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**CRITICAL LOOK AT RELATIONSHIP BETWEEN
HUMAN RESOURCES MANAGEMENT AND
INNOVATION: AN INTEGRATED MODEL PROPOSAL**

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THESIS APPROVAL PAGE



DECLARATION

I hereby declare that this master's thesis titled as “**Critical Look At Relationship Between Human Resources Management and Innovation: An Integrated Model Proposal**” has been written by myself in accordance with the academic rules and ethical conduct. I also declare that all materials benefited in this thesis consist of the mentioned resources in the reference list. I verify all these with my honor.

19/06/2023

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ABSTRACT

Doctorate Thesis

Critical Look At Relationship Between Human Resources Management And Innovation: An Integrated Model Proposal

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In today's increasing uncertainty environment, companies' survival depends on how quickly they can respond to change. Companies that can consistently innovate in their products and processes can respond faster to changes. One of the most crucial resources for organizations to innovate is talented employees. Organizations are getting harder to attract, acquire, develop, and retain talented employees. Because of this situation, talent management is gaining more and more attention from academics and professionals alike. During the transition from the industrial society to the knowledge society, the value of knowledge for companies has increased, and knowledge has become another crucial strategic resource like talent. The main reason for this is that organizations can be as innovative as the tacit and explicit knowledge they possess in the knowledge society.

In this study, the concept of talent management is evaluated from a knowledge-based perspective, and the impact of this perspective on product and process innovation is investigated. The mediating role of innovative organizational culture is also examined in the study. The research was conducted through a survey with the participation of 102 mid-level or high-level HR managers. As a result of the research, it was determined that the knowledge-based talent management approach has a favorable impact on product and process innovation.

Keywords: knowledge, talent management, organizational innovation

ÖZET

Doktora Tezi

İnsan Kaynakları Yönetimi ile İnovasyon İlişkisine Eleştirel Bir Bakış:

Bütünleşik Bir Model Önerisi

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Günümüzün artan belirsizlik ortamında şirketlerin hayatta kalabilmeleri değişime ne kadar hızlı yanıt verebildiklerine bağlıdır. Ürünlerinde ve süreçlerinde sürekli inovasyon yapabilen şirketler değişimlere hızlı yanıt verebilmektedir. Organizasyonların inovasyon yapabilmesi için en önemli kaynaklardan birisi yetenekli çalışanlardır. Yetenekleri cezbetme, kazanma, geliştirme ve elde tutma her geçen gün daha zorlu hale gelmektedir. Bu nedenle yetenek yönetimi konusuna hem akademisyenler hem de profesyoneller gittikçe daha fazla ilgi göstermektedirler. Sanayi toplumundan bilgi toplumuna geçiş sürecinde şirketler için bilginin değeri artmış ve bilgi de yetenek gibi önemli bir stratejik kaynak haline gelmiştir. Bunun temel nedeni, bilgi toplumunda kurumların sahip oldukları örtülü ve açık bilgi miktarı kadar inovatif olabilmeleridir.

Bu çalışmada yetenek yönetimi kavramı bilgi odaklı bir bakış açısıyla değerlendirilmekte ve bu bakış açısının ürün ve süreç inovasyonu üzerindeki etkisi araştırılmaktadır. Çalışmada ayrıca yenilikçi örgüt kültürünün aracılık rolü de araştırılmıştır. Araştırma, 102 orta veya üst düzey İK yöneticisinin katılımıyla anket yoluyla gerçekleştirilmiştir. Araştırma sonucunda bilgi odaklı yetenek yönetimi yaklaşımının ürün ve süreç inovasyonu üzerinde olumlu bir etkiye sahip olduğu tespit edilmiştir.

Anahtar Kelimeler: bilgi, yetenek yönetimi, örgütsel yenilikçilik

**CRITICAL LOOK AT RELATIONSHIP BETWEEN HUMAN
RESOURCES MANAGEMENT AND INNOVATION: AN INTEGRATED
MODEL PROPOSAL**

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INTRODUCTION

Businesses' ability to adapt quickly to rapid changes in environmental circumstances is crucial to their success in the modern world. Organizations have had to adapt to rapid changes in many areas, especially in recent decades. The only way for companies to protect their competitive advantages is to adapt their existing products and processes to these changes quickly. Significant changes occur in almost all areas of life, directly or indirectly affecting companies. For example, factors such as demographic changes, new trends in the workforce, technical advances, and the rise of the knowledge economy affect how companies manage talent.

The globalization of trade, supply networks, production value streams, consumption patterns, and consumption habits has produced numerous remarkable success stories worldwide and provided considerable development potential for businesses. On the other hand, companies are now much more vulnerable to external influences and unexpected changes in circumstances. Any country's political, military, or economic developments could have disastrous effects on a medium-sized corporation in another nation. Companies must use every resource they have wisely under these circumstances. Unquestionably, employees and their knowledge, skills, and capacities are at the top of this list of resources.

The term "globalization" was once applied to the expansion of trade, industry, and finance. However, with today's workforce's cross-border mobility, talent has also fast gone worldwide. There are two facets to the globalization of talent. The first is the expansion of the global talent wars and the globalization of business talent requirements. The second factor is the advent of a highly mobile talent pool that can quickly switch countries than in the past. These two trends have elevated talent management to the level of a worldwide management concern from a corporate, industry, or regional concern.

Because of globalization, companies must now attract, recruit and retain talent worldwide. In its traditional sense, the employee-employer relationship has become a more complex process, particularly in recent years with the advent of various working models like hybrid working, remote working, etc.

Until recently, it was sufficient for businesses to implement some stereotyped practices to keep workers, guarantee engagement, and boost drive. In contrast to the past, the current period sees a general decline in employee engagement to their employers, making decisions to switch jobs, industries, or even nations much more

manageable for employees to complete. Longer working careers are required due to retirement regulations and increases in life expectancy, bringing together talents from many different generations to work for the same company. HR initiatives that were formerly widely implemented become less successful as a result of this diversity.

In this so-called information age, many cultures are transforming from industrial to knowledge society. Knowledge is becoming another crucial resource that businesses must manage. The level of a company's knowledge significantly impacts its competitiveness, and organizations that lack useful knowledge or can't update what they do have are perceived as uncompetitive. Knowledge has undoubtedly been significant throughout history, but never has it been more crucial to the existence of an organization. The relationship between employees and employers has changed as a result of the increased value placed on knowledge. The work and wage relationship between an employee and an employer could be managed in an industrial society easily. The instruments are in place in traditional HRM practices to manage this straightforward relationship successfully. Peter Drucker refers to the "knowledge worker" in the information society as having complicated, varied, and many demands. The information society has brought new needs for both organizations and employees, and these needs are growing increasingly significant for businesses and employees daily. These needs include acquiring, developing, using, and transferring knowledge.

According to the resource-based view, which forms the basis of many strategic human resources studies, businesses can sustain their competitive advantage by using their resources to their full potential. These resources are all of a firm's controllable assets, capabilities, organizational processes, firm traits, information, knowledge, etc., that allow the firm to develop and carry out plans that increase its efficacy and efficiency, according to Barney (2011).

The degree to which a resource satisfies four criteria determines how strategic it is. The resources must first be valuable. The efficacy and efficiency of the company in achieving its strategy and objectives are increased by valuable resources. A resource also needs to be rare. Strategic resources are hard to come by or unavailable to competitors. Third, a resource must be imperfectly imitable to be strategic. It should be challenging or impossible for rivals to copy it. Finally, a resource needs to be non-substitutable to be strategic. It cannot be strategic if another non-rare resource can replace a resource.

The capabilities and knowledge of an organization should be viewed as strategic resources in the current environment when analyzed in terms of these four components. Perhaps because of this, knowledge management and talent management have become contemporary topics of study that have drawn interest from researchers and practitioners.

When academic research on talent management is studied, many studies demonstrate how talent management impacts an organization's success. Some studies concentrate on how talent management affects business concerns like profitability, innovation, and market superiority, while others focus on human factors like employee engagement and corporate citizenship. Very few studies use organizational theory to examine how talent management affects these outcomes. Academic studies on talent management need to diversify and differentiate, given that several of the dimensions and sub-dimensions employed in talent management research are ideas that have been debated in strategic HRM studies for many years.

It is clear from an analysis of the knowledge management literature that two basic methods predominate in knowledge management research. Technical systems and procedures for organizing, storing, and disseminating knowledge are the main focus of the IT-related knowledge management approach. Conversely, process or people-oriented approaches to knowledge management view the movement of knowledge throughout the organization through the perspective of social, political, and administrative processes. The knowledge that an organization holds is equivalent to or nearly equal to the information that the organization's members collectively possess. People-oriented academic research on knowledge management may be insufficient for the ontological evaluation of knowledge, even though they explain the organizational processes of knowledge.

In talent management research, talent is defined in a variety of ways. However, in the broadest sense, talent refers to sum of people's knowledge, abilities, and skills. Although there are several definitions of talent in many academic studies, talent remains vague, and researchers focus more on examining talent management strategies. As a result, both academics and practitioners will benefit from adopting a new definition of talent and a talent management strategy based on it.

This study defines talent as "all knowledge and competencies that the organization will require now or in the future to achieve its strategic goals." The procedures of identifying, acquiring, developing, and maintaining the knowledge and talent required by the business will be referred to as talent management. Knowledge-

based talent management, which emphasizes the value of knowledge, is believed to impact organizational innovation, which is currently the most significant organizational success indicator. Numerous studies have been done to determine how knowledge management and talent management affect organizational innovation.

The first half of this study will investigate talent and talent management studies to provide a contextual framework. The second segment will study knowledge and knowledge management ideas and assess the efficacy of knowledge management techniques. The definition of organizational innovation and evaluate the variables influencing an organization's capacity for innovation are investigated in the third section. After completing these assessments, knowledge-based talent management methodology and the outcomes will be assessed.



CHAPTER ONE

KNOWLEDGE MANAGEMENT

Throughout the history of human civilization, knowledge has always been priceless and has always played a vital role in trade, politics, and the evolution of humans. Since the philosophical works of Plato and Aristotle, one of the initial questions of classical philosophy is what knowledge is. From ancient times to today, humankind has been searching for the answer to this question, and knowledge has become an ever more important asset in today's knowledge-based economies.

Knowledge management is becoming increasingly popular in a variety of fields, both academically and professionally, ranging from behavioral sciences to sociology, management to information, and even artificial intelligence (Dalkir, 2013, pp. 18–21). In addition to professional academic publications on knowledge management, the number of trainings, courses, journals, and books on various fields of knowledge management is increasing. Knowledge management has been one of the most popular management topics, especially since the 1990s.

Managing knowledge as an organizational resource becomes vital for firms to obtain a competitive advantage (Davenport & Prusak, 1998, p. 10). The knowledge must be considered strategic resources like raw supplies, technology, infrastructure, or personnel. In today's world, where knowledge-based economies have the advantage of scale, knowledge-related activities such as knowledge creation, acquisition, purchasing, and leveraging have become essential for enterprises to deliver long-term benefits (Kinney, 1999, p. 1).

The rise of the knowledge economy forces companies to review and re-evaluate their knowledge. According to a recent study in the strategic context of knowledge management, changes in knowledge management procedures favorably influence an organization's sustaining capacity (Yayavaram & Ahuja, 2008, pp. 333–362). Salojärvi et al. (2005) found that the knowledge gained from a strategic viewpoint helps organizations gain a short competitive advantage and survive in the long run, despite all environmental conditions.

Concepts such as the definition and value of knowledge, which have been studied as a subject of philosophy of knowledge for many years, have begun to be the focus of the study on management and organization in the twentieth century. Over time, definitions of what knowledge is have remained primarily unchanged. On the other hand, knowledge management's definitions and expectations are constantly

evolving. Understanding the evolution of knowledge and knowledge management concepts over time is necessary to conduct an up-to-date study on knowledge management.

1.1. STRUCTURE OF KNOWLEDGE

Although various definitions of knowledge exist, it is possible to define knowledge precisely by comprehending a structure known as the knowledge hierarchy or knowledge pyramid in literature.

In this structure, describing the transformation from data to knowledge, some of these studies place wisdom on top of the pyramid. In the analogy of the pyramid of data, content becomes more complex and harder to manage and transfer as one of the things moves up the pyramid.

The bottom part of the knowledge hierarchy is data. When data is managed correctly, information will be formed. Knowledge is formed by the cause of management effectively. At the top of the pyramid is wisdom. Wisdom is created by experiencing and internalizing knowledge (Rowley, 2007).

This hierarchy is also described as know-why, know-how, know-what and know-nothing. Similar to the previous classification, knowledge is segmented into four levels: data (know-nothing), information (know what), knowledge (know-how), and wisdom (know-why). At the top of this hierarchy is enlightenment, described as a sense of truth, reality, or falsehood (Zeleny, 1987, pp. 59–70).

Figure 1: Knowledge Hierarchy



1.1.1. Data

The word data is the plural form of the Latin word datum. Datum means 'thing given' derived from the Latin verb dare, which means to give. Data at the bottom of

the information hierarchy has a low level of meaning and a low value. It is context and inference that add information to data. Unprocessed and unorganized data is just a set of symbols out of context. However, some conditions must be satisfied for data to be generated. Data can only be formed if the symbols are recorded, accessible, and understandable. Data cannot provide any interpretation or support any decision to be taken. For this to happen, data must be processed, organized, and transformed into information. (Choo, 2006).

The distinction between data and information is functional and structural, according to Ackoff (1989), who defines information as symbols accumulated by human senses concerning the characteristics of specific objects, circumstances, events, and things connected to them that we meet in the real world. Our cognitive experiences enable us to transform the symbols we perceive with our senses in the outside world into data (Jashapara, 2011).

1.1.2. Information

Symbols, which are obtained, organized, and recorded through the senses and become data, can only become information with the addition of context. Understanding the linkages and interactions within the data is necessary to establish context. Understanding the linkages and interactions transforms the data into a structure that aids prediction, cause-and-effect elucidation, and decision-making. That is called information (Jifa, 2013).

Information processing, storing, and obtaining have all gotten simpler due to information technologies' continued development. Due to technological advancements, businesses can now process and store considerably more information for reuse than they could in the past. Specific departments or independent data collection methods can enter information into technical systems. With today's growing automation, information output from the systems can be carried out by either company staff or more autonomous systems (Efiloglu, 2006). These technologies enable us to understand patterns necessary for knowledge at the following level in the information hierarchy.

1.1.3. Wisdom

The hierarchy of knowledge or DIKW (data-information-knowledge-wisdom) taxonomy is referred to in many sources. Many definitions and classifications have been developed about data, information, and expertise. However, what wisdom is and how to define it are mentioned in very few knowledge management studies. There could be many reasons for this.

It is known that the concept of wisdom, unlike other elements of the hierarchy of knowledge, is highly elusive, and therefore it is difficult to determine a clear definition. Wisdom is an individual quality that includes but transcends tacit and explicit knowledge. As such, it has a character that transcends the objective meaning of knowledge. It is the ability to think critically and application-oriented, based on objective and subjective ethical principles and all kinds of knowledge that a person has (Jashapara, 2011).

Wisdom is the ability to use knowledge from a source in different domains outside of one's context and interpret it in that new context, as opposed to the repeated use of cumulative knowledge (Jessup and Valacich, 2003).

Because of this abstract framework, wisdom cannot be included in the processes such as defining, identifying, acquiring, storing, sharing, and transforming, which are the basic steps of knowledge management, and they can be accepted as organizational and individual tacit knowledge. Since this narrows the practical meaning of wisdom, some researchers prefer to limit the studies on knowledge management to data, information, and knowledge (Davenport & Prusak, 1998).

1.1.4. Knowledge

Definitions of knowledge are typically more complicated than definitions of information and data. There are many theories about how information becomes knowledge, even though there is agreement that this transformation occurs in the information hierarchy. Rowley (2007) provides the following summary of the various methods for turning information into knowledge:

- synthesis of multiple sources of information over time
- belief structuring
- study and experience

- organization and processing to convey understanding, experience, accumulated learning, and experience.
- internalization about cognitive frameworks
- a mix of contextual information, values, experience, and rules
- information, expert opinion, skills, and experience
- information combined with understanding and capability.
- perception, skills, training, common sense, and experience

The most complicated type of processed and contextualized data is knowledge. Despite its complexity, this is the most valuable, toughest to transfer, hardest to program, and most transferrable form of data for organizations and individuals. Comprehending the relationship between occurrences and their causes is simpler when you are aware of informational patterns. The most crucial component of both organizational and human learning is this phenomenon. Knowledge is the input, output, and final result of individual and organizational learning processes (Boddy et al., 2005).

This transformation of knowledge in organizational getting-to-know methods is an infinite cycle in the structure of tacit information becoming explicit and specific know-how becoming tacit through being internalized again. This cycle is the primary mechanism in the mastering of humans and organizations. The repetition of this cycle creates and produces wisdom at the individual and organizational levels (Krogh et al., 2000).

1.2. DEFINITION OF KNOWLEDGE

One of the key concerns that epistemology attempted to solve for millennia until the twentieth century was the definition of knowledge, how knowledge can be received, and how its accuracy will be assessed. Knowledge has become an element that guides every issue connected to business, governance, politics, and administration in the twentieth century, when knowledge has ceased to be a matter of particular interest solely to philosophers. Although numerous definitions of what knowledge is have been offered in management research since the popularization of the notion of the knowledge economy, there is no widely recognized definition.

Knowledge management is an emerging and cutting-edge area in comparison to other disciplines, and it is continuously evolving. When looking at the studies in this area, there are four fundamental methods to defining knowledge: ontological,

epistemological, commodity, and community. From different viewpoints, each method answers the issue of what knowledge is (Jakubik, 2007, pp. 6–19).

Spender (1996), who approaches knowledge from an ontological standpoint, focuses on social and interpersonal knowledge. At the social level, knowledge can be either implicit knowledge buried in the social structure's collective behaviors or explicit knowledge communicated within the social structure. Explicit knowledge is a notion that has been objectified, whereas implicit knowledge is a notion that has been gathered in a group. Similarly, knowledge about a single individual might be implicit or explicit. While implicit knowledge refers to a person's essentially unconscious realm, explicit knowledge refers to knowledge that is cognitive, transportable, and expressible (Spender, 1996, pp. 63–78).

Our comprehension of a phenomenon is represented by knowledge. Understanding, in the context of technical systems, refers to a profound comprehension of the system's functions, as well as the outcomes of those functions and the circumstances that lead to those functions. Similarly, comprehending the functions that expose a social phenomenon and the circumstances that reveal these functions is what knowledge means in terms of social systems (Garud, 1997, pp. 81–101).

There is a philosophical approach to the existential nature of knowledge in the epistemological assessment of knowledge. A systematic method to developing new theories can be enabled by an epistemologic evaluation of knowledge. It also allows for a theoretical approach to learning, creation, and discovery. In this situation, knowledge is an institutional fact, and it requires human consent in order to exist (Ryle, 2009).

Knowledge can be seen as an objective that exists independently of the person or organization that possesses it, or as a notion that is fully dependent on its subject. Knowledge, according to a subjective definition, is information that a relevant individual or organization collects, interprets, and conceptualizes for reusing. (Krogh et al., 2000).

According to certain studies on the definition of knowledge, knowledge can help businesses achieve their strategic objectives. Knowledge is treated as a commodity in these approaches that view it as an asset comparable to organizational assets like machinery, resources, and goods. This resource might help the company reach its objectives, efficiently utilize its resources, acquire a competitive edge, or

create new goods and services. This method views knowledge as a static resource that may be added to and removed from between organizations. (Jakubik,2007).

Although there are many different epistemological and ontological approaches to the definition of knowledge, Styhre (2003), who examined the most recent academic studies on knowledge management, found that knowledge is generally regarded as an asset that can be shared between organizations and individuals.

According to Davenport (1997), knowledge is a strategic resource that organizations need to manage well. Management can be done well with technological investments, wisely chosen policies, established management mechanisms, continuously measured and developed processes, and a strategy that supports all of these.

Knowledge is not regarded as a static phenomenon in evaluating it from a community viewpoint, but rather a phenomenon that is generated, altered, and replicated as a consequence of dynamic social processes. Knowledge is the outcome of a process, and that process is a social one. Individuals in the social environment are actors in the social processes. Only social processes use, create, and preserve explicit and implicit information (Brown & Duguid, 1991, pp. 40–57).

Knowledge is mainly collective and socially acquired knowledge, according to management and organization theories based on knowledge and learning, such as learning organization, organizational knowledge, and knowledge-based perspective (Spender, 1996, pp. 63–78).

Knowledge may be defined as "information" that can be confirmed by tests and a Socratic/Platonic definition. With such a formulation, information is easy to separate from beliefs, speculative thoughts, and subjective views. According to some authors, information is a process that occurs between knowledge and wisdom (Liebeskind, 1996, pp. 96–107).

Individual wisdom may be formed through the process, which begins with information and ends with wisdom. What is meant by information in organizational studies, on the other hand, may not belong to an individual but an organization. As a result, a definition of knowledge should include not just a personal and conscious mental concept but also an organizational and societal framework. (Rowley, 2007, p. 164; Ackoff, 1989, pp. 3–6).

Knowledge is one of the competitive strategic resources of organizations in the knowledge economy. As a result, knowledge may be defined as all facts (information, data, ability, and talent) required to achieve a certain set of goals.

Learning organizations can keep their competitive edge while also gaining new competitive advantages as needed. Knowledge is the most crucial item that must be gained, retained, and reproduced for an organization to be a learning organization (Huber, 1991, pp. 88–115).

It is crucial to remember two distinct features of knowledge definition and management. The first is that knowledge is a phenomenon that may be classified as individual, collective, or organizational in nature. Knowledge management is primarily concerned with managing knowledge at the organizational level. Another key factor to consider regarding knowledge is whether it is tacit or explicit. Some scholars prefer to use the terms organized and unstructured to describe this feature. In terms of both managing and making sense of knowledge, several aspects of knowledge are vital and critical (De Long, 1997).

1.3. KNOWLEDGE CLASSIFICATION

It is difficult to classify knowledge since there are so many diverse definitions of what it is. The classification of knowledge has been influenced by different definitions of the source of knowledge, the content of knowledge, the use of knowledge and the creation of knowledge.

1.3.1. Types Of Knowledge by Source

The categorization of knowledge is used to determine the source of knowledge in the academic environment. There are two primary categories when it comes to categorizing knowledge sources: implicit and explicit. There is no need for in-depth conversations on explicit knowledge because it is a sort of information that everyone knows and how it is received. In this state, explicit information is the subject of research in fields such as information technologies and information, focusing on knowledge management. Tacit knowledge, on the other hand, is the topic of several debates regarding how it is defined, generated, disclosed, and employed.

Nonaka (2007), in his ground-breaking study on the use of knowledge in companies, underlined that explicit and implicit knowledge are both part of a dynamic transformation process and that controlling this process may help firms acquire a competitive advantage.

In their study on explicit and tacit knowledge, Nonaka defined the distinction between the two categories of knowledge as follows:

“There are two kinds of knowledge: explicit knowledge and tacit knowledge. Explicit knowledge can be expressed in words and numbers and shared in the form of data, scientific formulate specifications, manuals and the like. This kind of knowledge can be readily transmitted between individuals formally and systematically. In the West, in general, this form of knowledge has been emphasized. Many Japanese, however, view knowledge as being primarily tacit something not easily visible and expressible. Tacit knowledge is highly personal and hard to formalize, making it difficult to communicate or share with others. Subjective insights, intuitions and hunches fall into this category of knowledge. Tacit knowledge is deeply rooted in an individual's actions and experience as well as in the ideals, values or emotions a he or she embraces.”

Although tacit knowledge is restricted to individual actions and experiences in this definition, it has two essential dimensions. The first is linked to knowledge's technical dimension. The cognitive dimension is the second dimension, and each person has their own experiences, mental models, beliefs, judgments, and experiences in this area. All of these factors influence how a person views the world and addresses situations.

It is far easier to encode, document, store, and disseminate explicit knowledge than it is to do so with tacit knowledge. Using tacit knowledge that is produced and kept as entrenched in human experiences is both hard and costly for companies. For organizations to benefit from their tacit knowledge, several specific methods need to be used.

One of the strategic resources necessary for organizations to gain competitive advantage is, of course, knowledge in the knowledge economy conditions (Porter, 1998). From a resource-based viewpoint, institutions' rare, imperfectly inimitable, valuable, non-substitutable resources should be developed, nurtured, and protected (Barney et al., 2011). From the point of view of strategy management, it can be said that there are many studies on this type of knowledge in the knowledge management literature since tacit knowledge is more strategic than explicit knowledge.

The distinction between tacit and explicit knowledge is an epistemological judgment. Tacit knowledge cannot be shared, distributed, or reused on an organizational or group level. Tacit knowledge may be made accessible, utilized, and re-evaluated through individual interactions. It is possible to produce new knowledge from tacit knowledge only through individual interaction.

The distinction between tacit and explicit knowledge has influenced much research in the field of organizational learning and knowledge management. The following researchers contributed significantly to this categorization as well. This form

of knowledge may be separated into three categories by adding another layer to the definition: relational tacit knowledge, somatic tacit knowledge, and collective tacit knowledge. The knowledge more appropriate for codification is represented by somatic and relational tacit knowledge. Due to its dynamics and context, collective tacit knowledge cannot be stated and explained (Smith et al., 2005, pp. 346–357).

Given these structural variations, we can conclude that tacit knowledge is a sort of knowledge that is subjective and requires the existence of a subject to exist. Contrarily, explicit knowledge is objective knowledge that exists without regard to the subject's presence. As a result, compared to other types of knowledge, it is simpler to modify, store, and disseminate. In this situation, explicit knowledge might be called subjective knowledge (Jasimuddin et al., 2005).

1.3.2. Types of Knowledge by Level

It can be classified in different ways according to the source of knowledge. Wysusek et al. (2011) have classified the knowledge by level as follows:

- Individual knowledge: This refers to the total of the experience, facts, and knowledge that is stored in the individual memory of the organization's members. This data might be implicit or explicit, objective or subjective, codified or uncoded.
- Institutional knowledge: This refers to the portion of individual knowledge possessed by organization members that can be turned into corporate knowledge. However, when the institutional knowledge is created, the external knowledge that the institution incorporates becomes a part of the institutional knowledge.

1.3.3. Types of Knowledge According to its Source and Level

The source of knowledge is classified using an epistemological perspective, whereas the level is classified using an ontological one. It is possible to create an alternative classification of knowledge by combining both views.

Lam (2000) used a table to describe the categorization in epistemological and ontological aspects, as well as four concepts to classify knowledge.

Figure 2: Epistemological and ontological classification of knowledge

		Ontological dimension	
		individual	collective
Epistemological dimension	explicit	Embrained knowledge	Encoded knowledge
	tacit	Embodied knowledge	Embedded knowledge

Source: Lam, 2000

Four different forms of knowledge have various psychological, behavioral, and cognitive aspects (Collins, 1993, pp. 95–116), as determined by epistemological and ontological classification of knowledge.

- a. Embrained knowledge: This sort of knowledge, which is explicit and at the individual level, is scientific, theoretical, and conceptual knowledge that a person obtains systematically. Technical and professional knowledge are included in this category of knowledge, which focuses on learning and comprehending the broad assumptions about how the universe works. It is the simplest sort of data to define and distinguish.
- b. Embodied knowledge: This form of knowledge, which is solely implicit at the individual level, is difficult to inventory, quantify, communicate, and reveal. This form of knowledge includes the skills an individual has learned by doing, his intuitive abilities, and decision-making systems. This form of knowledge, which is thought to exist in an individual's unconscious realm, is also at the heart of organizational learning processes.
- c. Encoded knowledge: This is a sort of knowledge that has been acquired and made visible by a group of people. This data may be recorded, saved, shared, and analysed again. It is a form of knowledge that exists and may continue to exist regardless of the particular experiences of humans. It can continue to exist in the absence of persons. This concept includes documented information maintained in databases and communicated via textual or visual elements.
- d. Embedded knowledge: Embedded knowledge is the hardest to uncover of the four forms of knowledge. It is the knowledge that is ingrained in the organization's procedures, standards, and accepted views. It is a complicated type of knowledge.

1.3.4. Types of Knowledge According to Strategic Contribution

Information is a resource that all organizations can use strategically in the modern information society. The strategic knowledge of the organization is one of the most crucial factors in determining innovation, strategic competitiveness, and market dominance. Zack (1996) divided knowledge into three categories based on its strategic value:

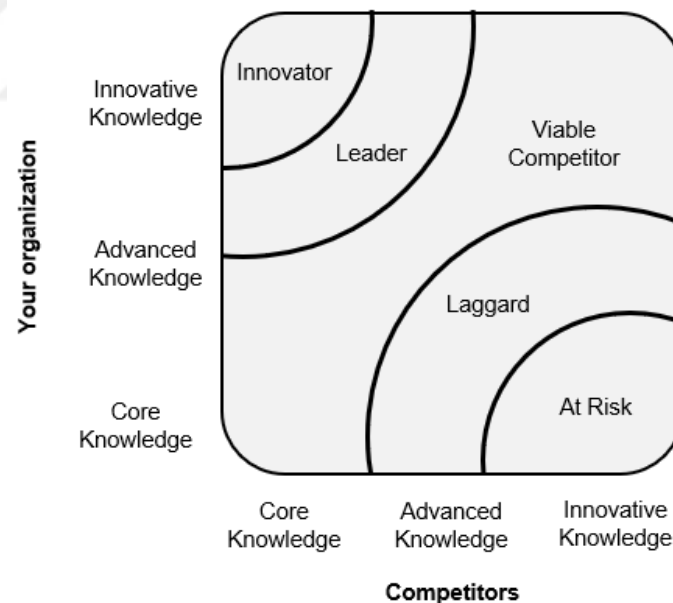
1. Core knowledge
2. Advanced knowledge
3. Innovative knowledge

Core knowledge is the knowledge that is present in the majority of organizations that operate in a similar market area. This category consists of the information that the organization needs to perform its core functions; without it, these functions cannot be performed. The organization receives no competitive advantage from this kind of knowledge.

Advanced knowledge is a sort of knowledge that is only owned by a small number of businesses in the market, and that gives the firms who acquire it early a temporary competitive advantage. Few companies on the market have the chance to have this information. While knowing this knowledge gives companies a competitive advantage, it is insufficient to provide a sustainable advantage.

Innovative knowledge is a form of knowledge that only one company in the market can hold. When the knowledge is exposed, the relevant company can stand out from the competitors. Very few businesses on the market can create creative knowledge (Zack, 1999).

Figure 3: Strategic Contribution Of Different Knowledge Types



Source: Zack, 1999

Wiig (1993) analyzed the contributions of each type of knowledge to the organization's strategy by examining the strategic knowledge of organizations through four fundamental categories:

1. Goal-setting or idealistic knowledge: This knowledge articulates the organization's future ambitions, vision, and fundamental principles. It gives CEOs the ability to run the business and organize long-term projects.
2. Systematic knowledge: This form of knowledge is present within the organization and is expressed through systems and schemes. It is the knowledge that is used as a guide.
3. Pragmatic knowledge: It is the kind of knowledge that is supported by facts and is required for the organization to make the right decisions and take the proper actions. Compared to the other two forms of information, this type is more likely to be shared between employees and departments.
4. Automatic knowledge: It is routine data derived from the organization's repetitive operations. For the fundamental processes to run smoothly, this information must be tracked, saved, and analyzed (Wiig, 1993).

1.4. KNOWLEDGE MANAGEMENT

Although the importance of knowledge in a company's competitiveness has been recognized since the 1960s, the notion of knowledge management only became a significant research subject in the field of organization and management in the 1990s. The notion of a knowledge worker is the first example of seeing knowledge as an irrefutable competitive element (Drucker, 2006). Knowledge workers are those who operate in occupations where knowledge is their primary asset and distinguish themselves from other employees by demonstrating divergent and convergent thinking skills in non-routine problem-solving procedures.

According to Senge (1990), learning organizations can differentiate themselves from their competitors by leveraging the knowledge gained from the experiences of individuals. Personal mastery, system thinking, mental models, shared vision, and team learning are the essential components of the learning organization.

Knowledge management is a multidisciplinary issue that is regularly researched in the literature in today's society that is based on knowledge. However, just like the concept of knowledge, there are variations in the definition of knowledge management. It's all about how knowledge is described in knowledge management. When we look at the literature on knowledge management, we can see two methods to deal with knowledge. The first method handles knowledge as if it were a physical entity. When knowledge is viewed as an object, the concept of knowledge management includes the storage, protection, and assessment of that object. Knowledge is considered as a process in the second method. When information is considered a process, the definition of knowledge management focuses on actions such as creating, sharing, and distributing information (Uçar, 2017).

Knowledge management, which the corporation views as an organizational asset to support its business and operations, is a more sophisticated notion than know-how management, according to Robinson et al. (2005). Although there are numerous strategies for managing knowledge inside an organization, there are few methods for determining how well knowledge management is working. This gap is intended to be filled by the knowledge management approach put forth by Robinson (2005). Only a clearly defined strategy will enable knowledge management to have its intended impact. Creating measurement indicators and defining strategic objectives are necessary before defining the corporate aim. Knowledge management and knowledge management effectiveness measurement are both useless without well-stated goals. The knowledge management strategy entails identifying the existing knowledge within the organization, calculating the knowledge gap—the difference between what is already known and what is needed—and then engaging in knowledge management activities to close the gap and enhance strategic measures. The model's final phase is assessing management performance results and making necessary decisions (Carrillo et al., 2003).

Two major currents in knowledge management methodologies may be identified. The first stream views knowledge as an object and contends that it is a structure that exists apart from people. In contrast, the second line of research comprehensively examines knowledge in light of human existence. Studies that treat knowledge as an object overlook its social and psychological components in favor of a process-only approach. These researches focus on mechanisms for data storage and management at the individual knowledge level as well as applications for artificial intelligence.

Studies like reengineering applications, organizational knowledge management systems, database management, and data exchange programs come to the forefront in managing knowledge at the organizational level. The formation, production, and re-evaluation of information at the individual level are viewed in studies of knowledge from the human process as psychological or cognitive processes. Organizational theorists investigate how knowledge is managed inside organizations. Knowledge is considered as a process in these theories (Sveiby, 2001).

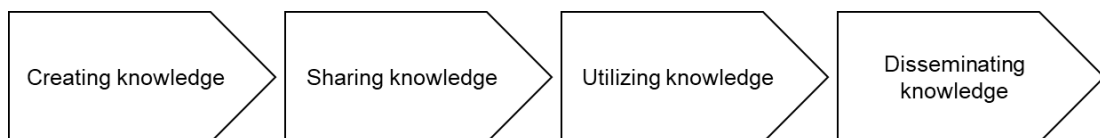
Figure 4: Knowledge Management Classification

Level	Track	
	IT-Track Knowledge = Object	People-Track Knowledge = Process
Organisation Level	“Re-engineers”	“Organisation Theorists”
Individual Level	“AI-specialists” “E-specialists”	“Psychologists”

Source: Sveiby, 2001

While determining the framework for Knowledge Management, Girard and Girard (2015:14) focus on creating, sharing, utilizing, and disseminating knowledge. The fulfillment of these actions is considered in the knowledge management concept. According to this definition, information is not only an item belonging to the organization or persons inside it but also gains content that exists in stakeholders beyond the company's bonds (Girard & Girard, 2015).

Figure 5: Knowledge Management Process

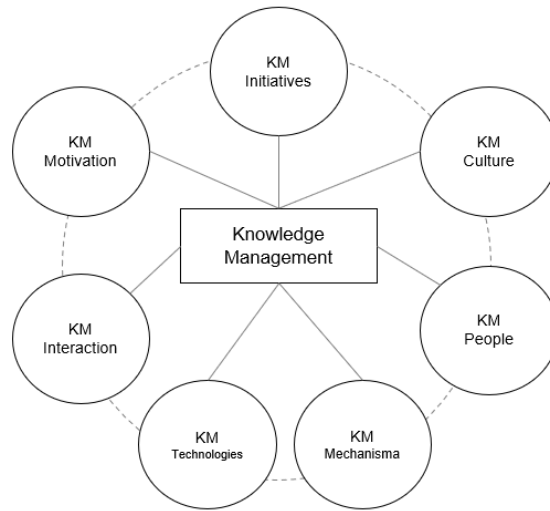


Source: Ologbo & Md Nor, 2015

Unquestionably, knowledge management helps organizations achieve their strategic goals. Due to this, numerous scholars have attempted to address various KM dimensions. Knowledge management (KM) is a management approach with multiple aspects, not only a procedure or a technology. Knowledge management has been analyzed by Ologbo & MdNor with seven dimensions:

1. Motivation to manage knowledge
2. Increasing interactions in the management of knowledge
3. Technologies enabling knowledge management
4. Mechanisms explaining knowledge management
5. People engaged in knowledge management
6. Initiatives and practices for knowledge management
7. A culture that supports knowledge management (Ologbo & Md Nor, 2015).

Figure 6: The Framework of 7-Circle Model



Source: Ologbo & Md Nor, 2015

Wigg (1993) described knowledge management as a concept with functional advantages. Given that every organization is a structure designed to fulfil a set of objectives, knowledge management aims to guarantee that the organization makes the best decisions possible to achieve these objectives. At the same time, knowledge management includes safeguarding the accomplishments obtained via decisions taken and extracting the value of knowledge. For these reasons, knowledge management is not only a management trend but also a comprehensive, multidisciplinary, and all-encompassing management strategy that covers numerous organizational functions. The best method for businesses to obtain and keep a competitive edge is to have a well-rounded intellectual portfolio. The management of four fundamental knowledge management functions—governance functions, staff functions, operational functions, and realizing the value of knowledge—is necessary to create, develop, and maintain this portfolio. The monitoring and facilitation of knowledge management operations are referred to as governance functions.

Meyer and Zack (1996) created a five-stage knowledge management model for managing knowledge after analyzing the processes of producing physical items and knowledge-based products. Knowledge is viewed as the raw material for the production process in this concept. Therefore, acquiring knowledge is the initial stage in the process. The knowledge-based product's quality is influenced by the quality of the knowledge that was acquired. The refinement of knowledge is the next phase.

Knowledge is physically or intellectually sorted and cleansed at this step. When knowledge is saved and retrieved, it is done within the proper technological conditions to allow for eventual recovery. Knowledge is disseminated to the appropriate parties using the right electronic channels at the distribution stage. Previously, this stage involved the usage of media like email etc, but nowadays, businesses choose cloud-based solutions more. The model's presentation phase is its final step. The appropriate receivers receive, process, and use information. The process of knowledge management ends with this step. Reprocessed goods or new knowledge are the results of the process .

The first step of Bukowitz and Williams's knowledge management cycle relates to addressing an issue or deciding. The utilization of knowledge for organizational innovation is the next step. The organizational learning stage is the next step after that. It is the organization's ability to leverage previous experience, data, and knowledge to gain a competitive advantage. The move from utilizing existing knowledge to creating new knowledge is referred to as the organizational learning phase. The contribution and value stage are the fourth and final step. This stage entails personally reflecting on the data and making it available to the entire company (Bukowitz & Williams, 1999).

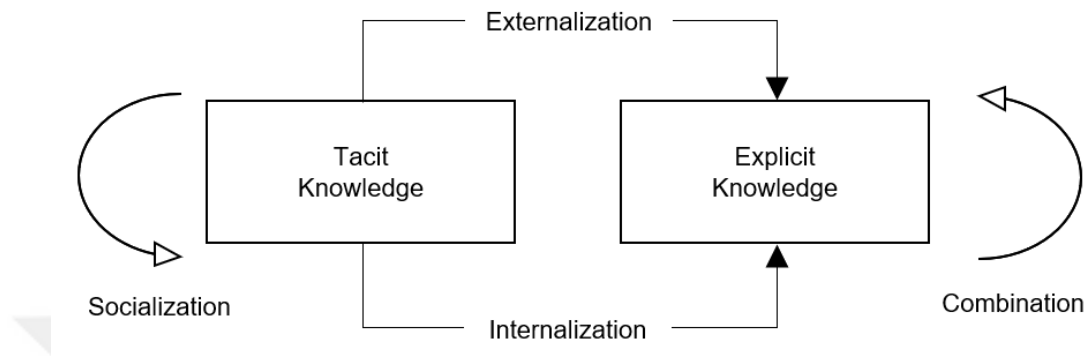
According to Nonaka (2007), the capacity to manage knowledge generation is the major success factor for organizations that dominate the market with innovative technology. However, research on Japanese organizations that have excelled in knowledge production has revealed that managing knowledge is not a typical resource management problem. The reason for that is that knowledge is not a discrete entity. Individual memories, experiences, insights, hunches, and tacit knowledge are all examples of tacit knowledge. Companies must make implicit knowledge explicit to develop new knowledge, while organizational knowledge that remains explicit should be assimilated and tacit. Nonaka refers to this cycle as the "spiral of knowledge."

Many studies have shown that knowledge spirals bring innovation, competitive advantage, and strategic advantages. The knowledge spiral is a never-ending loop of tacit and explicit knowledge. Socialization is the process of transforming individuals' concealed tacit knowledge into the tacit knowledge of other people or the organization.

Externalization is the process of changing tacit knowledge into publicly observable explicit knowledge. Explicit knowledge promotes new explicit knowledge through the process of combination. Explicit indicates that knowledge creates new

knowledge when it is combined with another knowledge. Individuals might receive explicit knowledge as tacit knowledge through the internalization process (Bratianu, 2015).

Figure 7: SECI Processes of Knowledge Creation



Source: Bratianu, 2015

The SECI (Socialization-externalization-combination-and-integration) process should not be seen as a strictly defined and linear process flow. Although knowledge management appears to be a straightforward process involving generating and using knowledge, encouraging individuals and organizations to participate in this process is one of the most difficult tasks. Leadership and organizational ideals are the key factors in solving this challenge. The realization of organizational values will be supported by leadership encouraging engagement in knowledge management activities. Organizational values will directly impact how KM tools are used, how the organization approaches development, and which KM technologies are effective. Organizational values will also be impacted by local values and the outcomes of KM efforts (Alavi et al., 2005).

Horwitch and Armacost (2002) established a five-step strategy for overcoming businesses' challenges when converting their knowledge into value. According to this concept, organizations must produce, capture, organize, and transfer information before it can be used (Horwitch & Armacost, 2002, pp. 26–31).

According to McElroy (2001), the knowledge management process is categorized into two kinds of activities. Knowledge creation is the primary activity group, while knowledge integration is the second key activity group. Individual and organizational memory contains a mix of subjectivity and objective knowledge, which is referred to as organizational knowledge. The knowledge management process is

also a learning and feedback process between the knowledge-processing environment and the business-processing environment.

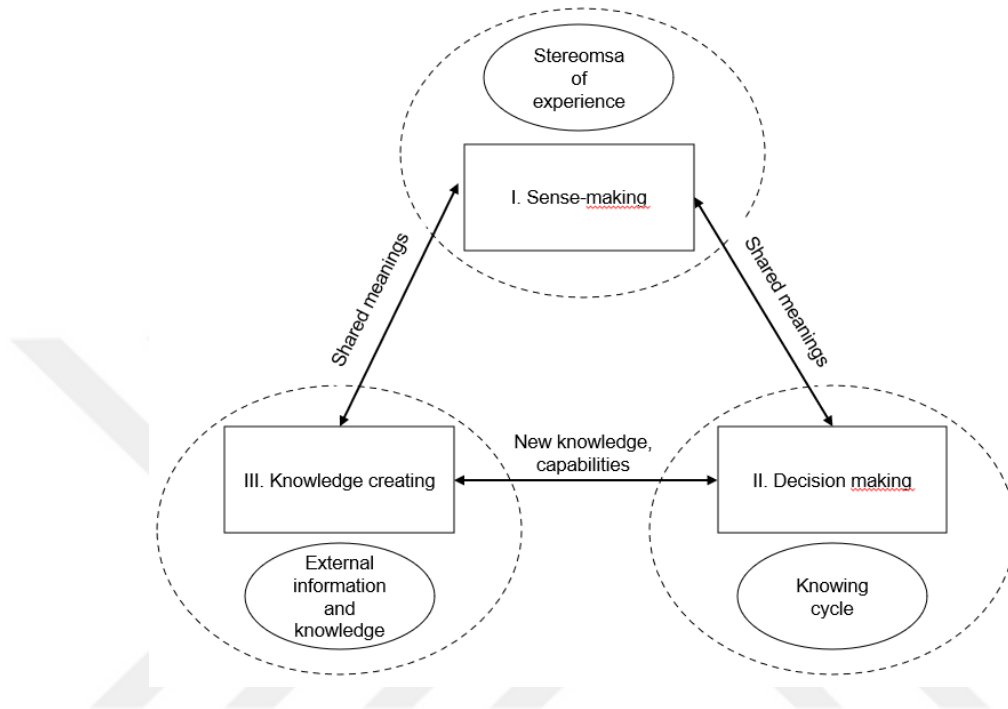
Knowledge is viewed both as an object and as a subjective point of view when knowledge management is approached from a sociotechnical viewpoint, and managing knowledge truly involves regulating the flow of knowledge (Gupta & Govindarajan, 2000).

To categorize knowledge management tasks, Frid (2004) created a five-point scale for the maturity level of knowledge management. The knowledge chaotic level is the lowest level of knowledge management maturity. Organizations need to comprehend and decide on the KM objectives, develop the vision, and choose the indicators at this level. Organizations that value knowledge exist at the second level. Organizations create department-based KM vision and objectives at this level and begin to work toward them. Organizations that are knowledge-focused exist at the next level. In this case, organizations must plan knowledge management initiatives in addition to their routine tasks. Knowledge-managed organizations are classified as being at the fourth level. At this level, KM is a component of the common management structure. In business planning, performance reviews for KM are included. The knowledge-centric organization level is the highest in KM maturity. In addition to reviewing and evaluating their intellectual assets, organizations that have reached this level of maturity institutionalize all KM activities. The company's strategy and vision receive the greatest direct support from KM at this maturity level (Frid, 2004).

Choo (1998) described knowledge management at the organizational level through three key stages in the model he proposed. The knowledge gathered from the outside world is filtered and is made sense of during the sense-making phase. Individuals' unique experiences produce a flow of knowledge at the same time. This stream of knowledge is likewise filtered according to priorities. The generation of knowledge is the model's second stage. Similar to Nonaka's "spiral of knowledge" paradigm, knowledge development is built on sharing knowledge with aspects such as conversation, sharing, cooperative actions, and open communication among individuals. Experience obtained because of organizational decisions in generating knowledge is also a significant trigger. Organizations make decisions based on particular information, and by watching the outcomes of those actions, they may either confirm or learn new knowledge. This data serves as a critical catalyst for the generation of knowledge. The data gathered as a result of this trigger also serves as an input for future choices. The model's ultimate stage is decision-making. The

decision-making process is aided by shared meaning derived from the sense-making process and new knowledge and skills derived from knowledge development. These three phases are mutually and bidirectionally complementary.

Figure 8: Knowledge Creating Process



Even though there are several process-oriented knowledge management models in the literature, these models share some common key characteristics. The primary knowledge management models' process phases are shown in Table 1.

1.4.1. Knowledge Management Models Comparison

It is challenging and unclear to manage the concept of knowledge. Studies on knowledge management have shown that knowledge can be managed in this context as abstract or tangible, visible or invisible, dispersed or individual, subjective or subjective, static or dynamic, and complicated or simple (Blackler, 1995).

Although a variety of knowledge management models have been identified through literature searches, it has been shown that knowledge itself is the most crucial model component. While models that see knowledge as a social and cognitive component of human beings place more emphasis on the individual and social components of knowledge, models where knowledge is thought of as an object emphasize technological mechanisms for the storage, diffusion, and processing of

knowledge. But regardless of the situation, it can be claimed that the main ideas emphasized by the models center on the gathering, storing, processing, and disseminating of knowledge.

Models have the impact of motivating organizations to develop their knowledge, raising the weight of individuals in the organization, and boosting the interest of organizations in knowledge, despite the diversity in the field of knowledge management, which may initially seem scattered. The models also give organizations clarity on the management of a highly conceptual element, such as knowledge. In addition to all of these uses, models can also be assessed as a measuring and benchmarking tool that will help organizations in the knowledge-based economy of the modern era focus on the appropriate areas (Abdullah & Sarinah, 2009).

The processes on which various knowledge management methods are built are displayed in Table 1.

Table 1: Knowledge Management Concepts

Reference	Components of knowledge management models
Senge (2006)	Personal mastery, system thinking, mental models, shared vision, and team learning (learning organization concept)
Horwitch and Armacost (2002)	Creating, capturing, organizing, transferring and using knowledge
Bukowitz and Williams (2003)	Getting, using, learning, contributing, assessing, building, divesting knowledge
Zack (1996)	Acquisition, refinement, storage and retrieving, distribution, presentation of knowledge
McElroy (1999)	Individual and group learning, claim validation, information acquisition, knowledge validation, knowledge integration
Alavi and Laidner (2001)	Organizational values, knowledge management tools, knowledge management leadership KM tools: Creating, receiving, transferring, applying knowledge
Gupta and Gonvindjaran (2000)	Creation, acquisition, retention, identification, outflow, transmission, inflow of knowledge
Wiig (1993)	Build knowledge, hold knowledge, knowledge pool and using knowledge
Girard & Girard (2015)	Creating, sharing, utilizing and disseminating of knowledge
Ologbo & Md Nor (2015)	7-circles of knowledge management: KM initiatives, KM motivation, KM interaction, KM technologies, KM mechanism, KM people, KM culture
Wiig (1997)	Governance, staffing, operational and value realization
Nonaka et al., (2007)	Socialization, externalization, combination and internalization for creating valuable knowledge
Carrillo et al. (2003)	Business strategy, knowledge strategy (identifying current knowledge, defining knowledge gap, knowledge management initiatives), monitoring results
Frid (2004)	Knowledge chaotic, knowledge aware, knowledge focus, knowledge managed, knowledge centric

CHAPTER TWO

TALENT MANAGEMENT

Although the ideas of talent and talent management have been conveyed in a variety of sources, the McKinsey "War for Talent" study, which was published in 1998, marked the mainstreaming of this topic. The "Talent Edge 2020" report, which was released by Deloitte years after this study, demonstrates that talent management's significance has not faded for researchers or practitioners. According to the aforementioned McKinsey study, which involved 20 large multinational corporations and 6,000 executives from 77 companies across various industries, organizations are experiencing a serious talent shortage, making talent management the top priority.

Talent management has been a popular issue for academics and professionals for a few decades now. Talent management has evolved into a crucial management activity for many firms, even though certain perspectives still see it as a part of HRM (Chuai et al., 2008). According to academics and practitioners, talent and talent management remain one of the most crucial strategic challenges for any business worldwide in today's extremely dynamic and uncertain market environment (Meyers & van Woerkom, 2014).

Although some researchers contend that there is no discernible difference between TM and HRM and that talent management has become popular due to some compelling factors like the government, headquarters, regulators, or management-fashion setters (HR academics, business schools, etc.), studies on TM are growing every day (Iles et al., 2010).

The failure of standard HRM studies to explain the competitive advantages of firms is one of the key drivers of interest in talent management. Particularly under the dynamic and changing conditions of the global economy, talent with outstanding skills, knowledge, and abilities is believed to be one of the primary reasons why certain firms are more successful than others (D. G. Collings & Mellahi, 2009a). Although many businesses today claim to value talent management strategies and even use some of them, very few do the typical talent management activities discussed in the literature. A study of companies with high standards for talent management procedures discovered that these companies had statistically lower employee turnover rates, higher profits per employee, more sales per employee, and higher market values per employee than other companies. (Heinen & O'Neill, 2004).

Talent management has grown in importance for firms for two main reasons. First, because firms are quickly losing the competitive advantages they had before the information era, talent is a valuable resource that cannot be duplicated, purchased, or mimicked. The second supposition holds that demographic and socioeconomic changes make finding, cultivating, and retaining talent harder (Dries, 2013).

Businesses that want to prevail in the great talent war must comprehend what drives talent, develop aggressive talent acquisition strategies, define strategic talent sourcing activities, put people before work, set up an effective feedback system, comprehend retention factors, and keep low-performing employees away from the organization (Chambers et al., 1998).

Despite the increased interest in this field, There are numerous definitions of talent and talent management in the literature. This academic polyphony is also evident in daily life. The definition of talent, the characteristics of a talented worker, and the methods for managing talent differ depending on the business's strategies, culture, and values (Ashton & Morton, 2005a).

To properly analyze the research on Talent Management, the notion of "talent" must first be defined accurately.

2.1. DEFINITION OF TALENT

When looking through the TM literature, there are various definitions of talent. Differences in talent definitions have two consequences for the talent management literature. This variance in talent definitions leads to diversity in talent management systems. Although this diversity might be viewed as theoretical depth, it also raises the objection that talent management is a young academic topic. Another consequence of differing definitions of talent is that talent and talent management must be redefined in every academic research on talent management. In his survey of talent management research, Thunnissen (2013) stated that to advance conceptually in their work, around half of the researchers had to define their own definition of talent.

According to a resource-based perspective, humans in the context of HRM studies and talent in talent management enhance an organization's competitiveness as a valued, uncommon, unique, and non-substitutable resource (Chuai et al., 2008).

In terms of how talent is defined in the literature, there are various main assumptions. The theoretical underpinnings of talent studies are clarified by categorizing talent definitions in accordance with these key premises. Talent management literature is characterized by a disturbing lack of lucidity regarding its definitions, scope, and aims. This is partly driven by the limited clarity the human capital perspective offers about the precise meaning of the underlying construct 'talent' (Gallardo-Gallardo et al., 2013; Tansley, 2011). This leaves organizations with only minimal theoretical foundations for their talent-management decisions (Thunnissen, Boselie & Fruytier, 2013).

Gallardo-Gallardo et al. (2013) divided talent definitions into two categories: objective and subjective. When seen objectively, talent may be described as the attributes of individuals or organizations. The objective approach focuses on the question of what talent is. Table 2 lists the elements under the talent definitions of researchers who see talent as an object. Two ways in the literature define talent when subjective: inclusive and exclusive (Gallardo-Gallardo et al., 2013).

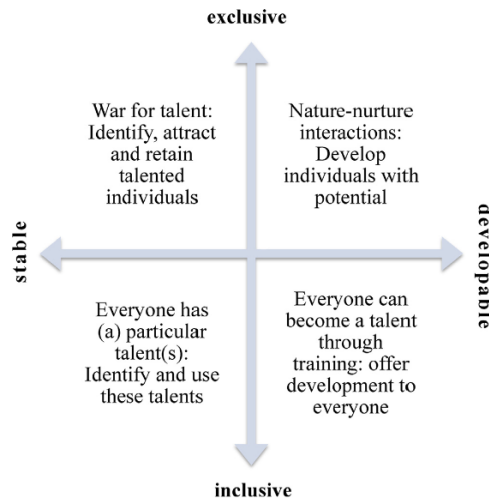
Table 2: Different keywords used in talent identification

Abilities	Capacities	Capabilities
Commitment	Competencies	Contribution
Experience	Knowledge	Performance
Potential	Performance and Potential	Skills

Inclusive methods view all employees as talents and suggest that organizations succeed by attracting, developing, and retaining all these employees. However, this strategy has been criticized as a rebranding of Human Resources Management (Sparrow, 2019).

Subjective-objective and inclusive-exclusive axes split talent and talent management definitions into four groups. Such a definition of competence is steady since it refers to the people themselves, who are what is meant by capability from a subjective perspective. On the other hand, the Objective perspective views capability as the knowledge, skills, and competencies that people possess, and as a result, capability can be enhanced and changed. A list of this classification is presented in Figure 9.

Figure 9: Talent management classifications



Source: Meyers & van Woerkom, 2014

Nijs et al. (2014) link talent to intrinsic abilities. They suggest, however, that these abilities should be consistently developed in activities that the individual loves and finds significant. These carefully developed abilities enable the individual to continually execute within himself, demonstrating success and producing solid operational results. As long as intrinsic abilities remain in their original condition, they cannot be considered talents, according to this definition (Nijs et al., 2014).

Michales et al. (2001) provide a common and inclusive definition of talent as "the sum of a person's abilities - his or her intrinsic gifts, skills, knowledge, experience, intelligence, judgment, attitude, character, and drive. This definition differs from the typical definition of talent as the extraordinary characteristics of extraordinary people. It also refers to his or her capacity for learning and development. Similarly, Cheese et al. (2008) defined ability as "the total of all the experience, knowledge, skills, and behaviors that a person has and brings to work," considering ability as an object rather than a subjective reality.

Schiemann (2014) defines talent as all of the workforce's knowledge, skills, abilities, experiences, beliefs, habits, and behaviors that will help the organization achieve its objectives. According to this definition, talent is related to what an employee does while working in an organization.

A valuable talent signifies the possibility for the organization to improve its competitive position. Being one-of-a-kind is a characteristic that demonstrates how tough it is to replace a talent in the industry and labor market circumstances under which the organization works. As a result, from the standpoint of human capital, it may

be defined as the sum of unique and important knowledge, skills, and competencies that support the competitiveness of the talent organization (Lepak & Snell, 1999).

According to Farndale et al (2010), talent can be emphasized as four different capitals from an HRM standpoint. Human capital is the sum of an organization's competency, knowledge, and attributes that have the potential to produce economic value. The social networks of the organization's members that have potential economic worth are represented by social capital. Political capital refers to the organization's reputation, the capacity to get work done, and the potential to earn legitimacy. Political capital is how much power the institution can represent in the environments in which it is expressed. On the other hand, cultural capital is the sum of the norms that exist via the institution's organizational memory. Talent is essential for each of these 4 capitals.

While HRM-based talent definitions use an approach oriented on utilization and organizational performance, psychology-based talent definitions provide an individual-centered framework that is independent of the company. From the standpoint of human resource management, talent, and humans are viewed as resources or capital that businesses may use to achieve their objectives. This method falls short of describing the relationship between TM practices and organizational results (Lewis & Heckman, 2006). Perspectives based on industrial psychology (I/O psychology) attempt to bridge this difference by defining talent as variations in cognitive ability, knowledge, attitude, and personality between individuals, whereas educational psychology focuses on innate and extraordinary abilities (Dries, 2013).

For example, according to Gagne (2000), although talent can be developed with a conscious and systematic effort, it is something that only a certain number of people are born with, who are equipped to make a difference in subjects such as entertainment, art, sports, technology or business.

According to the taxonomy created by Tansley, states that talent may be defined in many ways at different periods based on the organizations' present goals.

- Individual talent elements: behavioral aspects, knowledge, skills, attitudes, competencies, high performance, high potential
- Organizational talent elements: talent pool, leadership talent, key talent group, core talent, peripheral talent (Tansley, 2011).

Williams (2000) distinguishes between two categories of persons when he uses the word talent. The first category of talents includes people who exhibit outstanding accomplishments in various contexts and circumstances or a focused area of expertise with extraordinary skills. The second category of skills consists of

those who can demonstrate their potential by doing so consistently in the face of uncertainty.

Researchers describing talent as ambition, achievement, agility and ability for high-potential employees, on the other hand, expressed talent as the product of all employees' commitment, contribution, and competence (Ulrich & Smallwood, 2012).

The CIPD (2022) defines talent as an individual who may significantly impact organizational performance by providing a concrete contribution or realizing potential.

2.2. TALENT MANAGEMENT DEFINITIONS

The definition of talent management reflects the multiplicity of studies on what talent is. Despite all the variation and criticism, the field of talent management literature has matured over time. According to Ashton and Morton (2005a), a well-defined TM approach seems to boost organizational effectiveness by supporting HR activities and business outcomes from a strategic and holistic perspective, playing a significant role in the success of organizations and developing into a distinct competitive advantage.

Since no theory of talent management is conceptually superior to the others, and none is adequate to explain cause and effect links, talent management might be considered a hazy phenomenon. However, talent management is a research area that has academic and practical appeal. The number of publications published in scholarly refereed journals and articles published on talent management for practitioners are rising. This distinction suggests a significant opening for theoretical and methodological investigations into talent management. In today's complicated environment, talent should be viewed as a strategic resource for firms to succeed (Dries, 2013).

The resource-based approach is still one of the most significant organizational theories for describing how successful companies differ from others, even though decades have passed since its birth (Barney et al., 2011). According to the resource-based perspective, managing an organization's strategic resources is key to its success. This idea holds that businesses acquire and develop the resources required for their strategy in the market. These materials ought to be priceless, uncommon, unique, and incomparable. One of the main organizational theories that underpin HRM research is the resource-based view (Kaufman, 2015). The RBV is an important

theory for talent management research since many talent management models view talent as a strategic resource for firms' success.

From the RBV perspective talent may be described as rare, valued, inimitable, and non-substitutable resource add to the organization's competitive advantage, there are many other definitions of talent management in the literature (Nijs et al., 2014).

Lewis and Hackman (2006) classified definitions of the TM idea into three broad categories. The first considers TM as a subfield of HRM that focuses on specialized applications of HRM (recruitment, learning and development, succession planning etc.). Rather than enhancing TM as a separate study field, studies in this discipline add to the strategic HRM literature. The second one focuses on essential roles for the organization, the personnel who hold them, and their backup. Third, it believes that focusing on the management of brilliant individuals is more significant in terms of competitive advantage. Such an approach may have a detrimental impact on employee engagement and perceived organizational fairness. This discipline's research focuses on procedures connected to high-performing personnel. The extraordinary performance in this context might be either above the average (top performers) or below the norm (bad performers) (Lewis & Heckman, 2006; O'Connor & Crowley-Henry, 2019).

Cooke et al. (2014) analyzed the various management strategies in the literature by classifying them into the following four groups:

- Never adopt HRM fashion: This strategy highlights that every employee in the company has skills, and that TM uses these skills through a collection of HR procedures. This universalist and inclusive approach are critiqued for viewing TM as a rebranded form of HRM.
- Succession planning: In this strategy, the major goal of talent management is to build a talent pipeline that, seen holistically, satisfies the organization's present and future talent demands.
- Talented employee management: This strategy focuses on providing the appropriate HR tools to the employees within the firm who demonstrate the highest performance or potential in terms of predetermined criteria.
- Management of pivotal positions: This strategy puts less emphasis on managing pivotal persons and more on managing pivotal

positions. The talent management framework must specify organizational systems and processes to identify key jobs. It uses a large-scale approach to talent management (Cooke et al., 2014)

Although there are various frameworks for the processes, elements, or components of talent management, according to McDonnell (2011), an effective TM framework essentially requires three elements. The company plan and talent strategy must first be connected and harmonized. The second step entails identifying crucial positions and crucial competencies in the strategic goals of the firm. The administration of these specified capabilities effectively and efficiently is the third component.

With the maturation of the TM literature, previous objections that TM was a collection of HRM practices began to give way to an interpretation that sees TM as a strategic activity or strategy practice (Jones et al., 2012). The right person at the right position at the right time is at the heart of an organization's capacity to fulfill its goals, according to TM and HRM. However, studies in the field show that TM is a brand-new management approach rather than a relabeled version of HRM (Chuai et al., 2008).

Collings and Melahi (2009) defined talent management as a strategic activity as follows:

“as activities and processes that involve the systematic identification of key positions which differentially contribute to the organization's sustainable competitive advantage, the development of a talent pool of high potential and high performing incumbents to fill these roles, and the development of a differentiated architecture to facilitate filling these positions with competent incumbents and to ensure their continued commitment to the organization (D. G. Collings & Mellahi, 2009)”

Schiemann (2014) views talent management as a life cycle centered on the interaction of the organization and its human resources. This cycle begins with attracting talent and is completed with acquiring, onboarding, training, performance maximizing, developing and succession, retaining, and recovering. Steps for retaining, recovering, and attracting interact with the talent pool .

Jayamaran et al. (2018) created a four-stage integrated talent management system. This method comprises the stages of identifying essential jobs, managing competency trainings, developing talent, and managing rewards.

Meyers and van Woerkom offered distinct TM frameworks based on an inclusive-exclusive talent approach and a stable-developable talent development strategy, rather than establishing a single universal procedure in talent management. When extraordinary talent is regarded to be natural and a consistent development

philosophy is established, it is evident that identifying talent, recruiting, employer brand research, and retention will become more important. Assuming that everyone has a talent, inspiring and harnessing current ones will be critical. In circumstances when talent can be cultivated, only high-potential employees are supported from an exclusive standpoint, while other employees are supported from an inclusive standpoint via training and development activities (Meyers & van Woerkom, 2014).

In their approach, Stahl et al. (2012) separated TM into two key elements: TM practices and TM principles. This strategy, which places talent definition at its core, is based on six fundamental principles. These principles include, in order, management involvement, employer branding, global and local needs, cultural embeddedness, alignment with strategy, and internal consistency. An organization must adhere to these six fundamental principles to accomplish its strategic goals through successful TM. The following TM practices are specified in the model to be supported by these six principles: performance management, employee retention, compensation and rewarding, talent review, recruitment and selection, training, and development.

Gartside et al. (2014) identified TM practices that are crucial for organizational performance in the current global environment into five major categories. The ability to effectively use analytical data in the global talent market, manage global talent acquisition processes, lead talent mobility, develop different approaches to leadership development, and effectively manage virtual teams are the most important focuses in today's conditions for winning the "war for talent".

The Chartered Institute of Personnel and Development in the United Kingdom defines TM as "the methodical assessment of all efforts intended at recruiting, identifying, motivating, retaining, and disseminating personnel who have the capacity to impact the organization's success" (Makram, 2018).

Sparrow et al. (2011) defined TM as four essential philosophies. The first approach focuses on key people, and TM serves as a people classification in this approach. The second approach focuses on important practices, and TM functions are core HRM practices in this approach. The third approach focuses on critical positions and enables the definition of TM pivotal positions. The fourth approach focuses on the core strategic pool, with TM managing the internal talent pool.

While Beechler and Woodward (2009) defined TM practices as either scarcity responses or creative responses, they also defined the factors that determine which direction organizations will focus on in their proposed model as follows: global trends (demographic shifts, globalization, economic climate), mobility (people,

organizations), business transformation (knowledge economy, high-value skills, relationship management), diversity (cultural, gender, working modes). While scarcity responses indicate a more aggressive talent management framework, creative responses indicate a more tranquil and medium-long-term talent management framework.

Table 3: Different talent management process steps

Rothwell & Kazanas (2004)	Talent management is the systematic effort to recruit, develop and retain highly productive and promotable people for organizations strategic success
Ashton & Morton (2005a)	TM is a strategic and holistic approach to both HR and business planning or new route to organizational effectiveness. This improves the performance and the potential of people -the talent- who can make a measurable difference to the organization.
Gay & Sims, (2006)	Talent management pertains to making an investment in people development, by identifying talented individuals to develop for leadership roles in the organization
Cappelli (2009)	Talent management is simply matter of anticipating the need for human capital and setting out a plan to meet it
D. G. Collings & Mellahi, (2009a)	as activities and processes that involve the systematic identification of key positions which differentially contribute to the organization's sustainable competitive advantage, the development of a talent pool of high potential and high performing incumbents to fill these roles, and the development of a differentiated architecture to facilitate filling these positions with competent incumbents and to ensure their continued commitment to the organization
Silzer & Dowell (2010)	Talent management is an integrated set of processes, programs and cultural norms in an organization designed and implemented to attract, develop, deploy and retain talent to achieve strategic objectives and meet future business needs
Davies & Davies (2010)	Talent management is the systematic attraction, identification, development, engagement/retention and deployment of those individuals with high potential who are of particular value to an organization
D. Collings et al. (2011)	Global talent management includes all organizational activities to attract, select, develop, and retain the best employees in the most strategic roles (those roles necessary to achieve organizational strategic priorities) on a global scale
Schuler et al. (2011)	TM uses selected HR practices (attraction, selection, training, performance management, compensation, retention, etc.) to overcome global talent challenges (right numbers, positions, competencies, etc.)
Stahl et al., (2012)	Talent management means recruiting and selecting talented people, developing them, managing their performance, compensating and rewarding them, and try to retain the strongest perform
Dries (2013)	TM is defined as activities that fit with strategic objectives, fit with organizational culture, fit with other HR practices and policies, and fit with organizational capacity

Meyers & van Woerkom, (2014)	TM covers identifying, attracting, motivating, developing, performing, and retaining activities of varying importance depending on the preferences of being inclusive or selective for the talent, being dynamic or stable for the development.
Claus (2019)	TM as practiced can be understood as “a set of sustainable organizational strategies that use human capital to the competitive advantage of the organization, as well as a portfolio of integrated HR activities that result in putting the right people with the right competencies in the right job in the right place, and at the right cost’
CIPD (2022)	Talent management is the systematic attraction, identification, development, engagement, retention, and deployment of individuals of particular value to an organization due to their high potential or because they fulfil critical roles.

2.3. TALENT MANAGEMENT STEPS

Many researchers consider talent management as a process consisting of implementation steps. Examples of the implementation steps of the researchers are shown in Table 4.

Tablo 4: Process steps of different talent management approaches

D. G. Collings & Mellahi, (2009b)	Identifying pivotal talent positions, developing a talent pool, creating HR architecture,
Karin & Vaiman (2018)	Talent planning, talent acquisition, talent development, talent retention
Ashton & Morton (2005b)	Hiring, firing, retention, development and learning, communication
Cheese et al. (2008)	Identifying talent, development and deployment, engagement, sustaining
Schiemann (2014)	Attracting, acquiring, onboarding, training, performing, developing, retaining, recovering
Cooke et al. (2014)	Recruitment, training and development, performance management, rewarding, job rotation, communication and others
Jayamaran et al. (2018)	Identifying critical positions, competence training, development, reward management
Stahl et al. (2012)	Talent definition, performance management, retention, compensation and rewards, talent review, recruitment and selection, development and training
Gartside et al. (2014)	Talent analytics, talent acquisition, talent mobility, leadership development, virtual teams
Makram (2018)	Recruiting, identifying, motivating, retaining, and disseminating

Cohen (2013)	Hiring, identifying, examining and describing top performance, developing
Stringer & Rueff (2006)	Recruiting, talent branding, building talent community, measuring talent
Rothwell & Kazanas (2004)	Strategic planning, defining, talent development, talent evaluation
Effron & Ort (2010)	Performance management, feedback, talent reviews and succession planning, engagement and sustaining
D. G. Collings et al. (2017)	Employer branding, talent acquisition, succession planning, talent development, talent analytics

2.3.1. Defining Strategic Talent

By making and putting into action strategic decisions, businesses achieve their strategies. The talent management department makes several decisions that contribute to the company's strategy, just as the finance department does regarding money and other financial resources or the marketing department regarding clients. Organizational structures, employee and manager behaviors, competencies the company possesses or needs, learning opportunities that support all of these, organizational culture, and many other factors are considered when making decisions on talent management. Although some researchers and practitioners disagree, the most crucial distinction between talent management and human resource practices is that talent management does not focus on all employees, but rather only on those who significantly advance the company's strategic goals. As a result, strategic contribution is the main focus of talent management. This strategy needs a talent definition. This definition results in a separation of the workforce.

The high effectiveness of the decisions made within its framework increases talent management practices' contribution to the business strategy. Effective decision-making guarantees that choice costs are minimized. Decisions impact the success of the company. Identification and organization of a pool of strategic talent are necessary to fulfill these three requirements (Boudreau & Ramstad, 2005).

Instead of generating mass solutions, firms move forward with a portfolio perspective when managing talent with workforce differentiation. This viewpoint enables the application of various methodologies to various skill groups. The most strategic positions are given to workers who have exceptional performance and potential, or "A Players". Systems should be in place to specify the strategic roles (A positions) and high-potential players (A Players) to facilitate this matching. To help the business achieve its goals, strong performers should be given support roles. Low-

profile workers and positions that don't benefit the organization ought to be dropped from the portfolio, according to Huselid and Becker (2005).

Table 5: Characteristics of a position

	A Position Strategic	B Position Support	C Position Surplus
DEFINING CHARACTERISTICS	Has a direct strategic impact Exhibits high-performance variability among those in the position, representing an upside potential	It has an indirect strategic impact by supporting strategic positions and minimizes downside risk by providing a foundation for strategic efforts. It has a potential strategic impact but exhibits little performance variability among those in position	It may be required for the firm to function but has little strategic impact
Scope of authority	Autonomous decision making	Specific processes and procedures typically must be followed	Little discretion in work
Primary determinant of compensation	Performance	Job level	Market price
Effect on value creation	Creates value by substantially enhancing revenue or reducing costs	Supports value creating positions	Has little positive economic impact
Consequences of mistakes	May be very costly, but missed revenue opportunities are a greater loss to the firm	May be very costly and can destroy value	Not necessarily costly
Consequences of hiring wrong person	Significant expense in terms of lost training investment and revenue opportunities	Fairly easily remedied through hiring of replacement	Easily remedied through hiring of replacement

Source: Huselid et al., 2005

Contrary to popular assumption, the highest positions in an organization's hierarchy are not always in a strategic position. On the other hand, mid-level roles may be viewed as more strategic than top-level roles in many organizations. This is since investing in talent has a very long and highly risky return. It is crucial to

differentiate the workforce by evaluating the strategic contribution levels of roles (Huselid & Becker, 2011).

The potential of each individual in the organization is assessed using inclusive approaches to talent discovery. The research in the area of positive psychology serves as the basic foundation for this strategy. An individual's potential will be revealed by a positive subjective experience, positive attitudes and behaviors will be noticed, and as a result, the organization will produce favorable outcomes. This strategy is criticized for focusing exclusively on an elite minority of people while ignoring potential talent (Meyers & van Woerkom, 2014).

2.3.2. Talent Acquisition

Talent is one of the most significant strategic resources for firms from a resource-based perspective. In the era of the knowledge economy, it may be the most crucial resource. Therefore, the most crucial thing to accomplish is to bring the talents required for the organization to the company after the strategic definition of talent has been formed and talent pools have been identified and created.

The fact that the supply of talent is not increasing as quickly as the demand for talent is the most significant factor in making talent management a mainstream subject of study for both academics and practitioners today. A talent war has broken out amongst firms as a result of this mismatch between supply and demand (Chambers et al., 1998).

Companies that wish to outperform their rivals in the marketplace must discover the best recruitment methods and set up their actions accordingly. It wasn't until recent decades that the methods studied under the heading of recruitment and selection in traditional human resources techniques become sophisticated and strategic. Long lines grew in front of Henry Ford's Michigan factory in 1914 after he increased hourly wages there by 100%. Today, creating an employer brand and integrating it with marketing are the first steps in what has grown to be a complicated process for many organizations (Hatum, 2010).

Finding the best talent acquisition techniques is the first thing that firms need to undertake. Organizations can select from Joyce's list of 4 alternative talent acquisition tactics. The buy approach is the initial tactic. In this strategy, the business keeps operating while sourcing the talent, expertise, and information it requires from outside sources. Focus, quickness, and stability are its benefits; outsourcing dependence and the expense of recruiting the wrong people are its drawbacks. The

BUILD strategy is the second tactic. This tactic uses internal resources to fund any necessary promotions. Although this approach offers benefits like enhancing culture and enabling low-risk judgments, it also has drawbacks such as internal resource dependency. When a requirement is urgent and a deadline is set in stone, the BORROW technique should be used. Cost and flexibility are its benefits, but it has the drawback of eroding organizational culture. The BIND strategy, which focuses on retaining current talent in the organization for a specific amount of time, is the final option. The main benefit of this technique is that it makes it simpler to keep talent, while the main drawback is the potential for internal strife (Silzer & Dowell, 2010) p. 125–131.

2.3.3. Talent Retention

One of the most crucial talent management tasks for firms to realize their plans is talent retention in addition to talent acquisition. In their study, Duxbury and Helsinki created 4 distinct employee categories by categorizing workers using a matrix framework based on organizational contribution and turnover propensity. The first category is referred to as "disengaged excitors" and has a low organizational contribution and a high turnover rate. The second group contributes significantly to the organization yet has a strong propensity to quit their jobs. The term "exiting performers" refers to this group. The third group—known as "retired on the job"—has minimal organizational contribution but a low turnover tendency. The final category is highly organizationally oriented while also being unwilling to leave the business. The term "engaged high performers" refers to this group. Understanding the requirements and priorities of leaving performers is one of the company's key talent management duties from a talent management perspective (Duxbury & Halinski, 2014).

Most research in the literature on talent management has focused on talent retention. Three aspects stand out in the literature on talent retention even though the term "talent retention" refers to a wide range of concepts and foci: performance evaluation, career management, wages and benefits.

Figure 10: Organizational Commitment

		Organizational Commitment	
		Low	High
Intent to Turnover	High	<i>Disengaged "Exiters"</i> 15.5% of sample <i>n</i> = 867 Commitment: 2.6 (0.63)** Intent to Turnover: 3.9 (0.84)**	Exiting Performers 9.6% of sample <i>n</i> = 537 Commitment: 4.0 (0.41)** Intent to Turnover: 3.6 (0.75)**
	Low	<i>Retired on the Job</i> 16.3% of sample <i>n</i> = 909 Commitment: 2.9 (0.47)** Intent to Turnover: 1.5 (0.51)**	<i>Engaged High Performers</i> 58.6% of sample <i>n</i> = 3,275 Commitment: 4.3 (0.46)** Intent to Turnover: 1.3 (0.46)**

Note: ***p* > 0.01

Source: Duxbury & Halinski, 2014

2.3.3.1. Performance Evaluation

The measurement of talent's performance and the evaluation of their potential are also included in the majority of talent management methods. A person's potential is an evaluation of their future capabilities. It is a subjective evaluation approach as a result. Performance, on the other hand, is a measurement that is done after the fact and, if done correctly, can be more objective than potential. Long before talent management, performance management was established as one of the most crucial specialist areas of HR. Many support HR systems have traditionally placed a strong emphasis on performance management. Performance management has evolved into a framework that focuses on enhancing employees' talents, knowledge, and skills alongside talent management (Chen, 2012).

Talent management has thus provided businesses with the opportunity to boost organizational effectiveness by arranging HR activities and business plans from a comprehensive and strategic perspective. This viewpoint also makes a significant contribution to the performance and potential of those (talents) who can now and in the future make a difference for the firm. Organizations must make sure that employees not only meet their performance goals today but may also realize their full potential in the future to accomplish their objectives (Ashton & Morton, 2005b).

The so-called performance-potential matrix is widely utilized in talent management applications. These strategies' fundamental tenet is to invest in high-potential, high-performing individuals in order to keep them on staff and foster their growth. The second fundamental tenet is to either terminate personnel whose past performance has fallen short of expectations and whose future evaluations are

unfavorable from the company or to ensure their professional growth (Hatsumi, 2010). Talented workers' performance evaluations should be considered in more ways than just personal growth. For the organization to perform better, measuring and assessing performance is crucial. Individual performance contributes to organizational performance (Martin et al., 2005). The organization should achieve its goals with consistent behaviors at all levels of the hierarchy to boost organizational performance and motivate employees to improve their performance. Competencies are crucial to ensuring this alignment and the smooth operation of all systems. Competencies create a logical link between employee actions and the organization's desired business results.

Accurate performance evaluation, ethical use of incentive structures, and career advancement are further factors that support talent retention. However, performance appraisal systems should pay attention to the organization's possible future needs and the current performance gap (Heinen & O'Neill, 2004).

Performance management is one of the most contentious, ongoing, and unsatisfactory talent management activities for both employees and employers. According to Zheng et al. (2012), the primary difficulties faced by performance management methods can be summed up as follows.

- Each employee has a stable performance level that expresses their effectiveness at work.
- Assessors must be competent to assess others accurately.
- Assessors must be sufficiently motivated to assess others.
- Performance measurements are limited to the values given as required.
- The relationship between the evaluator and the evaluated influences the judgment about the actual performance.
- The evaluator needs to be able to make accurate overall assessments and recognize nuances.
- Political and social elements within the organization influence the level of evaluations.

As a result, one of the trickiest problems in talent management strategies is performance management. Its difficulty stems mostly from two factors, one of which is practical and the other intellectual. First, practically every organization is transforming its performance management processes into a multilevel, comprehensive, and sophisticated process. Performance management contains a

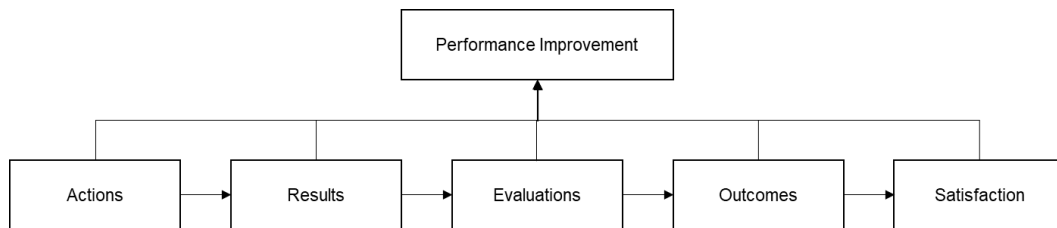
theoretical component that draws from a variety of fields, including motivation theory, cognitive psychology, behavioral sciences, organizational development, and measurement theory (Pulakos et al., 2019).

Many different methods and systems can be used for performance management, but most of those methods usually have four main elements: performance standards, measurement methods, measurement, performance improvements. Performance improvement covers the whole process from monitoring the results of activities to achieving satisfaction (Dewettinck & van Dijk, 2013). One of the most important aspects of talent management is performance management. Improving the performance of talent in an organization triggers the improvement of the organization's performance (G. Stahl et al., 2012). The goals and objectives of performance management are genuinely varied, despite its main focus being evaluating and enhancing performance. Performance management can be viewed as both a strategic and a tactical instrument to achieve these goals. Performance management as a strategic instrument ensures that top management's strategic business goals are brought down to the level of the individual. This makes it easier for all employees to work together to achieve business goals. Managing is made simpler when personal and organizational objectives are in line. Additionally, it promotes the regularity of worker conduct. Performance management can be used as a tactical tool to examine a variety of HR-related topics, including salary agreements, promotions, employee retention, and turnover, identification of underperforming individuals, and identification of high-potential personnel (Schuler et al., 2011).

Performance management is essential to many applications, from the lowest to the highest levels. While a low-level employee's performance can be linked to the effectiveness of the process in which they operate, a CEO's performance can be gauged by the company's market capitalization or stock price. According to Jensen (2023), CEOs receive an additional \$3.4 in compensation for every \$1,000 they contribute to the business (Jensen, 2023).

Data for all of these tools is generated by performance management. From the viewpoint of the employees, it is quite evident what kind of behavior the organization values and encourages. Other significant performance management objectives include manager assistance, training opportunities, and the creation of various career paths (Biron et al., 2011).

Figure 11: Expectancy framework of performance management



Companies can more easily plan medium- and long-term people management activities with the help of analysis of employees' performance over time and their potential for long-term growth in responsibility. Performance-potential matrices enable a variety of tasks, including providing feedback, organizing training, locating reserves, delivering leadership pieces of training, and creating talent pools.

Figure 12: Performance-Potential Matrix and Likely Actions

		Potential to Assume Positions of Greater Responsibility		
		Lowest	Middle	Highest
Relative Performance over Time	Highest	Reward and retain		Create challenging career opportunities and reward to retain
	Middle		Monitor performance and potential	
	Lowest	Provide remedial development or act to move or remove		Accelerate development and monitor performance

Source: Silzer&Dowell, 2010

2.3.3.2. Career Management

In the past, a career was considered a steady path that an employee would take over a long period. However, globalization of labor and the economy has made careers today unpredictable, unstable, and complex for talented people. Because of this, it is difficult for staff members to manage their careers and for businesses to create a career management strategy that supports employee engagement and satisfies organizational needs (Cappellen & Janssens, 2010). In the context of talent

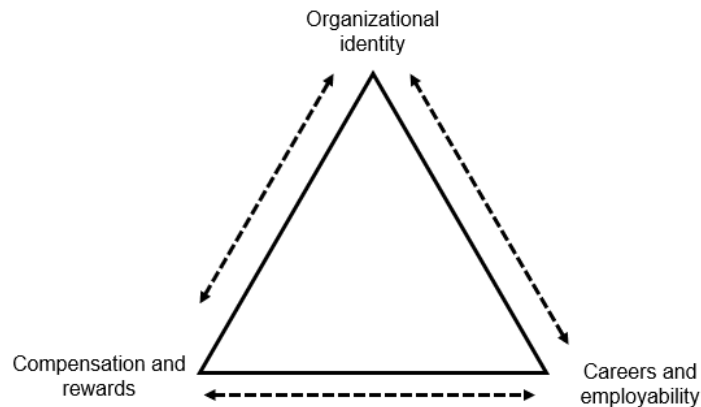
management, career management refers to tasks that are carried out over the course of a person's employment, such as developing a career plan that will ensure that workers are happy in their jobs and advance their careers. Identifying viable candidates for key positions following strategic goals and the organization's vision, carrying out the necessary development activities to prepare candidates for these roles, and making the appropriate promotion decisions when necessary are all examples of career management. This definition of career management puts a greater emphasis on organizations. However, other approaches put the person at the center of career development and attempt to define a career independent of the corporation, such as boundaryless, Protean, new, and post-corporate careers (Lips-Wiersma & Hall, 2007).

The two main focuses of career management techniques are. Aligning employees with their roles comes first. The fundamental tenet here is the development and management processes that will carry out the roles. Aligning employment and people is the second area of focus. In terms of expectations for personnel, culture, competencies, and work procedures, job descriptions and expectations are in line (Cunningham, 2007).

The way that businesses manage careers has a big impact on how well they manage talent. Through career management, talent management can improve the connection between individuals' professional aspirations and an organization's goals. It is possible to state two different viewpoints to accomplish this. The first perspective concentrates on the organization's long-term needs for human resources, while the second perspective concentrates on the objectives and professional growth of employees (Machado, 2017).

Talented people need to connect to their workplaces and align their identities with those of the organizations they work for to commit to them over the long run. However, for these employees to remain with the company for an extended period, they must see that their efforts and professional accomplishments are rewarded. As a result, compensation and reward systems need to be planned appropriately. Career prospects are crucial for the long-term retention of skilled personnel and all of the above. These three components should receive consideration in people management frameworks for long-term retention (Hatum, 2010).

Figure 13: A Model for Long Term Retention Strategy



Source: Hatum, 2010

Before talent management became popular, career development was seen as one of the most crucial aspects of human resources to inspire workers and encourage them to display desired behaviors within the firm. Numerous studies have demonstrated the benefits of career management for employee happiness, mobility, and low turnover rates (Chen, 2012).

One of the key elements of talent management is assisting high-potential and high-performance individuals with their career development. The contribution of high-potential personnel to the expansion and success of the business is increased by career development as a star. Employee and business development are closely related today, where knowledge workers are crucial for organizational innovation.

Career management involves more than just making and carrying out choices about promotions. Career management techniques come in many forms, including work rotation, job enrichment, mobility, and particular task assignments (G. Stahl et al., 2012). As it offers employees support like promotions, training, coaching, mentoring, etc., career management has several advantages for the employee. The growth of the organization, however, is the primary advantage of career management. The organization runs a danger over time if strategic functions are only dependent on a small number of people. As a result, businesses must recognize key jobs, develop succession plans for these roles, and develop road maps by selecting qualified individuals.

To promote the growth and fulfillment of the individual as well as the accomplishment of the organization's goals, performance management systems must be created and implemented in a way that satisfies four fundamental criteria:

- *Individualized developmental plans:* Personalization of development plans will enhance the employee's experience, speed up their development, and address their unique demands.
- *Challenging, exciting, and meaningful work:* Work that is difficult enough for top performers and high-potential individuals to apply their knowledge and abilities, interesting enough for them to develop and create, and meaningful enough to encourage them to make a difference should be offered.
- *Open development opportunities:* Create possibilities for growth that are transparent and easy to grasp to help you keep high-performing workers on board. Communicate the next phases in each person's career. It should be clear what knowledge and skills are required for the following step. It is also important to be explicit about the procedures that will be done to guarantee this progress.
- *Reward and recognition:* Practices should be in place to recognize the achievements of high-performing employees, including salary arrangements.

2.3.3.3. Compensation and Rewards

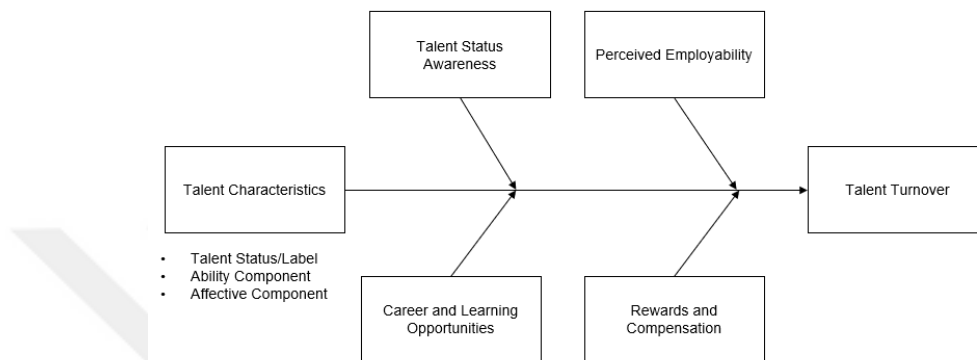
Rewarding is typically connected with financial pay and material benefits. Numerous studies demonstrate that intrinsic rewards are as valuable and essential as extrinsic rewards. As a result, businesses must create a talent retention strategy that supports internal and external rewards (Jayamaran et al., 2018). A variety of things influence employee pay. Empirical research reveals that the overall length of education and the number of years spent in the labor market are the most critical inputs in pay, even though these elements may also contain characteristics such as the employee's talents and behaviors (Gerhart & Milkovich, 2023).

Regardless of talent, every employee expects to be praised and promoted for their work. Talent can be kept for a long time if this expectation is realized. All elements of reward should be precisely specified if you want to attract people and have a favorable impact on their decision to stay with the firm. According to G. K. Stahl and Cerdin (2004), rewarding is not just about tangible things. According to a survey of workers who are regarded as global talents, non-financial benefits are just

as desirable and worthwhile as monetary ones, and for many talents, they are even more so (Tornikoski, 2011).

In their study on the causes of the voluntary departure of employees who are viewed as talented by their employers, Olkham et al. found that rewarding and compensation are among the top 4 causes (Collings et al., 2009, pp. 128–130).

Figure 14: Relationship Talent Turnover and Talent Characteristics



They said that organizations with above-market compensation plans, fringe perks like stock options, bonuses, private health insurance, etc., and base salaries have talented employees who are more committed to the firm. Companies take strategic alignment into account when setting base salaries and awarding bonuses. This viewpoint is crucial because it promotes the retention of workers who possess essential skills for the business strategy (Boyd & Salamin, 2001).

It is crucial that the company's performance management system incorporates the reward system and links it to certain requirements. High-potential personnel should have their contributions to the organization evaluated and recognized individually. The reward system should incorporate the intended outcomes and components that promote top performers' aspirations beyond these goals, such as creativity, purpose, and career (Aguinis et al., 2012).

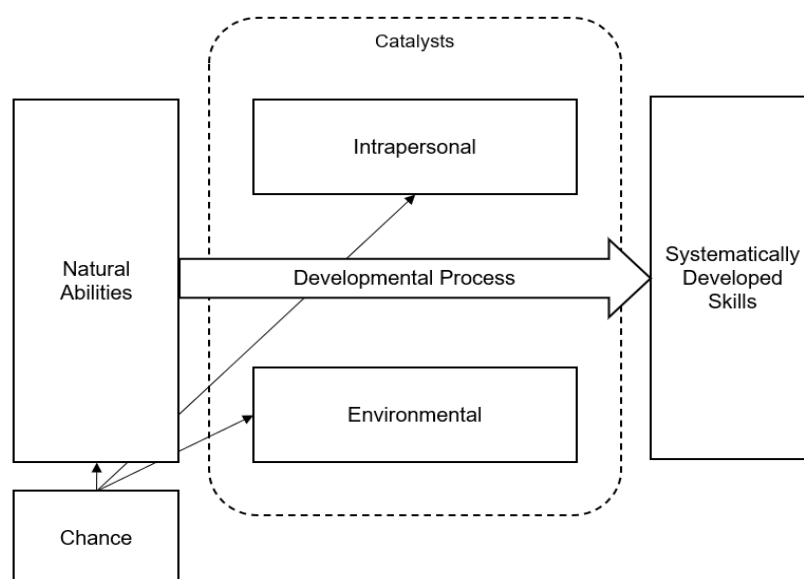
Employee engagement and organizational creativity and learning capacity should be supported by an efficient and openly structured rewards system, according to Acar (2016).

2.3.4. Talent Development

The idea of training and development in human resources management literature is somewhat distinct from the idea of talent development in talent management. Giving people the information and skills, they need to perform their jobs is the major goal of training and development in human resource management. According to the talent management theory, talent is a resource that, when cultivated, has the potential to significantly impact key business outcomes (innovativeness, sales, market share, profit, etc.).

Some of the people's skills can be categorized as gifted or innate. According to Gagné (2000), innate natural abilities fall into four categories: cerebral, creative, socio-affective, and sensorimotor. The help of three variables is required for these innate abilities to grow into methodically learned skills. Intrapersonal catalysts are the first. These catalysts are physical, motivational, volitional, self-management, and personality factors. Environmental variables make up the second factor. These elements include the environment, people, things, and events. Learning that is informal or formal is the third factor. These three elements work together to transform innate skills into carefully honed ones. Although these abilities have several profession-specific equivalents, in business, examples include sales, entrepreneurship, management, etc.

Figure 15: Differentiated Models of Giftedness and Talent



Source: Gagne, 2000

Learning and development activities for the development of talent are one of the most successful activities of firms that handle talent management efficiently and methodically. Many businesses routinely set aside a sizeable portion of their annual budgets for talent development. These funds are used for internal pieces of training, online courses, coaching, mentorship, business school training, and related activities. Organizations must incorporate training and development into their culture to effectively develop their talent (Stahl et al., 2007).

According to Aguinis et al. (2012), firms should provide their talented employees with individualized development plans and the appropriate training to inspire and safeguard them from rivals.

When Joyce and Slocum (2012) looked at the relationship between a company's performance and its talent management strategies, they discovered that the most prosperous businesses are those that consistently boost their potential. The ability of businesses and the ability of senior managers are closely related. As a result, for continuous improvement, businesses should focus on the education and training of senior managers as well as the education and training of potential senior managers.

When an organization decides to develop talent, it must also choose the learning and development tools it will employ to meet its objectives. Applications for development support can take many different forms and have many distinct functions. The professional's career level and the competencies they are attempting to build should be considered while choosing their tools. The types of abilities that various development tools can enable are listed in Table 6 (Hatum, 2010).

Table 6: Developmental Methods and How One Learns

Development activities	How one learns		
	Knowledge	Experience	Emotional Intelligence
Reading	X		
Foundational managerial education	X		
Leadership programs	X		
Classroom-based events	X		
e-Learning	X		
Field trips	X		
Coaching support	X		
Think-tank experiences	X	X	
Line-to-staff switches	X	X	
Stretch assignments		X	
Turnaround projects		X	
Job assignment		X	

Role models			X
Feedback			X
Mentoring		X	X
Networks		X	X
360° feedback			X
Unfamiliar responsibilities		X	
Inherited problems		X	
Problems with employees			X
Increased scope and scale		X	
Influence without authority			X
Work across cultures		X	
Work group diversity		X	
Starting project from scratch			

Source: Hatum, 2010

Companies strongly emphasize the development of skilled and high-potential employees to position them for advancement or to increase their current level of contribution to the organization (D. G. Collings & Mellahi, 2009b). One of the most crucial talent management concerns is the transfer of explicit and implicit knowledge among employees, even though practitioners often concentrate on tasks like selection, placement, training, and growth. Knowledge is one of the most valuable economic assets for businesses and employees in the age of the knowledge economy. One of the most significant talent management difficulties, particularly for multinational corporations, is the transfer of knowledge between people, departments, and geographical areas.

Only a group of high-potential employees can be thought of as talent. However, elevating talent management to a higher strategic level requires adding organizational capabilities to the definition of talent. Increasing, defining, sharing, and expanding firms' collective knowledge will give them a sustained competitive advantage in today's knowledge-based economy. Individual and organizational knowledge are two resources that are at least as valuable as employees' skills and abilities (Prahalad & Hamel, 1990).

Every skill within an organization, according to Vance et al.(2008), is a valuable resource for using, sharing, or creating information. The ability of talents to obtain knowledge both inside and outside the business, conclude that knowledge, and

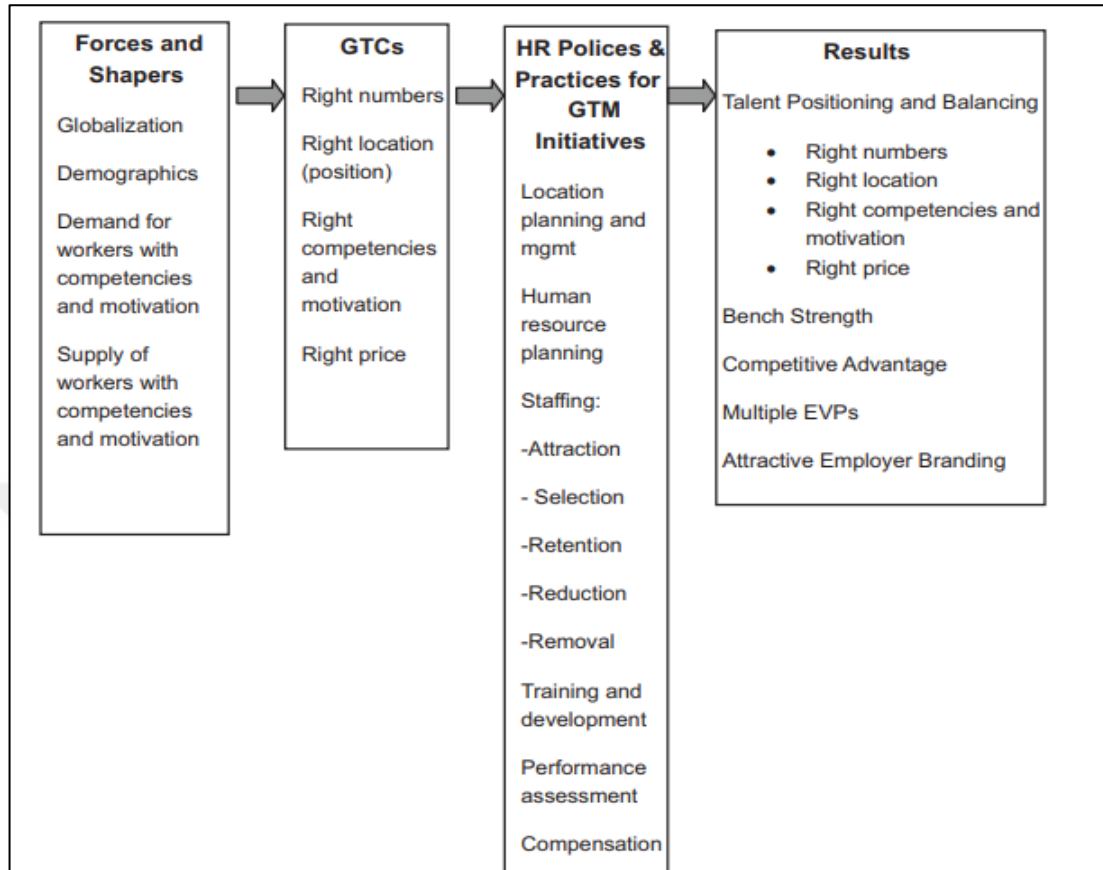
reuse it are crucial and useful for organizations to succeed. According to this viewpoint, the growth of talent is the growth of important knowledge. The cyclical exchange of implicit and explicit information allows for the evolution of knowledge (Nonaka et al., 1996). It should be highlighted that discussing the growth of individual and organizational capability also means discussing the growth of both personal and organizational knowledge.

The approach taken by organizations in developing knowledge impacts how it will be developed. There are two main approaches to knowledge management, even though there are numerous classifications of knowledge management practices. The first strategy is codification, which centers on the reporting and storage of knowledge. Personalization, which centers people, is the second strategy. In the first method, information is passed back and forth between people and systems. The second method involves the transmission of knowledge from one individual to another (Hansen et al., 1999).

Table 7: Comparison of Codification and Personalization in KM

Codification Provide high-quality, reliable, and fast information-systems implementation by reusing codified knowledge	Competitive Strategy	Personalization Provide creative, processually rigorous advice on high-level strategic problems by channeling individual expertise
Reuse Economics Invest once in a knowledge asset; reuse it many times	Economic Model	Expert Economics Charge high fees for highly customized solutions to unique problems
People-to-documents Develop an electronic document system that codifies, stores, disseminates, and allows the reuse of knowledge	Knowledge Management Strategy	Person-to-person Develop networks for linking people so that tacit knowledge can be shared
Invest heavily in IT; the goal is to connect people with reusable codified knowledge	Information Technology	Invest moderately in IT; the goal is to facilitate conversations and the exchange of tacit knowledge
Hire new college graduates who are well-suited to the reuse of knowledge and the implementation of solutions	Human Resources	Hire MBAs who like problem-solving and can tolerate ambiguity; train people through one-on-one mentoring; reward people for directly sharing knowledge with others
Andersen Consulting, Ernst & Young	Examples	McKinsey & Company, Bain & Company

Figure 16: Framework for Global Talent Challenges and Global TM Initiatives



Source: Schuler et al., 2011

CHAPTER THREE

ORGANIZATIONAL INNOVATIVENESS

Innovation is defined as using a new or significantly improved product or service, process, marketing strategy, or organizational method (OECD, 2005). Companies should have many organizational capabilities to survive in current competitive conditions. Therefore, an organization's capacity to innovate has become the most important competitive advantage. Unlike other competitive advantages, it is too complicated for organizations to gain and retain this advantage (Tidd & Bessant, 2020). Organizational innovativeness is perhaps the most important of these capabilities in today's knowledge economy era. Therefore, although it is an interesting field of study for both practitioners and academics, definitions of innovation and organizational innovation vary (Crossan & Apaydin, 2010; Tushman & O'Reilly, 1996).

The effectiveness of innovation activities depends on various circumstances despite being crucial for organizations. According to a study on innovation, only one out of every 3,000 undeveloped ideas become a marketable product (Shum, 2015). Some elements that influence an organization's capacity for innovation depend on variables beyond its control. However, organizations with strong organizational innovation capabilities are much more innovative than others. Technical systems, management systems, values and norms, skills and knowledge must promote innovation for an organization to be innovative (Leonard-Barton, 1992).

Damanpour & Evan (1984) defined innovation as the company's response to changes in environmental factors or bringing any novelty to the organization. According to this definition, organizations innovate by implementing a new technical or administrative idea. This idea should create value for the organization. More broadly, innovation can be defined as any new product, system, process, procedure or idea that benefits an individual, a group, a society, or an organization. Such a definition facilitates understanding the multi-layered and multifaceted nature of innovation (Lin & Sanders, 2017).

Although many studies in the literature investigate the factors affecting organizational innovation, the number of studies aiming to develop a scale to measure organizational innovativeness is relatively small (Wang & Ahmed, 2004).

Examining the literature on organizational innovation reveals that the research is typically split into three major categories. The first set of studies defines the structural traits of innovative organizations and looks at how structural variations

affect innovation. The second set of studies aims to clarify how organizations react to environmental change causes, how they handle change internally, and how they put change into practice as a management practice. The third category focuses on the issue of how businesses carry out micro-level innovation activities, how new products and services are created, and how this might be managed on a personal level (Armbruster et al., 2008).

A complicated process known as organizational innovation can be summed up as the development of an idea, its processing within an organization or across an ecosystem of other organizations, and the progress of initiatives to put this processed idea into practice. The process of idea formation, idea processing, and idea finalization into a commercial product has been explained using various models.

According to Van Lancker et al., (2016), organizational innovation is conceptualized as a framework comprising three subsystems: idea development, invention, and commercialization. Several metasystems encircle these subsystems, including policy, market, industry, science, technology, culture, institutions, and actor networks. This structure states that after doing an internal and external screening, ideas are chosen, tested for viability by concretizing them, and then new ideas are developed. The project is designed, the essential materials are acquired, research and development operations are completed, and small-scale concept tests are carried out during the invention cycle. The commercialization phase includes marketing strategy, market-entry, and supply chain structuring. Through the interaction of these three cycles, organizational innovation occurs.

In terms of knowledge sharing and circulation, companies' sharing their knowledge with their ecosystems will also increase their organizational innovation effectiveness. Since innovation is a process of processing, organizing, and reproducing knowledge, companies' internal and external dissemination of knowledge about their innovations has a positive impact on innovation (Spencer, 2003).

3.1. TYPES OF INNOVATION

The literature on organizational innovation has undergone numerous categorizations. These divisions are based on the process's management principles, organizational interaction, substance, scope, and other factors.

According to Armbruster et al. (2008), there are two distinct classifications of organizational innovation. This classification divides organizational innovations into

two categories: procedural organizational innovations and structural organizational innovations. The flow and management of information, and the allocation of authority and responsibilities within the organization are classified as structural organizational innovation. The processes and procedures of how things are done and operational changes are classified as procedural organizational innovation. According to the organizational breadth of the innovation, dividing organizational innovation into intra- and inter-organizational categories is possible. If innovations take place within the organization with the involvement of teams and individuals, this is known as intra-organizational innovation. However, there are instances where innovation activities transcend organizational lines and are carried out in a way that calls for various forms of collaboration. We can discuss inter-organizational innovation in this situation (Armbruster et al., 2008).

According to their field of study, Totterdell et al. (2002) examined the outcomes of various types of innovations and divided them into five basic categories: product/service innovations, technology innovations, HRM innovations, work design innovations, and organizational restructuring innovations.

According to the degree of novelty, Chandy & Tellis (2000) defined innovations on a spectrum ranging from incremental to radical innovation. This concept states that innovation should be assessed based on its level of market and technological originality. This definition states that the level of technological innovation and the level of market innovation are used to evaluate an innovation. The goal of all these classifications, which go by names like incremental-breakthrough, incremental-radical, evolutionary-revolutionary, and sustaining-disruptive, is to rank innovations according to the degree of unpredictability and surprise they bring.

Freeman (1994) created a five-point classification while categorizing innovation studies according to their degree of impact. According to this classification, organizational innovations are named as systematic, major, minor, incremental, and unrecorded. Major innovations refer to disruptive innovations that are unprecedented in the market, while minor innovations refer to small functional, aesthetic, or commercial innovations in an existing product.

Henderson & Clark (1990) favored categorizing innovation using two distinct dimensions, with a classification focusing solely on product-based innovations. The first dimension examines if the relationship between the product's functional or physical components has changed. The second dimension examines how much the product's fundamental ideas have changed. If these ideas have undergone significant

alteration, this suggests a more significant and disruptive innovation. Interaction of these two dimensions causes four different innovation types, shown in Table 8. Normann (1971) distinguished two distinct forms of innovation—reorientation and variation—in his research on product-oriented innovations. Variation-type innovations deal with modifications to a product's features or components. Reorientation-type innovations allow for the complete removal of a product feature or the addition of a completely new component to the product's design.

Table 8: Core concepts of innovation

		Core Concepts	
		Reinforced	Overtured
Linkages between core concepts and components	Unchanged	Incremental Innovation	Modular Innovation
	Changed	Architectural Innovation	Radical Innovation

Hayward (1998) classifies the classification of innovation as "the 4Ps of innovation" and states that all innovations can be examined under the following 4 headings:

- Product innovation: Innovations made in all or a certain part of the products produced, designed, sold, and managed by the organization.
- Process innovation: Innovations in all or certain steps of the processes that organizations design, implement and manage.
- Position innovation: Innovations made by the organization to change/expand/contract the context of the products and services offered to the market.
- Paradigm innovation: Innovations aimed at changing the mental paradigms and general assumptions behind the organization's activities.

3.2. KNOWLEDGE AND ORGANIZATIONAL INNOVATION

Innovation is more than just a flash of original and ground-breaking thoughts. Innovation is a management process that needs to be properly carried out, particularly for large firms. Two crucial resources are necessary for this approach to be successful. The first category is technical resources, which cover personnel, capital,

tools, and know-how. The organization's capabilities make up the second category of resources, and to exploit these capabilities; knowledge is also necessary.

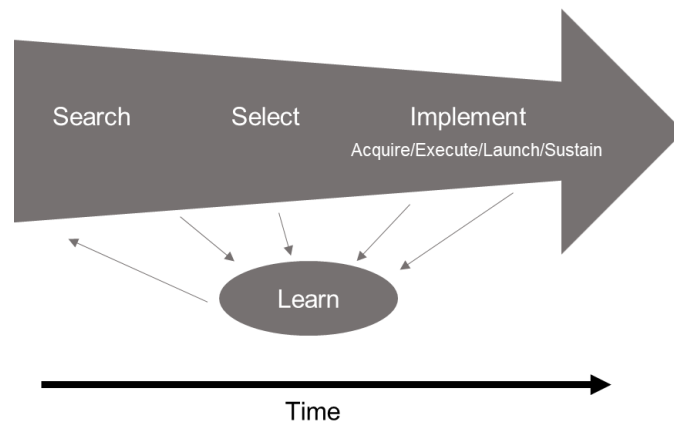
Professionals' primary responsibility as knowledge workers in firms, as defined by Drucker (1999), is to educate themselves. Organizations can benefit from innovations from knowledgeable employees who can advance their skills and tools. According to Drucker, a knowledge worker needs to satisfy six fundamental prerequisites to inform themselves:

- Knowledge workers need to be aware of their tasks. They should ask questions and seek answers about how best to do the job.
- Knowledge workers should be self-directed and have autonomy.
- Continuous innovation must be part of the knowledge worker's tasks and responsibilities.
- The knowledge worker must learn continuously, making learning part of their work.
- The knowledge worker's productivity is not the quantity of output; it is the quality of the work.
- Knowledge workers should not be seen as a cost in organizations, but as an asset. (Drucker, 1999)

Because of this, the main responsibility of knowledge workers in businesses is to educate themselves. Knowledge workers who create their expertise and tools help firms innovate. In other words, an organization's information resources and intellectual capital determine how much knowledge it has. Organizations' capacity for innovation is enhanced through the wise use of their intellectual resources.

According to Tidd and Bessant (2020), a company's innovation is a learning process that includes knowledge search, knowledge selection, and knowledge application.

Figure 17: Innovation Process Model



Source: Tidd & Bessant, 2020

One of the best methods for businesses to use the fresh knowledge they have or gain to further their objectives is through innovation. An organization's capacity for knowledge and its innovation potential are closely related. Here, knowledge refers to both tacit information that is ingrained in people's or groups' thoughts and explicit knowledge that is both visible and documented (Abdessadak et al., 2018). A knowledge processing process produces radical innovations (discontinuous) and incremental advances (continuous). The combination of many types of information leads to the development of both innovation types. This arrangement contains knowledge that is already ingrained in our experiences and lessons, as well as fresh knowledge that we pick up through research activities. According to Nonaka et al. (2003), the innovation processes of individuals and teams can be characterized as the process of accessing, discussing, transmitting, processing, and reusing this information.

According to Henderson & Clark (1990), new product innovations require two distinct categories of knowledge. The knowledge that will be applied to innovation may be holistic knowledge about the entire product, or it may be knowledge about the interactions between the elements of the product. Innovation is made possible through the interplay, transformation, and application of these two types of knowledge.

There isn't a single knowledge management approach that can help businesses become more innovative. The knowledge management strategy is influenced by various elements, including the business's organizational structure, the market in which it competes and the dynamics of this market, processes, culture, and resource structure. While one strategy might encourage incremental advances,

another might lead to an innovation that is more R&D-focused (Hertog & Huizenga, 2005).

Table 9: Different knowledge management strategies

<i>Strategy</i>	<i>Characteristics</i>	<i>Requirements</i>	<i>Risks</i>
Ripple	Bottom-up, continuous improvement, quality management	Process tools, sustained motivation	Isolation from technical excellence
Integration	Integration of functional knowledge within processes, product development	Improved interfaces, early involvement, overlapping phases	Conformity, co-ordination burden
Embedding	Coupling of systems, products, and services, e.g., enterprise resource planning	Common information systems and technology, motivation, and rewards	Loss of autonomy, system complexity
Bridge	New knowledge by novel combination of existing competencies, architectural innovations	Common languages and objectives	High control needs, technical feasibility, market failure
Transfer	Exploiting existing knowledge in a new context, related diversification	New market knowledge	Inappropriate technology, customer support and service

Source: Hertog & Huizenga, 2005

According to Tidd & Bessant (2020), organizations that can innovate perform some knowledge management-related tasks better than other organizations. Innovative businesses look at the surrounding environment, future trends, and pertinent data. From the information they gather and the possibilities they narrow down, these organizations choose the ones they need to concentrate on. They allocate funds to gain further knowledge about the focus region and use this new information to innovate. In every stage of the innovation process, innovative firms also value learning from both triumphs and failures.

In today's competitive world, organizations require competitive knowledge to survive. Organizations produce knowledge, export knowledge, and import knowledge throughout their operations. This knowledge mobility is particularly crucial in the processes of innovation. Organizational knowledge can be autonomous or systemic, tacit or explicit, positive or negative, observable or non-observable. Organizational innovation is impacted by knowledge and knowledge management. But there is also a reciprocal exchange going on here. Innovations bring new customers, new goods, profitability, and a competitive advantage to the business. But it also leads to the

accumulation of cumulative organizational knowledge and the emergence of other potential future innovations. Organizational innovation is also an important key to organizational learning (Tidd & Bessant, 2020).

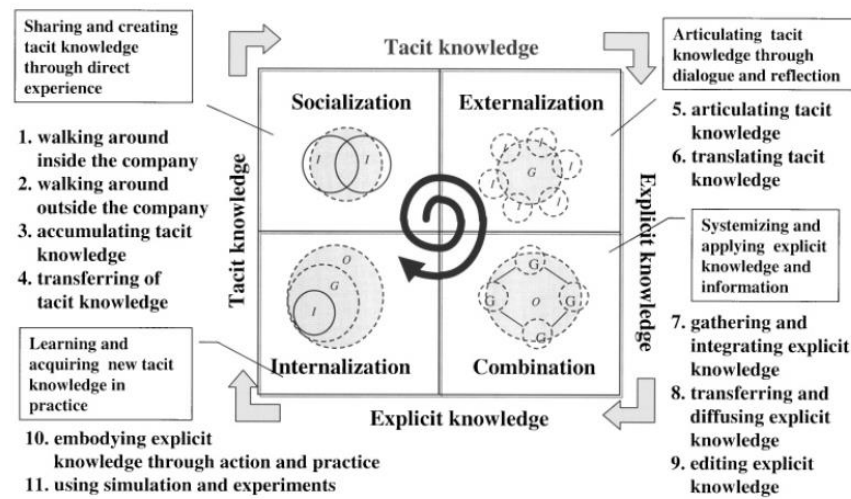
What kind of knowledge needs to be managed closely relates to what kind of innovation is desired. Activities for managing marketplace-related knowledge make a more significant contribution to incremental innovations. Activities for managing science-based knowledge, on the other hand, trigger innovations that can change consumer behavior or business competencies (Darroch & McNaughton, 2002).

Businesses should comprehend the knowledge architect by having a map of the relationships between different types of information if they wish to improve their competitive advantage through innovation. It should also engage in actions to manage intellectual property. HRM approach should be chosen after deciding how information management will continue technically and managerially (Coombs & Hull, 1998).

Businesses that participate in continuous innovation are referred to as knowledge-creating companies by Nonaka (2007) in his study, looking at the impact of knowledge management on the innovation activities of organizations. Within organizations, tacit and explicit knowledge are two distinct categories of knowledge. The spiral transition of these two types of knowledge makes continuous innovation feasible.

Through socialization, tacit knowledge is shared between individuals. This knowledge is transmitted and multiplied through experience-based learning. Explicit tacit knowledge is made possible by externalization. Discussion and introspection help to transform this. Explicit knowledge expands and spreads through combining operations. Systematizing, integrating, organizing, and conveying knowledge and information allow for this. Through internalization processes, explicit knowledge becomes tacit knowledge. The process of learning from explicit knowledge begins here. comprehending the effect of knowledge on continuous innovation in all of its aspects requires comprehending Nonaka's model (Nonaka et al., 2003).

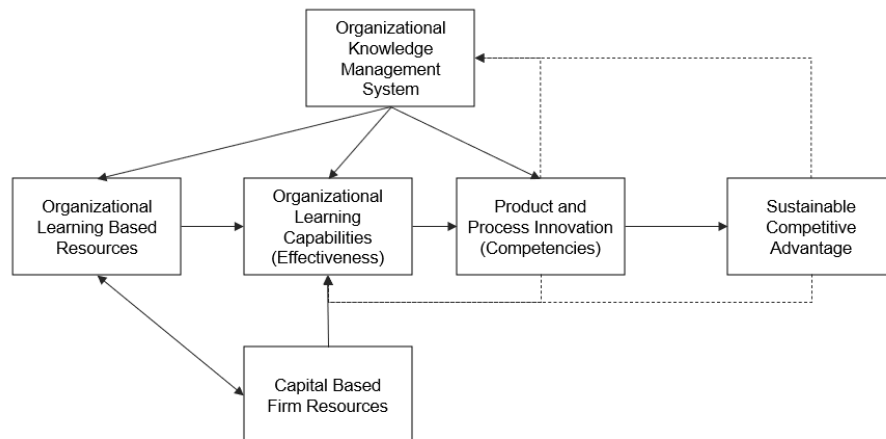
Figure 18: SECI Model of Knowledge Creation and Utilization



Being innovative is now essential for businesses in today's fiercely competitive economic world. Through the innovation of products, systems, processes, services, or business models, companies attempt to dominate their respective markets or at the very least, keep their current positions. However, because of the swift shift in consumer needs, the fierce strain of competition, and the technical advancement rate, innovation is becoming a more complex process. Knowledge is the major area of attention for the innovation process within this complexity.

According to recent studies, firms need to know their competences and resources well, reuse them, and use them efficiently to remain competitive over time. Knowledge is one of the most valuable organizational resources in the knowledge economy age, and organizational learning is the most crucial ability. According to Adams and Lamont (2003), knowledge management fosters organizational learning and innovation, resulting in long-term competitive advantage.

Figure 19: Knowledge Management and Sustainable Competitive Advantage



Source: Adams & Lamont, 2003

Working, learning, and creativity are not mutually exclusive ideas. Instead, they support one another and work well together. Work promotes learning and learning boosts productivity in the office. Learning activities have a favorable impact on innovation, which is essentially the production of new information that adds value for the client. Innovative concepts promote learning. However, while creative ideas can only be realized through work, innovative practices can make work more effective. Knowledge is the standard catalyst for labor, learning, and creativity. All three are impossible without knowledge (Brown & Duguid, 1991).

Learning in this context refers to more than only traditional learning techniques, classroom instruction, and structured content. There are informal and formal components to learning inside businesses. Organizational learning is also referred to as the institutionalization of knowledge. The externalization of individual knowledge is the first phase. In the objectifying stage, knowledge loses its individuality and transforms into a generational and organizational phenomenon. Individuals assimilate the knowledge that has been provided privately, and individual learning occurs. Individual learning increased intra-organizational communication, and organizational creativity all increase towards the conclusion of this process (Huysman, 2002).

Plessis (2017) discovered three key factors that influence how knowledge management and innovation interact. The primary motivation is to improve collaboration by making efficient use of the organization's knowledge to obtain or keep a competitive advantage. Collaboration within and outside of the company promotes information access and efficient usage. The second motivator is the fact that

knowledge management must be done well for complicated and fuzzy innovation processes. Innovation is not a predictable and scalable endeavor due to the ambiguous and uncertain character of the innovation process itself. This challenge can be overcome by efficiently using current information, accessibility to new knowledge, and knowledge sharing. The application, improvement, exchange, evolution, and sharing of knowledge processes are required for the innovation process. This is the third major driver. These three key factors explain the function of knowledge management in innovation management.

In the past, information was thought of as an input to the innovation process, which was seen to be a linear process with predetermined steps. Today, innovation is a complicated flow that may be explained by the interaction of the flow of people and the flow of information rather than just being a technical and linear process (Starbuck, 1992).

Plessis (2007) provided the following concise summary of the importance of knowledge management for innovation within this intricate structure:

- Knowledge management helps to develop tools, platforms, and processes that support the creation and sharing of tacit knowledge.
- Knowledge management creates processes that facilitate the transformation of tacit knowledge into explicit knowledge.
- Knowledge management accelerates knowledge sharing both across departments and across organizations.
- It enables the development of platforms that support the integration and taxonomy of organizational knowledge.
- It identifies gaps in organizational knowledge and develops approaches to fill these gaps.
- Knowledge management helps to develop the knowledge and skills required for innovation processes.
- It enables establishing structures that will facilitate access to knowledge by creating institutional memory.
- It enables the creation of a knowledge base to access and capture explicit and tacit knowledge.
- Knowledge management supports a corporate culture where creativity, innovation, and knowledge are encouraged

Innovation is not only a straightforward process where employees' prior knowledge is analyzed and new information is produced; it has a multi-layered structure where people and technology work together to produce new goods and services. Innovation processes cannot be constrained by the assets a company or its constituents possess. It is unimaginable for a creative concept to arise by utilizing the knowledge that the company already has if we think in terms of knowledge. In the modern world, networks that businesses and people are a part of are also significant information sources that foster innovation. Knowledge management fosters innovation processes by empowering businesses and workers to transcend their knowledge limitations (Scarborough, 2003).

Although knowledge is acknowledged by many academics to be a crucial component of innovation processes, it should not be overlooked that knowledge is a challenging resource to come by. According to Cardinal et al. (2001), two significant obstacles prevent knowledge from allowing competitive innovation. First, given the ambiguous nature of the market, it is particularly challenging to decide accurately what knowledge the organization needs to gather, transform, and share. Second, it is difficult to find the knowledge that is useful for innovation. This knowledge is difficult to find and difficult to obtain. The knowledge that is simple to obtain does not have a highly competitive value. One of the things that makes the relationship between knowledge management and innovation more difficult is this contrast.

Organizational knowledge is essential to their capacity for innovation. Knowledge is an important, uncommon, and unique resource for organizations. Organizational knowledge can be divided into tacit and explicit categories. Tacit knowledge is a sort of knowledge that is challenging to explain, transfer, and communicate and can only be passed down via shared experiences. Both in an organization's structure and in people's experiences, this knowledge may be concealed. Contrarily, explicit knowledge is visible and accessible knowledge that may be conveyed, transferred, and communicated more easily (Nonaka et al., 1996). While all types of knowledge are critical for innovation, it is tacit knowledge—which is hard to locate, comprehend, and share—that will lead to competitive advantage from a resource-based perspective. According to Tamer Cavusgil et al. (2003), organizations that can convert individual tacit knowledge into explicit knowledge, make tacit knowledge present in various organizational units explicit on an organizational basis, and transfer tacit knowledge from various firms can be more innovatively successful.

Innovations are categorized using several taxonomies, according to research on the topic. Knowledge management is considered to have an impact on various types of innovation. According to Darroch and McNaughton's evidence from 2002, knowledge acquisition, knowledge distribution, and responsiveness to knowledge all have a favorable impact on both minor and significant innovations that have an impact on consumer behavior and competitiveness (Darroch and McNaughton, 2002).

Knowledge management is handled from two basic viewpoints explaining the relationship between knowledge management and innovation. The personalization-focused KM strategy utilizes an HR-focused framework, in contrast to the codification-focused KM strategy, which tackles knowledge management from an IT and infrastructure-focused framework. They should consider both strategies simultaneously to improve their potential for innovation through knowledge management. Organizations that handle personalized and customized knowledge management procedures in an integrated way are shown to be more creative. Organizations attempting to manage knowledge solely through IT infrastructure cannot improve their capacity for innovation. Because innovation is a social and technical process, it focuses on the learning of individuals and teams (Gloet & Terziovski, 2004).

3.3. TALENT AND ORGANIZATIONAL INNOVATION

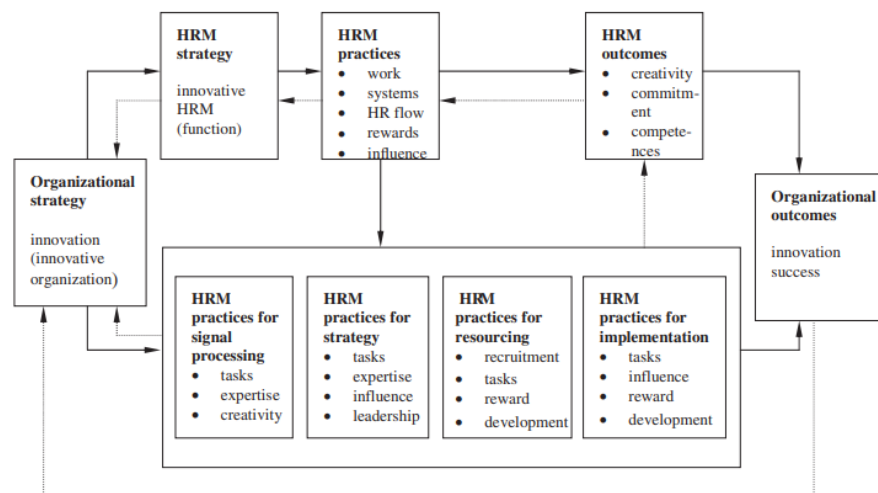
Organizational innovation gives businesses a consistent competitive advantage. In the resource-based view (RBV), only scarce and valuable resources may provide a sustained competitive advantage (Barney, 2001). Talent should be seen as another crucial resource needed for innovation. Although some scholars believe that HRM practices decrease innovation by increasing organizational bureaucracy, the number of studies showing the opposite is much higher (Wolfe et al., 2006). Additionally, more studies have recently looked at the connection between talent management and organizational innovation.

The impact of factors related to structure and job definitions (specialization, formalization, functional differentiation, etc.), factors related to communication (internal communication, external communication, etc.), and factors related to knowledge (managerial tenure, technical knowledge resources) on organizational innovation was discussed in a meta-study on factors affecting organizational innovation performance by Damanpour (1991).

Organizational innovativeness is supported by complementary HRM practices such as career management systems, salary and benefits policies, teamwork, etc. (Laursen, 2003). While there are numerous studies on the relationship between TM practices and innovation, there is no clear consensus on which specific practices impact innovation. Studies in this area generally follow a contingency approach. This means that the environmental factors affecting the organization and some antecedent determinants influence TM practices and determine the right bundle of TM practices (Jiménez-Jiménez & Sanz-Valle, 2005).

The kind of HRM practices a business adopts is influenced by its competitive, sociocultural, technological, economic, and political environments, the organizational dimensions it wants to change structure, culture, strategy, and technology and the level of organizational success it expects to achieve (Goksoy, 2016).

Figure 20: Integrated Framework for HRM and Innovation



Source: Leede & Looise, 2005

It is possible to think of innovation management as gathering innovation-relevant signals from the outside world, processing those signals to identify the best strategies, obtaining the resources needed to implement those strategies, and implementing innovation projects. According to these processes, De Leede and Looise categorized TM practices that promote innovation (Fig. 20). To enable organizational innovation, TM practices should be initiated by an TM strategy that is in line with the organizational strategy (Leede & Looise, 2005).

The efficient conduct of HR tasks supports organizational innovation. Businesses engage in a wide range of tasks referred to as HR. However, we can

categorize these actions into four basic categories: designing the organizational structure and tasks, managing the workforce, enforcing performance and reward systems, opening new channels of communication, and participation. Various sorts of innovation benefit more from HR activities (Looise & Riemsdijk, 2004).

Table 10: A Refined Matrix of Domains of Innovation and Fields of HRM

HRM-innovation	Product/Service organization	Process innovation	Organizational innovation
New organization and job design	Weak	Growing	Strong
New forms human resources flow	Strong	Weak	Weak
New forms of performance and reward	Growing	Weak	Growing
New forms of communication and participation	Weak	Strong	Strong
New organization of the HR-function	Weak	Weak	Growing

Source: Looise & Riemsdijk, 2004

In his research to understand the HR factors that affect radical front-end innovations, Aagaard (2017) demonstrated how hiring highly talented individuals, retaining talent, and having a culture that encourages innovation all have an impact on these innovations.

According to Amabile (1988), HR practices should aim to boost employees' intrinsic motivation to foster organizational innovation and creativity. The emphasis should also be on improving technical skills in the area of innovation as well as creative thinking and innovation abilities that will transform technical knowledge into creative ideas, as innovation is a process that involves knowledge and skills.

For businesses to encourage their innovativeness, focusing solely on individuals is insufficient. A rise in organizational innovation does not always follow increased individual creativity. HR procedures in groups and teams have an impact on novelties as well. As a result, individual and team HRM practices should be evaluated (Searle & Ball, 2003).

The correct set of organizational elements are necessary for businesses that want to boost intrapreneurship and hence increase their innovation performance. This group includes things like organizational structure, organizational culture, and capabilities. A company's strategic goal should be to acquire and develop this

collection (Ireland et al., 2009). Because it is well known that interactions between individuals impact innovation performance, even though individual contributions to firms' innovation performance are quite important.

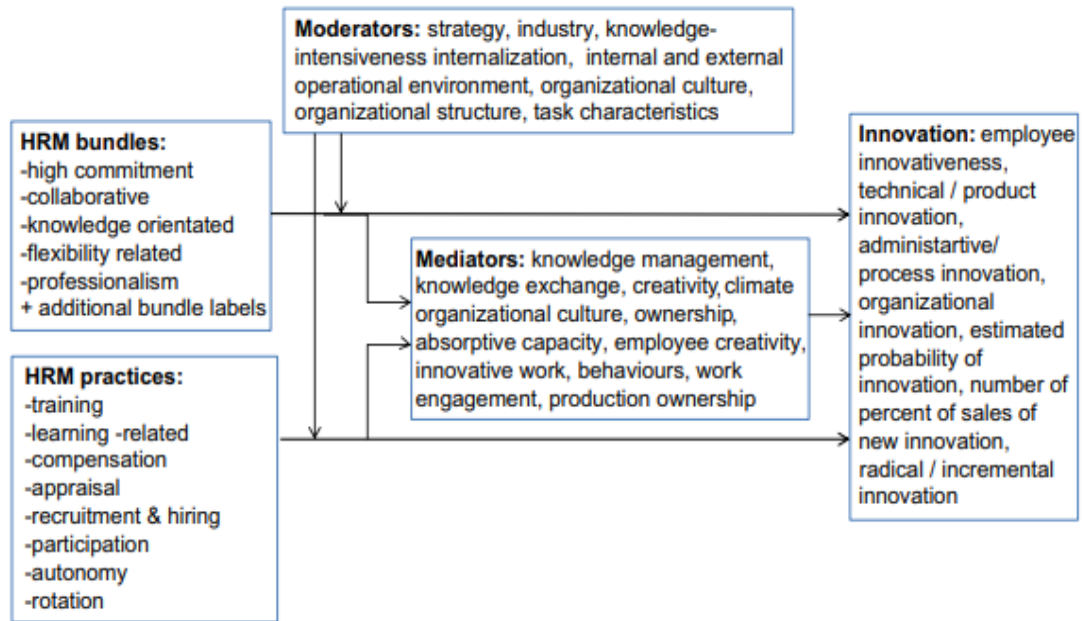
Issues such as how creative ideas are collected, the working system of the groups working on innovation, and how innovation is organized within the company affect innovation performance (Barczak et al., 2009). According to Gupta & Singhal (1993), HR departments of companies that want to strengthen innovation can ensure that the company's innovation goals are realized through the effective use of HR planning, performance appraisal, career management, and rewarding systems. At the same time, the values that have become the common behavioral codes of the company also affect the company's capacity for product innovation. Therefore, one of the tasks of HR is disseminating the right values within the organization (Khazanchi et al., 2007).

Innovation is also a behavior type, and one of the biggest influences on employee behavior in an organization is culture. Therefore, creating an innovative organizational culture is one of the challenges facing HR and the management team in an innovative company. People that live in such a culture are not afraid to take the initiative, take chances, and engage in innovative work. They also do not fight change, and trust is valued highly (Higgins & McAllaster, 2002; Jassawalla & Sashittal, 2002).

An atmosphere that encourages innovation, together with management attitude and innovation strategy, is what drives innovativeness, according to Crespell & Hansen (2008). Team cohesion, supervisor encouragement, autonomy, challenge, openness to business innovation, and resources make up an organizational atmosphere that is receptive to innovation. Supporting this climate should be one of HR's primary goals.

Seeck&Diehl (2017) highlighted the HRM bundles, HRM practices, moderators, and mediators that affect innovation as shown in Figure 21 in their analysis of the literature analyzing the relationship between HRM and innovation. In their panel-data research study, Diaz-Fernandez et al. (2017) similarly demonstrated that HR practices foster innovation. According to Veenendaal & Bondarouk (2015), HRM activities like encouraging leadership, training and development, remuneration policies, and information sharing have a beneficial impact on innovative work behavior.

Figure 21: Framework Summarizing the Reviewed Literature



Source: Seeck&Diehl, 2017

According to Shalley et al. (2004), studies looking at the elements influencing people's creative potential concentrate on their cognitive abilities and personalities. Job complexity, relationships with coworkers and supervisors, rewards, performance reviews, deadlines and goals, and the physical layout of work environments stand out among organizational aspects.

The research that looked at the relationship between organizational innovation and talent management methods is summarized in Table 11.

Table 11: Relationship Between Organizational Innovation and TM Methods

Reference	Related TM / HRM practices	Output
Shalley et al. (2004)	job complexity, relationship with supervisors, relationship with coworkers, rewards, performance evaluation, time deadlines and goals ve spatial configurations of work settings	Personal creativity
Diaz-Fernandez et al. (2017)	Employment security, training in new technologies, compensation and benefits, language training	Innovation performance
Veenendaal & Bondarouk (2015)	Supportive supervision, training and development, information sharing, compensation	Innovative work behavior
Crespell & Hansen (2008)	Climate for innovation, innovation strategy, firm size, top management's attitude	Firm's innovativeness level
Higgins & McAllaster (2002)	Organizational culture (myths & sagas, language, metaphors, symbols, ceremonies, rituals)	Innovation
Jassawalla & Sashittal (2002)	Organizational culture (beliefs, value systems, pattern of behaviors)	Product innovation
Khazanchi et al. (2007)	Organizational values (flexibility values, control values)	Process innovation
Gupta & Singhal (1993)	Human resources planning, performance appraisals, reward systems, career management	Creativity and innovation
Ireland et al. (2009)	Structure, culture, resources/capabilities, reward systems	Corporate entrepreneurship
Searle & Ball (2003)	Innovation-supporting HR policies	Innovation
Aagaard (2017)	Training, recruitment, talent & performance management, leadership & culture	Radical front-end innovation
Looise & Riemsdijk (2004)	Job design, HR flows, performance, rewarding, communication	Product innovation, process innovation, organizational innovation
Jiménez-Jiménez & Sanz-Valle (2005)	Employment security, recruiting, HR strategy, HR practices	Innovativeness
Sung & Choi (2014)	Interpersonal learning, organizational learning, innovative climate	Innovation performance
Donate et al. (2016)	selective staffing, training and high compensation systems, autonomy, empowerment and broad job design	Human capital, social capital, Innovation capabilities
Chowhan (2016)	Skill enhancing bundle, opportunity enhancing bundle, motivation enhancing bundle	Innovation
Fu et al. (2015)	High-performance work systems	Innovative work behavior
Chang & Lee (2008)	Obtaining knowledge, knowledge expansion, organizational culture, knowledge accumulation capability	Technical innovation, administrative innovation, organizational innovation

3.4. ORGANIZATIONAL CULTURE AND INNOVATIVENESS

Innovative behaviors of individuals depend on many individual and organizational factors. The factors mentioned so far in the studies conducted in this

field can be classified as motivational, emotional, cognitive and social. Within all these classifications, many individual and organizational factors are mentioned in the literature. Self-efficacy, intrinsic motivation, feeling of energy, psychological empowerment are examples of individual factors. Organizational factors include team efficacy, team proactivity, transformational leadership, organizational climate, open communication, hierarchical differences (Hughes et al., 2018). In addition to these, the organizational culture in which employees live is one of the most important factors.

There is considerable consensus in the literature on the definition of organizational culture. In the broadest sense, organizational culture is “the pattern of shared values and beliefs that help individuals understand organizational functioning and thus provide them with norms for behavior in the organization” (Deshpande & Webster, 2023).

Organizational culture is actually a description of what is important to the company and how things are done in the company. The task of management is to bring the company to its strategic goals. This is the result of the behavior of the employees that serves this goal. Since organizational culture will guide these behaviors, culture plays an important role in the realization of the strategy. An organization with an innovation strategy must also have a culture that supports innovation (Higgins & McAllaster, 2002).

Without a culture that supports innovation, an organization is unlikely to be innovative (Schein, 2004; Yukl et al., 2002). Zaltman et al. (1973) stated that organizational innovation consists of initiation and implementation. Initiation refers to the openness to the innovation stage. For the organization to innovate, employees should contribute to change without resistance. The characteristics of organizational culture are as important as resources on the organization's innovation capacity (Hurley & Hult, 1998). An innovative organizational culture makes the organization more responsive, curious about external developments, and competitive-seeking. Such organizations are more eager than others to have new products, services and process ideas, significant industry technological developments, and an assertive competitive attitude (O'Cass & Viet Ngo, 2007). In research on organizational innovation, the existence and impact of an innovative organizational culture should be evaluated.

CHAPTER FOUR

THE IMPACT OF A KNOWLEDGE-BASED TALENT MANAGEMENT APPROACH ON ORGANIZATIONAL INNOVATION

4.1. SUBJECT AND IMPORTANCE OF THE RESEARCH

Even though talent management is a prominent field of study, the definition of talent management and the justification for its necessity are not well-defined in the literature. Although mainstream and practitioner-based publications frequently highlight its strategic importance, it is not entirely clear how it differs from traditional HRM definitions (Lewis & Heckman, 2006). Current research and publications make discussing a single, universal definition of talent management impossible. Every talent management scholar has had to develop their own definition (Ashton & Morton, 2005a).

Attracting, developing, and keeping talented individuals is how talent management has frequently been defined, however, there is no description of how this varies from well-known HRM concepts. Accordingly, talent management appears to be a reinterpretation of current HRM practices and functions (Heinen & O'Neill, 2004). Although talent management is briefly described as attracting, developing and retaining talent, explanations of how it differs from mainstream HRM are limited. For this reason, talent management is considered by some scholars as a reinterpretation of existing HRM practices (Heinen & O'Neill, 2004). Although some practices under the heading of talent management are used in HRM studies, talent management primarily focuses on internal resources and prioritizes the identification of critical positions and the management of talent pools (Schweyer, 2004). There are theories in the literature that contend that brilliant workers with the knowledge and abilities that will add value to the firm should be drawn, recruited, and developed for businesses to win talent wars. These approaches contend that A-players should be the primary focus of talent management since they exhibit high performance and great potential.

Lewis and Hackman (2006) contend that the talent management literature lacks sufficient depth and that some of the existing definitions of talent management focus only on A-players, others on talent-pool management, while others focus on making human resources faster through initiatives like the internet or outsourcing. Even though companies seem to benefit from concentrating only on high-performing and high-potential employees, this strategy is not ethical and inclusive (Gladwell,

2022). Examining the studies on talent management reveals that there are less empirical studies than conceptual studies. When empirical research is analyzed, it becomes clear that selected TM practices, as opposed to a comprehensive view of talent management, are more frequently examined. Strategic TM, global TM, and practice-oriented TM are the three key topics covered in conceptual research. (Thunnissen et al., 2013).

Studies on talent management are now the target of similar accusations that were previously leveled at HRM and SHRM studies. Although dependent and independent variables are present in most studies on HRM and SHRM, the data analysis of only a few of these studies is satisfactory. Among all business topics, HRM is one of the least data-driven disciplines (Davenport, 2014). Many studies in the HRM literature only look at causality without defining the causal direction and its causes when examining the relationship between the dependent variable and the independent variables. Once more, while studying the relationships between the blocks in most studies, the development of a sound theory is disregarded (Cheng & Hackett, 2021). Although the number of quantitative studies has increased in recent years, qualitative HRM studies are predominant in the literature (Zheng & Lamond, 2009).

Knowledge is a resource that spreads outside of an organization as well. Every idea is newly created knowledge. Knowledge is shared, replicated, and circulated among organizations. Organizations become more inventive when they share knowledge (Jiang&Li, 2009). Numerous studies have shown a significant relationship between organizational learning, knowledge management, and organizational innovation. Companies' capacity to innovate incrementally, creating fresh approaches to well-known challenges, is also increased through knowledge management (Darroch&McNaughton, 2002).

Knowledge is a human-related concept from an ontological standpoint. In this regard, it is anticipated that studies of knowledge management would have a tight connection to HRM, SHRM, and TM. However, the literature on knowledge management focuses more on the technical components of knowledge when examined. A view of talent management from the perspective of knowledge will add to the body of literature that explains how knowledge affects organizational outcomes.

The resource-based view is one organizational theory that is still useful to describe the long-term competitive advantage of businesses more than 30 years after its inception. Organizations achieve their goals by managing both tangible and

intangible resources simultaneously. To contribute to the competitiveness of the organization, these assets must be distinct, irreplaceable and value-generating to qualify as strategic (Barney et al., 2011). From this point, talent and knowledge are the two most significant strategic resources in today's highly competitive environments and knowledge economy.

A review of both practitioner and academic studies on talent management and knowledge management shows that the two concepts often converge. When the mainstream and most-cited studies in both fields are analyzed, the common aspects of TM and KM can be listed as follows:

- Talent and knowledge are strategic resources for organizations
- TM and KM provide a competitive advantage
- TM and KM support organizational innovativeness
- TM and KM can be considered as management process
- Leaders, HR, and culture are essential in TM and KM processes.

According to Thunnissen (2013), TM will become a thriving academic topic when alternatives to mainstream talent management studies with a unitarist and managerial perspective are established. This study will address TM in a knowledge-based manner, and it will look at how this approach affects organizational innovation at the product and process innovation level. This study is expected to contribute the main issues with the talent management literature (lack of sufficient empirical research, differentiation from conventional HRM strategies, inability to articulate how it affects organizational outcomes, etc.) with a knowledge-based perspective. The study's conclusions are anticipated to shed light on organizational studies of innovation.

4.2. PURPOSE OF THE RESEARCH

When concepts of talent management are thoroughly explored, it becomes clear that the studies are mostly built around three themes. The definition of talent is the first theme. The second theme is talent management's intended results and effects. Talent management strategies make up the third theme (Thunnissen et al., 2013). Although talent has been defined in various ways in the literature, according to Cheese et al. (2008), talent is the sum of an individual's experience, skills, behaviors and knowledge.

The second theme of talent management will be addressed in this study as the ability of organizations to make product and process innovation. Explaining the impact of knowledge-based talent management on organizational innovativeness is important in showing the contribution of knowledge and talent, which are two necessary resources for innovation. Innovative organizations can disrupt the market with completely new goods and services and differentiate themselves from their competitors by applying innovations in all areas from management to marketing (Looise and Riemsdijk, 2004).

The third theme of this study was identified by looking at the most common TM practices in the literature. These practices are mainly categorized under the headings of talent identification, talent acquisition, learning, performance appraisal, compensation management, and career management (Karin & Vaiman, 2018).

Innovation in businesses is an organizational learning process and the core of this learning process is knowledge. Searching, selecting, and applying of the appropriate knowledge can lead to innovation. The acquisition, execution, launch, and maintenance of activities allow for the implementation of knowledge (Tidd & Bessant, 2020).

Learning and development programs aim to increase employees' knowledge and skill levels. Innovative organizations are those that correctly integrate their expertise into innovation processes. Both tacit and explicit knowledge must be well-handled to be used effectively (Farnese et al., 2019).

A sharing-based organizational climate and knowledge-sharing among team members are supported by well-designed HRM practices (Collins & Smith, 2006). Talent definition, talent acquisition, performance evaluation, compensation management, career management, and learning practices will all fall under the third theme of this study, TM practices. A sharing-based organizational culture and knowledge-sharing among team members are supported by well-designed TM practices (Collins & Smith, 2006). Talent definition, talent acquisition, performance evaluation, compensation management, career management, and learning practices will all fall under the third theme of this study, TM practices. In talent management literature, individual learning and organizational learning are often considered under talent development. However, it is seen that talent development in TM and training and development in HRM are very close to each other.

In the HRM and SHRM literature, learning and development has been one of the four most widely dimension along with compensation, performance and

recruitment, for many years (Savanevics and Stank, 2001). From the Post World War II era to the era of technological advancements, learning and development has been an indispensable focus of HRM. Although Iles et al. (2014) argue that learning and development activities can be a management fashion, most talent management studies cover talent development practices. Some scholars refer to this dimension as developing talent. (Karin & Vaiman, 2018; Rothwell & Kazanas, 2004; Cheese et al., 2008; Cohen, 2013). Some scholars call talent development learning and development (Ashton & Morton, 2005b). In some studies, talent development is called training or training and development (Cooke et al., 2014; Stahl et al., 2012; Schiemann, 2014; Jayamaran et al., 2018). Some studies prefer specific naming such as developing talent pool, competence training or leadership development (D. G. Collings & Mellahi, 2009b; Gartside et al., n.d.; Chen, 2001).

Boxall et al. (2011) focus on the usefulness of on-the-job training, providing the necessary information on OHS procedures, and transferring responsibilities to the new employees under the talent development dimension. According to Boxall, company training focuses on realizing short-term tasks, while development focuses on solving long-term and more complex problems. Edvardsson (2008) states that the focus of training and development activities should not be in a unidirectional way focused on applying explicit knowledge. A two-way process that includes tacit knowledge should be followed for companies to benefit from training. Cooke et al. (2014) discuss in-house trainings, MBA and EMBA programs, leadership development programs and mentoring practices under training and development.

Although there are different learning channels in adult learning such as experience-based learning, relationship-based learning and education-based learning, it is seen that HRM and TM literature mainly focuses on education-based learning practices. This perspective is insufficient to explain the impact of learning activities and knowledge on organizational outcomes.

In the Strategic Talent Management scale developed by Chen (2021), activities for talent development are addressed under the title of competency training and the focus is mainly on training and development activities in the company. The focus is on factors such as the relevance of training to the competencies needed, its continuous implementation by dividing it into different phases, its relationship with work experience, and future competency development.

Although knowledge is inherently a natural part of the talent management process, in current talent management models, knowledge is only considered as a

small part of the talent development step. However, as Nonaka points out, knowledge increases the innovation capability of organizations through individual and social processes. In this study, traditional training and development activities will not be evaluated under talent development; instead, a knowledge-based talent management approach will be developed using the SECI model proposed by Nonaka (2007). SECI framework was included in the Strategic Talent Management Scale developed by Chen (2001).

4.3. SAMPLE OF THE STUDY

The companies on the "100 Largest Industrial Organizations of the Aegean Region in 2021" list and the ISO500 2021 list, published annually, comprise the bulk of this research. Based on net sales from production, both lists are created and make up the bulk of the research. The companies on the "100 Largest Industrial Organizations of the Aegean Region in 2021" list and the ISO500 2021 list, published annually, comprise this research's population. Both lists focus on net sales from production. The two lists, which are not based on non-production income, can be assessed as an appropriate framework for assessing product-process innovation and a knowledge-based talent management strategy on a corporate basis.

HR managers of listed companies were contacted via email, if their email addresses were known, and those whose e-mail addresses could not be located were contacted via the social media site LinkedIn. They were informed of the goal, methodology, and content of the research and given a link to participate in the survey. In this case, 104 responses were obtained from 432 middle or senior level managers; and 102 valid responses were used for the research. No information about the company, position, or industry was gathered from the participants in order to allay any potential worries regarding GDPR and corporate information privacy rules.

4.4. MEASURE

The Strategic Talent Management Scale created by (Chen, 2012) is one of the most extensive studies in this topic, despite the fact that many scales and assessment tools have been established in talent management. Later research has demonstrated that STMS positively impacts entrepreneurial and vocal behaviors (Chen et al., 2021). In the scale he created, Chen evaluated talent management on the following criteria:

- Strategic talent definition
- Training and development
- Performance evaluation
- Career development
- Compensation management

The actions that are referred regarded as talent acquisition, recruiting, or talent luring in many talent management studies are not included in the STMS scale that Kaya (2019) translated into Turkish. The ability of the business to acquire the appropriate resources is a significant strategic advantage from the RBV standpoint. For this reason, questions about talent acquisition were added to the model's scale of perception of talent management sub-practices (Fegley, 2006). Under the heading of talent acquisition, four questions that were translated into Turkish (Sahin, 2015) were included in the study. In the STMS, the SECI framework was added instead of training and development. The scale developed by Farnese et al. (2019) was taken as a basis for measurement.

The literature has scales for assessing organizational innovation under various names, including inventive work behavior, organizational innovation, perceived innovation, and organizational creativity. The dependability of the research will be impacted by the fact that assessments of organizational innovativeness are generally based on facts rather than perceptions. For this reason, the scale created by (Wang&Ahmed, 2004) was utilized to evaluate organizational innovativeness using the categories of product innovativeness and process innovativeness. The scale's questions focus on innovation as a tangible organizational result instead of an perceived organizational quality.

This study will examine the impact of an innovative culture on an organization's capacity for innovation. Items created for innovative culture by O'Cass & Viet Ngo (2007) will be utilized.

Research dimensions, number of questions and references are shown below in Table 12.

Table 12: Research Dimensions and References

DIMENSION		
Strategic identification	5	(S.-Y. Chen, 2012; Kaya, 2019)
Talent acquisition	4	(Fegley, 2006; SAHIN, 2015)
Performance evaluation	4	(S.-Y. Chen, 2012; Kaya, 2019)
Career management	4	(S.-Y. Chen, 2012; Kaya, 2019)
Compensation and benefits	5	(S.-Y. Chen, 2012; Kaya, 2019)
SECI	17	(Farnese et al., 2019)
Product Innovativeness	4	(Wang & Ahmed, 2004)
Process Innovativeness	4	(Wang & Ahmed, 2004)
Innovative Culture	10	(O'Cass & Viet Ngo, 2007)

4.5. RESULTS AND FINDING

The data was examined using structural equation modeling (SEM), a multivariate analysis method capable of simultaneously determining the effects of multiple variables (Tabachnick & Fidell, 2013). Observed variables are those directly answered by participants, while unobserved variables represent underlying structures. This study treated knowledge-based talent management, innovative organizational culture, and product and process innovation as unobserved variables. Only these unobserved variables are depicted in the model figures for clarity and space efficiency.

R, a programming language specifically designed for statistical analysis (Ihaka & Gentleman, 1996), was utilized for data analysis. This open-source and freely distributed language has gained widespread acceptance and use since its introduction in 1997 (Field et al., 2012). R's programming capabilities allow users to develop packages for specific analyses (Beaujean, 2014), resulting in a vast library of over 12,500 packages. As such, R can perform virtually any statistical analysis developed by humans. Commonly used methods in social sciences, such as exploratory and confirmatory factor analysis, structural equation modeling, meta-analysis, Rasch analysis, multiple linear and hierarchical regression analysis, and time series analysis, can all be conducted using R. This eliminates the need for separate programs for each analysis, and even commercial software like IBM SPSS benefits from R's capabilities through plugins.

In this study, the lavaan package (Rosseel, 2012) was employed for SEM, using robust maximum likelihood estimation as recommended by Kline (2012). In

order to determine the effect of the scales, 3 different models were established with SEM using maximum likelihood estimation method. The intervals of fit indices at Table 13 according to Hooper, Coughlan and Mullen (2008), Hu and Bentler (1999) were used to determine if the models are compatible with the data.

Table 13: The Intervals of Fit Indices

Fit Indices	Perfect Fit	Acceptable Fit
χ^2/df	$0 \leq \chi^2/df \leq 2$	$2 \leq \chi^2/df \leq 3$
CFI	$.95 \leq CFI \leq 1.00$	$.90 \leq CFI \leq 0.95$
TLI	$.95 \leq TLI \leq 1.00$	$.90 \leq TLI \leq 0.95$
IFI	$.95 \leq IFI \leq 1.00$	$.90 \leq IFI \leq 0.95$
RMSEA	$.00 \leq RMSEA \leq .05$	$.05 \leq RMSEA \leq .08$
SRMR	$.00 \leq SRMR \leq .05$	$.05 \leq SRMR \leq .10$

4.6.1. Findings

Descriptive statistics of the items are presented in Table 14 in numbers (N), mean, standard deviation (SD), skewness, kurtosis and standard errors (SE). The means of the items vary between 3.59 and 4.39, and it has been determined that they have acceptable skewness and kurtosis coefficients (Table 14). Skewness values between +1 and -1 and kurtosis values between +2 and -1 indicate that the data are normally distributed (Huck, 2012).

Table 14: Descriptive Statistics of the Items

Item	N	Mean	SD	Skewness		Kurtosis	
				Skewness	SE	Kurtosis	SE
TD1	102	3.59	1.04	-0.19	0.24	-0.46	0.47
TD2	102	3.82	0.99	-0.58	0.24	-0.10	0.47
TD3	102	3.86	0.91	-0.36	0.24	-0.70	0.47
TD4	102	3.75	1.12	-0.40	0.24	-0.88	0.47
TD5	102	3.88	0.99	-0.45	0.24	-0.32	0.47
TA1	102	4.17	0.79	-0.57	0.24	-0.41	0.47
TA2	102	4.06	0.88	-0.66	0.24	0.16	0.47
TA3	102	4.31	0.72	-0.71	0.24	-0.11	0.47
TA4	102	4.09	0.92	-0.72	0.24	-0.05	0.47
PE1	102	4.08	0.88	-0.52	0.24	-0.69	0.47
PE2	102	3.98	0.73	-0.28	0.24	-0.26	0.47
PE3	102	4.01	0.86	-0.30	0.24	-0.96	0.47
PE4	102	4.19	0.88	-0.74	0.24	0.00	0.47
CM1	102	3.78	0.82	-0.47	0.24	0.49	0.47
CM2	102	3.88	0.92	-0.71	0.24	0.23	0.47
CM3	102	3.92	0.83	-0.28	0.24	-0.63	0.47
CM4	102	3.97	0.81	-0.17	0.24	-0.95	0.47
CB1	102	3.73	0.86	-0.68	0.24	0.89	0.47
CB2	102	4.20	0.76	-1.04	0.24	2.24	0.47
CB3	101	3.81	0.74	-0.42	0.24	1.00	0.48
CB4	101	3.97	0.75	0.05	0.24	-1.23	0.48
CB5	101	4.05	0.85	-0.88	0.24	0.97	0.48
SEC11	101	3.83	1.11	-0.66	0.24	-0.72	0.48
SEC12	101	4.18	0.80	-0.57	0.24	-0.55	0.48

SECI3	101	3.90	0.94		-1.11	0.24	1.74	0.48
SECI4	101	4.29	0.73		-0.50	0.24	-0.96	0.48
SECI5	102	4.25	0.81		-0.82	0.24	-0.04	0.47
SECI6	102	3.94	0.93		-0.93	0.24	1.22	0.47
SECI7	102	3.79	0.97		-0.71	0.24	0.48	0.47
SECI8	102	3.87	1.03		-0.79	0.24	0.21	0.47
SECI9	102	4.17	0.73		-0.27	0.24	-1.08	0.47
SECI10	102	3.93	0.77		-0.40	0.24	-0.10	0.47
SECI11	102	4.22	0.64		-0.22	0.24	-0.62	0.47
SECI12	102	4.06	0.78		-0.48	0.24	-0.21	0.47
SECI13	102	3.95	0.93		-0.59	0.24	-0.12	0.47
SECI14	102	4.01	0.90		-0.69	0.24	0.22	0.47
SECI15	102	4.05	0.98		-0.81	0.24	-0.04	0.47
SECI16	102	3.96	0.89		-0.70	0.24	0.33	0.47
SECI17	102	3.82	0.89		-0.32	0.24	-0.26	0.47
PTI1	102	4.11	0.76		-0.88	0.24	1.12	0.47
PTI2	102	3.76	0.81		-0.34	0.24	0.34	0.47
PTI3	102	4.10	0.71		-0.48	0.24	0.19	0.47
PTI4	102	4.02	0.81		-0.50	0.24	-0.24	0.47
PSI1	102	4.12	0.72		-0.50	0.24	0.10	0.47
PSI2	102	4.10	0.71		-0.31	0.24	-0.40	0.47
PSI3	102	4.39	0.71		-0.90	0.24	0.23	0.47
PSI4	102	4.23	0.64		-0.24	0.24	-0.65	0.47
IC1	102	4.16	0.77		-1.08	0.24	2.35	0.47
IC2	102	4.10	0.84		-1.22	0.24	2.51	0.47
IC3	102	4.08	0.84		-0.67	0.24	0.39	0.47
IC4	102	4.14	1.04		-1.08	0.24	0.40	0.47
IC5	102	3.99	0.79		-0.97	0.24	2.45	0.47
IC6	102	4.17	0.73		-0.43	0.24	-0.50	0.47
IC7	102	4.19	0.73		-0.46	0.24	-0.44	0.47
IC8	102	4.16	0.92		-1.33	0.24	1.95	0.47
IC9	102	4.10	0.92		-1.14	0.24	2.18	0.47
IC10	102	4.27	0.75		-1.37	0.24	3.53	0.47

Descriptive statistics of the scales are presented in Table 14. The means of the scales talent definition (TD), talent acquisition (TA), performance evaluation (PE), career management (CM), compensation and benefits (CB), socialization externalization combination internalization (SECI), product innovation (PT), process innovation (PS), innovative culture (IC), knowledge-based talent management (KCTM) vary between 3.78 and 4.21. It has been determined that they have acceptable skewness and kurtosis coefficients (Table 15). Skewness values between +1 and -1 and kurtosis values between +2 and -1 indicate that the data are normally distributed (Huck, 2012).

Table 15: Descriptive Statistics of the Scales

	N	Mean	SD	Skewness		Kurtosis	
				Skewness	SE	Kurtosis	SE
TD	102	3.78	0.79	-0.21	0.24	-0.90	0.47
TA	102	4.16	0.63	-0.53	0.24	-0.28	0.47
PE	102	4.06	0.61	-0.43	0.24	-0.38	0.47
CM	102	3.89	0.65	-0.45	0.24	-0.07	0.47
CB	101	3.95	0.56	-0.82	0.24	2.18	0.48

SECI	101	4.01	0.50	-0.53	0.24	-0.03	0.48
KCTM	101	3.97	0.50	-0.62	0.24	0.23	0.48
PT	102	4.00	0.55	-0.40	0.24	0.47	0.47
PS	102	4.21	0.51	-0.64	0.24	0.13	0.47
PT&PS	102	4.10	0.51	-0.53	0.24	0.29	0.47
IC	102	4.13	0.34	-0.13	0.24	-0.44	0.47

The reliability statistics of the scale talent definition indicate a high Cronbach's α reliability coefficient (Table 15).

Table 16: Scale Reliability Statistics

	Mean	SD	Cronbach's α
scale	3.78	0.79	0.84

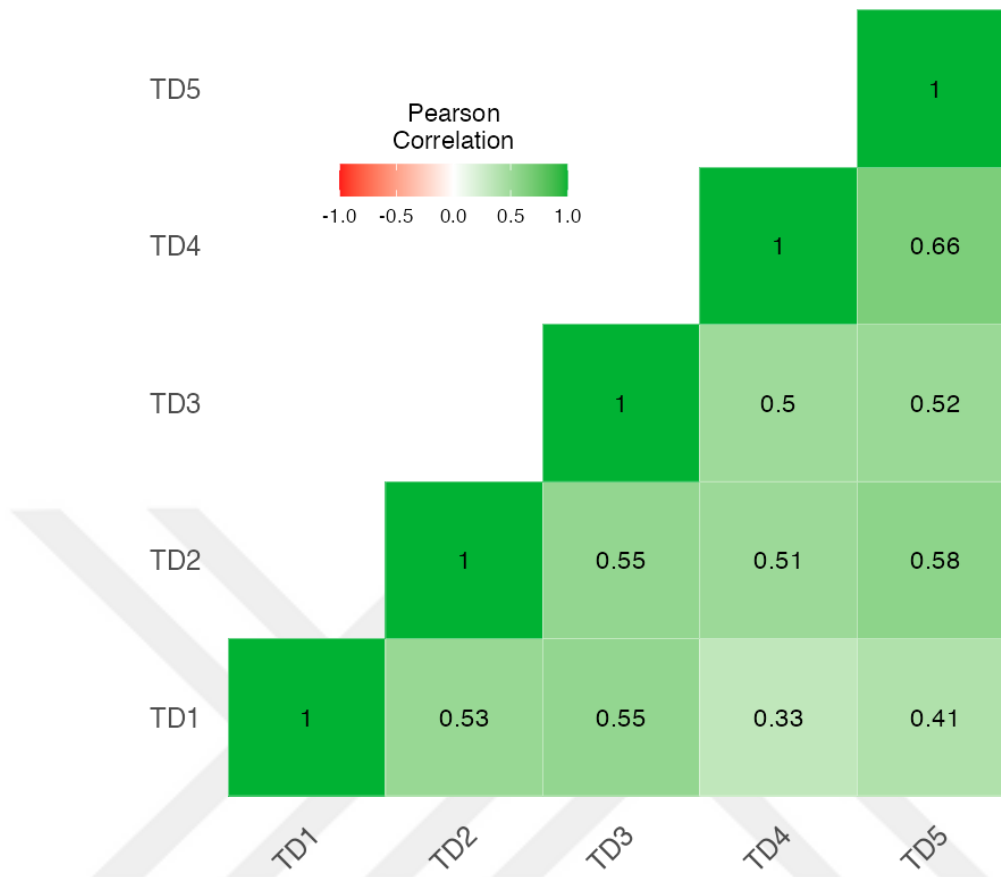
The reliability statistics of the scale items indicate that they do not increase Cronbach's α reliability coefficient if they are dropped (Table 16).

Table 17: Item Reliability Statistics of TD

	Mean	SD	Item-rest correlation	If item dropped Cronbach's α
TD1	3.59	1.04	0.55	0.83
TD2	3.82	0.99	0.69	0.79
TD3	3.86	0.91	0.67	0.80
TD4	3.75	1.12	0.62	0.81
TD5	3.88	0.99	0.69	0.79

The correlation heatmap of the items of the scale indicates that they are correlated with each other at statistically significant levels (Figure 22).

Figure 22: The Correlation Heatmap of TD Items



The reliability statistics of the scale talent acquisition indicate an acceptable Cronbach's α reliability coefficient (Table 18).

Table 18: Scale Reliability Statistics

	Mean	SD	Cronbach's α
scale	4.16	0.63	0.76

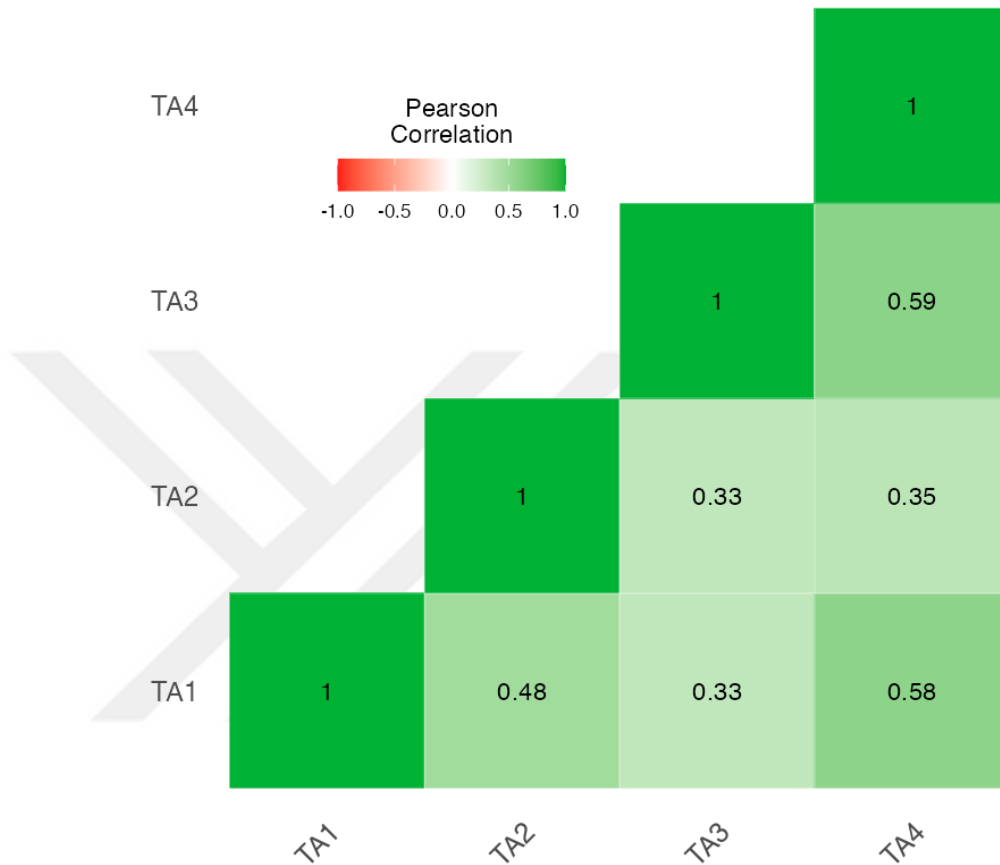
The reliability statistics of the items of the scale indicate that they do not increase Cronbach's α reliability coefficient if they are dropped (Table 19).

Table 19: Item Reliability Statistics of TA

	Mean	SD	Item-rest correlation	If item dropped Cronbach's α
TA1	4.17	0.79	0.60	0.68
TA2	4.06	0.88	0.47	0.75
TA3	4.31	0.72	0.52	0.72
TA4	4.09	0.92	0.64	0.65

The correlation heatmap of the items of the scale indicates that they are correlated with each other at statistically significant levels (Figure 23).

Figure 23: The Correlation Heatmap of the TA Items



The reliability statistics of the scale performance evaluation indicate an acceptable Cronbach's α reliability coefficient (Table 20).

Table 20: Scale Reliability Statistics

	Mean	SD	Cronbach's α
scale	4.06	0.61	0.71

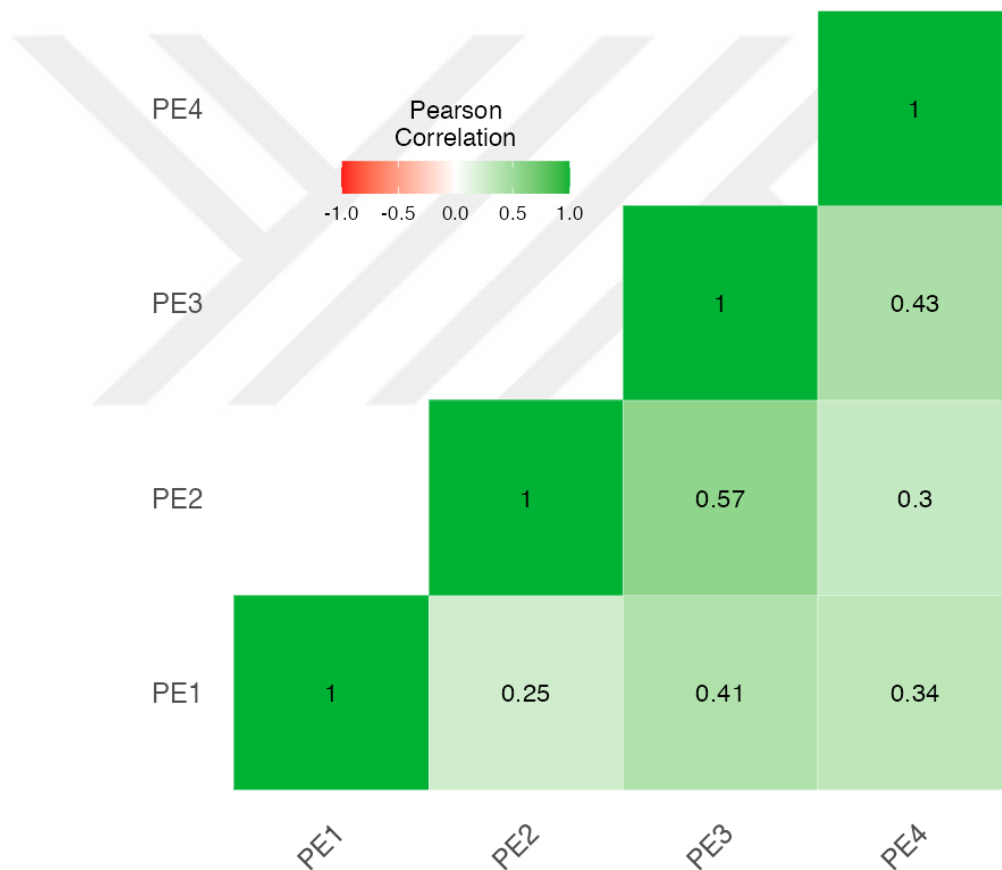
The reliability statistics of the items of the scale indicate that they do not increase Cronbach's α reliability coefficient if they are dropped (Table 21).

Table 21: Item Reliability Statistics of PE

						If item dropped	
	Mean	SD	Item-rest correlation			Cronbach's α	
PE1	4.08	0.88	0.43			0.69	
PE2	3.98	0.73	0.48			0.66	
PE3	4.01	0.86	0.63			0.56	
PE4	4.19	0.88	0.46			0.67	

The correlation heatmap of the items of the scale indicates that they are correlated with each other at statistically significant levels (Figure 24).

Figure 24: The Correlation Heatmap of the PE Items



The reliability statistics of the scale career management indicate an acceptable Cronbach's α reliability coefficient (Table 22).

Table 22: Scale Reliability Statistics

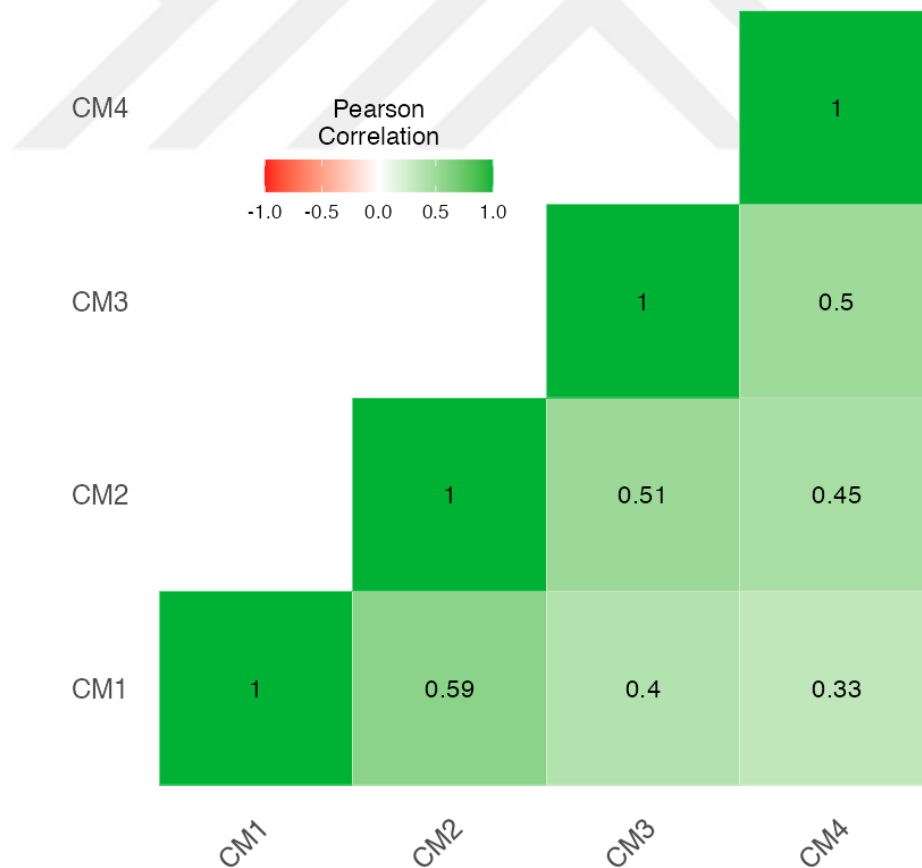
		Mean		SD		Cronbach's α	
scale		3.89		0.65		0.78	

The reliability statistics of the items of the scale indicate that they do not increase Cronbach's α reliability coefficient if they are dropped (Table 23).

Table 23: Item Reliability Statistics of CM

		Mean		SD		Item-rest correlation		If item dropped Cronbach's α	
CM1		3.78		0.82		0.55		0.74	
CM2		3.88		0.92		0.66		0.68	
CM3		3.92		0.83		0.59		0.72	
CM4		3.97		0.81		0.52		0.75	

The correlation heatmap of the items of the scale indicates that they are correlated with each other at statistically significant levels (Figure 25).

Figure 25: The Correlation Heatmap of the CM Items

The reliability statistics of the scale compensation and benefits indicate an acceptable Cronbach's α reliability coefficient (Table 24).

Table 24: Scale Reliability Statistics

	Mean	SD	Cronbach's α
scale	3.95	0.56	0.74

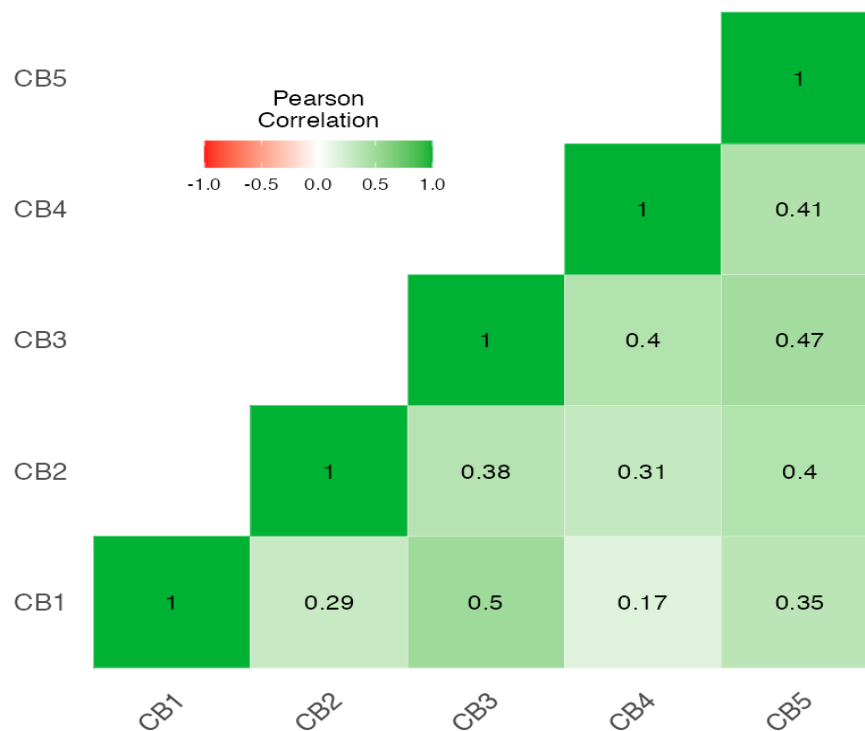
The reliability statistics of the items of the scale indicate that they do not increase Cronbach's α reliability coefficient if they are dropped (Table 25).

Table 25: Item Reliability Statistics of CB

						If item dropped	
		Mean	SD	Item-rest correlation		Cronbach's α	
CB1		3.71	0.85		0.44	0.72	
CB2		4.19	0.76		0.47	0.71	
CB3		3.81	0.74		0.63	0.65	
CB4		3.97	0.75		0.43	0.72	
CB5		4.05	0.85		0.57	0.67	

The correlation heatmap of the items of the scale indicates that they are correlated with each other at statistically significant levels (Figure 26).

Figure 26: The Correlation Heatmap of the CB Items



The reliability statistics of the scale socialization externalization combination internalization indicate an acceptable Cronbach's α reliability coefficient (Table 26).

Table 26: Scale Reliability Statistics

	Mean	SD	Cronbach's α
scale	4.01	0.50	0.87

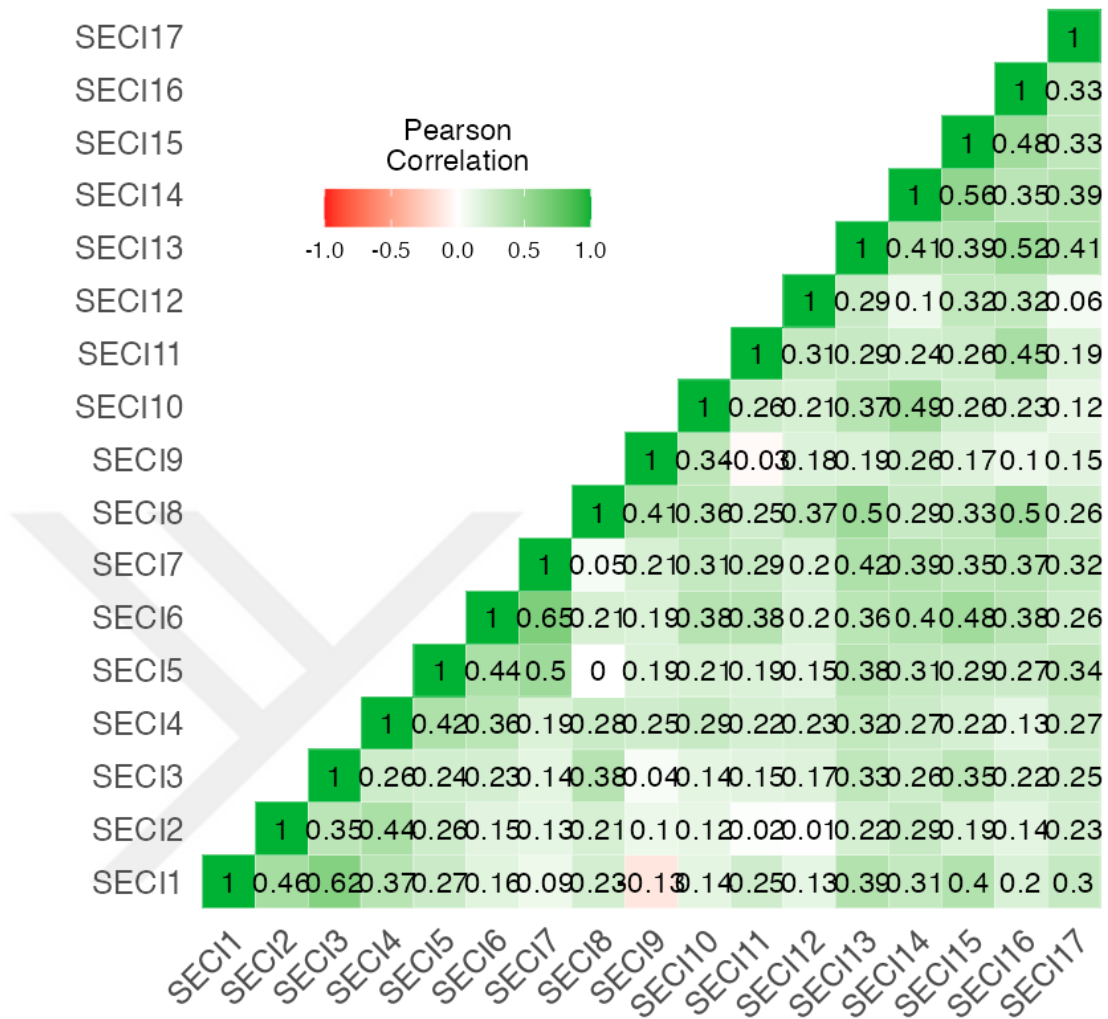
The reliability statistics of the items of the scale indicate that they do not increase Cronbach's α reliability coefficient if they are dropped (Table 27).

Table 27: Item Reliability Statistics of SECI

	Mean	SD	Item-rest correlation	If item dropped Cronbach's α
SECI1	3.83	1.11	0.47	0.86
SECI2	4.18	0.80	0.37	0.86
SECI3	3.90	0.94	0.47	0.86
SECI4	4.29	0.73	0.50	0.86
SECI5	4.24	0.81	0.49	0.86
SECI6	3.93	0.93	0.58	0.86
SECI7	3.78	0.97	0.50	0.86
SECI8	3.87	1.04	0.51	0.86
SECI9	4.16	0.73	0.28	0.87
SECI10	3.92	0.77	0.46	0.86
SECI11	4.21	0.64	0.41	0.86
SECI12	4.06	0.79	0.35	0.86
SECI13	3.94	0.93	0.66	0.85
SECI14	4.01	0.90	0.60	0.85
SECI15	4.04	0.98	0.61	0.85
SECI16	3.96	0.89	0.56	0.86
SECI17	3.81	0.89	0.47	0.86

The correlation heatmap of the items of the scale indicates that they are correlated with each other at statistically significant levels (Figure 27).

Figure 27: The Correlation Heatmap of the SECI Items



The reliability statistics of the scale innovative culture indicate a low Cronbach's α reliability coefficient (Table 28).

Table 28: Scale Reliability Statistics

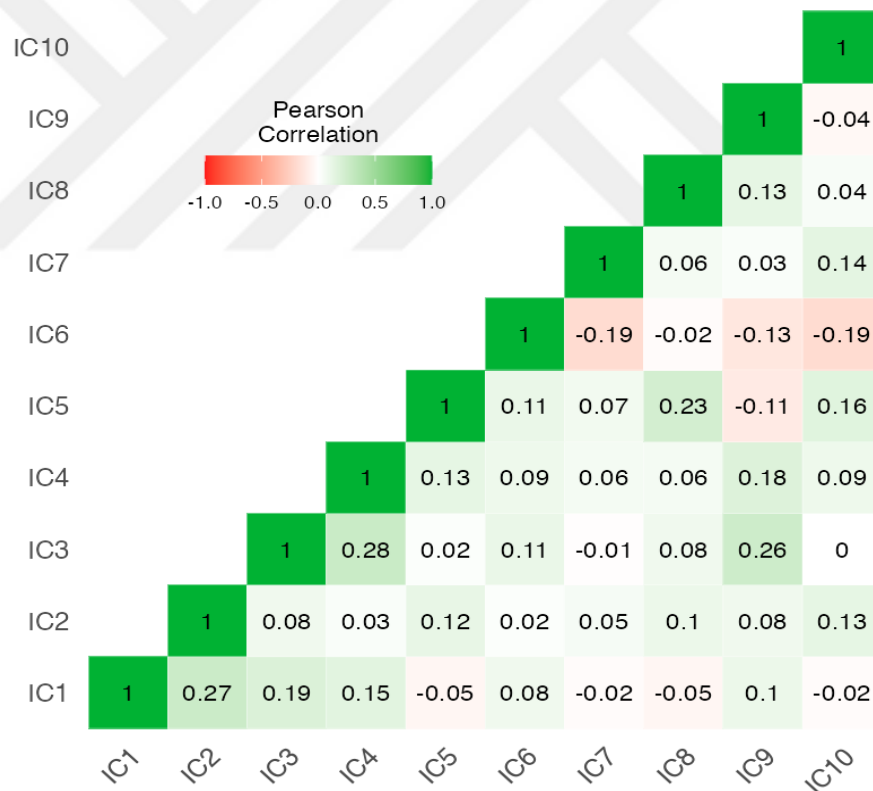
		Mean		SD		Cronbach's α	
scale		4.13		0.34		0.43	

The reliability statistics of the items of the scale indicate that they do not increase Cronbach's α reliability coefficient if they are dropped (Table 29).

Table 29: Item Reliability Statistics of IC

	Mean	SD	Item-rest correlation	If item dropped Cronbach's α
IC1	4.16	0.77	0.18	0.40
IC2	4.10	0.84	0.23	0.38
IC3	4.08	0.84	0.30	0.35
IC4	4.14	1.04	0.30	0.34
IC5	3.99	0.79	0.18	0.40
IC6	4.17	0.73	-0.02	0.46
IC7	4.19	0.73	0.06	0.44
IC8	4.16	0.92	0.17	0.40
IC9	4.10	0.92	0.16	0.41
IC10	4.27	0.75	0.08	0.43

The correlation heatmap of the items of the scale indicates that they are correlated with each other at statistically significant levels (Figure 28).

Figure 28: The Correlation Heatmap of the IC Items

The reliability statistics of the scale product and process innovation indicate a high Cronbach's α reliability coefficient (Table 30).

Table 30: Scale Reliability Statistics

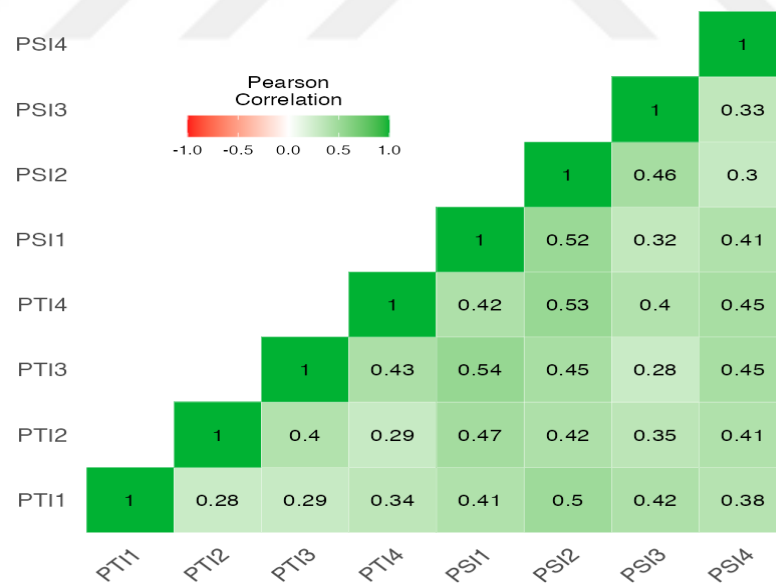
		Mean		SD		Cronbach's α	
scale		4.10		0.51		0.84	

The reliability statistics of the items of the scale indicate that they do not increase Cronbach's α reliability coefficient if they are dropped (Table 31).

Table 31: Item Reliability Statistics of PTI & PSI

		Mean		SD		Item-rest correlation		If item dropped Cronbach's α	
PTI1		4.11		0.76		0.53		0.83	
PTI2		3.76		0.81		0.53		0.83	
PTI3		4.10		0.71		0.58		0.82	
PTI4		4.02		0.81		0.58		0.82	
PSI1		4.12		0.72		0.64		0.81	
PSI2		4.10		0.71		0.66		0.81	
PSI3		4.39		0.71		0.52		0.83	
PSI4		4.23		0.64		0.56		0.82	

The correlation heatmap of the items of the scale indicates that they are correlated with each other at statistically significant levels (Figure 29).

Figure 29: The Correlation Heatmap of the PTI & PSI Items

The correlations among the scales shown at Table 32 are at statistically significant levels ($p < 0.001$).

Table 32: Correlation Matrix

	TD	TA	PE	CM	CB	SECI	KCTM	PT&PS						
TA	0.74													
PE	0.59	0.54												
CM	0.57	0.55	0.54											
CB	0.46	0.57	0.53	0.60										
SECI	0.57	0.72	0.55	0.54	0.51									
KCTM	0.84	0.86	0.77	0.79	0.75	0.79								
PT&PS	0.61	0.70	0.65	0.63	0.64	0.77	0.81							
IC	0.56	0.47	0.51	0.44	0.35	0.50	0.59	0.57						

Structural Equation Models

The First Model

In the first model to determine the mediator role of innovative organizational culture (IOC) between knowledge-centric talent management (KCTM) and product and process innovation (PTPS), a compatible structure was not achieved according to the fit indices of the established model at Table 33-36 ($\chi^2/df = 5.11$, $p < 0.001$, CFI = 0.82, TLI = 0.75, RMSEA = 0.20, SRMR = 0.19).

Table 33: Fit Indices

		95% Confidence Intervals					
SRMR	RMSEA	Lower		Upper		RMSEA p	
0.19	0.20	0.17		0.24		< .001	

Table 34: User Model Versus Baseline Model

		Model	
Comparative Fit Index (CFI)		0.82	
Tucker-Lewis Index (TLI)		0.75	
Bentler-Bonett Non-normed Fit Index (NNFI)		0.75	
Bentler-Bonett Normed Fit Index (NFI)		0.79	
Parsimony Normed Fit Index (PNFI)		0.57	
Bollen's Relative Fit Index (RFI)		0.71	
Bollen's Incremental Fit Index (IFI)		0.82	
Relative Noncentrality Index (RNI)		0.82	

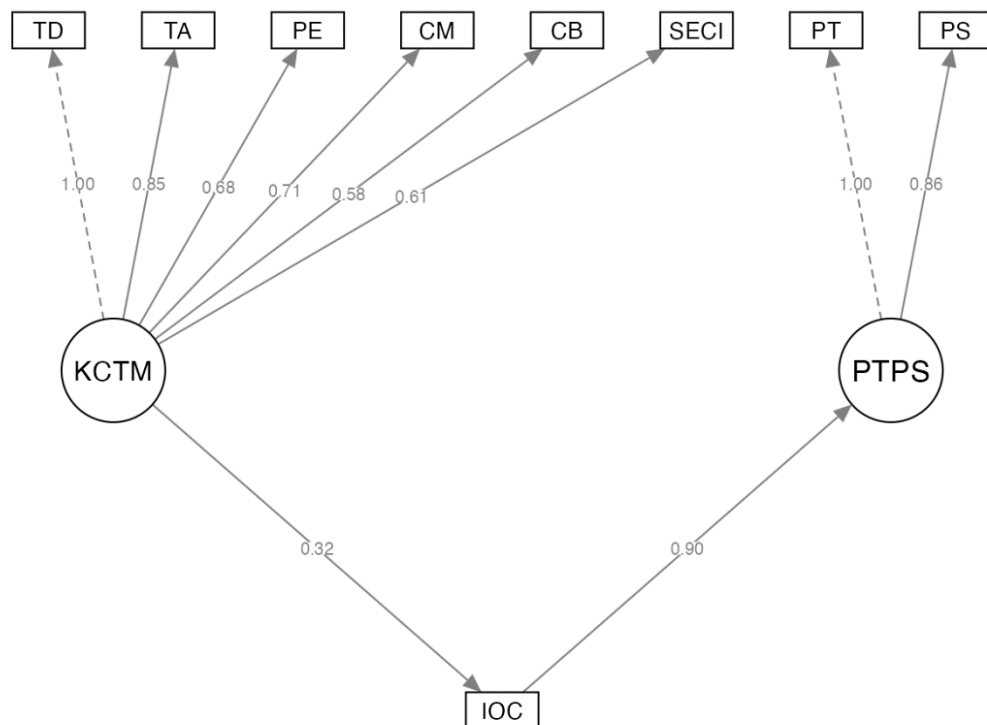
Table 35: Parameters Estimates

				95% Confidence Intervals					
Dep	Pred	Estimate	SE	Lower	Upper	β	z	p	
PTPS	IOC	0.90	0.13	0.63	1.16	0.58	6.64	< .001	
IOC	KCTM	0.32	0.05	0.22	0.42	0.62	6.42	< .001	

Table 36: Measurement Model

				95% Confidence Intervals					
Latent	Observed	Estimate	SE	Lower	Upper	β	z	p	
KCTM	TD	1.00	0.00	1.00	1.00	0.81			
	TA	0.85	0.09	0.68	1.03	0.86	9.71	< .001	
	PE	0.68	0.09	0.50	0.85	0.71	7.59	< .001	
	CM	0.71	0.09	0.53	0.90	0.70	7.51	< .001	
	CB	0.58	0.08	0.42	0.74	0.66	7.02	< .001	
	SECI	0.61	0.07	0.48	0.75	0.78	8.68	< .001	
PTPS	PT	1.00	0.00	1.00	1.00	0.94			
	PS	0.86	0.10	0.67	1.06	0.87	8.68	< .001	

Path diagrams of the first model shown in Figure 30 indicate that the mediator role of innovative organizational culture (IOC) between knowledge-based talent management (KCTM) and product and process innovation (PTPS) appears to be vague, considering the effect of KCTM on IOC is at a low level (0.32). However, IOC affects PTPS at a very high level (0.90). Considering the fit indices of the first model are not within acceptable intervals, the second model was structured to see if the mediator role of IOC between KCTM and PTPS fades away.

Figure 30: Path Diagrams of the First Model

The Second Model

In the second model to test the mediator role of innovative organizational culture (IOC) between knowledge-based talent management (KCTM) and product and process innovation (PTPS), a compatible structure was achieved according to the fit indices of the established model at Table 37-40 ($\chi^2/df = 2.11$, $p < 0.001$, CFI = 0.95, TLI = 0.93, RMSEA = 0.10, SRMR = 0.04).

Table 37: Fit Indices of Second Model

				95% Confidence Intervals					
SRMR		RMSEA		Lower		Upper		RMSEA p	
0.04		0.10		0.06		0.14		0.015	

Table 38: User Model Versus Baseline Model

		Model	
Comparative Fit Index (CFI)		0.95	
Tucker-Lewis Index (TLI)		0.93	
Bentler-Bonett Non-normed Fit Index (NNFI)		0.93	
Bentler-Bonett Normed Fit Index (NFI)		0.92	
Parsimony Normed Fit Index (PNFI)		0.64	
Bollen's Relative Fit Index (RFI)		0.88	
Bollen's Incremental Fit Index (IFI)		0.95	
Relative Noncentrality Index (RNI)		0.95	

Table 39: Parameters Estimates for Second Model

					95% Confidence Intervals					
Dep	Pred	Estimate	SE		Lower	Upper	β	z	p	
PTPS	IOC	0.05	0.12		-0.18	0.28	0.03	0.43	0.669	
IOC	KCTM	0.34	0.06		0.23	0.45	0.62	6.20	< .001	
PTPS	KCTM	0.76	0.09		0.57	0.94	0.90	7.97	< .001	

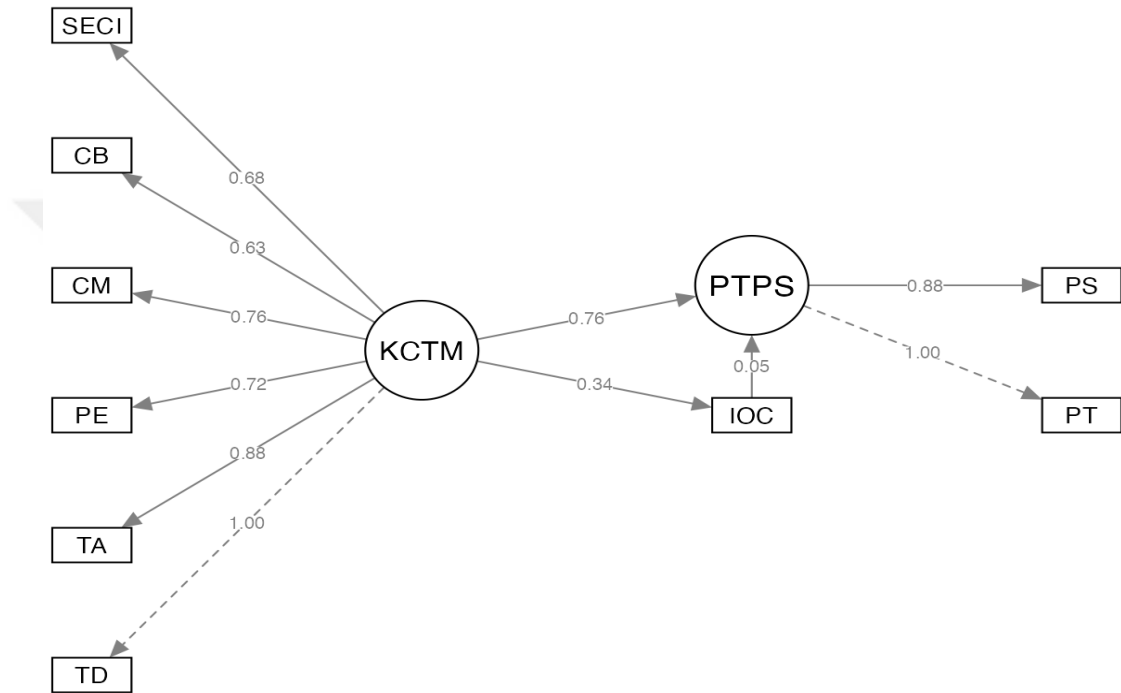
Table 40: Measurement Model for Second Model

					95% Confidence Intervals					
Latent	Observed	Estimate	SE		Lower	Upper	β	z	p	
KCTM	TD	1.00	0.00		1.00	1.00	0.76			
	TA	0.88	0.10		0.69	1.07	0.83	8.89	< .001	
	PE	0.72	0.10		0.53	0.92	0.71	7.41	< .001	
	CM	0.76	0.10		0.56	0.97	0.71	7.33	< .001	
	CB	0.63	0.09		0.46	0.81	0.68	7.06	< .001	
	SECI	0.68	0.08		0.53	0.83	0.82	8.74	< .001	
PTPS	PT	1.00	0.00		1.00	1.00	0.93			
	PS	0.88	0.07		0.75	1.01	0.87	13.07	< .001	

Path diagrams of the second model shown in Figure 31 indicate that the mediator role of innovative organizational culture (IOC) between knowledge-based talent management (KCTM) and product and process innovation (PTPS) appears to

be non-existent considering the effect of IOC on PTPS is near zero (0.05). However, this effect was reduced from a very high level (the first model). This result indicates that the indirect effect of KCTM on PTPS is accounted for by the effect of IOC on PTPS in the first model. Therefore, the final model should not include any indirect effect.

Figure 31: Path Diagrams of the Second Model



The Third Model

In the third model to determine the effects of knowledge-centric talent management (KCTM) on innovative organizational culture (IOC) and product and process innovation (PTPS), a slightly better structure was achieved according to the fit indices of the established model at Table 41-44 ($X^2/df = 2.04$, $p = 0.001$, CFI = 0.95, TLI = 0.94, RMSEA = 0.10, SRMR = 0.04).

Table 41: Fit Indices for Third Model

		95% Confidence Intervals					
SRMR		RMSEA		Lower		Upper	
0.04		0.10		0.06		0.14	
							RMSEA p
							0.021

Table 42: User Model Versus Baseline Model

		Model	
Comparative Fit Index (CFI)		0.95	
Tucker-Lewis Index (TLI)		0.94	
Bentler-Bonett Non-normed Fit Index (NNFI)		0.94	
Bentler-Bonett Normed Fit Index (NFI)		0.92	
Parsimony Normed Fit Index (PNFI)		0.66	
Bollen's Relative Fit Index (RFI)		0.88	
Bollen's Incremental Fit Index (IFI)		0.96	
Relative Noncentrality Index (RNI)		0.95	

Table 43: Parameters Estimates for Third Model

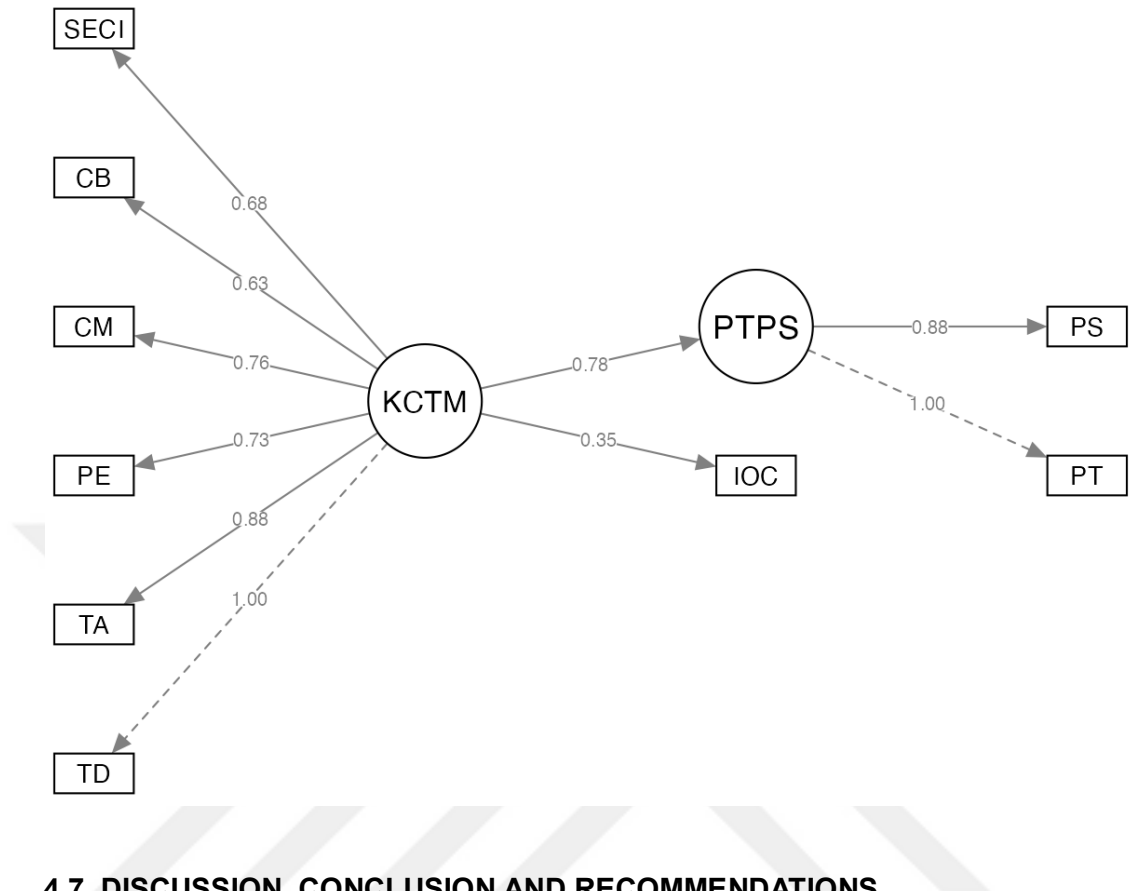
					95% Confidence Intervals					
Dep	Pred	Estimate	SE		Lower	Upper	β	z	p	
IOC	KCTM	0.35	0.05		0.24	0.45	0.62	6.35	< .001	
PTPS	KCTM	0.78	0.08		0.61	0.94	0.92	9.20	< .001	

Table 44: Measurement Model for Third Model

					95% Confidence Intervals					
Latent	Observed	Estimate	SE		Lower	Upper	β	z	p	
KCTM	TD	1.00	0.00		1.00	1.00	0.76			
	TA	0.88	0.10		0.68	1.07	0.83	8.86	< .001	
	PE	0.73	0.10		0.53	0.92	0.71	7.42	< .001	
	CM	0.76	0.10		0.56	0.97	0.71	7.32	< .001	
	CB	0.63	0.09		0.46	0.81	0.68	7.04	< .001	
	SECI	0.68	0.08		0.53	0.83	0.82	8.73	< .001	
PTPS	PT	1.00	0.00		1.00	1.00	0.93			
	PS	0.88	0.07		0.75	1.01	0.87	13.07	< .001	

Path diagrams of the third model shown in Figure 32 indicate that the effects of KCTM on IOC and PTPS are statistically significant and noteworthy. The effect of KCTM on IOC is at a moderate level (0.35) while the effect of KCTM on PTPS is at a relatively high level (0.78). Since this model has the most compatible fit indices, the analyses concluded that KCTM affects PTPS more than it affects IOC and IOC does not affect PTPS in the presence of KCTM.

Figure 32: Path Diagrams of the Third Model



4.7. DISCUSSION, CONCLUSION AND RECOMMENDATIONS

Organizations are under more pressure than ever to invest in their human resources due to the fast-paced development of technology and the fierce competition on the global stage. As a result, talent management has elevated in importance as businesses look to hire, train, and keep workers who possess the skills needed to succeed in the modern workplace. The idea of knowledge-based talent management, a method that stresses the significance of knowledge and skills in the development and success of individuals, lies at the heart of these initiatives.

The foundation of knowledge-based talent management is the conviction that employees' knowledge and skills are a company's most important assets (Davenport & Prusak, 1998). As a result, this strategy emphasizes locating, developing, and utilizing these resources for the gain of each person and the firm as a whole. This is accomplished through encouraging a culture of ongoing learning and skill development, establishing opportunities for information sharing, and offering staff customized development programs to assist them in realizing their full potential (Lubit, 2001).

Adopting a knowledge-based talent management strategy has many benefits, one of which is that it encourages employees to have a growth mindset. According to research, people who have a growth mindset are more inclined to take on challenges, persevere in the face of failure, and see effort as a way to master a skill (Dweck, 2006). Organizations can establish an atmosphere where staff members are more inclined to participate in activities that enhance personal and professional growth by fostering a culture that values learning and skill development (Heslin, Vandewalle, & Latham, 2006).

Knowledge-based talent management also has the potential to increase employee retention as a perk. According to studies, employees are more inclined to stick with a company if they feel like their employer is investing in their professional growth (Kraimer, Seibert, Wayne, Liden, & Bravo, 2011). Organizations may show their dedication to employee growth by offering targeted development opportunities and building a culture of continuous learning, boosting the possibility that top talent will decide to stay with the business.

Knowledge-based talent management can foster creativity in addition to these other advantages. According to a 2005 study by Subramaniam and Youndt, businesses that efficiently manage the knowledge and abilities of their staff members are more likely to experience higher levels of creativity. Organizations can better harness the collective wisdom of their workforce and promote innovation by creating an atmosphere that values knowledge sharing and collaboration.

Implementing knowledge-based talent management is not without difficulties, despite its many benefits. The need to strike a balance between the need for knowledge sharing and the requirement to preserve sensitive information is one potential problem (Nonaka & Takeuchi, 1995). In order to ensure that information is shared in a way that protects important data and intellectual property, organizations must adopt plans.

Innovation has emerged as a crucial component for organizational success and competitiveness in the quickly evolving corporate world of today (Porter & Kramer, 2011). Organizations are realizing more and more how crucial it is to foster an innovative corporate culture in order to foster creativity, improve problem-solving skills, and ultimately promote sustainable growth.

A creative, risk-taking, and supportive company culture is one that stimulates ongoing learning and development (Schein, 2010). This kind of culture places a significant focus on teamwork and knowledge sharing, open communication, and a

readiness to accept change (Amabile, 1998). Additionally, organizations with a culture of innovation frequently place a high priority on employee empowerment, making sure that people at all levels are equipped and inspired to contribute ideas and take initiative (Gupta, Tesluk, & Taylor, 2007).

Enhancing a company's capacity for innovation is one of the key advantages of an innovative organizational culture. According to research, businesses with a strong innovation culture are more likely to create and introduce innovative new goods and services as well as recognize and seize emerging market opportunities (Tellis, Prabhu, & Chandy, 2009). Companies can tap into their workforce's collective intelligence and more successfully manage the complexity of the modern business environment by creating an atmosphere that promotes creativity and cooperation.

An innovative organizational culture has been associated with greater employee engagement and happiness in addition to its effects on innovation (Harter, Schmidt, & Hayes, 2002). Organizations can create a more meaningful work environment by encouraging employees to share ideas and take initiative, which has been demonstrated to be a major factor in employee engagement and commitment (Kahn, 1990). As a result, there may be an increase in productivity and performance as well as a decrease in absenteeism and turnover (Harter et al., 2002).

Despite the obvious advantages of an innovative organizational culture, many firms find it difficult to foster and maintain one. Lack of resources ingrained bureaucratic procedures, and a fear of failure are some examples of obstacles to innovation (Christensen, 1997). Organizations must be prepared to make the necessary financial investments, remove hurdles to collaboration and communication, and promote a culture of experimentation and learning if they are to succeed in overcoming these challenges (Tushman & O'Reilly, 1997).

The creation and introduction of new, considerably better products and services that offer consumers greater value is referred to as product innovation (OECD, 2005). These innovations may come in the shape of completely new items, improvements to current ones, or the diversification of a company's product line (Utterback & Abernathy, 1975). Product innovation is crucial for businesses looking to stand out in the market, seize new market opportunities, and meet changing client expectations (Schilling, 2013).

Process innovation, on the other hand, focuses on the creation and application of fresh or vastly enhanced techniques for creating, delivering, and supporting goods and services (OECD, 2005). Changes to production methods, improvements to

logistical and supply chain systems, or the adoption of new business models that enable more effective or efficient operations can all be considered process innovations (Porter, 1996). Companies can reduce costs, improve product quality, and increase overall operational effectiveness by pursuing process innovation (Teece, 1986).

Although product and process innovation may seem to be distinct, they are actually intertwined and frequently have complementary characteristics (Abernathy & Utterback, 1978). The creation and implementation of new processes that allow for the manufacture, delivery, and support of novel goods and services are frequently necessary for successful product innovation. On the other hand, process innovation can promote the creation of new products by enhancing the efficacy and efficiency of the underlying systems for manufacturing and distribution (Tushman & Nelson, 1990).

Organizations must find a delicate balance between these two aspects given the interconnectedness of product and process innovation in order to achieve sustainable growth (Adler, Goldoftas, & Levine, 1999). The competitive advantage acquired from unique products and services might be undermined by a focus excessively on product innovation at the expense of process innovation. Similar to this, putting too much emphasis on process innovation without also investing in product innovation can lead to a lack of difference and reduced market potential (Teece, 1986).

Organizations must get a thorough awareness of their competitive environment, consumer needs, and internal capabilities in order to strike the ideal balance between product and process innovation (Pisano, 1997). This calls for ongoing evaluation and adjustment of their innovation plans, appropriate resource allocation, and the development of an environment that promotes both types of innovation (Christensen, 1997).

The growth of an innovative organizational culture can be strongly impacted, according to research, by knowledge-centric talent management (Nonaka & Takeuchi, 1995). Organizations may increase their collective intelligence and encourage employee creativity by encouraging a culture of continual learning and knowledge sharing, which will ultimately lead to innovation (Heslin, Vandewalle, & Latham, 2006). Additionally, businesses that support employee knowledge and skill development are more likely to see higher levels of employee engagement and satisfaction, which can boost innovation and improve performance overall (Kraimer et al., 2011).

There are several crucial areas where knowledge-centric talent management and creative organizational culture work in unison. First, both frameworks' basic concept of employee empowerment has been connected to a rise in the risk-taking and creativity that are necessary for innovation (Gupta, Tesluk, & Taylor, 2007). The adoption of new technologies and procedures is facilitated by a culture of ongoing learning and skill development, which increases an organization's potential for both product and process innovation (Tushman & O'Reilly, 1997). In addition, knowledge-centric talent management can encourage cross-functional cooperation and knowledge sharing, which have been demonstrated to spur creativity by facilitating the fusion of various viewpoints and skills (Subramaniam & Youndt, 2005).

Despite the obvious advantages, businesses must be aware of potential difficulties in integrating knowledge-centric talent management and cutting-edge organizational culture. One such problem is juggling the requirement for knowledge sharing with the protection of private information and intellectual property (Nonaka & Takeuchi, 1995). Additionally, businesses must be ready to spend money on the infrastructure and resources required to support ongoing training and development as well as potential employee resistance to change (Christensen, 1997).

Product innovation, a crucial component of organizational innovation, is the creation and introduction of new or significantly better goods and services that provide customers with greater value (Utterback & Abernathy, 1975). By providing staff with the necessary abilities and knowledge to spot emerging market opportunities, develop innovative responses to customer needs, and produce game-changing ideas that set the company apart from its rivals, knowledge-centric talent management can positively affect product innovation (Amabile, 1998).

Another crucial component of organizational innovation is process innovation, which includes the creation and application of novel or considerably enhanced procedures for creating, delivering, and supporting goods and services (Porter, 1996). By encouraging a culture of continuous improvement, empowering staff to find and use creative solutions to increase operational efficiency, and encouraging the adoption of cutting-edge technology and practices, knowledge-centric talent management can also support process innovation (Teece, 1986).

Organizations can benefit from the synergistic interaction between knowledge-centric talent management and product and process innovation in a number of ways. Knowledge-centric talent management can increase an organization's agility and responsiveness to new market trends and opportunities by encouraging a culture of

continual learning and improvement (Davenport, 2005). Second, knowledge-centric talent management can allow the cross-fertilization of ideas, resulting in the development of novel products and procedures that give an advantage over competitors by encouraging collaboration and knowledge sharing across functional boundaries (Nonaka & Takeuchi, 1995).

Despite the obvious advantages, integrating knowledge-centric talent management with product and process innovation presents a number of challenges for organizations. The need to establish a balance between promoting knowledge sharing and safeguarding sensitive data and intellectual property is one of these difficulties (Nonaka & Takeuchi, 1995). Additionally, businesses must make the necessary infrastructure and resource investments to support ongoing learning and development while also addressing any potential employee resistance to change (Christensen, 1997).

In search of fresh answers to market challenges, employees are encouraged by an innovative company culture to think creatively, question received wisdom, and embrace change (Amabile, 1998). Innovative organizational cultures can encourage the creation of ground-breaking goods and services that provide customers with more value by creating an atmosphere where staff members feel empowered to take chances and try new things (Utterback & Abernathy, 1975). Additionally, an innovative organizational culture can support the adoption of cutting-edge technologies and procedures that improve operational effectiveness and efficiency (Porter, 1996).

The research has identified a number of mechanisms by which innovative organizational culture can favorably affect both product and process innovation. First, it has been demonstrated that innovation is driven by the integration of varied viewpoints and knowledge, which may be accomplished by facilitating the flow of information and ideas across organizational boundaries (Subramaniam & Youndt, 2005). Second, creative organizational cultures can improve a company's capacity for learning and adaptability by promoting risk-taking and experimentation, helping it to better traverse the intricacies of the contemporary business environment (Brown & Eisenhardt, 1995).

Additionally, a creative organizational culture can encourage the growth of social relationships and networks among staff members, which can promote information sharing, teamwork, and the creation of creative ideas (Cross, Borgatti, & Parker, 2002). Additionally, an innovative organizational culture can encourage

employees to feel safe psychologically, which has been associated with increased creativity, risk-taking, and innovation (Edmondson, 1999).

Despite the potential advantages, developing an innovative organizational culture presents a number of difficulties for businesses. One such difficulty is striking a balance between the necessity to maintain operational stability and efficiency and the emphasis on creativity and risk-taking (Christensen, 1997). Additionally, businesses must be ready to spend money on the infrastructure and resources needed to support innovation while also addressing any potential employee resistance to change (Kotter, 1995).

In conclusion, a creative organizational culture can significantly affect an organization's ability to innovate its products and processes, providing a potent way to boost competitiveness and promote long-term success. Organizations may maximize the potential of their human capital and lay a solid basis for success in the fast-paced business climate of today by cultivating a culture of creativity, risk-taking, cooperation, and continuous development.

Knowledge-centric personnel management can have a substantial impact on an organization's capacity to innovate in terms of both products and processes, providing a potent way to boost competitiveness and promote long-term success. Organizations can unleash the full potential of their human capital and lay a solid foundation for success in today's dynamic business environment by investing in employee development, fostering a culture of continuous learning and knowledge sharing, and encouraging collaboration and experimentation.

The creation of an innovative organizational culture can be strongly influenced by knowledge-centric talent management, which also has positive implications on the competitiveness and performance of the business. Organizations can maximize the potential of their human capital and promote sustainable growth in the contemporary business climate by making investments in staff development, developing a culture of ongoing learning and knowledge sharing, and encouraging cooperation and risk-taking.

According to the study's findings, knowledge-centric people management has a greater impact on product and process innovation than on innovative organizational culture. Furthermore, it appears that the influence of an innovative organizational culture on new product and process innovation is diminished by the presence of talent management that is knowledge centric. This finding has a number of ramifications for businesses looking to promote innovation and strengthen their competitive edge.

The study emphasizes the significance of knowledge-centric talent management in fostering the development of new products and procedures. Organizations may successfully increase their capacity to innovate and adapt to the quickly changing business environment by investing in the development and retention of their workers' knowledge and skills (Davenport & Prusak, 1998). This finding highlights the importance for businesses to concentrate on hiring, training, and retaining employees who have the necessary knowledge and skills to develop original ideas and apply creative solutions.

Second, the data reveals that when knowledge-centric personnel management is in place, innovative organizational culture may not be as effective at fostering new product and process development. This conclusion suggests that businesses should give employees' knowledge and skill growth top priority because it can have a bigger impact on the outcomes of innovation. While fostering an innovative culture is still important, it might not be enough to promote innovation if staff members lack the knowledge and abilities needed to take advantage of the advantages such a culture offers (Schein, 2010).

It is crucial to remember that there will probably be complicated and subtle interactions between knowledge-centric talent management, innovative organizational culture, and innovation outcomes. Depending on the exact context and attributes of a business, such as its size, industry, and competitive environment, the interaction between these components may change (Tidd, Bessant, & Pavitt, 2005). As a result, businesses should give considerable thought to the particular environment in which they function when creating and putting into practice people management policies meant to promote creativity.

The research's findings underscore the crucial role that knowledge-centric personnel management plays in fostering the development of new products and business models, and they opine that this impact may even outweigh that of innovative organizational cultures. To improve their ability to innovate and maintain competitiveness in the fast-paced business climate, organizations should give employees' knowledge and skill development top priority. Organizations should also be aware of the intricate relationships that exist between organizational culture, innovation outcomes, and talent management, and they should modify their tactics in accordance with these relationships.

The study's findings, which show that knowledge-centric talent management has a greater impact on product and process innovation than it does on innovative

organizational culture and that product and process innovation is unaffected by innovative organizational culture in the presence of knowledge-centric talent management, open up a number of avenues for additional research and provide useful organizational recommendations:

1. Examine how knowledge-centric talent management and innovative organizational culture interact. Future research could examine the precise mechanisms by which these two factors interact and pinpoint the circumstances in which knowledge-centric talent management may still benefit product and process innovation.
2. Examine the influence of industry and context: Depending on the particular industry and organizational situation, the effects of knowledge-centric talent management and innovative organizational culture on innovation outcomes may differ. To gain a deeper knowledge of their effects, future research could look at these linkages in various organizational contexts and industries.
3. Create targeted personnel management strategies: Organizations should place a high priority on employee development and retention in order to foster the development of new products and processes. This may entail funding professional development programs for staff members, such as mentoring and training, as well as putting in place efficient performance management systems to recognize and reward high-potential workers.
4. Encourage a culture of lifelong learning: Businesses should work to promote a learning-focused culture that values and encourages employees' continued knowledge and skill development. This can be done by fostering open communication, knowledge sharing, and giving staff members the chance to gain knowledge from both achievements and failures.
5. Maintaining a balance between creativity and risk-taking and the requirement for operational stability and efficiency is just as vital for firms as maintaining an innovative corporate culture. This can entail putting in place procedures and controls that let the business efficiently manage innovation initiatives without affecting regular business operations.
6. Develop unique innovation strategies: Businesses should understand that there is no one-size-fits-all strategy for promoting innovation. Taking into mind the intricate interplay between knowledge-centric personnel management, innovative organizational culture, and innovation outcomes,

they should build customized strategies based on their unique setting, industry, and organizational capabilities.

Organizations can develop better strategies for fostering innovation and preserving a competitive edge in the market by pursuing these avenues in order to deepen their understanding of the relationship between knowledge-centric talent management, innovative organizational culture, and product and process innovation.

Given that innovative organizational culture does not affect product and process innovation when knowledge-centric talent management is present and that innovative organizational culture has a greater impact on product and process innovation than on innovative organizational culture, the following recommendations can be made to researchers:

1. Research potential moderating factors that may have an impact on the relationship between knowledge-centric talent management, innovative organizational culture, and product and process innovation. These variables may include market dynamics, firm size, industry-specific traits, and external elements like the regulatory and economic climate.
2. Longitudinal research: Researchers could better understand how interactions between knowledge-centric personnel management and innovative organizational culture develop over time and how these changes impact product and process innovation over the long term by conducting longitudinal research designs.
3. Analyses of cases and comparisons Research into the precise processes through which knowledge-centric talent management and innovative organizational culture interact and affect product and process innovation could be gained from in-depth case studies and comparative assessments of various firms.
4. Examine how leadership influences the relationships between knowledge-centric talent management, innovative organizational culture, and product and process innovation. Examples of such leadership styles include transformational and transactional leadership.
5. Analyze the effects of technology: Given how quickly technology is developing, academics may want to look at how it affects the interactions among knowledge-centric talent management, innovative organizational cultures, and product and process innovation.

6. Evaluation of the function of organizational structure Researchers and practitioners could benefit from examining the effects of various organizational structures, such as centralized or decentralized decision-making, on the connections between knowledge-centric personnel management, innovative organizational culture, and product and process innovation.
7. Measure and operationalize variables: Researchers ought to keep improving the measurement and operationalization of important factors, including knowledge-centric personnel management, innovative organizational cultures, and product and process innovation. This will guarantee that subsequent research develops on a strong basis and yields trustworthy and legitimate findings.
8. Investigate sectoral differences: The impact of knowledge on the development of innovative products and processes is undeniable. However, the relationship between knowledge and innovation may also be related to the knowledge policies of the sector in which the organization operates. Although not considered in this study, the impact of knowledge-based talent management approach and innovative organizational climate on organizational innovation should be examined in different sectors.

By examining these suggestions, researchers can help to better understand the intricate connections between knowledge-centric talent management, innovative organizational culture, and product and process innovation. In turn, this will aid organizations in creating more practical strategies for fostering innovation and preserving a competitive edge in the marketplace.

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APPENDIX 1

SI	Şirketimizde stratejik hedeflerle uyumlu stratejik kilit pozisyonlar tanımlanmaktadır
SI	Stratejik pozisyonların başarısı için katkıda bulunan yetenekli çalışanların katkıda bulunma düzeyleri şirketimizde ayırt edilmektedir
SI	Şirketimiz sistematik olarak stratejik pozisyonlar arasından en etkili pozisyonları belirleyebilmektedir
SI	Şirketimiz içinde yetenek havuzu oluşturulmaktadır
SI	Şirketimiz yetenek havuzu içindeki en yetenekli kişileri düzenli olarak belirlemektedir
TA	Çalışanların şirkette çalışmak istemelerini sağlayacak bir kültür yaratılmıştır
TA	Mevcut çalışanlar ile işe başvuranların yetkinlikleri arasındaki farka bakılır
TA	Doğru işe doğru kişilere yerleştirir
TA	Yetenekli çalışanların istihdamı için yatırım yapılır
PE	Şirketimizdeki performans değerlendirme sisteminde çalışanlarca elde edilen çıktıların kalitesi değerlendirilmektedir
PE	Şirketimizdeki performans değerlendirme sistemi çalışanların öğrenme becerisine odaklanmaktadır
PE	Şirketimizdeki performans değerlendirme sistemi çalışanların stratejik hedeflere ulaşmak için sağladıkları katkılara odaklanmaktadır
PE	Şirketimizdeki performans değerlendirme sistemi çalışanların çalışma sonuçlarını ve performanslarını ölçmektedir.
CM	Şirketimizde yetenekli çalışanlar için bir çok terfi ve geliştirme fırsatları mevcuttur
CM	Şirketimizde her bir yetenekli çalışan için net bir kariyer gelişim planı bulunmaktadır
CM	Şirketimizde terfi etmek isteyen yetenekli çalışanlar için terfi edebilecekleri birden fazla pozisyon bulunmaktadır
CM	Şirketimizdeki çalışan terfilerinde terfi edilecek çalışanla çalışanın gelecekteki mesleki gelişimi konusunda görüşmeler yapılmaktadır.
CB	Şirketimizin yetenekli çalışanları eğitim ve geliştirme ihtiyaçlarına göre ek ücret ve yan haklar elde edebilmektedir
CB	Şirketimizin yetenekli çalışanları stratejik pozisyonlara terfi olduklarında ek gelir ve fazladan yan haklar elde etmektedir
CB	Şirketimizdeki ücret ve yan haklar sisteminde yetenekli çalışanların kişisel performansları baz alınmaktadır
CB	Şirketimizdeki ücret ve yan haklar sisteminde yetenekli çalışanların uzun vadeli performansları ve amaçlara ulaşma dereceleri dikkate alınmaktadır.

CB	Şirketimizdeki ücret ve yan haklar sistemi stratejik hedeflere ulaşmak için yetenekli çalışanların kişisel olarak sağladığı katkılara odaklanmaktadır.
SECI	Çalışanlar arasında bilgi paylaşımı için tanımlanmış zamanlar vardır
SECI	Çalışanlar bilgi ve becerilerini paylaşmakta isteklidir
SECI	Çalışanlar arasında bilgi paylaşımını destekleyen süreç ve uygulamalar vardır
SECI	Çalışan yeni bir göreve başladığında yöneticisi tarafından belirli bir süre desteklenir
SECI	Deneyimli çalışanlar az deneyimli çalışanları yapıcı geri bildirimler ile destekler
SECI	Deneyimlerden öğrenir ve fayda sağlarız
SECI	Geçmiş deneyimler ışığında kullandığımız metotları geliştiririz
SECI	Elde edilen sonuçlar ile ilgili çok sayıda kullanışlı bilgi ve belge üretilir
SECI	Faaliyetler verilerle izlenir
SECI	Çalışanlar şirkette olanlar ile ilgili bilgilendirilir
SECI	Bilgi farklı departmanlar arasında paylaşılmaktadır
SECI	Kullanışlı bilgiler şirket genelinde yayılmaktadır
SECI	Çalışanlar arasında iletişim ve yayılımı destekleyen teknolojiler kullanılmaktadır
SECI	Çalışanların mesleki becerileri eğitimlerle geliştirilmektedir
SECI	Eğitim faaliyetleri çalışanların ihtiyaçları doğrultusunda yürütülmektedir
SECI	Çalışanların gelişimine yönelik aktiviteler önceliklendirilmektedir
SECI	Yöneticiler tüm çalışanlara gelişim fırsatları sunmaktadır
PTI	Şirket son 5 yıl içerisinde rakiplerine kıyasla daha yenilikçi ürünler ve hizmetler sunmuştur
PTI	Yeni ürün ve hizmetlerde şirket genelde pazara ilk giren şirkettir
PTI	Yeni ürün ve hizmetler müşteriler tarafından sıklıkla yenilikçi bulunur
PTI	Rakiplerimizle karşılaştırıldığında, şirketimiz yeni ürün ve hizmet lansmanında daha yüksek bir başarı oranına sahiptir.
PSI	İş süreçleri sürekli olarak iyileştirilmektedir
PSI	Şirket son 5 yıl boyunca pek çok yeni yönetim yaklaşımı geliştirmiştir
PSI	Problemler geleneksel yöntemlerle çözülemediğinde yeni yollar denenir
PSI	Üretim metotları rakiplere kıyasla çok daha yüksek bir hızla değiştirilir
IC	Yaratıcılık ve yenilik teşvik edilir
IC	İşlerin yeni yollarla yapılmasına açık bir şirkettir
IC	İnsanların özdeşleşebileceği bir kurumdur
IC	Departmanlar arasında takım çalışmasının desteklenir

IC	Yöneticilere yüksek sorumluluk verilir
IC	Kararların gerekçeleri ilgili çalışanlara anlatılır
IC	Çalışanların işlerine kendi yaklaşımlarını yansıtmalarına izin verilir
IC	Karar alma mekanizmaları en alt kadrolara kadar delege edilir
IC	Kısa vadeli performansa mâl olsa da uzun vadeli hedeflere odaklanılır
IC	Kurallar ve prosedürlerden çok etkinliğe değer verilir



APPENDIX 2

SI	Our company defines strategic key positions in line with strategic goals
SI	The level of contribution of talented employees who contribute to the success of strategic positions is distinguished in our company
SI	Our company is able to systematically identify the most effective strategic positions
SI	A talent pool is created within our company
SI	Our company regularly identifies the most talented people in the talent pool
TA	A culture has been created to ensure that employees want to work for the company.
TA	The difference between the competencies of existing employees and job applicants
TA	Places the right people in the right jobs
TA	Investing in the employment of talented employees
PE	The performance appraisal system in our company evaluates the quality of the outputs obtained by employees
PE	The performance appraisal system in our company focuses on employees' ability to learn
PE	The performance appraisal system in our company focuses on the contributions of employees to achieve strategic goals
PE	The performance appraisal system in our company measures the work results and performance of employees.
CM	There are many promotion and development opportunities for talented employees in our company
CM	Our company has a clear career development plan for each talented employee
CM	For talented employees who want to be promoted in our company, there are multiple positions where they can be promoted
CM	In employee promotions in our company, interviews are held with the employee to be promoted about the future professional development of the employee.
CB	Our company's talented employees can receive additional wages and fringe benefits according to their training and development needs.
CB	Our company's talented employees receive additional income and benefits when they are promoted to strategic positions
CB	Our Company's wage and benefits system is based on the personal performance of talented employees
CB	In our Company's wage and benefits system, the long-term performance of talented employees and the degree of achievement of goals are taken into consideration

CB	The remuneration and benefits system in our company focuses on the personal contributions of talented employees to achieve strategic goals.
SECI	There are defined times for information sharing between employees
SECI	Employees are willing to share their knowledge and skills
SECI	There are processes and practices that support information sharing among employees
SECI	When the employee starts a new assignment, they are supported by their manager for a certain period of time
SECI	Experienced employees support less experienced employees with constructive feedback
SECI	We learn from and benefit from experiences
SECI	We improve the methods we use in the light of past experience
SECI	A lot of useful information and documentation is produced about the results obtained
SECI	Activities are monitored with data
SECI	Employees are informed about what is happening in the company
SECI	Information is shared between different departments
SECI	Useful information is disseminated throughout the company
SECI	Technologies that support communication and dissemination among employees are used
SECI	Employees' professional skills are improved through trainings
SECI	Training activities are carried out in line with the needs of employees
SECI	Activities for employee development are prioritized
SECI	Managers provide development opportunities for all employees
PTI	In the last 5 years, the Company has offered more innovative products and services than its competitors
PTI	For new products and services, the company is usually the first to market
PTI	New products and services are often found innovative by customers
PTI	Compared to our competitors, our company has a higher success rate in launching new products and services
PSI	Business processes are continuously improved
PSI	Over the last 5 years, the company has developed several new management approaches
PSI	When problems cannot be solved by traditional methods, new ways are tried
PSI	Production methods are changed at a much higher rate than competitors
IC	Creativity and innovation are encouraged
IC	A company open to new ways of doing things

IC	It is an institution that people can identify with
IC	Teamwork between departments is supported
IC	Managers are given high responsibility
IC	Justifications of decisions are explained to relevant employees
IC	Employees are allowed to reflect their own approach to their work
IC	Decision-making mechanisms are delegated down to the lowest cadres
IC	Focus on long-term goals at the cost of short-term performance
IC	Effectiveness is valued more than rules and procedures

