt et al,2019).

For information to be disseminated, it is necessary to have access to certain technologies that might potentially facilitate the organisation of meetings and other kinds of relationships. It is standard practise to use the words "tools and systems that stimulate information sharing in organisations" and "knowledge management systems" interchangeably. This is because both

phrases refer to the same thing: tools and systems that encourage information sharing in organisations (Davenport and Prusak, 1998; Davenport et al., 1998). Companies need to find ways to motivate their employees to contribute their specialised expertise in order to compensate for the potential difficulty of these tasks. Because it may be difficult to manage and enforce the sharing of information, companies need to find ways to motivate their employees to contribute. Previous studies have demonstrated that an individual's degree of self-efficacy, organisational commitment, and perceived instrumentality may play a significant impact in influencing their likelihood to freely share information with other people. [Citation needed] (Kalman, 1999). Altering perspectives on the relevance and impact of contributions is one more way in which the quality of the contents may affect the distribution of information. This is a potential effect that may be caused by the quality of the contents. This is due to the fact that the standard of the information contained therein may influence how it is organised. It is possible that a person who learns that the content of a repository contains great things would be inspired to submit new ideas, particularly if doing so would assist in conveying a positive personal image of competence. This is because it is plausible that such a person would learn that the content of a repository contains great things.

2.1.3 Personal Knowledge Management Engagement:

Individual knowledge management engagement is a term that describes an evaluation of the amount of involvement in activities associated to knowledge management that take place inside an organization. This kind of evaluation is known as an individual knowledge management engagement assessment. These pursuits are carried out inside of a corporation or other kind of organization (Tseng & Fan 2011; Cabrera et al. 2006). A culture is fostered through the method, function, and discipline of management of knowledge generation, sharing, and application. The goal of management is to increase creative performance as well as organizational performance and gain a competitive advantage. It's possible to think of management as being equivalent to all three of these things at the same time. Infrastructure for knowledge management and procedures for knowledge management are the two elements that make up the components of knowledge management (Shujahat et al. 2017; Costa and Monteiro 2016; Andreeva and Kianto 2011; Zheng et al. 2011; Gold et al. 2001).

A culture that develops, shares, and uses knowledge is what knowledge management strives to create. It is a method, a role, and a discipline with the intention of improving innovative performance, organizational performance, and competitive advantage. This culture produces,

shares, and utilizes knowledge to improve innovative performance, organisational performance, and competitive advantage. It accomplishes this goal by fostering the development of a culture that values the generation, dissemination, and application of knowledge. It consists of the infrastructure for managing knowledge as well as various approaches for managing knowledge in some shape or another (Shujahat et al. 2017a, b; Costa and Monteiro 2016; Andreeva and Kianto 2011; Zheng et al. 2011; Gold et al. 2001) On the other hand, the findings of this study show that these aspects of knowledge management are only of very limited utility if individual workers do not engage in the infrastructure and procedures for knowledge management (Tseng & Fan 2011). Individual knowledge management engagement is a term that describes an evaluation of the amount of involvement in activities associated to knowledge management that take place inside an organisation. This kind of evaluation is known as an individual knowledge management engagement assessment. These pursuits are carried out inside of a corporation or other kind of organisation (Tseng & Fan 2011; Cabrera et al. 2006). It is one of the relatively overlooked notions and structures of knowledge management, according to the authors' best knowledge; to the authors' knowledge, there are just two studies that concentrate on this specific issue (Tseng & Fan 2011; Cabrera et al. 2006). Tseng & Fan (2011) investigate how an individual's participation in knowledge management may influence both the individual's level of job satisfaction as well as the individual's level of productivity when they are working. It is anticipated that the findings would have a considerable effect that will work out to the beneficiaries' advantage. An examination of the primary elements that define an individual's level of engagement in the process of information exchange among workers in the knowledge sector is carried out by Carbera et al. (2006).

2.1.4 Self-concordance

The concept of self-concordance is the "degree by which individuals pursuing their set of personal aspirations with emotions of intrinsic motivation and identity congruence, as opposed to feelings of guilt and external pressure." "the extent from which individuals pursue their own aims with feelings and emotions of intrinsic motivation and identity congruence" (Sheldon and Houser-Marko 2001, p. 153). According to the research that has been conducted, the distinguishing characteristics of a meaningful life include living in accordance with one's true self and pursuing values that are deeply held (also known as self-concordant goal pursuits; see also Aristotle, in 350 BCE/1998 (Ryan & Deci, 2000; Waterman, A. S.). Researchers have hypothesised that the distinguishing characteristics of a meaningful life

include living in accordance with one's true self and pursuing values that are deeply held. It has been said that these qualities are the defining traits of a life that is meaningful. These thinkers have said that carrying out these actions is the single most effective way to ensure that one's life is full with meaningful experiences and opportunities (1993). In line with these points of view, research has demonstrated that one's capacity to find meaning in their life improves in proportion to the degree to which they pursue goals that are meaningful to them on their own (Huta and Ryan 2010; McGregor & Little 1998). We conducted research to test the hypothesis that not only do self-relevant goals give the impression of having more significance, but also that increasing the perceived meaningfulness of goals (via high-level construal) can make it possible for them to appear to be more self-concordant. We found that both of these hypotheses were supported by our findings. This was done for that purpose because there is a well-established correlation between an individual's fundamental drive and the meaning that they get from their lives.

People have a high level of self-concordance when they either identify with the job objectives they are seeking, which is referred to as identified motivation, or when they find the goals they are pursuing to be particularly engaging and delightful in some manner. Both of these situations are examples of identified motivation (Sheldon and Houser-Marko, 2001; Sheldon et al., 2003). Self-concordance is low when individuals believe they are pursuing goals only to acquire extrinsic rewards or avoid penalties (external motivation), or due to coercive social pressure, such as a sense of responsibility. Self-concordance is high when individuals believe they are pursuing goals only to acquire intrinsic rewards or avoid penalties (intrinsic motivation). When people feel that the primary reason they are working toward their objectives is to earn intrinsic rewards or to avoid penalties, they have a high level of self-concordance (intrinsic motivation). People have a high degree of self-concordance when they have the perception that the only reason they are working toward their goals is to either gain intrinsic rewards or to avoid intrinsic penalties. This perception is synonymous with the concept of intrinsic motivation (interjected motivation). According to the SDT, a person has a high level of self-concordance when they have the perception that the job objectives they are pursuing represent their interests and values, or when they find the activity itself to be inherently engaging and intriguing. Both of these factors are necessary for a person to have a high level of self-concordance. Alternately, individuals may have a high degree of self-concordance when they have the notion that the work goals they are pursuing reflect their interests and values. This is another way that people might have a high level of self-

concordance. People have a tendency to have low degrees of self-concordance when they have the sense that they are pursuing career goals in order to get external incentives or to carry out imposed duties. On the other side, individuals have a tendency to have high levels of self-concordance when they have the idea that they are pursuing employment goals in order to fulfil their duties. [Citation needed] As a direct result of this, the hypothesis that will be investigated in this study is that there will be a favourable link between self-concordance and the creativity of employees. This connection will be explored in this inquiry.

2.1.6.1 Cultural capability:

When having a conversation about what it means to have "cultural competency," it is essential to take into consideration an organization's goal and values, as well as its stance on education and the exchange of information (Gold et al., 2001; Hult et al., 2000). Peachey (2006) made the remark that even the most efficient knowledge management programmes would be doomed to failure if the culture of an organisation did not readily accept change. This is something that Peachey believes to be true. In addition to this, the adoption of knowledge management initiatives is impacted by the company's culture (Sanchez, 2004). In addition, the corporate culture is considered to be one of the most significant obstacles standing in the way of the successful implementation of knowledge management (Gold et al., 2001; Lee and Choi, 2003). Building a culture that is aligned with KM goals is essential (Davenport et al., 1996; De Long and Fahey, 2000), but in practise, this alignment is a challenging process, particularly in organisations that are hierarchically organised and dominated by bureaucracy (De Long & Fahey, 2000; Davenport et al., 1996). (Davenport et al., 1996; De Long and Fahey, 2000). Brown & Duguid (1998), Grant (1996), and Nonaka (1994) all came to the same conclusion. Because of the malleability of subcultures, cultural shifts are likely to be easily accepted in businesses that employ fewer people, smaller groups within larger organisations, and businesses that have a tendency toward entrepreneurial endeavours. These types of businesses also tend to be more open to change. This is due to the fact that firms of this kind are more likely to have a tendency toward creative problem solving (Becerra-Fernandez et al., 2004). (Janz and Prasarnphanich, 2003). Knowledge management has a better chance of being successfully implemented in large companies whose teams are first created through social networks and then linked intra-organizationally.

This order of events is referred to as the "social network sandwich model," and it is thought that this pattern of events increases the likelihood of success (Peachey, 2006; Serenko et al., 2007).

2.1.6.2 Structural capability:

The formal operation and command structure, as well as the availability of standards and trust mechanisms, are all components of an organization's organisational structure (Gold et al., 2001; Nonaka, 1991; O'Dell et al., 1998), which has been described in detail elsewhere. The body of scholarly work suggests that efficient KM systems promote creative problem solving and adaptability (Ruggles, 1998). The use of technological architecture and communication networks calls for the involvement of organisation (Gold et al., 2001). Inadvertently, organisational structure may impede excellence in knowledge management (Gold et al., 2001; O'Dell and Graydon, 1998) since it makes it more difficult for people to work together and share information (Alavi and Leidner, 2001). Peachey (2006, page 81) highlighted the fact that individuals working in organisations may get beyond the limitations imposed by institutions by coming up with their own tactics.

2.1.6.3 technological capability:

The hardware, software, internal and external system networks, and databases of an organisation are all components of an organization's technological competency (Yang and Chen, 2007). Several writers have pointed out that the elimination of obstacles to communication and exchange, as well as the facilitation of data integration across organisational departments, project teams, and divisions, are all made possible by advances in technology (e.g. Davenport and Prusak, 1998; Holsapple and Joshi, 2001; Leonard, 1995).

2.1.6 Knowledge management engagement and knowledge infrastructure capabilities

The competence of a process to transfer organisational knowledge, experience, and expertise that has been documented in standard operating procedures and routines," is the definition of what is known as "knowledge process capacity" (Paisittanand et al., 2007). (Paisittanand et al., 2007). In order to make advantage of the capabilities of the knowledge infrastructure (culture, structure, and technology), the relevant KM procedures need to be in place. These

processes ensure that information can be gathered, preserved, shared, and used in the proper manner (Davenport et al., 1996; Grant, 1996; Leonard, 1995).

Knowledge management is a process, a function, and a discipline that aims to boost inventive performance, organisational performance, and competitive advantage by fostering a culture of knowledge development, knowledge exchange, and knowledge application. It encompasses both the physical infrastructure and the operational methods for managing knowledge (Shujahat et al. 2017; Costa and Monteiro 2016; Andreeva and Kianto 2011; Zheng et al. 2011; Gold et al. 2001). The findings of this research suggest, on the other hand, that these aspects of knowledge management provide very little benefit unless every individual is actively involved in the knowledge management procedures and infrastructure (Tseng and Fan 2011). Individual knowledge management engagement refers to the process of assessing a person's level of participation in knowledge management activities inside an organisation (Tseng & Fan 2011; Cabrera et al. 2006). The writers believe that it is one of the knowledge management concepts and ideas that have received inadequate attention; to their knowledge, only two studies have been carried out on the topic (Tseng & Fan 2011; Cabrera et al. 2006). Tseng & Fan (2011) study the effect that an individual's engagement in knowledge management has on their job satisfaction as well as their performance in the workplace as part of a larger model. The effects are evaluated as being significant and beneficial. The three components that make up knowledge management architecture are the knowledge management infrastructure, the knowledge management practises, and the relationship between the two (Shujahat et al. 2017b; Curado & Bontis 2006; Syazwan Abdullah et al. 2006; Lin et al. 2002; Gold et al. 2001). The flow of knowledge (knowledge development, information interchange, and knowledge application) among the activities and units of a knowledge-based organisation is one of the components of the process of knowledge management. Support for the information technology infrastructure-based knowledge management infrastructure comes from ontologies, the intranet, and knowledge-based systems and knowledge systems. As a consequence of this, the infrastructure for knowledge management provides support for the knowledge management processes, which in turn guarantee the organisational performance, innovation, and competitive advantage of a knowledge-based company (Shujahat et al. 2017b; Lee and Choi 2003). Individual participation in knowledge management ensures that knowledge workers access, develop, share, and utilise information drawn from the knowledge management architecture, which in

turn improves decision-making, job performance, and overall productivity (Shujahat et al. 2017b; Tseng and Fan 2011; Cabrera et al. 2006).

Fostering a culture of knowledge production, sharing, and application is one of the processes, functions, and disciplines that fall under the umbrella of knowledge management. The goal of knowledge management is to promote innovation, organisational performance, and competitive advantage (KM). Because it is intertwined with many other fields of study, knowledge management (KM) is a topic that may be approached from a variety of angles. Philosophy, cognitive science, social science, management science, information science, knowledge engineering, artificial intelligence, and economics are all considered to be among the most renowned areas of study in the academic world (Kakabadse et al., 2003). According to Gold et al. (2001), the infrastructure of a firm and its abilities in the knowledge management process are good indicators of whether or not the organisation practises successful knowledge management. A company's cultural competency encompasses not only its vision and values, but also its attitudes toward learning and the transfer of knowledge. The formal operation and command structure, in addition to the availability of trust procedures and standards, are the components that make up structural capability (Yang and Chen, 2007).

The capabilities of the infrastructure are broken down into three primary categories: cultural, structural, and technological. In addition to the company's vision and values, a company's cultural competency also includes the company's attitudes toward learning and the transfer of knowledge (Gold et al., 2001). If an organisation is resistant to change, then even the most successful knowledge management (KM) programmes will fail. Additionally, organisational culture has an influence on the acceptability of knowledge management (KM) activities, and it is often recognised as one of the most important barriers to the efficiency of KM (Sanchez, 2004). Creating a culture that is compatible with the objectives of KM is essential yet difficult, particularly in organisations that are very hierarchical and bureaucratic. Smaller organisations, smaller groups inside larger enterprises, and entrepreneurial organisations are likely to rapidly absorb cultural changes because of the adaptability of subcultures. It is possible that large organisations will be able to make better use of KM if teams are first defined by social networks and then connected inside the company (Serenko et al., 2007). In light of this, the infrastructure for knowledge management provides support for knowledge management techniques. These approaches are what provide a knowledge-based organisation with high levels of organisational performance, innovation, and a competitive advantage

(Shujahat et al., 2017). The extent that a knowledge worker engages in knowledge management-related tasks inside an organization is the definition for individual engagement within knowledge management (Tseng & Fan, 2011). If a knowledge worker does not interact with and use these components, particularly the knowledge management infrastructure, to acquire, share, and use knowledge for the timely and effective completion of job tasks, innovation, and high firm performance, the knowledge management architecture, that also includes the knowledge management processes and the knowledge management infrastructure, is ineffective for improved organizational performance and innovation (Tseng & Fan 2011; Cabrera et al., 2006). Knowledge workers may access, create, share, and use information derived from the knowledge management framework thanks to individual engagement in knowledge management. Improvements in decision-making capacity, task efficiency, and general productivity follow from this (Shujahat et al., 2017; Tseng & Fan, 2011).

The method, the function, and the discipline that supports a culture of knowledge generation, sharing, and application in order to boost innovative performance, organisational performance, and competitive advantage are together referred to as knowledge management (Butt et al., 2019). Butt et al. claim that this phenomena is one of the knowledge management ideas and systems that receives the least amount of attention (2019). Individual participation in a company's knowledge management activities is the essence of the idea known as "individual knowledge management engagement" (Tseng and Fan 2011). These academics have investigated the relationship between individual engagement in knowledge management, the degree to which one is satisfied with their job, and overall performance. It has been shown that the impacts are both beneficial and significant. Knowledge Process Capability and Knowledge Infrastructure Capability, on the other hand, have both been the subject of much research (Shujahat et al. 2019). As a result of this, the primary hypothesis of this investigation, which is founded on an analysis of the prior relevant research, is as follows:

H1: There is a significance and positive relationship between knowledge infrastructure capabilities and individual knowledge management engagement.

2.1.7 Relationship between Knowledge Infrastructure Capabilities and Knowledge

Sharing:

As was discussed in the last part of this article, one of the primary reasons for the creation of knowledge management skills is their connection to the elements that determine the efficiency of organisations (Cohen, W., and Levinthal, D. 1990, Davenport, T.H., and Prusak, 1998, Nonaka, I., and Takeuchi, H. 1995, Nonaka, I.1990). Those who study strategic management have noticed that the concept of organisational effectiveness is not well defined and is most likely more difficult than first thought (Chakravarthy, B.S. 1987, Hart, S.L 1992, Hart, S.L., and Banbury, C. 1994, Ramanujam, V.; Venkatraman, N.; and Camillus, J.C. 1996, Venkatraman, N. 1990). However, successful knowledge management must contribute to the business's performance in important areas just like any other organisational resource. This may be accomplished via the development of competencies inside the organisation. To be more specific, the company has to have a learning effect, which means that its value-creating capabilities should become better over time (Bohn, R. 1994, Dutton, J., and Thomas, A. 1985, Galunic, D.C., and Rodan, S. 1998, Huber, G.P. 1991, Kelly, D., and Amburgey, 1991, Kogut, B., and Zander, U 1993). As a consequence of this, evaluating the contribution of cognitive skills in terms of bottom-line statistics [such as return on investment (ROI), return on equity (ROE), etc.] may be significantly hampered by a number of unpredictable organisational, economic, and environmental factors that are constantly changing. On the other hand, the value-added component of an organization's resource could be discernible via the use of other performance measures that are less susceptible to confusion. We wanted to find out what the most important contributions of knowledge management skills were, so we combined an analysis of performance-based literature on strategic management with the findings and suggestions of recent literature on knowledge management. This allowed us to find out what those key contributions were. These contributions may include an increased capacity for innovation, an enhanced ability to coordinate activities, and a sped-up pace of new product commercialization. The capacity to anticipate unforeseen occurrences, the reaction of the market, and the removal of unnecessary information and knowledge are all examples of additional contributions

KS is made up of social contact between workers, which involves the passing of knowledge, information, and specialised expertise from one person to another. It is the willingness of an employee to discuss and consult with other workers in order to gain knowledge from other experiences and perspectives (Ellison et al., 2015). A flexible organisational structure, tacit

knowledge, a culture of support, and the utilisation of technology are all important KS traits (Gelard et al., 2013). Within an organisation, the presence of these traits not only makes it easier for information to flow, but also lays the groundwork for the administration of tasks that are knowledge-based (Alegre et al., 2013). According to Ellison et al. (2015), the introduction of KS via KMIC may provide members with several possibilities to expand their knowledge both inside and outside of the organisation. KMIC offers a blueprint for the construction of an efficient KS mechanism that enables members to collect essential documentation of task accomplishment (Dong et al., 2017)

Knowledge management capabilities may be defined as the ability of an organisation to integrate its communication systems in a way that allows for the development of new information and the connecting of existing knowledge, irrespective of location. Therefore, integrated technologies make it easier for departments within an organisation to communicate with one another. Formal processes, industry standards, and a hierarchical command structure make up the structural component of the KM infrastructure. Information exchange is restricted since the organisation is structured in such a way that emphasises the importance of individual achievements. In contrast, structural flexibility makes it easier for information to be shared via supply chain cooperation (Gold et al., 2001; O'dell and Graydon, 1998) [Gold et al., 2001; O'dell and Graydon, 1998]. In addition, effective use of KM calls on an open flow of information, which is only feasible when organisational structures are able to adapt to changing conditions and remain flexible. Constrained systems reward individual performance, which encourages individuality, limits information interchange, and ultimately leads to the failure of knowledge management (KM) adoption (Xue, Zhang, 2010).

In addition, the culture of an organisation may either speed up or slow down the implementation of KM. It is vital for the success of knowledge management programmes to have collaboration amongst members of an organisation, whether this collaboration is official or informal. Individual knowledge is converted into organisational knowledge in this way. In a similar vein, staff should look for opportunities for cooperative endeavours and open lines of communication in order to circumvent obstructions (Pandey and Dutta, 2013; Gold et al., 2001; Nonaka and Konno, 1998). According to Yang and Chen (2007), information sharing may be encouraged in organisations via the use of organisational elements such as incentive structures. Knowledge sharing is made easier by a KM infrastructure, which consists of culture, organisation, and an IT platform. This, in turn, encourages creative behaviour on the part of staff members (Anser et al., 2020; Gelard et al., 2013). (Anser et al., 2020; Gelard et

al., 2013). As a consequence of this, the following forms of knowledge sharing are made easier to carry out as a result of the capabilities of the knowledge infrastructure:

H2: There is a significance and positive relationship between knowledge infrastructure capabilities and knowledge sharing

2.1.8 Relationship between Individual Knowledge Management Engagement and Knowledge Sharing:

Human capital is the one and only organisational asset that has the potential to maximise a company's competitive advantage over its rivals. Employers that place a premium on the management, leadership, and long-term success of their staff will enjoy the advantages of having an engaged workforce. Increasing employee engagement is a critical HR strategy for creating employee loyalty and passion to the organisation in the present day and age. Kahn is credited with introducing the concept of employee engagement and providing its now-famous definition, which reads as follows: "the harnessing of organisation members' identities to their work responsibilities; through engagement, employees utilise and express themselves physically, intellectually, and emotionally through their job performances." According to Kahn (1990), in order for an employee to be appropriately engaged in their work, three psychological engagement demands need to be met: meaningfulness (work elements), safety (social variables, such as management style, procedure, and organisational norms), and availability. These demands are as follows: (individual distractions).

A number of recent research (Halbesleben, 2010; Mone & London, 2010) suggest that there is a connection between individual engagement and performance. Anitha J. (2014) found that there is a robust, statistically significant correlation between employee engagement and employee performance. The characteristics of the working environment, team, and coworker connection all contribute to employee engagement, which in turn significantly increases employee productivity. Recent studies on performance management have shown a link between employee engagement and work performance. This association underscores the significance of employee engagement in the process of performance management. Kahn (1990) came to the conclusion from his research that employee involvement has an effect on performance.

Because of the fact that organisational knowledge may significantly boost one's competitive advantage in highly competitive settings, information sharing is becoming an increasingly common practise among companies (Kearns & Lederer, 2003). The act of sharing one's knowledge not only helps a business improve its competitive advantage, but it also protects its intellectual capital and paves the way for the production of new value. Knowledge sharing is a social activity that fosters the exchange of useful information and skills among workers, as stated by Mu, Peng, and Love (2008). This activity is described as "knowledge sharing." The exchange of resources that are precious, uncommon, one-of-a-kind, and priceless opens new possibilities for both people and companies (Pinho, 2016). In specifically, the term "expertise sharing" refers to the process of exchanging task-related knowledge, experience, and abilities in order to provide assistance to one another and work together to find solutions to issues, develop new ideas, and put into practise policies and procedures. The sharing of information results in individual involvement in knowledge management, which is a byproduct of the process.

The most recent financial statements of a corporation provide evidence that information may be a source of a competitive advantage (Boisot, 1998; Spender, 1996a, 1996b; Spender and Grant, 1996; Cabrera and Allen, 1999). It is difficult for third parties to reproduce and replace organisational knowledge since it is essential, difficult to get, route-dependent, and unclear about causal relationships (Wernerfelt, 1984; Nanda, 1996). As a result, knowledge is a highly strategic asset that calls for certain management strategies (Davenport and Prusak, 1998; Nonaka and Takeuchi, 1995). Over the course of the last several years, an increasing number of companies have made investments in knowledge management systems. A person's willingness to participate in the sharing of information among employees within an organisation may be influenced by psychological, organisational, and system-related factors. Significantly predicting self-reported participation in knowledge exchange were self-efficacy, openness to experience, perceived support from colleagues and supervisors, and, to a lesser extent, organisational commitment, job autonomy, perceptions about the availability and quality of knowledge management systems, and perceptions of rewards associated with sharing knowledge (Butt et al,2019).

The act of passing on one's experience to other people within an organisation in order to solve issues, come up with new ideas, or carry out policies is what we mean when we talk

about knowledge sharing (Cummings, 2004). According to Cabrera et al. (2006), organisational characteristics, incentives, communication systems, and psychological elements such as self-efficacy have a significant influence on the degree to which a person participates in the exchange of information.

Different degrees of effective information sharing may be achieved, including individual, team, and organisational levels. Sharing information encourages human creativity and development, and this is the fundamental principle that underpins the field of knowledge management. In addition to this, it raises both their levels of work satisfaction and loyalty to the organisation (Ahmad and Karim, 2019). In addition, the fact that the exchange of information is done on a purely voluntary basis contributes to a sense of accomplishment even as one is gaining or enhancing one's knowledge. In addition to this, it encourages people to feel a feeling of success and enthusiasm, which in turn increases their level of engagement. The following is the conclusion that may be drawn from this theory:

2.1.5 Role of self-Concordance in Relationship between Knowledge Infrastructure

Participation of Individuals and Their Capabilities in the Management of Knowledge

Self-concordance theory:

The self-concordance model, often known as the self-regulation hypothesis, is built on self-determination theory as its primary theoretical underpinning (Ryan & Deci, 2000). Ryan and Deci believe that intentional behaviour may be deliberately chosen, or it can be influenced by either internal or external limitations or restraints. Sheldon and Elliot (1999) proposed a paradigm that they called the self-concordance model. According to this model, self-concordant objectives—that is, goals that are congruent with an individual's values and interests—are more likely to result in goal accomplishment and satisfaction. Sheldon and Elliot saw self-concordance as a continuum, much in the same way as Ryan and Connell (1989) did. This continuum included two controlled incentives for action (external and introjected), as well as two autonomously driven motivations for action (recognition and intrinsic). The findings of the study that was carried out by Sheldon and his colleagues make it abundantly clear that self-concordant goals have a direct correlation to favourable outcomes (such as goal accomplishment and happiness) (such as goal attainment and well-being).

The research carried out by Sheldon and his colleagues demonstrates without a reasonable doubt that self-directed objectives are connected to successful results (such as goal attainment and well-being). The concept of self-concordance places a focus on people's independent and proactive planning. Sheldon et al.'s self-concordance (SCM) refers to the degree of congruence between an individual's aims and his or her own internal interests or values. This concept was developed by the researchers Sheldon and his colleagues. A "person" who is active and driven has certain internal ideas and wants, which are the biological components of that "person." Sheldon and his coworkers have recently centred their research on the theory of self-concordance. This theory states that people believe they pursue their goals because they are in accordance with their own interests and beliefs, as opposed to being pursued as a result of pressure from the outside world. An person may not only be more successful in achieving their goals with the assistance of self-concordance, but they can also satisfy their needs for autonomy, competence, and relatedness, and cultivate a more permanent sense of well-being and enjoyment in their lives. Individual knowledge management engagement refers to the process of assessing a person's level of participation in knowledge management activities inside an organisation (Tseng and Fan 2011; Cabrera et al. 2006). Individual participation in knowledge management ensures that knowledge workers obtain, create, share, and use information from the knowledge management architecture to improve decision-making, task efficiency, and, as a result, productivity. This is accomplished through the individual's contribution to the knowledge management system (Shujahat et al. 2017b; Tseng and Fan 2011; Cabrera et al. 2006). The predicted results of a certain activity have an impact on whether or not a person intends to carry out that action. A person's likelihood of participating in a certain action increases in proportion to the perceived magnitude of the positive outcomes that are associated with the activity in question. As a direct result of this, the perceived incentives connected with this behaviour may influence the amount of information that is shared. It stands to reason that if perceived benefits can predict a person's likelihood of voluntarily pursuing opportunities for training and development, they can also predict a person's likelihood of actively seeking information and ideas from colleagues, which is one of the primary components of the knowledge sharing habit.

This was studied by making use of the self-concordance scale that had been established by Sheldon and Elliot (1999) specifically for this research. "the amount to which individuals pursue their own objectives with emotions of intrinsic desire and identity congruence, as

opposed to sentiments of introjected guilt and external coercion," is what is meant by the term "self-concordance" (Sheldon and Houser-Marko 2001, p. 153). A number of philosophers, such as Aristotle (350 BCE/1998), Ryan & Deci (2000), and Waterman (1993), have argued that self-concordant goal pursuits, also known as living in to accordance with one's authentic self and putting one's steadfast morals into action, are the defining characteristics of a meaningful existence. According to the findings of several research, greater levels of life meaning are connected with pursuing of intrinsic goals (Huta & Ryan 2010; McGregor & Little 1998). We explored the hypothesis that raising the perceived meaningfulness of objectives (via high-level construal), may make them appear more self-concordant. This was done in light of the well-established link between intrinsic motivation and meaning. A worker engages in individual knowledge management engagement when they interact with the architecture of knowledge management in order to develop, exchange, and apply information. This is one definition of the idea of individual knowledge management engagement. As a result, the knowledge worker is expected to engage in activities linked to knowledge management. Participation by this person in activities connected to knowledge management may equip him or her with the skills essential for ongoing innovation (Ologbo et al. 2015; Drucker 1999; Grant 1996; Nonaka 1994; Lane et al. 2006; Shujahat et al. 2017a; Andreeva and Kianto 2011; Lane et al.)

In the year 1999, Sheldon and Elliott presented the idea of self-concordance for the first time. According to the findings of these researchers, this model takes into account the whole temporal sequence, beginning with the adoption of a goal and continuing through its completion, as well as the impacts of goal fulfilment on need satisfaction and well-being. The concept of goal self-concordance refers to whether a goal is pursued because of the inherent pleasure (i.e., intrinsic motivation) and significance for self-development (identified motivation) or because of the self-imposed pressure (introjected motivation) and attempts to obtain rewards or avoid punishments (external motivation), and research has highlighted the significance of goal self-concordance for the achievement of personal goals and the promotion of organisational goals (Gaudreau, P. 2012). These scholars reevaluate the relationship that exists between self-concordance and academic attainment objectives in the process of developing indices of academic adjustment. In particular, they suggested that the links between performance approach objectives, mastery approach goals, and indicators of academic adjustment should be governed by the underlying degree of self-concordance of the

goals. This is because the performance approach objectives and the mastery approach goals are different.

Self-concordance may be defined as the extent to which an individual's actions, such as job-related activities or goals, reflect his or her true interests and values (Sheldon & Elliot, 1999). These researchers found that longer effort was associated with higher goal accomplishment, that goal accomplishment was associated with reported instances of need fulfilment, and that self-concordance mediated the relationship between goal success and need fulfilment. [Citation needed] The self-concordance paradigm of self-regulation is grounded on self-determination theory as its theoretical underpinning (Ryan & Deci, 2000). Ryan and Deci believe that intentional behaviour may be deliberately chosen, or it can be influenced by either internal or external limitations or restraints. According to Bono and Judge's (2003) definition of self-concordance, it may be thought of as a continuum that ranges from entire integration and internalisation to ultimate control via the use of rewards or punishments. Sheldon and Kaser discovered that achieving objectives has an influence on well-being, and that self-concordance of goals helps to mitigate the effect of achieving goals on well-being. According to Peters (2007), employee engagement is connected to employee commitment. This suggests that workers are proud of their business and the degree to which they want to remain, desire to perform at their best, and integrate their own objectives with the goals of the corporation. According to him, employee engagement is related to employee happiness, self-alignment, and contentment with one's job. It offers workers the chance to make connections with one another and serves as an incentive for recruiting (Juan et al., 2016). Self-concordant employees have strong aspirations to remain with the organisation despite the existence of other career opportunities, and they devote more time, effort, and initiative to individual knowledge management engagement activities. Self-concordant employees are also more likely to take the initiative to participate in individual knowledge management engagement activities. Through the use of self-concordance, the Knowledge Infrastructure Consortium (KIC) strengthens the relationship among the capabilities of the knowledge infrastructure and also individual participation in knowledge management. The self-concordance hypothesis asserts that individuals will experience greater levels of happiness and success in their lives if they pursue objectives that are consistent with the fundamental beliefs that they hold. This success can only be accomplished when the driving force behind the action is not controlled but rather the action itself. A regulated level of motivation is produced by extrinsic motivation, while an independent level of motivation is produced by intrinsic motivation

(Sheldon and Elliot, 1999). The Self-Determination Theory is the source of both the Employee Engagement Paradigm and the Self-Concordance Paradigm, both of which place a focus on competence, autonomy, and relatedness.

A person who is able to exercise self-control may be motivated by either internal or external forces (Meyer and Gagne, 2008). According to research conducted on teacher job satisfaction, self-concordance was shown to be a moderating factor in the relationship between work demand and job satisfaction. (Tadi et al., 2013) Educators who see their professional activities as highly self-concordant (as an inherent component of the organization's design) report higher levels of happiness compared to their colleagues who do not hold this view (Tadi et al., 2013). The fifth hypothesis for this study is as follows, and it is based on research done in the past:

H5: There is a moderating role of self-concordance in the connection between the individual knowledge management engagement and knowledge infrastructure capabilities

2.1.9 Relationship between Mediating Impact of Knowledge Sharing on Knowledge and Individual Knowledge Management Engagement:

According to Wang and Noe (2010), sharing one's expertise is an essential component of successfully supporting others, resolving difficulties, producing ideas, and working together with other people. "Knowledge sharing" is "a set of behaviours that contribute to the interchange of information and expertise and assist others share their knowledge," as the definition of knowledge sharing states (Ahmadi A, Abzari M, Nasr Isfahani A, Safari A. 2018). The free flow of information is essential to the innovation process at a firm; although explicit information directly boosts the rate of innovation, hidden knowledge effects the quality of invention (Becerra-Fernandez I, Xia W, Gudi A, Rocha J 2010). "a culture in which individuals share their knowledge, ideas, opinions, talents, and experience" is what is meant to be understood when referring to information sharing. The term "task-related knowledge, process and product responsiveness, and experience" may also be used to refer to the act of "sharing information." The act of transmitting data from one sender to another, as practised in information sharing, is known as "information sharing" (receiver). A kind of contact that takes place between two parties that results in the development of new information (Blanchard PN, Thacker JW, Ram VA 2012). Although it may relate to the communication or exchange of information between teams and organisations, the idea of

knowledge sharing in the academic world is reliant on the context in which it is used (Khan M, Bilal H, Mateen A, Haq Z 2017, Khan M, Sentosa I, Salman F 2018, Khan M, ChongcharoenD, Jankaweekun P 2020, and Khan MS, Chongcharoen D, Ulhaq Z 2019).

The most recent financial statements of a corporation provide evidence that information may be a source of a competitive advantage (Boisot, 1998; Spender, 1996a, 1996b; Spender and Grant, 1996; Cabrera and Allen, 1999). It is difficult for third parties to reproduce and replace organisational knowledge since it is essential, difficult to get, route-dependent, and unclear about causal relationships (Wernerfelt, 1984; Nanda, 1996). As a result, knowledge is a highly strategic asset that calls for certain management strategies (Davenport and Prusak, 1998; Nonaka and Takeuchi, 1995). Over the course of the last several years, an increasing number of companies have made investments in knowledge management systems. A person's willingness to participate in the sharing of information among employees within an organisation may be influenced by psychological, organisational, and system-related factors. Significantly predicting self-reported participation in knowledge exchange were self-efficacy, openness to experience, perceived support from colleagues and supervisors, and, to a lesser extent, organisational commitment, job autonomy, perceptions about the availability and quality of knowledge management systems, and perceptions of rewards associated with sharing knowledge (Butt et al,2019).

The research that has been done shows that sharing knowledge is beneficial to people, teams, and organisations in terms of improving their job performance and coming up with new ideas and innovations [20]. Knowledge sharing is the methodology that is used for building, collecting, and sustaining business processes. The degree to which firms find that information shared with them is both relevant and helpful has a significant bearing on the rate at which that information is shared. The sharing and dissemination of one's thoughts, experiences, and abilities with other individuals in order to accumulate, keep up with, and keep hold of one's corporate knowledge [22–26].

Employees that are engaged in their job exhibit positive emotions such as enthusiasm and passion. In addition to this, they are often busy with work, thus time passes by quite quickly (Sundaray BK 2011). Engagement of employees is one of the most important markers of a company's performance, as acknowledged by top executives and business leaders throughout

the world (Welch M. 2011). The term "employee engagement" encompasses more than the conventional ideas of "participation," "dedication to an organisation," and "work happiness." In order to participate, one has to channel their mental, emotional, and behavioural energies onto their task, all while remaining in line with the organization's mission and overall plan (Andrew OC, Sofian S. 2011).

The exchange of knowledge and abilities pertinent to a job for the purpose of working together with other people to find solutions to issues, generate new ideas, and put in place rules and procedures is what we mean when we talk about information sharing (Cummings, 2004). Knowledge sharing is the single most important thing that workers can do to contribute to the firm's knowledge application, innovation, and ultimately its competitive advantage. This is because knowledge sharing is a knowledge-based activity (Jackson et al., 2006). Hendriks (1999) presented a model for the efficient dissemination of information that was founded on the idea that there are two primary processes involved in the interchange of knowledge: transmission and absorption. The increased usage and exploitation of a company's knowledge-based assets is a direct result of increased information sharing among workers as well as inside and across teams (Cabrera & Cabrera, 2005). Researchers prefer to use the word "information sharing" to refer to the sharing that takes place during experimental trials in which participants are provided lists of materials, manuals, or programmes. Knowledge sharing is used more commonly than information sharing. Yang and Chen (2007) study a wide range of elements that might have an effect on the diffusion of information. According to the socio-technical approach at the organisational level and the work of Lee and Al-Hawamdeh, these researchers have categorised each of these aspects into three dimensions and four subdimensions, as shown in the table that follows (2002).

Dimension	Sub-dimension	Factors
Organizational level	Culture	Sharing culture/Cooperation and collaboration culture/ Knowledge-centered culture/Learning culture
	Structure	Incentive and reward/Work design/Management/ support/ Norm/ Political directives
	People	Arduous relationship/Shared understanding/Similar

	knowledge frame/Social interaction
Technology	IT infrastructure/IT know-how/IT support
Individual level	Motivation/Prior experience/Absorptive capacity/Source credibility
Knowledge level	Explicit and tacit knowledge/Causal ambiguity/Knowledge articulability/Knowledge embeddedness

Based on the findings of empirical study, Lee (2001) came to the conclusion that one of the most important resources for efficient knowledge sharing is an organization's ability to learn or acquire the essential information from other organisations. As a result of this, it is desirable for a company's efficiency that its capabilities regarding its knowledge infrastructure increase, given that this is the basis for the company's expansion. The capabilities of a knowledge infrastructure often include investments in the enhancement of processes, the efficiency of labour, learning, and technology that promotes the transfer and sharing of knowledge. Because of this, having them is essential for a business that wants to improve the efficacy and efficiency of information transmission inside its organisation by increasing its organisational knowledge infrastructure.

Few studies have investigated the effect that information sharing has on other phenomena, such as the level of employee engagement, in addition to the qualities that have already been highlighted. These linkages highlight the relationships between information sharing and employee engagement, which eventually lead to individual involvement in knowledge management. The links themselves represent the contributions that knowledge sharing makes to employee engagement. The act of providing other employees with explicit and implicit information in order to help them in attaining goals, working with others to find solutions to problems, producing new ideas, and adopting norms and procedures is an example of knowledge sharing (Pulakos et al., 2003). By using knowledge management systems, information may be shared with users in a variety of ways, including via face-to-face or technology-enhanced interactions (Wang & Noe, 2014).

The conversation and exchange of essential ideas and data among employees inside an organisation is what we mean when we talk about "knowledge sharing" (Gemunden, 2015). This method places an emphasis on making the organization's support infrastructure as easily accessible as possible to its members. According to Lin (2007), knowledge sharing is a social interaction culture that includes the interchange of information, skills, and experience inside an organisation or division. This culture involves the sharing of information, skills, and experience. The act of sharing one's information may increase the impact that the capabilities of the infrastructure for managing knowledge have on human participation in the management of that knowledge. Information sharing encourages the interchange of experience, knowledge, and skills, which in turn increases the possibility that employees will engage in value-added activities that go beyond the boundaries of their given responsibilities (Islam et al., 2015). The engagement of individuals in the management of knowledge and their involvement in extracurricular activities are closely intertwined. The participation of individuals in the management of knowledge is facilitated by the fresh information obtained from coworkers via the exchange of knowledge and data (Chang et al., 2017).

Participation in knowledge management is characterised by a variety of different criteria, some of which include the qualities of the person who has the information as well as the features of the groups and organisations in which they are embedded. (Asrar-ul-Haq & Anwar 2016).

Through interaction with one another and the sharing of information, employees look for new ideas and potential solutions to issues (Nonaka and Konno, 1998). Information exchange is necessary for effective knowledge management adoption. This exchange is facilitated by a knowledge management infrastructure that addresses cultural, structural, and organisational constraints (Xue, Zhang, 2010).

The exchange of information has been examined as a possible relationship between increasing creative work behaviour through KM infrastructure capabilities and improving the efficiency of the software development process (Lee et al., 2016). (Lee et al., 2016). (Anser et al., 2020). According to Chi6n et al(2019) .'s findings, when effective organisational rules are put into place, employees work together to gain and share information, which eventually leads to improvements in the operations of the organisation.

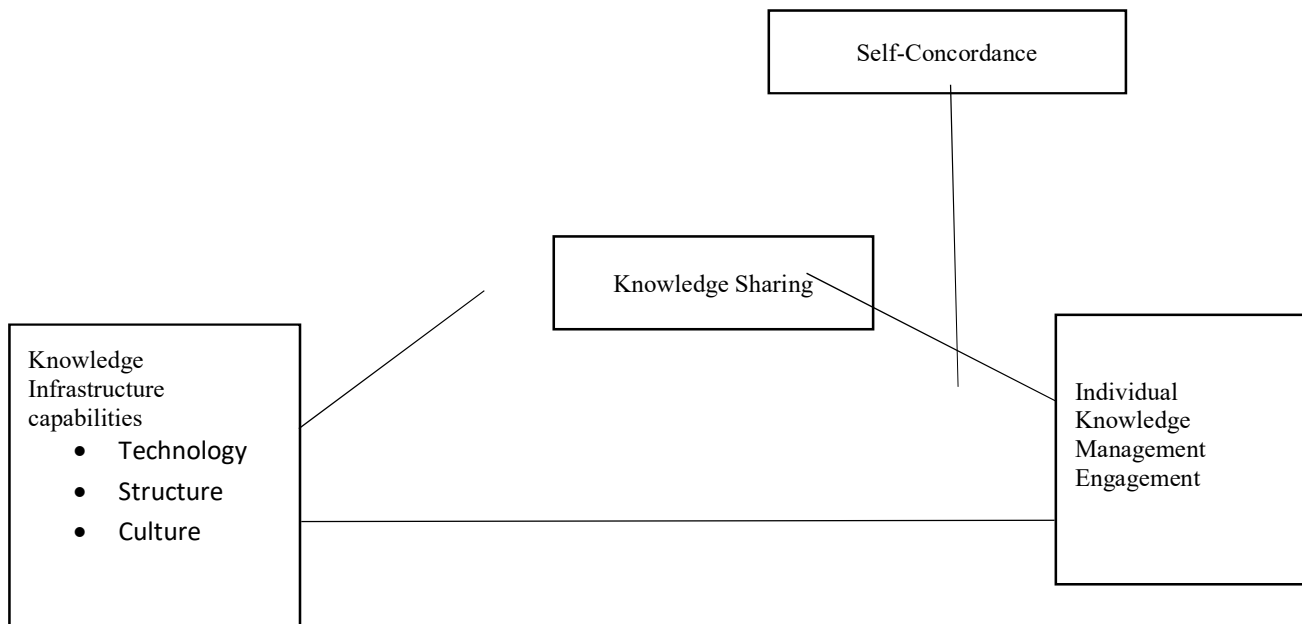
2.2.2: Impact of individual knowledge management participation on knowledge infrastructure capabilities:

The capacities of the knowledge infrastructure are said to be dependent on three more factors, according to Andrewh et al. (2018), which include the organization's technology, structure, and culture. These factors influence the degree to which a person participates in knowledge management. The technology inspires the generation of new knowledge and facilitates the dissemination of that information in a manner that is advantageous to all people. Knowledge application technologies make it possible for organisations to make use of the knowledge they already possess. (McDermott, 1999). According to findings from earlier studies, companies make use of technology in order to generate, keep updated, manage, and preserve data pertaining to their customers, partners, workers, and suppliers.

According to Teece D. j.'s research from 2000, the structure of a business is very important. The formal structure of every organisation has the potential to assist an individual in managing their knowledge. The organisational structure has to be adaptive and flexible, and it needs to foster the generation of new knowledge, the sharing of information, and the management of existing knowledge. Any company's culture should support and encourage any and all activities linked to knowledge management in order for the company to be successful. The efficacy and efficiency of the company's information management are both improved by the development of the company's culture. It's possible that a lacklustre corporate culture is the single biggest obstacle to keeping good knowledge management in place (Long, 1997). The amount to which a knowledge worker engages in knowledge management-related activities inside an organisation may be operationally characterised as the individual's level of engagement in individual knowledge management (Tseng & Fan, 2011). Techniques of information management play a significant part in organisations, as they are necessary for the collecting of information across a wide variety of skill sets and for defining knowledge, which is a highly prized commodity essential to the organization's success (Afzal & Afzal, 2014).

Participation at the individual level in the management of knowledge has a strong correlation with the capabilities of the knowledge infrastructure.

2.3 Theoretical Framework:



2.4 Propose Hypothesis Development:

H1: There is a positive and a significant relationship between knowledge infrastructure capabilities and individual knowledge management engagement.

H2: There is a positive and a significant relationship between knowledge infrastructure capabilities and knowledge sharing.

H3: There is a positive and a significant relation knowledge sharing and individual knowledge management engagement.

H4: There is a bridging role of knowledge sharing in relationship between knowledge infrastructure capabilities and individual knowledge management engagement.

H5: There is a moderating role of self-concordance in the connection between the knowledge infrastructure capabilities and also individual knowledge management engagement.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

The first step in analyzing data is to devise a research strategy that is pertinent and appropriate to the problem at hand. A research methodology is a methodical strategy that is used in the process of addressing a particular problem. The study of how to conduct a variety of different kinds of research. Researchers use this methodology to define, explain, and interpret the results of their study. The study of the processes and systems through which one obtains knowledge is another way to characterize this field of inquiry. It is necessary for a researcher to devise a method before beginning work on a certain subject. The objective of a research technique is to provide a framework for doing research (Chinnathambi, Rajasekar, & Philominathan, 2013). The development of research techniques should be done with the intention of supporting research questions and goals (Yin, 1994). The purpose of this chapter is to offer an overview of research techniques and all pertinent approaches, in addition to the research plan that will be used for the study. In this chapter, we will talk about the design of research the study's target audience, the sample's size, its sampling techniques, how it collected the data, operationalized it, used variable measurements, and conducted statistical analysis.

3.2. Designs of Research

The process of providing answers to research questions and meeting research objectives is known as the design of research. It details the sample size, the process for sampling, and the methods for acquiring data for the study (M. N. Saunders & Thornhill, 2011). According to (Kothari, 2004), the approach for data collection, measurement, and analysis is what constitutes the research design. The planning of research is the basis that determines how investigations should be carried out for the purpose of analysing research results (Sreejesh, Mohapatra, & Anusree, 2014). Yin (1994) asserts that the objective of the research design is to provide support for the research aims and questions of the study. It is possible for research to have an exploratory, descriptive, or even a hypothesis-testing goal. The testing of hypotheses is the primary focus of the design of this particular inquiry. It has always been like this and was never an experiment (Sekaran & Bougie, 2010). Studies of this sort are mostly descriptive in their focus. Explanatory study studies that provide light on the connection between the various variables and the sources of those variables (M. Saunders, Lewis, & Thornhill, 2007). According to Crotty (1998), quantitative research methods are used whenever a study of this kind is conducted. Deduction is the approach that has been used for this particular piece of study. Since determining the nature of the connection that exists between KMIC and individual knowledge management engagement is the focus of the current investigation, and since there are relevant theories that apply to both of these ideas, we shall investigate those theories. According to Hyde (2000), a strategy for putting hypotheses to the test is known as the deductive method. This starts with an overarching theory of the subject matter and ends with a more specific theory of the subject matter and its supporting reasons. The deductive method is a strategy for evaluating theories. It starts with an existing theory, produces hypotheses about that theory, and then tests those hypotheses to see whether or not the theory can be applied to a specific occurrence. The deductive approach provides an explanation of the causal link that exists between variables, allows for the testing of hypotheses, and enables the operationalization of ideas for quantitative measurement as well as generalization via the use of an appropriate sampling size (m. sundares et al 2007). Many of studies use quantitative methods of investigation (Zhu & Sarkis, 2004; S. Y. Lee, 2008; A. Diabat et al., 2013). According to (Creswell 2009), the quantitative technique comprises exploring the variable in issue by either testing hypotheses or presenting questions to be answered using statistical methods. It is necessary to do a connection analysis between theory and inquiry. As a tool for study, the questionnaire was filled out by respondents in order to analyse data and verify hypotheses. The results of the questionnaire are scored on a Likert scale, which ranges from strongly disagree (1) to strongly agree (5). (5). (5). For the

objectives of study, a questionnaire that was adapted from a number of other studies was sent to automobile manufacturers in Pakistan. The data were of a kind known as cross-sectional. Information collected at a single moment in time for the purpose of answering research questions posed by a study is known as cross-sectional data (Sekaran & Bougie, 2010). After gathering data to support the study's assumptions, the questionnaire's reliability and validity were tested.

3.3. Constructs (Operational Definitions)

Constructs which are explanations of the definitions and also the dimensions of variables that were generated as a result of an extensive investigation into the relevant literature. These descriptions are supported by the use of appropriate names and headings.

3.1- Self-Concordance:

The self-concordance model, which is a theory of self-regulation, relies heavily on self-determination theory as its conceptual underpinning (Ryan & Deci, 2000). Ryan and Deci believe that purposeful behaviour may be freely chosen or selected in response to either internal or external limits or limitations. Sheldon and Elliot (1999) created a paradigm that they called the self-concordance model. According to this model, Sheldon and Elliot say that achieving goals that are self-concordant, or in other words, congruent with one's values and interests, leads to goal achievement and pleasure. Sheldon and Elliot saw self-concordance in a manner that was similar to that of Ryan and Connell (1989), in which it was seen as a continuum that consisted of two controllable (external and introjected) and two autonomously driven (recognised and intrinsic) incentives for action. The findings of the study conducted by Sheldon and his colleagues provide convincing evidence that self-concordant goals are associated with successful outcomes (such as goal attainment and well-being).

3.2- Knowledge Infrastructure Capabilities

Knowledge management infrastructure capabilities are also referred to as knowledge assets and knowledge enablers in the research that has been done on the topic (Hassanien and Dale, 2013). It is the cornerstone of knowledge management, serving as the basis for the

improvement and increased efficiency of all organisational activities connected with the implementation of the most advanced KM systems (Zaied, 2012). The infrastructure for knowledge management serves as the foundation upon which activities relating to knowledge management are constructed (Hajir et al., 2015). A coherent ecosystem of technology, culture, and organisation is required to support the capabilities of knowledge management infrastructure.

3.3 Personal Knowledge Management Engagement

Individual knowledge management engagement is a term that refers to an evaluation of the amount of involvement in activities related to knowledge management that takes place inside an organization (Tseng & Fan 2011; Cabrera et al. 2006). Management is a process, a function, and a strict discipline which cultivates and embeds a culture of knowledge creation, sharing, and application for the purpose of improving inventive performance, organisational performance, and competitive advantage. Infrastructure for knowledge management and processes for knowledge management make up its components (Gold et al. 2001; Shujahat et al. 2017; Costa & Monteiro 2016; Andreeva & Kianto 2011; Zheng et al. 2011).

3.4- Knowledge Sharing.

Knowledge sharing refers to the process of employees exchanging their respective knowledge, abilities, and experiences with one another. It ensures that employees have access to the organization's information whenever they need it, and its benefits include the preservation of intellectual assets and the enhancement of productivity.

As a result, information is a highly strategic resource that justifies the concentration of additional management efforts (Davenport and Prusak, 1998; Nonaka and Takeuchi, 1995). It is possible for psychological, organisational, and system-related elements to have an effect on an individual's level of engagement in the sharing of information within the company. Self-efficacy, openness to experience, perceived support from colleagues and supervisors, and, to a lesser extent, organisational commitment, job autonomy, perceptions about the availability and quality of knowledge management systems, and perceptions of rewards associated with

sharing knowledge were significant predictors of self-reports of participation in knowledge exchange (Butt et al,2019).

3.4. Population

The term "population" encompasses all components that are essential to any investigation (Ume Sekaran & Roger Bougie). In the course of this project, data will be collected from Pakistan's automotive industry. The well-known automobile industry in Pakistan is the primary subject of this investigation. The total number of individuals, things, and happenings that a researcher is interested in examining is referred to as a population (Sekaran & Bougie, 2010). According to Orodho (2003), population may be seen as a comprehensive group of components that have some aspect in common. The total number of constituent parts. Participants in the study were Pakistani nationals employed by automobile manufacturing companies. Vehicle manufacturing firms were the major focus of our investigation since they are the most significant contributors to environmental pollution in Pakistan (Baig & Bashir, 2018; Butt et al., 2018; Damert & Baumgartner, 2018). Vehicles are cited as the leading contributor to Pakistan's high levels of air pollution by the country's Ministry of Climate Change. In a similar vein, previous studies (Zhu et al., 2007; Eltayeb et al. (2011), Lin et al. (2011), M. Wang & Luo (2010); Conding et al. (2013); have identified automobile manufacturers as the leading source of climate pollution (Abedullah, 2006; Abdul Aziz et al., 2018).

3.5. Techniques of Sampling

Vogt (2007) describes sampling as "the process of choosing the small sample from a large group for the purposes of study or inspection." Choosing certain parts of a large population for the purpose of study. According to Shaughnessy et al. (2003), the primary objective of all sampling procedures is to pick representative samples from the target population. There are two basic classifications, and they are probability sampling and non-probability sampling. Probability refers to situations in which the population size is known, while non-probability describes situations in which the pollution levels are unknown (Vogt, 2007). The gathering of data was carried out using a technique known as "purposeful sampling," which may be thought of as a kind "non-probability sampling" is used. Muzammil et al. (2010) claim that

in-purpose sampling, the researcher picks segments of the population for the study on purpose in order to get a more accurate representation of the whole population. This guarantees that the selected parts provide the most comprehensive response to the study questions. The persons who are eligible to participate in the purposeful sampling are quite specific in terms of the information they are able to provide since they have the necessary level of specialised competence (Sekaran & Bougie, 2010). Aims to find specific elements that are of considerable significance and may give the essential information for further investigation if they are found. Purposeful sampling is a method that may also be referred to as judgement sampling, selected sampling, and subjective sampling. When compared to the sample sizes of other sampling techniques, purposive sampling often yields smaller numbers (Rai & Thapa, 2004). In just this respect, questionnaires are being sent to all of the selected managers and staff members of the automobile industry, with the assumption that such managers are in some way directly and indirectly in charge of the supplying chain of the operations of the businesses and can thus provide the necessary information.

3.6. Sample size

A collection of observations is considered to be a "example," and it is defined as "a group picked from the population according to a preset technique." It is necessary for the conclusions of a research to be representative of the population as a whole in order to be generalised. The individuals of a population that are selected at random to serve as the sample. Researchers usually try to analyse a subset of the population rather than the complete population since it is more difficult to study the whole population (Ume Sekaran & Roger Bougie). In a similar vein, it is rather difficult for the researcher to investigate all of the employees working in the Pakistani auto business. As a result, the researcher will choose some people from the automotive industry who are easily available. Following the advice made by Sekaran and Bougie (2016) to choose a sample size that falls between 30 and 500, the sample size has been set at 250. We will gather data from 250 technical specialists and mechanical managers operating in Pakistan's recognised automobile business in accordance with the Roscoe (1975) rule of thumb. This study is going to concentrate on the auto-authorization businesses that are present in Pakistan. A sample size that is 10 times more than the total number of variables in the research is required (Sekaran & Bougie, 2010). The optimal range for the sample size is somewhere between 30 and 50. (Field, 2005). One hundred observations are considered as having a poor sample size, two hundred as having a

respectable sample size, three hundred as having an outstanding sample size, five hundred as having a very good sample size, and one thousand as having an amazing sample size. For regression equations including five or six IDVs, a minimum of 10 observations are needed to be collected for each variable. For a more accurate power analysis, it is recommended to gather 30 observations for each variable if at all feasible (VanVoorhis & Morgan, 2007). If there is just one independent variable, the formula of Green (1991) states that N must be more than $104+m$, whereas the formula states that N must be greater than $50+8m$ if there are several independent variables. The use of larger sample sizes has the advantage of lowering the likelihood of multicollinearity (Kennedy, 2008). Between 170 and 200 completed surveys are necessary, as stated by Levin and Stephen (2009), in order to offer reliable findings with a limited margin of error in order to get the desired results. In light of this fact, the current inquiry will use a total of two hundred samples. In the table that follows, you can see an example of a research summary.

Table 3. 1: Breaking down of Questionnaire's Statistics

Questionnaire Composition		
Description	Number	Percentage
Total Floated	450	100
Returned	380	72.5%
Rejected	20	10.34%
Valid	360	65%

The sample size is broken out in exhaustive detail in Table 3.1. The fact that only 220 of the 300 questionnaires that were distributed to the sample were returned led to the conclusion that the response rate of respondents was 73.3%. This conclusion was reached based on the following: The researchers decided not to use these responses in their analysis since 14 of the surveys were missing important information and 6 of the surveys had outliers. Because of this, the final sample size for the research was determined to be 260 questionnaires. That amounts to 73.3% of the total. According to Mugenda (2008), a response rate of between fifty and fifty percent is considered satisfactory.

3.7. Unit of Analysis

Managers of a company's operations and supply chain have the power to influence the company's reputation and the environmental impact it has (Walton et al., 1998). Purchasing managers are in charge of all responsibilities linked to purchasing, including the evaluation and selection of suppliers, which are directly tied to the enterprise's EP (Engert, 2013). As to the Gupta (1995), operation managers play a significant part in the process of putting environmentally responsible practises into effect. It is essential for supply chain managers, plant managers, and production managers to have a full understanding of the capabilities of knowledge management and employee engagement (Suansawat, 2013). The information should be gathered from people who have extensive knowledge and experience in the field (Campbell, 1955). Engineers, as well as those in charge of production and operations, are intimately involved in the day-to-day business activities of organisations, and they possess the specialised knowledge and abilities required for data gathering (S. Zailani et al., 2015). For the duty of gathering data, engineers, managers of operations and supply chains, managers of buying, and other managerial positions were chosen (Kenneth W. Green et al., 2012). According to Mitchell (1998), data collection might be directed toward personnel who have prior experience with the KMIC implementation process. As a consequence, supply chain managers, buying managers, facility manager, product managers, and technical personnel of vehicle businesses in Pakistan were queried for quantitative data. These individuals were chosen because they were all able to provide the necessary data for the study's analysis. For the purpose of data collection, it is recommended that more than one respondent be picked from each organisation. This is due to the possibility that a single employee will not be familiar with all business procedures (Suansawat, 2013). As a result, a significant amount of information is collected from managers of a wide variety of departments as well as technical employees at each organisation.

3.8. Data collection methods

According to Mugenda & Mugenda (2003), the process of collecting data is the act of getting information from the components of an investigation that have been predetermined. There are a variety of methods available for gathering data (Suansawat, 2013). The questionnaire is the most efficient way of data collecting due to the fact that it protects respondents' privacy, reduces the amount of time needed for the process, requires little training to carry out, and enables the gathering of information from a large number of individuals (Sekaran & Bougie,

2010). Standardizing the data collected via the use of questionnaires makes evaluation much easier (Lewis & Thornbill, 2009).

Numerous researchers have gathered the information necessary for their investigations via the use of questionnaires from these researchers (Chu et al., 2017; A. Diabat et al., 2013; Eltayeb et al., 2011; Khan & Qianli, 2017; S. Zailani et al., 2015) The quantitative data needed for the study were obtained via the use of questionnaires with closed-off responses. It was beneficial in that it reduced the amount of time needed for pilot testing, ensured consistency and reliability, and took less time overall. The survey was broken up into two parts: in the first part, respondents were questioned about their demographic information, and in the second part, they were questioned about the factors that are being considered in this study. Following an exhaustive review of the relevant literature, the questionnaire was developed using a variety of studies. On a five-point Likert scale, questionnaire items were assessed. Hard copies of the questionnaires were sent out to all of the managers of automotive firms (who had been selected for the purpose of data collection). These managers are very important to the process of putting KMIC best practises into action.

3.9. Instrument

3.7.1 Knowledge Sharing:

The degree to which a member of an organisation communicates and shares their knowledge with other members of the organisation is one way to measure the level of knowledge sharing that occurs within that organisation. Four items from the brand (Bock & Kim, 2002). Will be used in order to gauge the level of information sharing that occurs among the company's workforce.

3.7.2 Self-Concordance:

We modified questions from to investigate the impact that self-concordance has on the capacities of the information infrastructure and the engagement of individuals in the knowledge management process (Gold, Malhotra , & Segars, 2001). There will be a total of five different goods made available to you.

3.7.3 Knowledge Infrastructure Capability

We modified the questions posed by Ryan (1982) and McCauley, Duncan, and Tammen (1989) in order to investigate the impact that the capabilities of the knowledge infrastructure have on individuals' participation in knowledge management and the sharing of that participation. There will be 37 individual parts included in the package as a whole.

3.7.4 Individual Knowledge Management Engagement:

We modified questions from other studies in order to determine the extent to which person engagement in knowledge management impacts the capacities of information sharing and infrastructure (Tseng & Fan, 2011). In all, there will be seven different items offered for you.

3.10. Pilot study

According to Hassan, Schatzki, and Mazza (2006), one of the most basic and important processes in research is doing a pilot study, also known as a feasibility study. The purpose of this step is to identify any possible issues that may arise with the research tool (instrument). According to Orodho (2003), conducting pilot tests is absolutely necessary in order to ascertain whether or not the data gathering instrument can be relied upon. Also helps in identifying problems with the design. A pilot study is an initial examination of a certain method or instrument for data collection (Baker, 1994). The advantage of doing pilot tests is that they may act as an early warning system in the event that the study is going to be unsuccessful, if the research strategy deviates from the plan, or if the expected technique or instrument are not relevant or difficult to use. De Vaus (1993) suggests that pilot testing must to be carried out in order to lessen the likelihood of any possible risk. Researchers have the opportunity to assess the effectiveness of their sample frame and technique, in addition to the feasibility of their investigation, by first carrying out a pilot study. These are the primary justifications for carrying out a pilot research. As a direct consequence of this, a pilot study was carried out with the purpose of identifying design problems in the instrument and figuring out how to fix them.

3.10.1. Reliability Analysis

Dependability of the instruments is required in order to get accurate study results. Consider the reliability of a measurement's parts when evaluating the precision of the measurement's results (Sekaran & Bougie, 2010). Instrument dependability, as defined by Bollen (1998), is consistency. [Citation needed] It ought should provide the same results regardless of the time or place that it is used in. According to the findings of Cooper et al. (2008), an instrument may be considered dependable if it consistently delivers the same results despite changes in either time or environment. Evaluation of the dependability of an instrument or structure may be done using a variety of different ways. The most common methods for determining whether or not a construct can be relied upon are known as "splitting halves," "internal consistency," and "inter-rater reliability" (Drost, 2011). (Drost, 2011). If you want to increase the dependability of an instrument, you need to work on improving its internal consistency. The approach of internal consistency was indicated for use in the current investigation as a reliability assessment. Cronbach's alpha value is used whenever there is a need to evaluate the dependability of an instrument. This demonstrates the degree to which different components of a variable are connected with one another. The values of Cronbach alpha might vary anywhere from 0 to 1. A value of 0.7 is considered satisfactory, but a larger number (one that is closer to 1) indicates that the scale or instrument is more accurate. Above 0.9 is considered to be in the excellent range (Sekaran & Bougie, 2010). According to the findings of Georage and Mallery (2003), the level of consistency of the measuring scale increases proportionally with the value of alpha. Larger than 0.09 is regarded as excellent, greater than 0.08 is considered good, 0.07 is considered appropriate, and 0.06 is considered to be problematic; however, anything lower than 0.06 is not considered acceptable. The number 0.80 has been determined to be the alpha threshold by Zinbarg (2005). Despite the fact that 0.7 has been indicated as the cutoff by a number of research (Fornel and Larcker, 1981; Hair, 1994; Nunnally, 1978).

Table 3. 2: *Cronbach's Alpha values*

Variable	Cronbach's Alpha	Items
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Knowledge Infrastructure Capability	.861	37
Knowledge Sharing	.791	4
Self-concordance	.872	5
Individual Knowledge Management Engagement	.755	7

A sample size of 50 was used in order to evaluate the reliability of the device. The cronbach statistic is shown in the table that came before it, and all of the variables exceeded the .7 thresholds. This demonstrates that both the scale and all of the variables used in the current investigation can be trusted, which is a favorable finding.

3.10.2. Descriptives of Demographic

Tables in the following section display a description of gender and work position measurement. Table 3. 3: Demographic Descriptive with respect to Gender

		Demographic Descriptive			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	41	82.0	82.0	82.0
	Female	9	18.0	18.0	100.0
	Total	50	100.0	100.0	

According to the statistics shown above, there were 82 percent male respondents and 18 percent female respondents.

Table 3. 4: Descriptives of Demographic of Job Position

		Demographic Descriptive			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Supply chain Manager	10	20.0	20.0	20.0
	Operation Manager	9	18.0	18.0	38.0
	Purchasing Manager	10	20.0	20.0	58.0

Production Manager	9	18.0	18.0	76.0
Technical Staff	12	24.0	24.0	100.0
Total	50	100.0	100.0	

According to the demographic information regarding job titles, 24% of respondents were technical personnel, including engineers, while supply chain managers were 20%, 18% were collected from operation managers, 20% were in to Purchasing Managers, and 18% were also from production managers.

3.10.3. Normality descriptive statistics

Table 3. 5: Descriptives Statistics of Normality

Normality Statistics									
	N	Min.	Max.	Mean	Std. Deviation	Skewness	Std. Error	Kurtosis	Std. Error
Mean KMIC	50	1	5	3.2538	.89342	-.125	.337	-.203	.662
Mean KS	50	1	5	3.6149	1.09705	-.046	.337	-.410	.662
Mean SC	50	1	5	3.3102	1.19407	.064	.337	-.536	.662
Mean IKME	50	1	4	3.4440	1.25297	-.216	.337	-.713	.662

It is clear that the data from the research is normal based on the Skewness and kurtosis values that are shown in Table 3.6. After being divided by their respective standard errors, the values of skewness and kurtosis should land somewhere in the range of minus two to plus two. (Field, 2006). In order for data to be deemed normal, the skewness value must be less than 2, and the kurtosis value must be less than 7 proposed in 1996, Curran, West, and Finch. The information is representative and reliable. The mean represents the responses from the population under consideration.

3.11. Statistical techniques for data analysis

The validity of the data and the hypotheses that were presented in the study is what will be evaluated in the course of the data analysis (Sekaran & Bougie, 2010). It is possible to condense large data sets by making use of tools that are designed for data analysis. For the data analysis and hypothesis testing, Statistical Package from the Social Sciences (SPSS) were used. Examining the regression assumptions came first, testing it before from the hypotheses. Which is vital from assessing the model's multicollinearity in regression. In order to better interpret the data, descriptive analysis of the study was done initially. Normality, validity, dependability, and multicollinearity must be established before continuing with analysis. Consequently, the next step, all data were reviewed and judged to be within acceptable ranges. At the third step which is of the testing hypotheses, regression and structural equation modelling (SEM) were utilized. Before regression testing, correlation was studied.

3.12. Chapter Summary

In this chapter, the current study methodology was broken down and discussed. A logical justification is provided for each component of the study's design, including its population, sample size, sampling technique, and method of data collection. Also discussed is the study's design. Constructs of the study were investigated more throughout this chapter as well. In a similar vein, the chapter incorporates Pilot testing in order to guarantee the dependability and normality of the data.

4. Data Analysis

4. Summary

The chapter under consideration is broken up into three sections and focuses on the researcher's study results and analysis. In the first section of the chapter, the researcher conducted a thorough descriptive investigation, which was followed by an explanation of CFA. The final section of this chapter will go over the specifics of hypothesis testing and concentrate on establishing a connection between perceived dependent and mediating variables, namely individual knowledge management engagement and knowledge sharing, and their connections to independent variables, such as knowledge infrastructure capability. Additionally, it should be clarified how knowledge sharing and individual knowledge management engagement are related to the modest self-concordance thought to exist between the two. The first section of the chapter also includes a demographic study of the sample population drawn from automobile companies in the area of Lahore, Karachi, Rawalpindi, and Islamabad that help the researcher get primary source data by having participants fill out questionnaires.

a. Missing Values and Demographics of Sample

In this particular chapter, "Assessing the Descriptive Facts," groups and organizes demographical data about just the sample of population, including age, profession, and gender, and highlights numerous problems with data validation. Additionally, it incorporates techniques that are essential for processing values that the researcher may have overlooked or that the respondents may not have even supplied.

b. Missing Value Identification and Entry of Data

Data analysis techniques were utilized to identify the missing values as a critical step to prevent mistakes and omissions throughout the processing of data entering and configuring the data according to the established patterns. Each case's obtained data was validated by running it through the SPSS-25 program to ensure that no values were present. 450 profiles were distributed to several vehicle manufacturers in the Lahore, Karachi, Islamabad, and Rawalpindi regions in order to conduct data analysis. However, out of the total number of profiles received, 41 questionnaires were disqualified due to missing data for the variables being studied, and 47 questionnaires were disqualified due to outliers. Consequently, a total of 362 questionnaires were chosen for the study's final analysis. The poll was independently performed; therefore, its participant turnout was around 80.41 percent. The population sample, however, had some issues that prevented the study from getting correct and accurate responses. For instance, because the investigator had only given a little period of time for such an exercise, some of the persons who were contacted to take part in the research withdrew and did not complete the questionnaires. In the second step, descriptive analysis is also carried out to check for the existence of the outlier. Along with the data's descriptive analysis, the data's deviation type is being examined. The absence of such emissions in the study under consideration is fortunate. As a consequence, the findings produced by applying the average value, standard deviation, and frequency distribution have proven the correctness of the data entry. In order to exclude any absent values from the current study, the researcher additionally personally inspected the questionnaires. The SPSS did not include any of the data tools that were provided by lost values. Thus, there were no errors or missing values in the data used for this investigation.

Table 4.1

Statistics

		Gender	Age	Education	Type	Experience
N	Valid	362	362	362	362	362
	Missing	0	0	0	0	0

c. Reliability of Research Instrument

Reliability is the idea that the study's findings are accurate, that accuracy will remain constant throughout time and won't change soon, and that these findings accurately reflect the population (Joppe, 2000). Only if the same results continue to be attained utilizing a comparable study methodology can the conclusions drawn be regarded as credible. This definition's main premise is to produce and reproduce outcomes while using the same process. Three categories of reliability exist: a) the degree of accuracy of the measurements yielding consistent results during each test; b) the degree of stability of the procedures and measurements spanning a considerable amount of time; and c) how accurately and widely the final result values vary by a certain specific time period (Kirk & Miller, 1986).

Table 4.2: Cronbach's Alpha value

Variable	Cronbach's alpha	No. of Items
Knowledge Infrastructure capabilities	0.730	37
Knowledge Sharing	0.861	04
Self-Concordance	0.873	05
Individual Knowledge Management Engagement	0.821	07

The Cronbach alpha coefficient is used to assess dependability. In order for the data set to be considered credible, the values of Cronbach alpha must be 0.7 or above (Kronbach, 1951). Up to 0.6 Cronbach alpha values shall also have the acceptability (Peterson, 1994).

Although coefficient values less than 0.7 are ambiguous and suggest that the data obtained cannot produce the intended or correct results, values close to 0.7 are still acceptable. Another design in the research under consideration, Knowledge Infrastructure capabilities, provided a Cronbach alpha value of 0.730, which is acceptable and somewhat higher than the standard value of 0.7.

d. Correlation Matrix

Table 4.3

Correlations

	KIC	SC	KS	IKME
KIC	1			
SC	.468**	1		
KS	.523**	.499**	1	
IKME	.457**	.543**	.669**	1

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4.3 shows the study's dependent and independent variables' correlation matrices, which demonstrate how the two variables are now related to one another. Sekran (2013) asserts that if there is the value in the connection between the two independent variables equals in the correlation matrix or more than 0.8, it would result in the multicollinearity issue. Therefore, the value of an independent variable inside a correlation matrix should be less than 0.8.; if the value is less than 0.8, the problem will be resolved. As a result, the research will concentrate on the values of independent variables, such as whether or not they are smaller than 0.8. (Sekran, 2013; Hattack). Uma Sekeron believes that a

predictor's correlation value should be less than 0.7 and not more, despite the fact that several studies admit that the value of correlation should be less than 0.8.

e. Demographic Descriptive

Descriptive analysis has been used to investigate a number of characteristics of the sample population, including gender, educational background, and age. Tables 4.4, 4.5, and 4.6 offer a descriptive examination of the respondents' demographic information.

Table 4.4 Population Age

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Under 30	145	40.1	40.1	40.1
	30-39	139	38.4	38.4	78.5
	40-49	53	14.6	14.6	93.1
	Above 50	25	6.9	6.9	100.0
	Total	362	100.0	100.0	

According to Table 4.3, about 78.5% of the population is between the ages of 18 and 39, while 14.1% of the population is between the ages of 40 and 49. Which suggests that the auto industry prefers to hire young, motivated individuals.

Table 4.5: Demographical Distribution (Gender)

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	304	84.0	84.0	84.0
	Female	58	16.0	16.0	100.0
	Total	362	100.0	100.0	

Based on the replies to the questionnaires used to collect data for the planned study, it was determined that among Pakistan's public sector automobile companies, 58 percent of the workforce was male and 16 percent of the workforce was female. Consequently, there are more male workers than female ones (See the table 4.4).

Table 4.6: Sample Qualification

		Education			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Undergraduate	13	3.6	3.6	3.6
	Graduate	112	30.9	30.9	34.5
	Master	225	62.2	62.2	96.7
	MS/M.Phil	12	3.3	3.3	100.0
	Total	362	100.0	100.0	

Table 4.6 explains that 62.2% of automobile company employees have the equivalent of a Master's degree, while 34.4% have up to 14 years of education (Sixteen years of Education). While just 3.3% of the respondents had degrees that were at least as good as an MPhil (Eighteen years of Education). Inferring that the Automobile Companies favor master's degree holders above others in hiring,

f. Regression Analysis

Regression analysis is used to investigate the connection between the variables. It is an effective method for analyzing the correlation between independent and dependent variables. For instance, although training and performance may appear to be entirely distinct variables, they may both be included in a linear equation to understand how they connect to one another.

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n + \epsilon_i$$

The preceding paragraph discussed the multiple regression prototype's general computation. In this specific case study, Y_i is taken to represent the expected value of the performance model, whereas 1, 2, 3, are the components also known as regression line angles. In an instance when the predictor variables' other predicted values are all 0., the intersection point in the equation, denoted by 0, serves to clarify the value of the predicted variable. The equation may be used to determine the value of Y if the value of X varies by one unit. The equation shows the pace at which Y would change if the value of X varied by one unit. Due to both randomness and the respondents' candor in their replies on their personal characteristics, the error in the linear regression model, which is indicated by ϵ also indicates a sampling error that eventually influences the dependent or predicted variable, which in this case is Y .

i. Linear Regression Analysis's Assumptions

Assumption no 1

The respondents are asked to react on an interval scale, such as a 5-point Likert scale, in order to analyze the degree of interval or ratio. Even though the 5-point Sometimes a Likert scale which is confused with an ordinal scale (Jakobsson et al., 2004). The majority of the research papers, however, have a different perspective and propose using the 5-point Likert scale like an interval scale from (Baggaley & Hull, 1983). As a result, this study satisfied the requirement of the assumption that an acceptable scale should be utilized for the investigation and considered the scale to be interval.

Assumption # 2

The assumption of normality has little effect on large sample sizes, which are often more than 100. The common use of the word "error" indicates that it happens frequently.

There are several ways to evaluate normality, and among them are some graphical display methods like a histogram, P-P graphs, or standard Q-Q diagrams, as well as other methods for computing normalcy that make use of statistical techniques for examining asymmetry and kurtosis values. Asymmetry looks on the severity and implications of inequality. For information that is typically dispersed, there is no imbalance. Kurtosis emphasizes the extreme of frequently shared facts. When obtained facts are routinely shared, Kurtosis has a value of 0. After dividing by its standard error, the value of Kurtosis should fall between (+,-) 1.96 and (+,-) 2.58, indicating that the data is evenly distributed across the variables. If the results of gendering at the values of Skewness and Kurtosis are positive, it means that the collected data is noticeably highly contrastable in comparison to its normal distribution. A histogram is used to properly display the Skewness also the Kurtosis to examine the data distribution.

4.8 Descriptive

The appropriate answer must range from +2 to -2 is the point where the value of static is divided from the average value. When the study by Field (2006) was evaluated, it clearly showed that the data using asymmetry and kurtosis is usual. Since the results are all within the range of +2 to -2, after splitting the asymmetry and using the standard deviation provided. However, the average value in table 4.6 illustrates the responses of the impartial respondents. These asymmetrical and extra values are contrasted with the assumption of normal data of multiple linear aggressiveness.

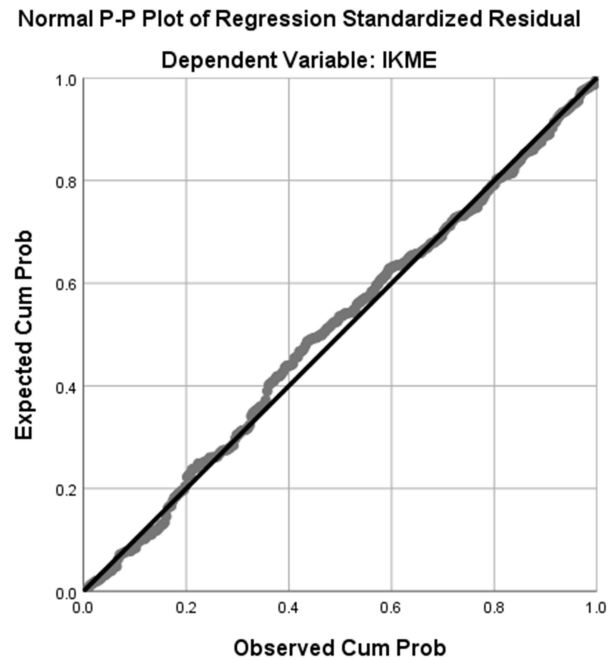
Table 4.7: Descriptive Analysis

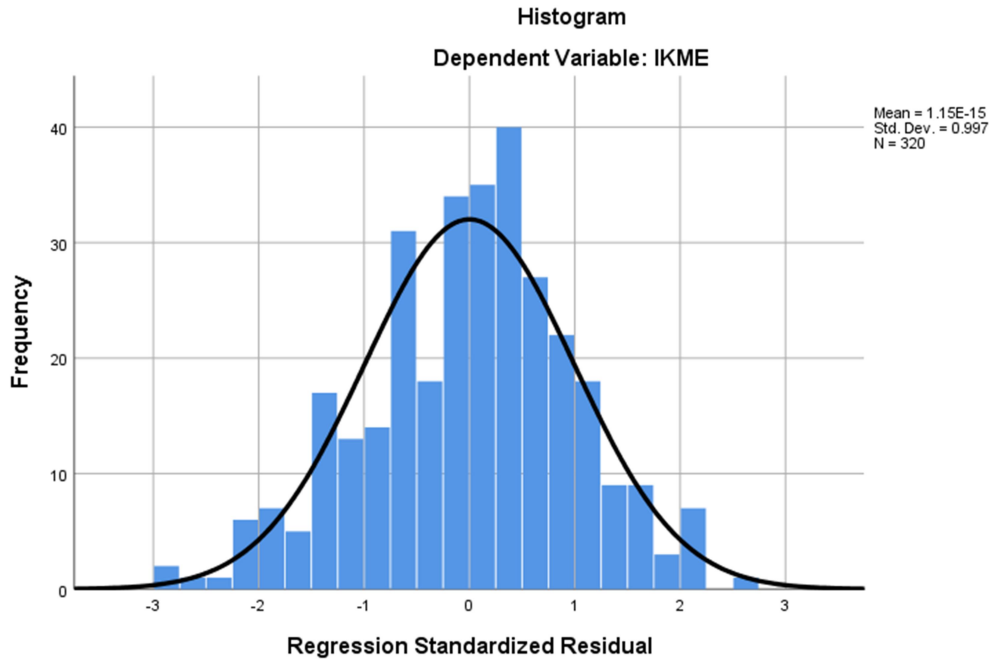
Descriptive Statistics

	N Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std.	Skewness		Kurtosis	
					Deviation Statistic	Statistic	Std. Error	Statistic	Std. Error
Tech	362	1.00	5.00	3.2017	.73360	-.166	.128	-.108	.256
Cultr	362	1.00	5.00	3.0691	.88895	.055	.128	-1.243	.256
Strc	362	2.00	5.00	3.1105	.92605	-.053	.128	-1.516	.256
KIC	362	1.00	5.00	2.9144	1.16546	.379	.128	-.911	.256
IKME	362	1.00	5.00	3.3315	.92700	-.286	.128	-1.067	.256
KS	362	1.00	5.00	3.2901	.99937	-.306	.128	-.999	.256
SC	362	1.00	5.00	3.3232	.98631	-.423	.128	-.866	.256
Valid N (listwise)	362								

4.1.5 Assumption # 3

Figure 4.1: Individual Knowledge Management Engagement Normal P-P plot





P-P plots often assess if left outs or mistakes are distributed on a regular basis or not. Ordinary P-P charts are shown in Figure 4.1 for the estimation of multiple regressions. It is obvious that the true values are distributed at 45 degrees more exactly. The regression's normality assumption is described in Figure 4.1.

3.1.1. Assumption # 4

Table 4.8: Model Summary

Model					Change Statistics				Sig. F Change	Durbin-Watson
	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2		
1	.562 ^a	.316	.311	.89092	.316	73.083	2	317	.000	2.192

a. Predictors: (Constant), KS, KIC

b. Dependent Variable: IKME

The R, R², Adjusted R, and Durbin-Watson values are used to evaluate the applied model. If there is little difference between the actual value and the anticipated value, the model and the data will agree very well. The applied model summary explains how the predictor variables, which are commonly referred to such as commodities, estimate the predicted variables, and clarifies the sufficiency and appropriateness of the model's function. Table 4.7's R value of .562 demonstrates how precisely the predictability of a single variable, Individual Knowledge Management Engagement, the predicted factors psychological aggression at work, knowledge sharing, and self-concordance will be measurable and accessible in this case study. To provide more accurate results, the value of R² should be appropriately taken into consideration. R² demonstrates that variations in the independent variables cause and account for changes in the value of the dependent variable. The independent factors also create and justify variations within the dependent variables. R², commonly referred to as the "coefficient of determination," also reveals how closely our data resembles the regression line. According to the study under consideration, Knowledge Sharing, Self-Concordance, Psychological Aggression at Work, and Individual Knowledge Management Engagement are to blame for the observed deviation of 31.6%, or around 0.89. R² also reports the strength of the current link between the dependent and independent variables, but it makes no mention of the extent of the correlation between the predictor variable and the predicted variable. The value of R² is often updated to offer an impartial and unbiased prediction regarding the population sample of R², as well as a chance for the researcher to add more independent variables to the specific study. This results in a revised

category of R. The corrected R² value is already included in the model and is set at 31.6%. The standard error estimates and reports the variation in the hypothesized R value, which changes from one sample to another sample. In the current investigation, the projected R value is 31.1. In addition, the test of Durbin-Watson was used to estimate the value for the productivity model, and the value of 2.192 was generated as a result. As is well known, from the value produced by the test of Durbin-Watson is close to 2, it denotes that the sample values do not exhibit autocorrelation. As opposed to this, the autocorrelation typically varies between 0 and 4, with 0 and 4 having a very high frequency. Considering this, the researcher reached the conclusion that now the autocorrelation doesn't really exist in the model framework of the study.

Assumption # 5

When analyzing linear aggressiveness, there shouldn't be any multicollinearity in the data that have been obtained. Therefore, including it in a research that is done for the sake of guidelines to linear regression of analysis is not at appropriate so the assumptions related to multicollinearity which is best suited for the circumstances when multi regression studies are being carried out. As previously stated, the issue of multicollinearity will arise if an absolute linear connection exists between two independent variables in a unit, affecting the anticipated results. It is important to note that the term "collinearity" refers, in its literal sense, to a scenario in which two independent variables, or predictor variables, are so closely connected to one another that they may be utilized interchangeably. The two primary statistical features of multicollinearity that may be applied to the study of this phenomenon are the statistic of tolerance and the fluctuation in the value of the inflation factor. Tolerance, on the other hand, is the most crucial factor in determining multicollinearity; even a small value of tolerance can reveal the existence. Given a model with two or more independent variables, perfect correlation and indicate that this model would not be taken into account when calculating

linear regression. To ensure accurate results, the other number that is less than or near to the reference range, which is of minimum 0.1, should be reexamined. Well-accepted tolerance ranges vary from 0.1 to 1.00. Multicollinearity will be a significant problem and challenging to manage in the circumstances. Utilizing the Variance Inflation Factor, regression analysis may also be used to determine the presence of multicollinearity (VIF). In essence, it is used to comprehend the effects of multicollinearity on various model variables, particularly on the predictor variables, and is also referred to as reciprocity of tolerance. When there is a disparity in the Values between tolerance and VIF that are frequent, with tolerance having a low value and VIF having a high value, the multicollinearity issue also arises. Further testing is necessary if the result exceeds the high level range of 10. The accepted reference range for VIF is the range of values between 1.00 and 10. As a result, both ranges are suitable for the researcher and the outcomes of the study. In the current investigation, the researcher set the VIF set range to equal or less than 5.00 and the tolerance range to a number that is equal to or bigger than 0.2. (2011) Saunders et al.

Table 4.9: *Multicollinearity Analysis*

Collinearity Statistics			
S.No.	Predictor Variable	Tolerance	VIF
1.	Knowledge Infrastructure capabilities	0.951	1.051
2.	Individual Knowledge Management Engagement	.491	2.037
3.	Self-Concordance	.424	2.359
4.	Knowledge Sharing	.953	1.049

The values for tolerance and VIF that are suitable for the model are highlighted in table 4.8 above. The researcher has accepted both the greatest and lowest tolerance values, which, according to an estimation based on experimentation, are 0.953 and 0.424 respectively for the study under consideration. Both values lie within the acceptable range of 0.1 to 1.00. On the other side, the greatest and lowest figures for VIF are, respectively, 2.359 and 1.049. As a result of falling within acceptable limits, the VIF results are likewise acceptable to the researcher. As a result, the researcher has come to the conclusion that all the calculated results for the study under consideration and the Individual Knowledge Management Engagement model are within the acceptable reference ranges, and the data collected is free of the multicollinearity problem, supporting the assumptions about the absence of the multicollinearity of multiple regression.

3.2. Bartlett's and KMO test

KMO & Bartlett's is a test of Sphericity is used to determine the appropriateness of sampling measures and the proportion of variables in cases of analysis, which is a crucial step in determining the appropriateness of sampling in commercial and academic investigations. Although the recommended range for KMO is between 0 and 1, the value of KMO is larger than 0.6 according to a widely accepted index. Additionally, Typically, the Test of Bartlett's Sphericity highlight the importance in the study and is closely related to measuring and articulating the validity and suitability of the responses that are being gathered. Addressing the problems with the study in question is another key objective. For the factor analysis to be acceptable, the reference range of values must be greater than 0.7, while in certain circumstances 0.6 which is also recognized (Perri, 2012). The planned study's research findings for the KMO and Bartlett's Test are displayed in the table below.

Table 4.10: KMO and Bartlett's Test

KMO and Bartlett's Test	Knowledge Infrastructure capabilities	Knowledge sharing	Individual Knowledge Management Engagement	Self-Concordance
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.856	.813	.821	.891
Approx. Chi-Square	538.10	536.891	1323.13	937.13
Bartlett's Test of Sphericity df	15	3	45	55
Sig.	.000	.000	.000	.000

4.2 Structural Equation Modeling

Structural Equation is the Modeling which is one of the most widely used and important methods for processing a successful confirmatory factor analysis (SPSS) (SEM). To evaluate the validity of the already-existing classical theories, SEM evaluates a wide variety of varied models using statistical analysis to examine the empirical data acquired from primary sources. SEM is regarded as one of the most important approaches in the area since it can examine and quantify the link between dormant hypotheses using a variety of things, although many other techniques are still unable to perform (Lei et al, 2007). moreover, also Suhr (2006) claims that SEM is also significantly better system of analysis than many other approaches since it allows access for the estimation and evaluation the defective quality of measurements and tests for the appropriate model. This technique is good for identifying the confirmatory approach since it tests along with the primary objective, the hypothesis is essentially a forecast made by the researcher. of the investigation. A cause and effect link is established between several variables at this stage of hypothesis testing. There are several hypotheses that both indicate and support the causal link between various variables. The most basic purpose of SEM analysis is to assess whether the data set being gathered for this study genuinely supports the researcher's hypothesis and to determine if the certain data are organized according to the predetermined measure or not. The researcher claims that the study's best fitted model assesses the consistency of ad hoc patterns that could appear during

the investigation (Lei et al, 2007). The SEM approach can only be used in a large sampling population, which is often thought to be more than 200, so the needed sampling size is partly reliant on the model's unpredictability, the use of estimate techniques, and the dependent variables' distributional characteristics. (Kline, 2005). The SEM analysis deals with and has access to both structural and measurement models. The researcher used the Confirmatory Factor Analysis to find out and facilitate the development of the model employed in the current inquiry and to support the observed variable (CFA). The last model for the analytical framework was created when the inert variable was identified. In order to construct the observed variables and create a suitable and best fitting model for the presented hypothesis's potential acceptance or rejection, CFA selects which element should be stacked. SEM is important for postulating a thorough and "fit" model for the data set that has been gathered. It also does path analysis to determine the consequences of various factors, both direct and indirect (Lleras, 2005).

Fit Indices

As Suhr (2006), the associated indices define the degree of congruence between the static and planned structure arrangements as well as the degree of changes and covariances of the gathered data. A model is built to determine if the data gathered resembles the model used for selection or not based on the assessment of model coordination attributes and homogeneous regression load. Many academics are introducing new techniques and rankings to assess the appropriateness in the used model. As founded by Kenny and McCouch (2003), many studies in this field use a variety of techniques to assess the model's applicability and create an appropriate model of analysis, such as the Tucker-Lewis Index, Mean Square Error of Approximation, Fitness Index, and Comparative Matching Index, and Global Fitness Index (TLI). The acceptable range of the chi-square criteria, according to Tabachnick and Fidell (2007) and Wheaton et al. (1977), is between 0.5 and 2, and the RMSEA determines a

model's efficacy, but in a perfect world, a coordinated factor that assesses the population's covariance matrix will fit (Byrne, 1998). The RMSEA value must be less than or equal to 0.08 for the model of compliance (Browne & Cudeck, 1993). Also some researchers believe that characteristics exceeding 0.10 is also acceptable (MacCallum, 1995). GFI is known as "suitability compliance index and this is used to quantify the level of discrepancy in a model," according to its definition (Barrett, 2006). A super-coordinate model can only work if GFI is more than 0.90. (Wang, 1999). Several indices, including IFI, GFI, and TLI, have estimated values that change depending on the size of the sample that was utilized for the particular study. When the size of the chosen model exceeds the standard deviation of the sample, there is a potential that the model values of several indices, most notably IFI and GFI, will improve (Wang, 1999). In order to compare the chi-square under the null hypothesis that none of the variables included in the current investigation are at all linked, MacDonald et al. (2002) state that the value of IFI is utilized. Comparative compliance indices (CFIs), according to the study, are percentages of the confusing effort taking into account the sample size (Suhr, 2006). According to Bentler and Bonett (1980), the value of CFI must be more than 0.90 in order to provide an acceptable and noteworthy model of analysis for the research. The Normalized Compliance Index (NFI), according to Hooper et al. (2008), "assesses the model by comparing the values of χ^2 of the model with χ^2 of the null model." The NFI value's reference range spans from 0 to 1. When the received data "is not in its original state or has been altered in some way, the Tucker-Lewis Index (TLI) is eventually employed. 1980's (Bentler and Bonett). The permissible lower limit of the TLI, according to Hooper (2008), is 0.80. However, for some other researchers, 0.9 is the minimum value of TLI that is acceptable (Hu and Bentler, 1999). The Hoelter effect is used to describe corresponding measurements that are heavily concerned with sample size and indicate what sample size will be suitable for the model of analysis the study will use. And based on

calculations, 200 is the proposed upper limit that works well with the model used in the current study (Hu and Bentler, 1995). When the anticipated model is not able to offer an appropriate model to analyses for the research, Lewis and Byrd Standardized loads cannot be seen until a change that was The model is consistent with the modification indices, and the event was as expected. A value of more than or equal to 0.40 should be used for standardized regression weights. 2003 (Lewis & Byrd).

4.3 Measurement Model Fit and its Modification.

This section of the study primarily focuses on measuring the initial model of analysis and doing a thorough examination of the confirmatory factor (CFA). As previously stated, CFA is known to be one of the most significant and ideal result-based models of analysis that seeks to legitimize many elements relating to the environment they are functioning in. AMOS has offered a range of options that assist in validating dimensional estimations and in examining the model's compatibility with the case study.

The modification indices offer a workable way to achieve model consistency despite the dispersion in the regression weight and the existence of covariance. As to (Lie and Wu 2007), a change index results in a decrease in the chi-square value, mostly as a result of a change in the parameter gauge relative to a fixed parameter gauge, and it is suggested that any change record (> 3.84) should result in a better model.

3.3. Confirmatory Factor Analysis for Knowledge Technological capability

The aspects of knowledge, technological prowess, and applicability of the knowledge have been considered as independent or predictive variables in the current course of study, and they are reliant upon three components (Fig. 4.1). First-order CFA was run on both components in order to measure how well the model was being used. The results showed that

all of the model's elements have ideal load factors greater than 0.50. The CFA for KMT model was introduced in light of this research, as can be seen in the table below.

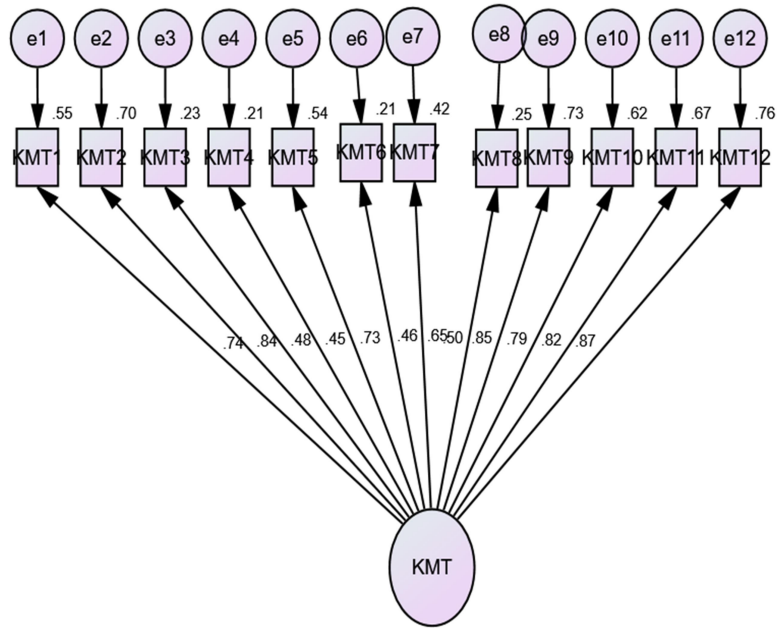


Figure 4.1: CFA for Knowledge Technological capability

Table 4.13: Model Fit of Knowledge Infrastructure capabilities

	CMIN/DF (χ^2/df)	RMSEA	GFI	TLI	CFI
Model Fit	4.12	0.06	.93	.99	.91

3.3.1. Knowledge Structural capability

The components of knowledge structural capabilities in the workplace and the utility of the knowledge have been considered as independent or predictor variables in this present line of

research, and they depend on three things (Fig. 4.1). First-order CFA was run on both components in order to measure how well the model was being used. The results showed that all of the model's elements have ideal load factors greater than 0.50. In light of this research, the CFA model was introduced, as can be seen in the table below.

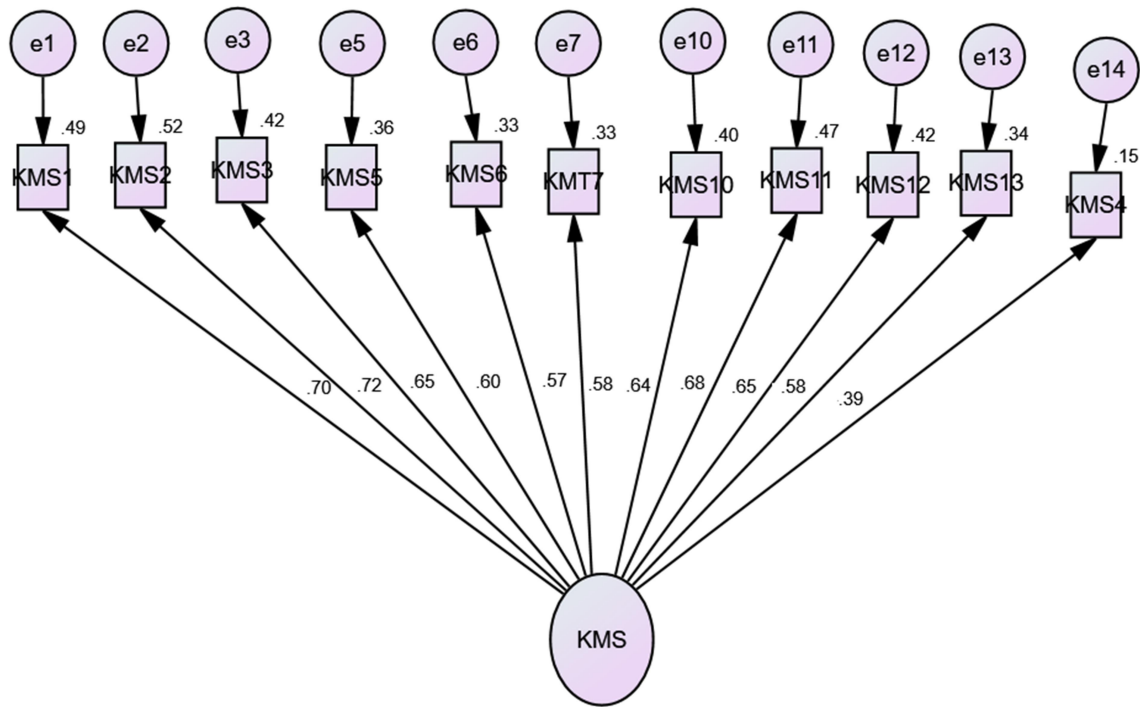


Table 4.13: Model Fit of Knowledge Infrastructure capabilities

	CMIN/DF (χ^2/df)	RMSEA	GFI	TLI	CFI
Model Fit	3.48	0.06	.92	.94	.97

3.3.2. Knowledge Cultural capability

The components of knowledge, cultural competency in the workplace, and utility of the information have been taken into consideration in this study as independent or predictor variables, and they are dependent on three factors (Fig. 4.1). First-order CFA was run on both components in order to measure how well the model was being used. The results showed that all of the model's elements have ideal load factors greater than 0.50. In light of this research, the CFA model was introduced, as can be seen in the table below.

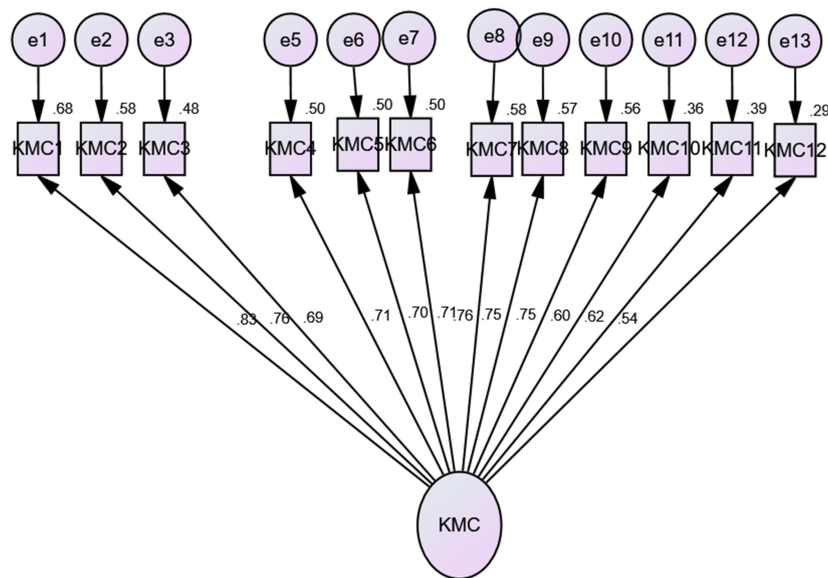


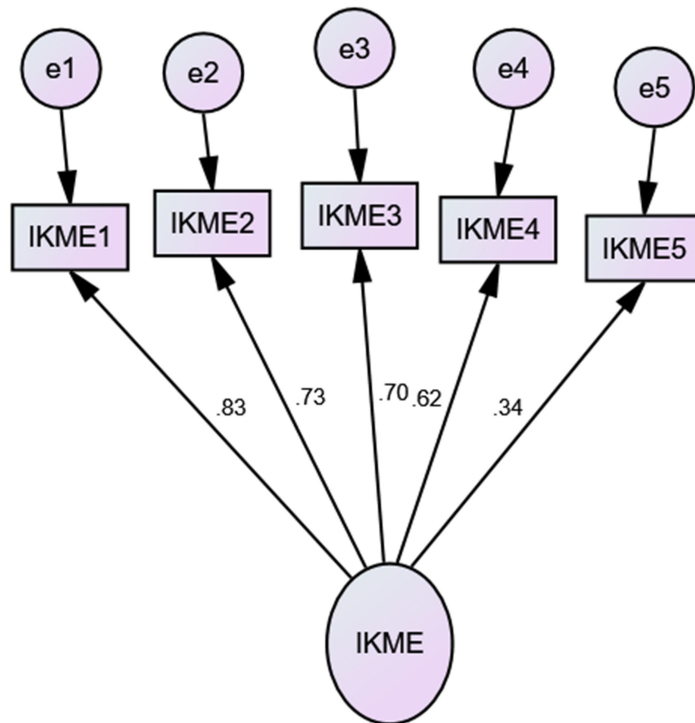
Table 4.13: Model Fit of Knowledge Infrastructure capabilities

	CMIN/DF (χ^2/df)	RMSEA	GFI	TLI	CFI
Model	3.19	0.08	.92	.99	.94
Fit					

3.3.3. Individual Knowledge Management Engagement

Individual Knowledge Management Engagement was a significant feature that was included as a dependent variable in our present study. It contains two key components, centralization and formalization, which are scored at 5 and 4 points, respectively (Figure. 4.2). First-order CFA was used to both measurements in order to assess how well these factors complied with the model that was chosen, and the results revealed that both variables had ideal factors of load that were more than 0.50. Thus, the researcher could only do first-order CFA for CA, as indicated in table 4.14.

Figure 4.2: CFA for Individual Knowledge Management Engagement



CMIN/DF
(χ^2/df)

RMSEA

GFI

TLI

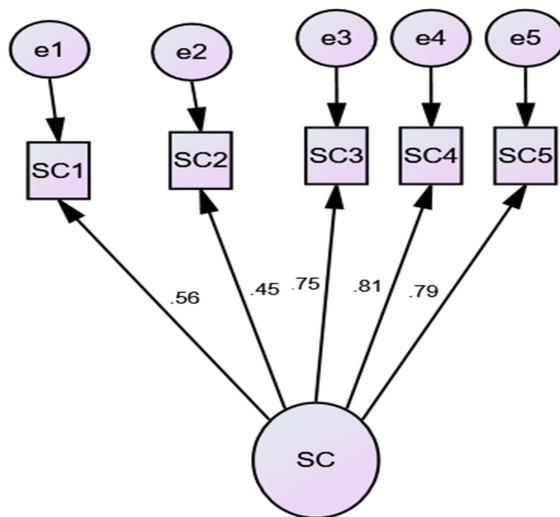
CFI

Model	3.91	0.07	.93	.92	.96
Fit					

3.3.4. Self-Concordance

For the study under consideration, the component of self-concordance has also been included as an independent variable. It consists of two dimensions, openness in communication and cooperative relationships, and each of these aspects contains five questions (See figure below). First-order CFA was used to analyze both factors in order to assess the adequacy of the proposed model; however, because of problems fitting one component into the model, only four items remained to be assessed using interactional justice. Therefore, only the first-order CFA was applied to the IJ. The table below provides an explanation of how the model was fitted.

Figure 4.3: CFA for Self-Concordance



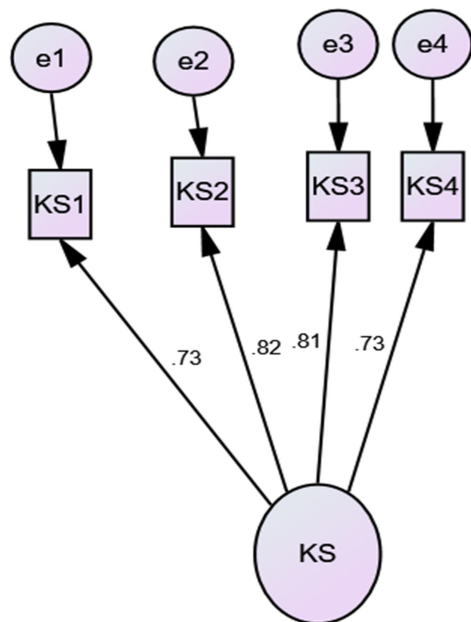
CMIN/DF	RMSEA	GFI	TLI	CFI
---------	-------	-----	-----	-----

	(χ^2/df)				
Model	3.15	0.05	.92	.98	.96
Fit					

3.3.5. Knowledge Sharing

In the current study, knowledge sharing serves as a mediating variable and intermediating factor. The first-order CFA has only been used on this design, and this factor's perceived value consists of 5 points (fig. 4.4). All of the measurement's items have standard regression coefficients that are larger than 5, guaranteeing that they all fit the model that was chosen. No item was eliminated following first-order CFA. Please refer to the table and fitting model provided below:

Figure 4.4: Relationship for Knowledge Sharing



	CMIN/DF (χ^2/df)	RMSEA	GFI	TLI	CFI
Model Fit	4.31	0.06	.98	.93	.99

3.4. Overall Measurement of Model Fit

The combined findings of the CFA have been documented by taking into consideration both dependent and independent variables in order to measure and verify each dimension used in the model of analysis as well as the overall model. A few elements were eliminated throughout the analysis process because of their lower degree of standardization, the fact that they did not fall within the reference measurement range, and the fact that they were cross-loaded. Additionally, this chapter evaluated the co-variance of both the dependent variable and the independent variables in addition to testing the verification and acceptance of all the aspects inside the chosen framework. As a result, the remaining measurable components were added to other designs, which insured that there would be a clear relationship between the data that was obtained and the methods used to evaluate it in a suitable model, as shown in table 4.24. The statistical model that was chosen has to have one item removed after modification. Figuring 4.6

Figure 4.6: CFA for Overall Model

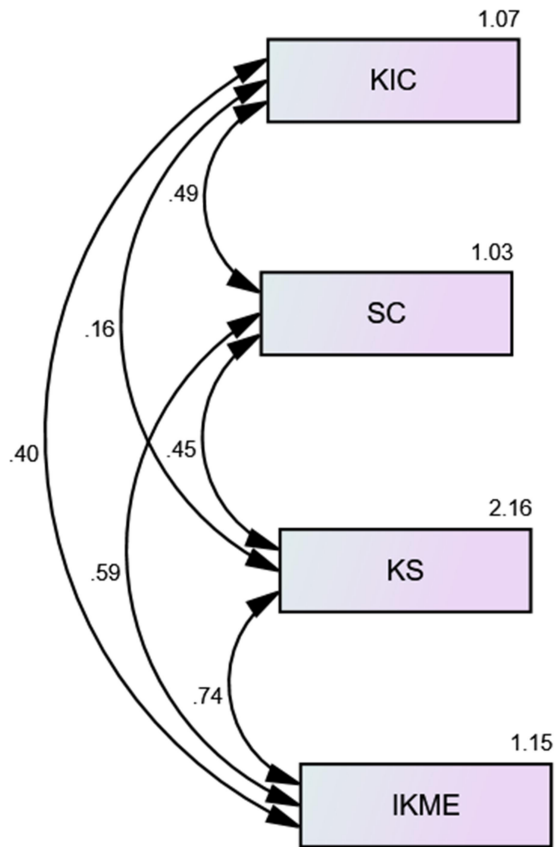


Table 4.24: Overall Measurement of Model Fit

	CMIN/DF (χ^2/df)	RMSEA	GFI	TLI	CFI
Model Fit	2.19	0.07	.91	.99	.90

3.5. Validity of Construct

The value of the key elements in the current investigations has been put through the validation process, which results in the practical disposition of the value of the examination process and aids in the hypothesising and analysis of these values. According to the research, the validity of the structural components is crucial to make all the items

adequate representatives in a theoretical perspective model according to which they are constructed (Hair et al, 2010). The emphasis of focus must be on the validity of both convergent and divergent factors because the validity for the content of the relevant tool which has already been explained in earlier sections of the same chapter, in which there is obviously no debate connected to general dispersion. As a result, the coefficient of both divergent and convergent values plays a role in the acceptance of the model's dependability. According to Hair et al. (2006), the process of diverging validity is employed so that to examine the length of differentiation between independent variables, that is, to determine how significantly different they are from one another, through assessing the change that occurred in the dependent variables. This technique is often referred to as discriminant validity. Conversely, proportional dispersion of findings indicated by convergent validity disregards all of the relevant factors. According to Bagozzi's (1981) study, the extracted mean variance (AVE) is utilized to evaluate the validity of convergence while observing the measurements of convergence. The value of AVE should not be greater than 0.5 To guarantee that the collected data is error-free, the value of MSV should be less than the value of AVE in order to ensure the reliability of the discriminant and to obtain the reliability of convergence (Hair et al, 2006). Furthermore, the correlation of the variables will be a legitimate discriminant if the correlation between the two variables is less than 0.8. (Brown, 2006). The value of correlation and standardized regression have been processed to verify the correctness of the selected model. The result is displayed in table 4.25 below.

Table 4.25: Construct Validities

	CR	AVE	MSV	ASV	PA	EA	CA	KS
PA	0.895	0.630	0.395	0.295	0.828			
EA	0.658	0.514	0.364	0.343	0.505	0.617		
CA	0.842	0.721	0.416	0.427	0.651	0.731	0.725	

KS	0.901	0.627	0.237	0.186	0.582	0.209	0.687	0.826
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3.6. Hypotheses Analysis

The main goal of carrying out such a thorough investigation is to concentrate on various elements affecting the crucial elements in the chosen framework of analysis, such as individual knowledge management participation and information sharing. The study aims to ascertain the self-detering concordance's effect on information sharing and individual knowledge management participation. As a result, the study's findings support recognized relationships between several dependent and independent variables, such as KICB-KS, KS-IKME, KICB-IKME, etc.

3.6.1. Individual knowledge management involvement and knowledge infrastructure capabilities.

According to the evaluation of the study, there is a clear association between KIC-IKME, and the beta value is 0.721. When the beta value is evaluated in a control experiment, the result is a p value of 0.000 and a critical value of 9.34, which supports our hypothesis that there is a substantial relationship between these variables. The relationship will continue to grow with time and the development of new knowledge, just as it did in the past when the same kind of connection also existed. This was discovered while performing the review of formerly prevalent literature. According to (Kang, Kim, & Chang 2008), if the variable is multidimensional or even has two dimensions, it corresponds to the KIC's qualities and shows how clear and practical the existing KS are. And over time, the KS that weren't formed disappeared since the population sample they were drawn from showed them to be of little help in producing KIC. The main reason why workers can't complete their work assignments is the proximity of disturbing, terrible working circumstances (Jamal, 1985; Ng & Fieldman, 2012; Abbas et al., 2014;). The ability of employees to fulfill the goals of the organization Because this skill fosters a favorable representational disposition, involving hierarchical

responsibility for occupation fulfillment, the environment in which they work is an important assignment., and lowers expectations with regard to employee knowledge sharing (MacKenzie et al., 1998). (Zimmerman and Darnold, 2009). The respondent is sure in the claim that knowledge infrastructure competence is primarily and easily related with individual knowledge management participation in the workplace, according to the study's findings and an analysis of responses from the population sample. In this regard, the research supports hypothesis H1 and contends that psychological aggressiveness at work is intimately related to knowledge sharing and significantly harms it. look at table 4.28

3.6.2 There is a significant and positive relationship between knowledge infrastructure capabilities and knowledge sharing.

The study under discussion demonstrates that KIC-KS, which has a computed beta value of 0.72, are negatively correlated. The estimated calculation confirms that the critical value and the value of p are, respectively, 0.000 and 12.35, indicating the creation of a significant association between workplace psychological aggressiveness and individual knowledge management engagement. The literature evaluation also shows that the association between these two factors continues to exist. According to the researcher, creativity improves with less invasive information.

The psychological tuning model also suggests that, through a different mechanism, negative influences might stimulate creative outputs. As a result, researchers remark that the relationship between negative effect and individual knowledge management engagement is increasingly perplexing and difficult to predict when compared to positive effect (De Dreu et al., 2008). The opposite effect educates about the environment since it "advises the individual that their condition is difficult, debilitating, and unpleasant." De Dreu and others (2008) Thus, as shown in table 4.28, the literature review supports and underlies our second

hypothesis H2, which claims that knowledge infrastructure capabilities are positively correlated with knowledge sharing.

3.6.2 knowledge sharing and individual knowledge management engagement.

According to the evaluation of the study that was done, there is a positive correlation between KS-IKME and its beta value is 0.35. The projected p value and significance level of the formed connection are also calculated to be 0.000 and 6.49, correspondingly, which confirms the emergence of a favorable link between the two variables. A review of this literature in the field indicates that there is a connection between these parameters. According to several academics and analysts, an individual's individual knowledge management engagement is greatly influenced by the organizational structure in which they operate. Both factors are interrelated and have significant negative effects on one another.

Self-efficacy includes a person's assessment or a thorough depiction of all the open doors that need to be opened. This aspect of self-efficacy, according to Bandura (1997), refers to a person's belief that they can carry out their tasks successfully under particular circumstances. Secondly, self-efficacy is dynamic in that it shifts over time as a person gains new knowledge and experience (Gist and Mitchell, 1992). The third section focuses on how an individual's group impacts their choice of action, including consistency, effort, and finally achieving a certain goal (Beghetto, 2006).

As a result, the literature study supports the assertions made in Hypothesis 3, which asserts that information sharing and individual knowledge management participation have a strong and positive relationship, as shown in table 4.28. Knowledge sharing and individual knowledge management engagement are essentially related.

Table 4.28: Summary of the Results Related to Hypotheses H1 to H3

Connection Variables	Between	Beta value	Critical Value	P value	Decision / Remarks
β_1 (IKME \leftarrow KIC)		.667	9.31	0.00	Supported
β_2 (KS \leftarrow KIC)		.721	12.35	0.00	Supported
B_3 (IKME \leftarrow KS)		.351	6.49	0.00	Supported

Note: PA= Knowledge Infrastructure capabilities, KS= Creative Self Efficacy, CA= Individual Knowledge Management Engagement

3.7. Mediation Analysis

3.7.1 Knowledge Infrastructure capabilities has significant impact on Individual Knowledge Management Engagement through mediating role of knowledge sharing.

The evaluation of the KIC-KS-IKME correlation shows that the relationship has a standardized beta value of 0.842 and a p value of 0.001, indicating a substantial function for the KIC in mediating between these variables. The findings are consistent with previous research and trials that have been done in this area.

According to Singh et al. (2017), an intermediate process of individual knowledge management and the positive support provided by coworkers, supervisors, and the overall structure of your business have a substantial influence on how well individuals perform at work. With all of this in mind, it has been determined that the literature supports the assertions made in study hypothesis number five, which states that knowledge sharing plays a mediating role in the relationship between knowledge infrastructure capabilities and individual knowledge management engagement.

Table 4.20: Summary of the Mediator Results Related to Hypotheses H4

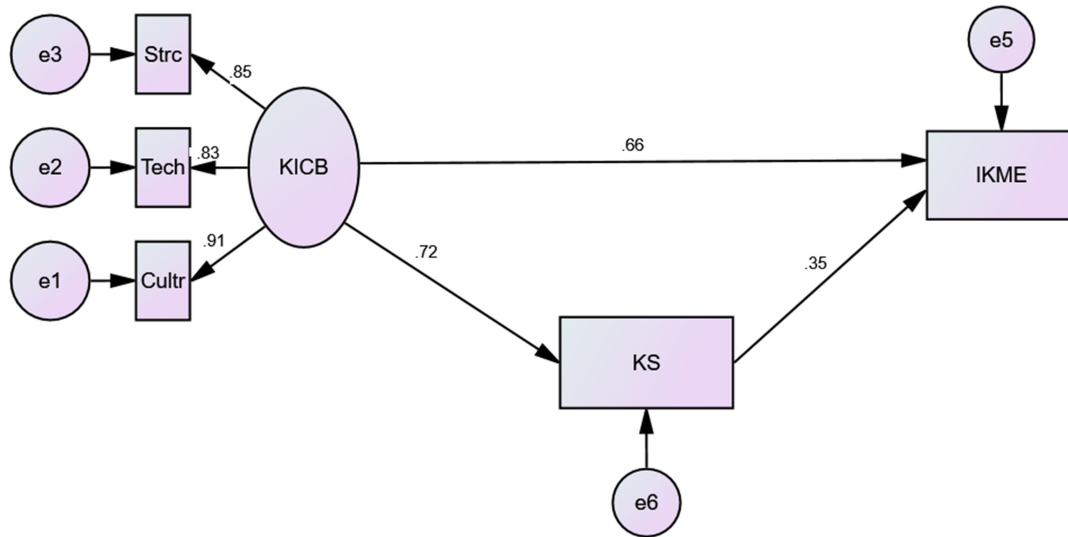


Table 4.20: Summary of the Mediator Results Related to Hypotheses H5

Link between Variables	Total Effects (C)	Direct Effects (C')	Indirect Effects (ab)	Results	Mediation Level
$\beta_6(\text{CA} \leftarrow \text{CSA} \leftarrow \text{PA})$	$\beta = .842$ $p = .000$	$\beta = .451$ $p = .002$	$\beta = .391$ $p = .004$	Significant	Partial

3.8. Moderation Analysis

3.8.1. Testing of Conditional direct paths-Testing of Moderation Hypotheses H5

Finally, this is postulated in hypothesis 6 that the link between the knowledge infrastructure capabilities and individual knowledge management involvement can be mediated by the function of self-concordance. The significant relationship between the two variables is demonstrated by the beta coefficient values for KIC and IKME at the levels of 0.412 and 0.04, respectively. The Indirect Effects (SC) of the DV variable are likewise clearly significant at each level. The beta coefficient value of 0.502 considerably relapsed with the IKME when the value of collaboration between KS and SC reaches a considerable level of 0.024. This supports the hypothesis put forward by H5 that EI moderates the relationship between KS and IKME, thereby supporting H5 theory.

Knowledge sharing on Individual Knowledge Management Engagement through Self-Concordance model indirect effect.

Antecedent	Consequent							
	<i>M</i> (KS)			<i>IKME</i> (Rep. Int.)				
	<i>Coeff.</i>	<i>SE</i>	<i>P</i>	<i>Coeff.</i>	<i>SE</i>	<i>P</i>		
<i>M</i> (KS)	–	–	–	b_1	0.512	0.059	< 0.00	
<i>V</i> (SC)				b_2	0.478	0.024	<.002	
<i>MXV</i>	---	---	--	b_3	0.620	0.024	0.01	
Constant	i_1	1.981	0.125	< .001	i_2	1.421	0.176	<.000

It may be considered that in the mediator or mediating factor was handled as a predictor (KS) who was opposed to the dependent variable (IKME) in the presence of a moderator if we base our argument on the testing cooperation technique described by Aiken and West (1991) and design our model (SC). The replies were categorized into two categories based on the moderators' values and are presented in ascending order. Basic roundabout affects were illustrated, and high, medium, and low level mediator estimations of inclines were examined. Additionally, Table clarifies the formal quantifiable criticalness using

interactional based relapse (4.8). It has been noted that the IDV (KS) are categorically associated to DV at greater levels of moderation (SC) (IKME).

Table 4.29: Results

Hypotheses	Status
H1: There is a significant and positive relationship between knowledge infrastructure capabilities and individual knowledge management engagement.	Supported
H2: There is a significant and positive relationship between knowledge infrastructure capabilities and knowledge sharing.	Supported
H3: There is a significant and positive relation knowledge sharing and individual knowledge management engagement.	Supported
H4: Knowledge sharing has mediating role between knowledge infrastructure capability and Individual Knowledge Management Engagement.	Supported
H5: There is a moderating role of self-concordance has significant impact between Knowledge infrastructure capability and Individual Knowledge Management engagement.	Supported

The study's conclusion, limitations, practical implications, and recommendations for further research are presented.

Conclusion

After conducting an investigation, this research determined that the Individual Knowledge Management Engagement of workers is boosted when the workplace's Knowledge Infrastructure capacity is well-positioned. It is explained how the Knowledge Infrastructure capacity at the workplace in the office may be of significant relevance for enhancing Individual Knowledge Management Engagement, and if so, how it can also promote knowledge sharing among workers in the creative outputs. In addition, Knowledge Sharing is improved by the expansion of Knowledge Infrastructure tools in the automobile industry's workplace. Employee Knowledge Sharing mediates the phrase Knowledge Infrastructure capabilities in the workplace and Individual Knowledge Management Engagement based on data analysis. According to a second study hypothesis, a positive and statistically significant association was established between office Knowledge Infrastructure capacity and Individual Knowledge Management Engagement, which is supported by prior research in this field of office Knowledge Infrastructure capability. In the course of data analysis, several correlation, regression, modelling of structural equations, and CFA tests were conducted using SPSS and Amos. Tests revealed the existence of a link between workers at Knowledge management engagement on an individual level and knowledge infrastructure skills. In addition, the variable Knowledge Sharing demonstrated a mediating relationship between Knowledge Infrastructure capabilities in the workplace and Individual Knowledge Management Engagement. Knowledge Infrastructure capabilities in the workplace was shown to have a beneficial influence on individual knowledge management engagement in this research. The purpose of this research was to examine how Knowledge Infrastructure capabilities in the workplace influences Individual Knowledge Management Engagement and Knowledge Sharing. Determining the function of the moderator, such as Self-Concordance and which areas of Individual Knowledge Management Engagement could be enhanced, was also an objective. In developing nations such as Pakistan, little research has been conducted on the Knowledge Infrastructure capabilities in the workplace; hence, this study provided as a foundation for future research on this subject. Individual Knowledge Management Engagement in the Automobile sector in Lahore, Karachi, Islamabad, and Rawalpindi was

related to the different parts of Knowledge Infrastructure competence in the workplace, as determined by a research. This study's depiction of a positive effect is consistent with earlier research on Knowledge Infrastructure capabilities in the workplace and Individual Knowledge Management Engagement. The first hypothesis is supported by the study's data analysis, which reveals a positive and statistically significant association between Knowledge Infrastructure capabilities in the workplace and Individual Knowledge Management Engagement. Therefore, even as data indicates, the positive acts pertaining to Knowledge Infrastructure capability at the workplace should be reduced in order to promote creativity. This is due to the fact that knowledge infrastructure capability is a positive action taken against workers at work and will undoubtedly have a favorable influence on the employees' personal knowledge management engagement, improving their creative output and capacity for original thought. The idea was developed by analyzing the reactions and the psychological effects mentioned in the literature. based on Andrewh et al (2018), the knowledge infrastructure capabilities rely on three more dimensions: the organization's technology, structure, and culture. These aspects influence an individual's knowledge management participation. The technology supports fresh information and distributes it in a manner that is beneficial to every person. Knowledge application technologies allow businesses to use their current knowledge. (McDermott, 1999). According to prior research, firms utilise technology to produce, maintain, manage, and preserve information on their customers, partners, workers, and suppliers.

According to (Teece D. j., 2000), the structure of a company is crucial. Any organization's formal structure may encourage individuals to manage knowledge. The organisational structure must be adaptable and flexible. In addition, the company must promote knowledge development, information exchange, and knowledge management. Any organization's overall culture should support and promote all actions associated with knowledge management. The capability to handle its information more efficiently and effectively is enhanced by shaping the culture. Perhaps the most major obstacle to sustaining successful knowledge management is a deficient company culture (Long, 1997). The degree to which a knowledge worker participates in knowledge management-related activities within an organization is the operational definition of individual knowledge management engagement (Tseng & Fan, 2011). Information management methods play a significant role in companies for capturing knowledge across various skill sets and describing that knowledge is a highly valuable asset that is crucial to the success of the firm (Afzal & Afzal, 2014).

A research also uncovered the favourable effect of Knowledge Infrastructure capabilities (Das & Mishra, 2015). The data analysis confirms the present study's premise that Knowledge Infrastructure capabilities have a positive and substantial effect on the Individual Knowledge Management Engagement of workers. Wang and Noe (2010) argued that knowledge sharing provides vital information and knowledge to assist others, to solve issues and to generate ideas, and to collaborate successfully with others. "Knowledge sharing is associated to a collection of activities that contribute to the sharing of expertise and information and assist others in sharing their knowledge" (Ahmadi A, Abzari M, Nasr Isfahani A, Safari A. 2018). Knowledge sharing is a key aspect that affects business innovation, explicit knowledge directly affects innovation pace, and hidden knowledge affects innovation quality (Becerra-Fernandez I, Xia W, Gudi A, Rocha J 2010). Information sharing is defined as "a culture in which individuals share their knowledge, ideas, perspectives, skills, and experience." Sharing of knowledge may also be characterised as "experience, task-related information, and responsiveness to any process or product." Knowledge sharing may also be defined as "the practise of transferring knowledge from one source (sender) to another (recipient)." It is the process of two people exchanging information to remodel and generate new knowledge (Blanchard PN, Thacker JW, Ram VA 2012). In academics, the notion of knowledge sharing varies from circumstance to scenario, but it often refers to the exchange or interchange of information across teams and organisations (Khan M, Bilal H, Mateen A, Haq Z 2017, Khan M, Sentosa I, Salman F 2018, Khan M, ChongcharoenD, Jankaweekun P 2020, and Khan MS, Chongcharoen D, Ulhaq Z 2019).

Limitations of the Study

As mentioned that the topic of Knowledge Infrastructure capabilities working environment is not frequently explored in Pakistan, the responder has limited knowledge and it is time-consuming to get responses from the audience. so, our size of the sample used to gather data for the research was not increased so that the results could be extrapolated to all other industries. In addition, answers were gathered using a constructed questionnaire, i.e., a strategy for convenient sampling; however, alternative techniques for obtaining data from the respondents, such as discussions with the focus groups and the direct interviews, etc., may

also be used. Similarly, time constraints existed since it was difficult for the researcher to contact workers due to their hectic schedules. In addition, owing to limited resource and the time issue, only one individual participated in data collecting. Despite the fact that this research was focused on automotive business personnel providing a private sector work environment and knowledge engagement, it may be difficult to generalise the findings to other public sector organisations in Pakistan, let alone other countries, because the work environment of public sector ministries may be vastly different from that of private sector companies.

Future Implications

The realisation that Pakistan's automobile industry is lagging behind its Asian competitors (India and China) led to the study's focus on the core issue of Individual Knowledge Management Engagement, or the lack of Individual Knowledge Management Engagement observed as a result of Pakistan's lagging performance in the subcontinent's automobile race. In addition, a few of the factors were added in order to evaluate their influence on the personnel. The Knowledge Infrastructure capabilities in the workplace, which has been explored in earlier research as a reportable concern for affected workers, was one of the factors. In addition, information exchange among personnel and their Self-Concordance were addressed in order to produce innovative outcomes. The findings will offer employers and workers with a better view of the difficulties related with the Knowledge Infrastructure capabilities in the workplace and the enabling environment for aggressiveness. This will aid firms in rethinking their working methods and offering an atmosphere where workers may produce something new and gain confidence. Knowledge Infrastructure capabilities in the workplace should be investigated, since infrastructure is mostly taken for granted in Pakistan and little effort is made to ensure the well-being of workers. By extending the same methodologies and variables employed in this research to different industries or sectors in Pakistan, the influence of good actions on employee performance may be determined. This research uses the mediating variable Knowledge Sharing to examine the relationship between Knowledge Infrastructure skills and employee self-confidence. According to the literature, Knowledge Sharing is essential for developing innovative outcomes. Consequently, employee dedication may be substituted for Individual Knowledge Management Engagement in order to compare replies. In addition, the analysis might include the Knowledge Infrastructure capabilities of various culprits, such as colleagues and consumers. The research may also be conducted on organisations in the public sector, and a replication of the study in

the private sector may aid comprehension of the operational differences between the two sectors.

Recommendations

As Individual Knowledge Management Engagement is the primary source of competitive advantage for companies today, and as creative workers contribute to the growth of their organizations, this is the most important source of competitive advantage for businesses. This research focused on the employee work environment, which is a significant contributor to Individual Knowledge Management Engagement. This research offered proof of the significance of Knowledge Infrastructure capabilities in the workplace for managers, which may also be applied to other workers in the automobile sector. This study recommends that leaders and managers offer an infrastructure for their workers that focuses primarily on their mental health issues and well-being. The managers should be consistent and be focus in all work-related circumstances and assertive in their approach to fostering a culture of assistance and well-being. This may be accomplished via the use of trainers and the speakers by conducting seminars for the counselling of those in higher positions and the rest of the population. As creating a stress-free atmosphere is vital in terms of good deeds or power abuse and is the employer's obligation. As the research was focused on the knowledge involvement of employees, Providing insight into how the Knowledge Infrastructure capacity at the workplace increases employee engagement. It is apparent that Knowledge Sharing will rise if the aspects of Knowledge Infrastructure capabilities are well handled, hence providing workers with the confidence and atmosphere they need to generate innovative ideas for the firm.

Knowledge infrastructure capabilities has been considered as a crucial aspect of the global business community. This is the reason why businesses can choose and understand the most effective use of their data. Since data and information are accessible everywhere in the globe, the most important factor is the effective use of this data, since it is this factor that makes a difference in the commercial world.

In addition, with the aid of this research, we are able to determine when an increase in knowledge infrastructure capabilities practices in the car industry will facilitate individual knowledge management involvement. It will be a useful tool for the car industry to acquire a

competitive edge over their rivals, as well as to enhance production and industry growth, and to remain stable in the face of a hard competitive climate.

1. **Improve knowledge infrastructure capability:** Organizations should invest in the development and maintenance of knowledge management systems and technologies, such as databases, portals, and collaboration tools. This will enable employees to easily access and share knowledge, increasing their engagement in knowledge management activities.
2. **Encourage knowledge sharing:** Organizations should create a culture of knowledge sharing by encouraging employees to share their knowledge and experiences. This can be achieved through the implementation of formal and informal knowledge sharing initiatives, such as mentoring programs, communities of practice, and knowledge cafés.
3. **Support self-concordance:** Organizations should support employees in aligning their personal goals with their work goals by providing opportunities for skill development, career advancement, and autonomy. This will increase employees' self-concordance, which in turn will lead to increased engagement in knowledge management activities.
4. **Provide incentives for knowledge management engagement:** Organizations should provide incentives for employees to engage in knowledge management activities, such as recognition and rewards for sharing knowledge, and opportunities for career advancement for those who excel in knowledge management.
5. **Train employees on knowledge management:** Organizations should provide training and education programs on knowledge management to help employees understand the importance of knowledge management, how to access and share knowledge, and how to effectively use knowledge management tools.
6. **Measure and evaluate knowledge management engagement:** Organizations should establish a system to measure and evaluate employee engagement in knowledge management activities and use the results to identify areas for improvement and to track progress over time.
7. **Foster a culture of learning:** Organizations should foster a culture of learning by encouraging employees to continuously learn and grow. This can be achieved through the provision of learning opportunities, such as workshops, conferences, and training programs, and by encouraging employees to take ownership of their own learning and development.

By implementing these recommendations, organizations in the automobile industry of Pakistan can improve individual knowledge management engagement and enhance their overall performance.