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Knowledge sharing drivers in organisations, what and how;
identifying and analysing their impacts in different platforms

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This doctoral thesis is lovingly dedicated to:

Those Who Planted the Seeds of Hope in Our Hearts

The Brave Iranians, Freedom Seekers,

Women, Girls and Mothers

Men, Boys and Fathers

To

Equality

Justice

Peace

..

..

..

To

Freedom

تقدیم به غم امیدداران، آزادی‌خواهان و مبارزان راه آزادی

در مملکت چو غرش شیران گذشت و رفت

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آن کس که اسب داشت غبارش فرو نشست

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Acknowledgements

The last three years began with hope and continued with a disaster. The covid-19 pandemic appeared, to fill life with loneliness, sadness, and anxiety. So many people passed away; grandmothers, grandfathers, mothers, fathers, youths, children and kids. Social distancing had separated us from the support and companionship of friends and family, an incredible difficult depressing situation. The big world turned to the small, as small as our bedroom or house. Every day, bad news and pain for us and those we love. But hope won, and darkness turned lightness, gradually and again.

This was my life in PhD studying during the last three years, but I was full of hope, more robust than troubles; a real warrior.

Now, I am at the last destination of this adventure.

Undertaking this thesis has genuinely been a challenging but also a turning point and life-changing experience. I want to take this opportunity to thank the people who have supported and encouraged me.

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Abstract

"If you know the enemy and yourself, you need no fear of a hundred battles. If you know yourself but not your enemy, you will suffer a defeat for every victory gained. If you know neither the enemy nor yourself, you will succumb in every battle" Sun Tzu, The Art of War (roughly 5th century BC).

These phrases bring a strong vision for knowledge reputation in the most understandable shape. Knowledge is awareness of what is within one's scope and what is imposed from beyond, which helps overcome the challenges. Knowledge is this fact in organisation life—the critical tool for surviving in the battle of "market" with the rigid competitiveness rules and plays a critical role in organisations' business strategy. Therefore, it is essential to manage knowledge processes and consider their drivers. Moreover, when the environment features are set beside the knowledge, the importance of the knowledge management role becomes double because knowledge is not only a single-scale of the individual or group understanding. Accordingly, in three published papers, this study will consider the knowledge's fundamental role in an organisation by evaluating its main drivers and how some factors drive knowledge sharing.

Through focusing on knowledge sharing in family businesses, the first paper analyses drivers' impact, which is more critical for small family firms in the restaurant and fast-food industry. Accordingly, this study asks; what are the fundamental drivers for knowledge sharing in small family firms performing their business in the restaurant and fast-food sector? This research is conducted by performing two studies; exploratory through the Delphi method and conformity by confirmatory factor analysis. The findings indicate that 23 indicators in three groups, individual, organisational and technological drivers are critical for KS in small FBs in the studied industry.

The second paper analyses the role of organisational democracy (OD)and its principles in facilitating the knowledge-sharing (KS) process. Through an organised data collection (254 employees at private universities and colleges) and applying the structural equation modelling (SEM) technique, the relationship between the OD's principles and KS were analysed, leading to findings that show a direct and significant direct effect on KS.

The third paper, which is performed in a unique environment of cross-cultural considers the social capital (SC) effects on knowledge sharing and creation and sets out to develop an understanding of the importance of the impact of the cross-cultural environment on this relationship. This

research applied the exploratory and confirmatory factor analyse for recognising and confirming the items in KM and SC and the structural equation modelling (SEM) technique for finding the relationships. The findings indicated a significant relationship between SC dimensions and KM in the cross-cultural setting.

Keywords: Knowledge management, Knowledge sharing, SMEs, Family business, Organisational democracy, Universities, Social capital, Cross-cultural environment

CHAPTER ONE: Introduction and Background

1.1 Introduction

During the last two decades, researchers and specialists have tried to explain how and why knowledge can be vital in paving the path to success for an organisation (Rzakhanov, 2012; Del Giudice and Maggioni, 2014; Santoro *et al.,* 2017). Knowledge positively correlates with reducing production costs (Oyemomi *et al.,* 2016), accelerating production process and project completion, increasing team and firm performance and enhancing innovation (Akhavan and Mahdi Hosseini, 2016). Moreover, the fundamental impact of knowledge on the beginning steps of founding a business and its effects on the performance scales, e.g., production rate, and financial indicators, e.g., profit and loss, in financial statements, have made its importance double in organisational studies (Ali *et al.,* 2019). Knowledge is strongly intertwined with enhancing a firm's operational efficiency (Scuotto *et al.,* 2017; Ferraris *et al.,* 2019), value creation, and sustainable development (North and Kumta, 2018; Rossi *et al.,* 2020). Accordingly, as Rezaei *et al.* (2021) mentioned, knowledge is critical for the organisational strategy and provides many advantages to enterprises; this is a common fact in business. Nevertheless, many SMEs do not receive these benefits; why? The response to this question should be found in an unclarity on factors and drivers which significantly impact KM, beginning from the acquisition and ending with its use.

These drivers are essential factors that support organisations in promoting business performance and market-oriented purposes, such as short-term, mid-term or long-term strategy designing and improving the daily procedures. In addition, they are vital in encouraging (or forcing) enterprises to run the KM policies (Du Plessis, 2005). In some aspects, drivers are defined as catalysts for KM implementation, which can maintain or improve the organisation's competitive market position (Jafari-Sadeghi *et al.,* 2022). In addition, managing the knowledge processes and its dimensions, such as sharing, creating and acquiring, have always been influential drivers in some scopes, such as organisational learning, human resource management, organisational performance, operational performance and long-term planning (Hussinki *et al.,* 2017; Kasemsap, 2018).

Meanwhile, prior research has suggested that knowledge sharing (KS) in different forms (e.g., intra-organisational communication and information sharing) is an essential dimension in a KM system (Mokhtarzadeh *et al.,* 2021). KS is positively associated with a wide range of organisational activities, from production and performance to innovation capabilities and employee empowerment (Kremer *et al.,* 2019; Cillo *et al.,* 2019; Singh *et al.,* 2021). A well-managed KS

process simplifies the flows of knowledge, experiences, and thoughts and improves the strategy-making associated with the organisation in designing and developing activities.

Edwards (2011) believes KS is the most critical complex activity affected by individual, organisational, and technological factors. According to Lin (2013), KS is a conveyance behaviour in which the individual, organisational and technological factors are essential dimensions; therefore, challenges to promoting the KS processes are directly connected to weaknesses in one or more of these dimensions. Heisig (2009) classified studying the drivers in KS into three groups; human-related, technology-related and organisation-related factors. Kukko (2013) organised studying the drivers in KS into three groups; human-related, technology-related and organisation-related factors. On the flip side, although it is proven that the advent of new technology makes KS smooth and efficient, it is operators (individuals) who use these new communication tools; therefore, even new technologies' effectiveness is still heavily dependent on the socio-human factors. Therefore, the effects of socio-human factors on KS can be a critical pattern for identifying the successes and failures of the implementation of KM in organisations (Zhang and Jasimuddin, 2012; Del Giudice and Maggioni, 2014). The drivers such as workplace climate (Alzghoul *et al.,* 2018), organisational and managerial structure (Mahmoudsalehi *et al.,* 2012) and the level of democracy in the workplace (Moglen, 2013), individual characteristics, motivation and social capital, have been the matter of interest in KM studies. This study will assess the drivers, and their impacts, that are critical in the process of KM and KS in different kinds of firms and environments.

1.2 Research problem, gap and questions

As mentioned, important essential factors regulate the KM and KS in organisations. These factors which broadly conduct KM and KS practices come in different categories. Some of them are raised from the individual features; therefore, they drive the knowledge in an individual framework. Therefore, some depend on organisational characteristics, influence knowledge in corotational elements scopes, and some relate to the tools, instruments, and technology, which improve the process by facilitating organisational functions or personals. Furthermore, the firm's specific structures and features have broadly shadowed the different impacts. So, for example, although it is proven organisational structure, full centralised or less centralised, is vital in evaluating the motivators for knowledge procedures, it is also a matter of considering that on which kinds of

firms we are focusing, is it a large firm or SME, is the emotional norms such as family ties considerable in the studied firms?

Moreover, despite the significant roles of various internal and external drivers on KM and KS that influence the knowledge flow in an organisation, there are some dark sides to how they might be influences the knowledge processes in the workplace. For example, how do some factors such as social capital and organisational democracy drive knowledge? Additionally, as a matter of consideration, culture is a flowing spirit that handles the relationships and communication, personal or in the group, in organisations and certainly impacts the KM and KS procedures driving. A multi-cultural or a cross-cultural setting has inherent features, which KM and KS drivers can be affected differently than the single-cultural environment.

Besides all mentioned gaps in research, a lack of exploratory study also is felt on potential differences in the influence of drivers on KS because we cannot suppose all drivers have the same impact on KS in all firms and environments. Therefore, in three papers and as whole integrated research, we conducted this study to fill the gaps in investigations by answering these questions respectively;

First, what are the influential KS drivers in small FB in the food industry? Do these drivers treat the same on KS processes? Are there particular ranking and specific differences compared to other kinds of SMEs?

Second, what is the role of OD in improving KS within an organisation?' how do the major OD principles affect KS? and which one is more crucial in enriching the KS?

Third, how do the SC dimensions drive the KM and KS? What is the role of a cross-cultural environment in KM and SC interactions?

1.3   Methodology

For conducting this research, we applied three methodologies for each study separately.

For the first paper, in the second chapter, the combined exploratory and confirmatory analysis is applied in two studies. Accordingly, in the first study, by the Delphi method, the 22 experts consisting of managers, FB owners and academic professors explore and forecast significant items

and drivers. The second study is confirmatory factor analysis (CFA) for validating the first study's indicators using the survey collected amongst 218 restaurants and fast-food employees.

In chapter three, the second study is based on data extracted from a distributed Likert-scale questionnaire in a sample of 254 employees at private universities and colleges for analysing the OD and KS relationships. The data were analysed using the structural equation modelling (SEM) approach.

Finally, in the fourth chapter, through a descriptive and correlational method, the impact of various dimensions of SC on KM in a cross-cultural setting has been investigated. Data has been acquired through questionnaires consisting of 30 items on the Likert scale in a sample of 232 people. For analysing the data, the exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and structural equation modelling (SEM) approach.

1.4   Research contributions

This research enriches the concepts in KM and KS, straightly and generally. Moreover, by considering the drivers and their different impacts on KM processes, the prior knowledge in the literature on KM will be enhanced, concluding in a more comprehensive understanding of the knowledge pros and cons and the essentiality of conducting a well-defined KM system. Besides, as every paper presented in three separate chapters has been conducted in a different environment and is different in the firm size and scope of activity, they also have their separate particular contributions that help various stakeholders.

For instance, the first study contributes to the three-line research streams of KS and FB in the restaurant and fast-food industry. First, by analysing the stimuli of KS in the small FB and its essential effects through multiple empirical perspectives, it will improve prior studies and respond to current needs for more exploratory analysing of the influential factors in the KS domain. It makes a second related contribution by recognising and ranking the most critical factors in KS that can facilitate the knowledge stream in the FB. Therefore, findings add to the ongoing discussion on KS in FB by highlighting the different intensity of drivers' effects that affect KS positively. Third, it will raise the level of understanding about the impact of a factor on KS and will study the different effects of the elements in facilitating the KS in the FB by considering the experts' experiences. The findings also aid family firm owners in shaping and managing a knowledge-sharing system to expand the knowledge inside the organisation empirically. Governmental

managers and managerial and economic macro planners can also apply the results to identify strategies needed to increase the sustainability of FB activities.

The second study (chapter three) contributes differently to the KM and OD research streams. First, it improves prior knowledge and responds to current needs for a more exploratory analysis of the influential factors of democracy in the KM domain (e.g., Harrison and Freeman, 2011; Verdorfer *et al.,* 2015). It also recognises and evaluates the most influential factors in OD that can facilitate KS in an organisation, thus providing some important managerial recommendations and action priorities. Next, the findings add to the ongoing discussion of employee participation in KS by individuating a specific feature in an organisational context and highlighting the different intensities of the OD subdimensions effects that positively affect KS behaviours (e.g., Razmerita *et al.,* 2016; Ganguly *et al.,* 2019). Finally, findings come to the aid of stakeholders, such as managers, in empirically shaping and managing a democratic organisational system to expand knowledge inside the organisation. In an overview, the paper has presented theoretical and practical implications that, by considering reference points in the OD factors, set up formatting for developing environmental and managerial indicators in KS and implicitly design an efficient relational plan and methodology for facilitating the KS process.

Furthermore, the fourth chapter's study specifically and empirically analyses the cross-cultural environment and its effects on knowledge management process applications and correlations between KM and SC. This investigation explains how companies can use SC to enhance the effectiveness of KM by considering cultural diversity impacts. It recognises and evaluates the most influential factors in SC that can facilitate KM, thus providing some important managerial recommendations and action priorities. It comes to the aid of stakeholders, such as managers, in empirically managing SC norms in their cross-cultural firms to expand knowledge inside the organisation

CHAPTER TWO: First Study, "What are the fundamental knowledge-sharing drivers of small family businesses in the restaurant and fast-food industry?"[1]

2.1 Abstract

Purpose – Despite the undoubted role of knowledge in the small family business (FB) in the restaurant and fast-food industry, there are some main challenges in the knowledge-sharing (KS) orientation for promoting their business. This study tries to recognise and explore the drivers influencing these enterprises' KS processes.

Design/methodology/approach – The authors applied combined exploratory and confirmatory analysis in two studies. In the first study, by the Delphi method, the 22 experts, consisting of managers, FB owners and academic professors, explored and forecasted significant items and drivers. The second study is confirmatory factor analysis (CFA) for validating the first study's indicators using the survey collected amongst 218 restaurants and fast-food employees.

Findings – The findings indicate that 23 indicators in three main individuals, organisational and technological drivers are critical for KS in small FBs in the investigated industry.

Originality/value – This research supports the understanding of knowledge management and FB and contributes to recognising the factors for KS amongst small and medium-sized family businesses in the food-related industry. Also, by identifying and ranking the most significant factors, this research will help entrepreneurs facilitate FB entrepreneurship. Finally, the results provide practical implications for current and future KM and FB decision-makers.

Keywords Knowledge management (KM), Knowledge sharing (KS), Family business (FB), Small and medium-sized enterprises (SMEs), Restaurants and fast-foods

1.1 Introduction, research gap and questions

Food and its related segments are among the most attractive tourism and hospitality sectors, consisting of about 4% of Gross Domestic Product (GDP) in countries with developed tourism systems. It is also shared in more than 20% of total service industry revenues and 17 to 20% of household consumption per year (Henderson, 2009). According to the Food Travel Association report, in 2019, tourists allocated approximately 25% of their budget to food (this figure fluctuates between 15% for affordable destinations and 35% for expensive destinations, depending on how luxurious their choices are). Therefore, these attractive figures led to more growth in the food and beverage industry and the emergence and extension of many large, small and medium-sized enterprises such as fast foods and restaurants (Wolf, 2020).

More than any other motivation, satisfying the most basic human requirement–eating– has expanded the restaurant and dining industry. Nevertheless, the role of financial motivations and the simplicity of planning, implementing and establishing a restaurant or fast food is also

influential. Beyond all features, the family members' participation possibility, particularly females, has developed this industry's position in FB. As a result, running a restaurant and fast food has become the first practical family idea for starting a business (Watson *et al.,* 2018). On the other hand, tight competition is the unpleasant consequence of mentioned advantages leading to the gradual weakening and bankruptcy of businesses that cannot bear competitiveness, even with adequate financial and non-financial resources and a long history of work. Therefore, business owners must consider new plans and strategies that enhance the current process and optimise their in-hand resources and tools to maintain their market share, e.g. by developing innovations and improving processes and quality of service (Mokhtarzadeh *et al.,* 2020). Although this potential is conceivable for all firms, SMEs have more limited access to financial resources to maintain competitiveness than large firms, so they must rely more on their other capacities, e.g. knowledge. Therefore, these firms require further attempts to create, transfer and share the experiences, ideas and thoughts in their business strategies frameworks (Rezaei, 2018).

Meanwhile, knowledge sharing (KS) is more critical in applying the required knowledge in organisations amongst the knowledge management (KM) dimensions (Rezaei *et al.,* 2020). KS has a positive relationship with reducing costs of production (Oyemomi *et al.,* 2016), increasing the process of completion of new products and projects, team performance, innovation (Akhavan and Mahdi Hosseini, 2016) and firm performance (Zhang, 2018). A well-managed KS process simplifies the flows of knowledge, experiences, and thoughts and improves the strategy-making associated with the organisation in designing and developing activities.

Moreover, the fundamental impact of knowledge for the beginning steps of founding a business and its effects on the performance scales, e.g. production rate, and financial indicators, e.g. profit and loss, in financial statements, have made the KS importance double in organisational studies (Abdelwhab Ali *et al.,* 2019). Accordingly, considering the causes of KS barriers and drivers has become an exciting topic for research (Killingsworth *et al.,* 2016; P_erez-Lu~no *et al.,* 2019). These studies have clarified the effects of various factors on the KS process, mainly in large family firms. For instance, Zahra *et al.* (2007) and Karra *et al.* (2006) studied the impact of the altruistic nature of familial influence. They discussed internal family relationships influencing the KS process and concluded that trust is the first and critical cause of emerging FB; therefore, drivers can be classified based on their positive or negative effects on trust. Some scholars have raised behavioural issues and considered its consequences on the KS in family firms (Poza *et al.,* 2014;

Le Breton-Miller and Miller, 2016). Some investigators analysed the individual impacts and argued on the members' personality traits that facilitate the KS process, considering intimate relationships in the family (Dotsika and Patrick, 2013). According to Durst and Runar Edvardsson (2012), management awareness of knowledge advantages uniquely influences the KS process. Managers are responsible for designing KM strategies and orientations in organisations, particularly in centralised organisations; therefore, KS promotion is tied to their awareness of the usefulness of its results. Duh *et al.* (2010) assigned a significant role for the culture in shaping KS facilitating behaviours. Some studies considered individual factors (i.e. trust, self-confidence and personal motivation, cognition, etc. Furthermore, explained that people with outstanding personality characteristics are more willing to share their experiences (Mooradian *et al.,* 2006; Riege, 2007; Casimir *et al.,* 2012; Wendling *et al.,* 2013).

However, these studies did not fully cover KS in FBs for two reasons. First, they mainly focussed on large FB and SMEs, specifically small FB, have attracted fewer enquiries while are essential in the economy and entrepreneurship. Second, these studies mainly have examined the factors affecting the transfer across multiple family generations, and KS in the FB has received less attention (Giovannoni *et al.,* 2011; Boyd and Royer, 2012; Hatak and Roessl, 2015). Therefore, we cannot be sure about the impact of these challenges on the small FB due to the lack of complete information on the consequences. On the other hand, while it is essential to identify the challenging factors, revealing which ones are more important is also critical for FB. We do not have complete comparative information on the probable varied effects of drivers on KS in small FBs and how and to what extent these effects can vary in various dimensions.

Given the literature gap and the practical importance of small FB, this exploratory study considers the influential drivers of KS in small FB in the food industry. To meet this end, we conduct two studies. In the first study, Delphi analysis helps us predict and explore key factors in KS. We utilise survey data collected from professionals for the confirmatory factor analysis (CFA) to validate the findings of the Delphi test in the second study.

Our study contributes to the three-line research streams of KS and FB in the restaurant and fast-food industry. First, by analysing the stimuli of KS in the small FB and its essential effects through multiple empirical perspectives, we improve prior studies and respond to current needs for more exploratory analysing of the influential factors in the KS domain. We make a second related contribution by recognising and ranking the most critical factors in KS that can facilitate the

knowledge stream in the FB. Therefore, findings add to the ongoing discussion on KS in FB by highlighting the different intensity of drivers' effects that affect KS positively. As the third contribution, we want to raise the level of understanding about the impact of a factor on KS and will study the different effects of the elements in facilitating the KS in the FB by considering the experts' experiences. The findings also aid family firm owners in shaping and managing a knowledge-sharing system to expand the knowledge inside the organisation empirically. Governmental managers and managerial and economic macro planners can also apply the results to identify strategies needed to increase the sustainability of the FB activities.

For the rest of the paper, we review the literature and analyse the initial drivers for the KS process in SMEs and FBs. Then, we conduct study one, using the Delphi method for exploring the critical incentives in KS. In study two, we conduct a CFA of survey data. Finally, we conclude the study by discussing our findings, implications, limitations and future lines for research.

2.2 Literature review

2.2.1 Family business and knowledge

Depending on viewpoints and criteria, there are different descriptions for defining the FB term (Astrachan and Shanker, 2003; Sharma and Nordqvist, 2008; Zellweger and Astrachan, 2008; Zellweger *et al.,* 2012). Generally, FB is recognised as family members' involvement in business activities for continuous growth and income generation. The FB is the combination of two almost separate systems, business and family, in which family relationships are integrated into the business environment that lead to the running of a business enterprise by a family (Harris and Wheeler, 2005; McKelvie *et al.,* 2014; Frank *et al.,* 2017). Bettinelli *et al.* (2017) define FB as a system composed of three components; the controlling family with its history, traditions and life cycle; the firm, which includes the resources and structures for generating wealth and the individuals and their interests and skills. Therefore, "family ownership" is the most highlighted difference between these businesses and non-FBs.

Moreover, some features such as managing and controlling, ownership continuity, management continuity, being an intergenerational activity and a combination of some or all of the above characteristics are still a matter of discussion for recognising a business activity under the FB categories (Zellweger and Nason, 2008). Despite differing views on the definition of the FB, many studies still rely on Chua *et al.*'s (1999) definition that defined family firms as dominant and sustainable coalition across generations in the same family or amongst a small number of different families. Therefore, business continuity and sustainability are the necessities for FB. Accordingly,

organisations have two significant tangible and intangible resources based on the resource-based view (RBV), which considers resources as the essential tools for keeping a business activity sustainable and continuing. Certainly, SMEs are more limited in benefiting from tangible resources (due to their dependence on the financial source) than large firms; therefore, the intangible resources such as intellectual capital and, particularly their potential knowledge, will have a particular function.

Moreover, according to the knowledge-based view (KBV), organisations are communities of knowledge and innovation by creating, storing, transferring and transforming it into a sustainable competitive advantage. Therefore, the knowledge lets organisations pioneer business competition by creating a key and differentiating advantage. Accordingly, SMEs, FBs mainly, depend more on intangible resources to the extent that their most significant risk for dissolution is lacking or improper management of applying these sources. The flip side of knowledge efficiency, as an intangible asset, is its inherent potential to provide SMEs with initiatives for overcoming the problems where they have restrictions in affording required tangible assets (Desouza and Awazu, 2006). Cabrera-Su_arez *et al.* (2001) believe FBs are wealthy in intangible sources of contextual information, experience, beliefs, values, insights, and skills generated through the complex interactions of family members. They assert these sources have the inherent characteristics of knowledge (are difficult to understand, observe and copy) and comprise up to 80% of the intangible resource in FBs. Habbershon (2006) points to these sources as a unique package shaped and created through interactions as the "familiness" of the firm. Sirmon and Hitt (2003) showed that small family firms could improve their ultimate competitiveness advantage by adopting a proper internal system for using knowledge. Likewise, Carnes and Ireland (2013) argued that recombining and developing knowledge can increase SMEs' capabilities.

The organisation needs to regulate the knowledge processes by relying on the workforce and constant training system to empower employees with unique abilities and skills to benefit more from the knowledge and, more importantly, for continuous business activities (Amoozad Mahdiraji *et al.,* 2021). While large companies have a long history in KM, SMEs pay less attention, especially in the early stages of business when they have limited access to financial resources and their achievement is tied to utilising this resource (Baptista Nunes *et al.,* 2006). Even though the importance of all KM dimensions, sharing has a more meaningful role in developing resources and capabilities. It is hard to find a universal interpretation for KS. For example, some researchers have

defined it as a transferring process (e.g. Alavi and Leidner, 2001; Singh *et al.,* 2021), and some as a flowing process (e.g. Gaviria-Marin *et al.,* 2019; McLeod, 2020) and some as an exchanging process (e.g. Davenport and Prusak, 1998; P_erez-Lu~no *et al.,* 2019). Also, some scholars know it as a set of behaviours in information-sharing or helping others (Connelly and Kevin Kelloway, 2003). However, there is a strong consensus that KS is the most critical step to the success of KM initiatives (Davenport and Prusak, 1998; Al-Alawi *et al.,* 2007).

KS is influenced by many factors which complicate running its processes in organisations. However, due to FBs' unique characteristics stemming from intertwined kinship relationships, these complexities are more notable, and drivers may influence dissimilar to what is experienced in other SMEs. For instance, internal trust is an essential and valuable factor in the KS process that increases the information and knowledge flow, mutual learning culture and communication for organisations. Therefore, organisations arrange their strategies to increase mutual trust. However, FBs have the highest acceptable levels of trust by default because it is the primary basis for establishing a FB (Karra *et al.,* 2006; Mooradian *et al.,* 2006; Matzler *et al.,* 2008; Rezaei *et al.,* 2020). The instance is rooted in the social capital dimension. The norms and values have an impressive impact on improving the relationships and communication networks, which is found in the strongest and deepest form in a FB (Pearson *et al.,* 2008; Mart_ın-Santana *et al.,* 2020), which improves the relationships and communication networks (Mokhtarzadeh *et al.,* 2021). Leadership also is another effective characteristic of the FB. A generous, friendly and not-complicated leadership emanated from kinship improves self-confidence, develops communication and facilitates KS (Cunningham *et al.,* 2017). Leadership also significantly shapes the organisational culture (OC), which directly and indirectly impacts KS (Muhammed and Zaim, 2020). The deep desire to maintain family knowledge, i.e. business skills, experiences and information, amongst members is the fourth specific feature of FBs, which stems from a sense of kinship. Family members know the value of knowledge inherited from their ancestors as a great asset to preserve and pass on to future generations. Hence, highlighted efforts to share this inherited knowledge distinguish them from similar non-FBs.

2.2.2 The KS drivers

Knowledge is critical for the long-term organisational strategy and provides many advantages to enterprises; this is a fact in business (Rezaei *et al.,* 2021b). Nevertheless, many SMEs do not receive these benefits; why? The response to this question should be found in a process weakness

in KM, beginning from acquiring knowledge and ending with its use. Drivers for KS are essential factors that support organisations in promoting business performance and market-oriented purposes, such as short-term, mid-term or long-term strategy designing and improving the daily procedures. In addition, they are vital in encouraging (or forcing) enterprises to run the KS policies (Du Plessis, 2005). In some aspects, drivers are defined as catalysts for KM implementation, which can maintain or improve the organisation's competitive market position (Jafari-Sadeghi *et al.,* 2022). Edwards (2011) believes KS is the most critical complex activity affected by individual, organisational and technological factors. According to Lin (2013), KS is a conveyance behaviour in which the individual, organisational and technological factors are essential drivers; therefore, challenges to promoting the KS processes are directly connected to weaknesses in one or more of these drivers. Heisig (2009) classified studying the drivers in KS into three groups; human-related, technology-related and organisation-related factors. Kukko (2013) organised studying the drivers in KS into three groups; human-related, technology-related and organisation-related factors. Individual drivers (ID), related to personal characteristics, such as personal intention, mutual trust, relationship and motivation, effectively promote the KS processes (Holste and Fields, 2010; Seba *et al.,* 2012). For example, Abdelwhab Ali *et al.* (2019) considered the "enjoyment" impact on KS and found it as an individual factor driving KS. According to their findings, if individuals experience enjoyment while participating in the sharing process, they will increase their participation for more pleasure. In addition, some studies consider the employees' attitudes, age, education and experience, and supervisor and team support (e.g. Buch *et al.,* 2015; Chae *et al.,* 2019; Thuan, 2020). These investigations concluded that age and education effectively determine the quality of communication and individual relationships, which are essential for the KS process. Some scholars regarded the origins of the KS process drivers (Garousi *et al.,* 2021; Jafari- Sadeghi *et al.,* 2020a). They discussed the improving factors of KS practices and summarised the results into two categories, individual and technology. According to this view, the KS processes are controlled by two main factors: first, drivers known as accessories such as tools and infrastructure technologies and drivers related to personal-social features such as motivation, culture, shared values and trust and training. Tamjidyamcholo *et al.* (2013) analysed self-efficacy, trust, reciprocity and shared language and concluded these factors strongly correlate with the KS promotion. Sedighi *et al.* (2016) showed that reputation, reciprocity, and altruism positively connected KS participation. Heisig and Kannan (2020) conducted a systematic review on KM, and

their results suggested that the KS process might be influenced by gender in an organisation. Finally, Van Den Hooff and De Ridder (2004) studied culture and personality and described KS as a process of mutually exchanging knowledge to generate new knowledge. Accordingly, they explained the individuals' inherent culture of "KS" and "knowledge hoarding" influences the KS process.

Technological drivers (TD) are fundamental for improving KS (Popkova *et al.,* 2021; Rezaei and Heydari, 2021) and are associated with the new technologies, tools and techniques in storage, codifying and converting, transferring, delivering and distributing the knowledge. Inkinen *et al.* (2015) believe new technologies improve KS because they facilitate codifying the process of tacit knowledge into explicit. According to Oyebisi Oyefolahan and Dominic (2013), new technologies develop the KS processes because they directly and positively enhance staff learning and experience sharing. These new technologies can be in the constructs of Web 2.0, including the Internet, through freeware, cross-platform, cloud-based instant messaging (IM) service, organisational portals and weblogs. Also, knowledge sharing systems (KSS), e.g. databases, are another technology construct that facilities employees' accessibility to their required knowledge (Pandya *et al.,* 2021). Saghapour *et al.* (2018) know organisational portals as vital tools that increase organisations' innovations by sharing experiences and skills. According to Smirnova *et al.* (2020), a corporate portal can extend cooperation, openness, trust, team spirit and creativity, ultimately increasing KS. Benbya *et al.* (2004) and Al-Debei *et al.* (2013) emphasised the various portal's effectiveness, such as internal portals and web-based portals, as channels for facilitating the connections and increasing the KS. According to Ghobadi and Mathiassen (2016), databases and repositories are critical tools in making knowledge accessible for all, which lets employees access their required information timely and quickly.

Meanwhile, they believe that databases and repositories are necessary for sharing process but not adequate. Paroutis and Al Saleh (2009) considered the Web 2.0 role on KS and concluded that Web 2.0 provides considerable opportunities for KS in social networking and blogs as new community-driven technology. Qi and Chau (2018) demonstrated that enterprise social networking systems usage influences KS and enhances organisational learning. In an empirical study, Chatterjee *et al.* (2020) observed that when employees have already experienced the use of social media, they will quickly deal with using this tool for knowledge exchange.

Organisational drivers (OD) are organisation-related features, such as structure, culture, governing and managing system, leadership behaviours and managers support. (Abdelwhab Ali *et al.,* 2019). OC is a compound of symbols, languages, beliefs and ideologies founded in an organisation, tangible or intangible. The OC impacts can be traced to the employees' willingness or unwillingness to participate in the KS (Lee *et al.,* 2016). In the OC frame, the organisation is described as a "social community" with social values such as supportive behaviour and collaborative mood that shape the cultural behaviour of the members (employees). Chen and Cheng (2012) believe supportive management will increase the KS participation tendencies. According to Wang and Noe (2010), if employees receive, or even feel, the managers' support, they will be encouraged to participate in practising the KS. Lee *et al.* (2016) define management support as the inspiring power to share experiences and comments that improve the KS practice. Employees resist sharing their knowledge naturally; therefore, motivators (in every shape, financial or non-financial) are a fundamental encouraging factor for KS (Barner-Rasmussen and Aarnio, 2011; Abdelwhab Ali *et al.,* 2019). Hislop *et al.* (2018) argued on motivations effects and concluded that although sharing is a voluntary action, persuading personnel to participate in KS practices is vital for organisations. Titi Amayah (2013) studied motivation's role and concluded that motivating employees by motivating factors such as personal benefits, and normative supports are effective leverages for promoting KS. The organisational structure (OS) is also seen as significantly impacting KS. More than mechanistic and bureaucratic forms, decentralised management and governing encourage employees to share their knowledge (Farooq, 2018). However, the effect of business on different OS cannot be ignored. For example, organisations engaging in information technology and marketing often have a structure emphasising employee freedom and creativity, which is different from, e.g. banks and financial institutes that tend towards more structured cultures. Therefore, concerning the type of business, OS drives the knowledge flow inside the organisations (Rezaei *et al.,* 2021a).

In a few investigations, some researchers explored KS drivers in FBs, both large and SMEs. For example, Shao *et al.* (2012) studied OC and found its essential impacts on KS in Chinese companies consisting of FBs. Lin (2013) examined the incentive rewards system and its effects on KS in Chinese family and non-family firms (almost SMEs) and concluded that personal rewards are not a fundamental driver for KS promotion in the FB. Zahra *et al.* (2007) considered family firms' KS and technological capabilities (including SMEs family firms). They found that family

firms' technical capabilities are vital drivers that positively correlate with formal and informal KS practices. Therefore, the KS process does not run correctly by inadequate capabilities, and the FB will face barriers in applying the knowledge. According to the KBV, Zahra *et al.* (2007) also mentioned that tight familial ties enhance formal and informal sharing of knowledge, and jealousies, unnecessary rivalries and concentration of power decline it. Van Esch *et al.* (2018) analysed the 164 successor-founder in Chinese FBs. They found that emotional ownership reduces KS barriers and increases successors' motivation to run the family firms. Finally, although the particular impact of each driver on the KS is undeniable, influences are more multiple and networked rather than singular and specific; therefore, the drivers' impact should be considered as a whole, not separately and uniquely; e.g. individuals (employees) are affected by the workplace culture and environment (organisational driver-OD). These factors are also influenced by the personality of the organisation members (individual driver-ID). In addition, the efficiency of TD, such as Web 2.0, depends on the operators' skills. Therefore, although these factors affect KS, their effects will not be independent. Table 2.1 illustrates the summary of studies on drivers for KS.

Table 2.1 Summary of critical drivers for KS

Authors	ID	TD	OD.	Focus Area (Factors)
Muhammed and Zaim (2020)			✓	Management support
Kim and Park (2020)			✓	Leadership Style, Organisational Climate
Heisig and Kannan (2020)	✓			Gender
Javaid *et al.* (2020)	✓		✓	Trust, Reward System and OC
Rezaei *et al.* (2020)	✓		✓	Trust, social capital
Al-Kurdi *et al.* (2020)	✓		✓	Organisational leadership and Culture, Trust
Swanson *et al.* (2020)	✓		✓	Leadership Qualities and Capacities
Nguyen *et al.* (2019)	✓	✓	✓	Age, Gender, Organisational Setting, Open System, IT
Ali *et al.* (2019)	✓	✓	✓	Intention, Reciprocity, Motivation, Management Support, Rewards, OC and Structure, KSS, Web 2.0
Van Esch *et al.* (2018)			✓	Leadership
Farooq (2018)	✓	✓	✓	OC, Structure, Rewards, Motivation, Trust, Management Support, Information Technology
AlShamsi and Ajmal (2018)	✓		✓	leadership, culture, strategy, structure, employee engagement
Mirzaee and Ghaffari (2018)		✓		Information service quality, system quality and technology
Fullwood and Rowley (2017)	✓			Individual beliefs
Lee *et al.* (2016)	✓		✓	Support, Organizational Culture, Employees' Willingness and Behaviour
Razmerita *et al.* (2016)	✓		✓	Enjoyment, Rewards, Management Support, Management Encouragement and Motivating Behaviour
Killingsworth *et al.* (2016)	✓	✓	✓	Trust, Reciprocal Benefits, Enjoyment, Age, Nationality, IT and Computer Experience, Gender, Affiliation,
Al Saifi *et al.* (2016)		✓	✓	Social Networks, Training
Andreeva and Sergeeva (2016)			✓	Rewards

Study			Factors
Rodrigues *et al.* (2016)		✓	Web 2.0, IT
Zhao *et al.* (2016)	✓		Personal Ability
Mueller (2015)	✓		Personal benefit
Patil and Kant (2012)		✓	Rewards
Arif *et al.* (2015)	✓	✓	✓	Trust, management and communication
Park and Lee (2014)	✓		Organisational leadership
Rahim (2014)	✓		Personal Ability
Ma *et al.* (2014)	✓		✓	Individual features, Culture, Organisational Environment
Gonzalez and Martins (2014)	✓		✓	Individual factors and OS
Nooshinfard and Nemati-Anaraki (2014)	✓	✓	✓	motivation, tendency, Trust, ability, IT, cooperation, structure, culture and organisational environment, leadership, rewards
Kukko (2013)	✓	✓	✓	Individual, Technological and Organisational
Amayah (2013)	✓	✓	✓	Social interactions, rewards and support, Personal Benefits, Motivation
Hau *et al.* (2013)	✓		✓	Enjoyment, Reciprocity, Social capital, Trust, Reciprocity
Goh and Sandhu (2013)	✓		Intention, Trust
Chen and Cheng (2012)		✓	Organisation Structure and Culture, Support, Training,
Wickramasinghe and Widyaratne (2012)	✓		✓	Trust, Rewards
Shao *et al.* (2012)		✓	Organizational Culture
Fathi *et al.* (2011)	✓	✓	✓	Social Networks, Trust, Shared Goals, Incentive Systems,
Holste and Fields (2010)	✓		Trust, Type of the Knowledge
Wang and Noe (2010)	✓		✓	Organisation Structure, culture, Motivation, Individual factors
Paroutis and Al Saleh (2009)	✓	✓	✓	Web 2.0, management support and trust
Zahra *et al.* (2007)		✓	Technological Capabilities

2.3   Study one: Delphi for an exploratory analysis

2.3.1   Delphi method

Delphi is a practical technique that assists scholars with advantages for forecasting and predicting challenges and dynamics associated with technology applications (Heiko, 2012; Fritschy and Spinler, 2019; Kattirtzi and Winskel, 2020). The valuableness and usefulness of the Delphi method are raised in its several unique features (Rowe *et al.,* 1999; Rezaei *et al.,* 2021c), which make it appropriate for this study. First, Delphi provides the prediction and judgment opportunities for experts; they can use their significant expertise to estimate what is more likely to happen in the future and what is more effective for a process or subject. Second, the Delphi experts are informed about the others' viewpoints anonymously. Anonymity reduces the risk of conformity biases and socio-psychological pressures; thus, they can modify their evaluations in the subsequent phases of Delphi without fear of losing their reputation and credibility (Nielsen and Thangadurai, 2007; Steurer, 2011).

2.3.2   The panel of experts

The critical parameters of the Delphi method are the panellists or experts of the study scope and their selection strategy, the panel size and continuous engagement throughout the participation

process (Rikkonen *et al.,* 2019). In selecting and inviting the panel members, we applied snowball sampling to identify and choose the members (Rezaei *et al.,* 2021c). Our preliminary step has been started by searching and identifying a shortlist of 19 publicly well-known professors in SME studies, entrepreneurship, FB and KM, and restaurant industry managers.

The experts' invitation process for participation in this project has been managed through individual visits, emails and phone calls. Regardless of accepting or refusing the invitation, we asked them to introduce three people with similar academic or industry positions and experiences. If the proposed people have already been on our primary list, we immediately send our request for participation (De Lo€e *et al.,* 2016). Accordingly, 13 experts have been introduced and added to the initial list. Finally, amongst 32 names, 22 people (16 panellists of the initial list and six from the introduced list) accepted our invitation and were placed into two groups. The first group is academic experts who have experience teaching and researching SME studies, entrepreneurship and the FB. The second group comprises owners and managers in the restaurant industry with a minimum of five years of experience. Table 2.2 displays the demographic statistics of the Delphi panel members.

Table 2.2 Descriptive of the panel members

	Education Level			Experience (over ten years)		
	B. S	Master	PhD	Teaching	Research	Executive
Academic experts (professors)	0	0	14	13	1	0
experts (managers/owners)	4	4	0	0	0	8
Total	4	4	14	13	1	8

2.3.3 The procedure

In the pre-round of Delphi, we reviewed the prior studies on KS drivers for identifying and extracting the critical factors, which led to recognising 33 items in three individual, technological and organisational drivers to create the questions and arrange the Delphi questionnaire. We asked participants to share their opinions on the importance of items on a 5-point Likert scale. For example, we questioned participants: "To what extent do you agree or disagree that gender is an important driver for KS?". We also developed our questionnaire into an open-ended question and allowed the responders to add other indicators not included in the primary questions (just for the first round). Therefore, participants were asked: "What would be other possible indicators that are not listed here and you believe are relevant to effective factors for the KS process?".

After collecting the first-round questionnaires, the scores of the variables were determined, and their mean, standard deviation and Kendall's Coefficient of Concordance (i.e. Kendall's W) were analysed. Next, we set an acceptance scale for mean values; accordingly, we removed all less than 3.5 and, for a new round, asked participants to reassess the remaining items. Based on the prior experiences, the Delphi can be concluded after three or four steps (Hsu and Sandford, 2007) (see Figure 2.1).

| pre-start | 1st round | 2nd Round | 3rd Round |

• Identifying the experts and making the panel team
• Preparing the Questionnaire

• distribution of 1st Round survey
• receiving and analyzing data
• summarizing the responses
• interim report 1
• formulate the 2nd round questionnaire

• distribution of 2nd Round survey
• receiving and analyzing data
• summarizing the responses
• interim report 2
• formulate the 3rd round questionnaire

• distribution of 3rd Round survey
• receiving and analyzing data
• summarizing the responses
• final report

Figure 2.1 The steps of the Delphi method

2.3.4 Consensus

The study reached a consensus after conducting the third round of Delphi analysing. According to Table 2.3, since the variety of standard deviations has decreased in successive phases, we can conclude that the panellists had a reasonable agreement for each of the three steps (Rikkonen *et al.,* 2019) and reached a reliable convergence of the result. Moreover, assessing the consensus amongst the Delphi experts' ratings is vital that can be calculated by Kendall's W test (Schmidt, 1997). Kendall's W is a nonparametric test is ranged between 0 and 1, which reflects "no agreement" and the "complete agreement", respectively (De Jesus *et al.,* 2019). However, achieving a "complete agreement to some extent is unreachable; therefore, if Kendall's W coefficient is more than 0.5, that means consensus is reached (Okoli and Pawlowski, 2004; De Jesus *et al.,* 2019). Kendall's W test in the third round reveals a consensus (Kendall's W equal to 0.616 means over 60% consensus between experts on the critical factors in the KS process has been reached). Table 2.4 summarises the Delphi results, indicators development and Kendall's W.

Table 2.3 Descriptive statistics of Delphi rounds

Key indicators	Items	1st Round		2nd Round		3rd round	
		Mean	SD	Mean	SD	Mean	SD
Individual drivers	**Q01:** Personal Reputation	3.77	.790	3.80	.724	4.00	.640
	Q02: Intellectual Benefit	**3.09**	.578	-	-	-	-
	Q03: Mutual Sharing as a moral duty	**3.12**	.863	-	-	-	-
	Q04: The Sense of Being Useful to Others	3.52	.496	**3.47**	.496	-	-
	Q05: Competent and Reliable People	3.70	.496	3.77	.432	4.04	.326
	Q06: Caring and Concerning to People	3.82	.710	3.93	.614	4.13	.451
	Q07: Enjoying of Sharing	3.55	.485	3.90	.485	3.96	.402
	Q08: Being Confident in Personal Abilities	3.64	.734	3.90	.688	4.09	.510
	Q09: Blood or In-Law Relationship (BRI)	3.52	.496	**3.47**	.496	-	-
	Q10: Gender (Ge)	3.52	.515	**3.37**	.410	-	-
Technological drivers	**Q11:** Using of Databases and Repositories	3.52	.706	3.70	.485	3.57	.410
	Q12: Organisation's Knowledge Portal	3.52	.834	**3.47**	.788	-	-
	Q13: Experts' Profiles System	3.70	.637	3.93	.637	4.17	.510
	Q14: Weblogs and messenger apps	4.45	.496	4.60	.466	4.70	.445
	Q15: Computer Network Infrastructure (Intranet)	3.76	.814	4.03	.714	4.13	.640
	Q16: Virtual/ Online Communities	3.91	.485	4.33	.425	4.43	.396
Organisational drivers	**Q17:** Increasing the Payment and Salary	4.52	.485	4.63	.425	4.91	.414
	Q18: Bonus Rewards for Sharing	4.15	.496	4.63	.326	4.65	.315
	Q19: Job Promotions	4.39	.510	4.57	.424	4.65	.346
	Q20: Organisational Acknowledgement and Respect	4.52	.485	4.53	.401	4.57	.374
	Q21: Feedback Resulted of Employee's Idea	3.67	.834	**3.43**	.788	-	-
	Q22: Empowering and Encourage Employees in Public	4.12	.637	4.17	.487	4.26	.410
	Q23: Continuously Encourage Employees' System	3.88	.640	**3.47**	.496	-	-
	Q24: Managers Support of KS Activities	4.30	.510	4.30	.504	4.39	.484
	Q25: Respect and Response to Employees' Viewpoints	3.88	.402	3.90	.385	4.00	.365
	Q26: Promotes Experience Sharing by Management	3.55	.790	**3.43**	.724	-	-
	Q27: Personnel Informal Meetings	3.97	.578	4.17	.510	4.39	.501
	Q28: Open Space Policy	3.82	.863	4.20	.706	4.30	.571
	Q29: Job Rotation Policy	**3.30**	.485	-	-	-	-
	Q30: Considering KS As Part of The Job Description	3.97	.547	4.07	.514	4.13	.451
	Q31: Accepting the Employees' Mistakes	3.79	.485	4.00	.435	4.22	.402
	Q32: Team Working	3.64	.834	3.77	.788	4.04	.594
	Q33: A Continuous Learning Culture	4.00	.637	4.23	.607	4.26	.576

Table 2.4 Summarise the Delphi rounds

Delphi rounds	Summarise activities and results	Chi-Square	Kendall W
First-round	1. **22** panellists were invited to participate in this round. 2. Initially, **33** items (indicators) were sent to participants, and in this phase, they were allowed to add items related to the study. 3. All invited experts have participated. 4. Panellists offered **No** more items, and initial indicators have continued the Delphi	232.426	.415

	5. **30** received indicators had a mean of 3.5 and higher. 6. Kendall W scale has been checked for continuing the rounds		
Second-round	1. **22** panellists were invited to participate in this round. 2. **30** indicators were presented to the panellists 3. All invited experts have participated. 4. **23** items had a minimum of 3.5 mean 5. Kendall W scale has been checked for continuing the rounds	289.412	.521
Third-round	1 **22** panellists were invited to participate in this round. 2 **23** indicators have been sent to participants 3 **21** invited experts have participated. 4 All **23** items have received a mean score of 3.5 or more. 5 The Kendall W scale received the acceptable value; therefore, the Delphi rounds have finished.	410.282	.743

2.4 Second study: survey data for CFA

2.4.1 Industry context

In the second research, we analysed the conceptual model using CFA. To this end, we designed the questionnaire based on the items recognised in the first study and previous complete studies and models on KS drivers (Killingsworth *et al.,* 2016; Farooq, 2018; Abdelwhab Ali *et al.,* 2019) (see Figure 2.2). The questionnaire consists of questions that let participants express their agreement with the extracted factors; for example, we asked, "How much do you consider an incentive system drives the KS? Accordingly, respondents expressed their opinions by rating from 1 (very low) to 5 (very high). We selected our population from the restaurants and fast foods industry. Restaurants and fast foods are part of the economic and vital bases in any culture and country's turnover. The importance of this industry in labour employment is such that more than 22.2% of the employment share belongs to this service group. According to official statistics, 2.1% of the annual gross expenditure and 2.2% of the net Iranian spending are allocated to restaurants and fast foods (Central Bank of IRI, 2018).

Before the advent of restaurants, places such as today's "coffee bar" were for spending time and drinking in Iran, but the first restaurant was established in a hotel in Tabriz (East Azerbaijan province) in 1903. The recorded history of modern restaurants dates back to about one hundred years ago, in 1927, when a Russian immigrant established the first restaurant called "Cafe Naderi" in Tehran. Following the boom in restaurant management after Second World War and the mid-1950s, fast foods also entered the Iranian food market (Kitchentech, 2020).
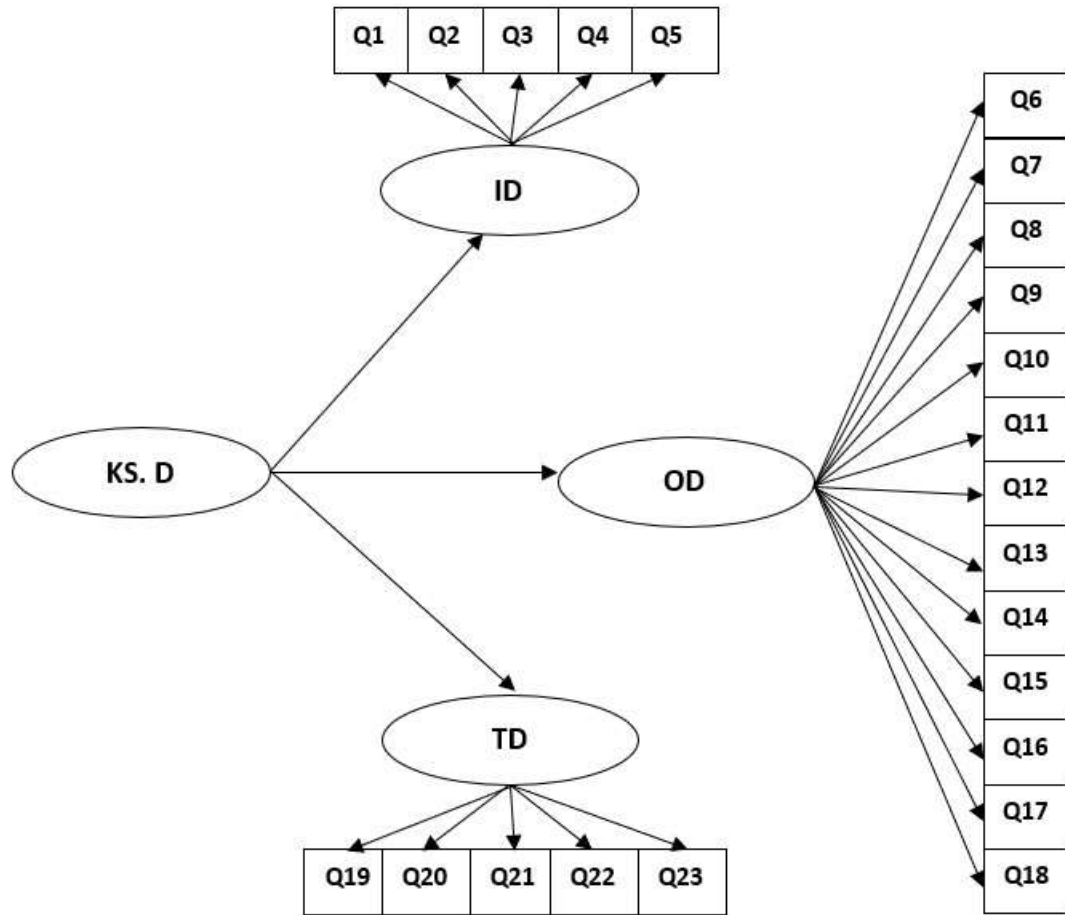
Figure 2.2 Conceptual Model

Meanwhile, Khorasan Razavi province and its capital, Mashhad, have a unique feature that has accelerated the development of the restaurant and fast-food industry development in Iran. Mashhad is a city of tourists and pilgrimages that receives many travellers throughout the year. As a result, the unofficial number of annual visits to this city has reached 30 million, of which 5 million are foreign tourists (Asriran, 2016). Consequently, the food and restaurant industry is an essential pillar of the Mashhad economy as 400 restaurants and 1200 active fast foods are registered (Mashhadfastfood, 2021). Although there are no official statistics on the FB of restaurants and fast foods operating in this city, by preparing the list, we checked their ownership conditions by phone and in person (whether it is a FB or not). Consequently, out of 1500 units surveyed, 992 units were respondents, of which 473 units had the minimum conditions of being a FB, of which 244 units, according to the definition of small enterprises in Iran, were categorised in this group.

Therefore, the target population is around 492 employees (chefs, commis chef, waiters and waitresses, cashiers, servers) and managers in restaurants and fast foods in Mashhad, Khorasan province in Iran. The appropriate sample size was determined "n=200" (according to the Cochran formula at the error level of 0.05 (d=0.05)). Therefore, we distributed 450 copies of printed questionnaires in the workplaces. Finally, 218 complete responses (reflecting an over 48% response rate) have been accepted and applied for final testing (see Table 2.5).

Table 2.5 Descriptive of the second survey community

	Education Level					Gender		Total
	middle school	high school	diploma	bachelor	master	M	F	
Owner/ managers	1	8	10	12	6	23	14	37
Chefs	14	22	32	5	5	48	30	78
Waiters/ waitresses	12	21	35	9	0	37	40	77
cashiers	0	2	10	14	0	6	20	26
Total	27	53	87	40	11	114	104	218

2.4.2   Assessment of multivariate normality and multicollinearity

Before further analysis, it is required to ensure the data normality. Therefore, we applied the skewness and kurtosis approach, which is more suitable for the Likert scale (Keller, 2015). The results between _2 and 2 for skewness and kurtosis indexes prove the normality of the data (Garson, 2012). Therefore, the data normality is confirmed according to the results (Table 2.6). We should also be sure about the independence of the descriptive variables; therefore, we applied the variance inflation factors (VIF) to analyse the multicollinearity. The acceptable values for VIF are less than 10, but less than five give more confidence (Field, 2013). According to the results, as $R2$ values for indicators are up to 0.8 (the tolerance values are less than 10.2), the VIF values are less than five, indicating that multicollinearity is not a problem with data.

Table 2.6 Mean, SD, Skewness, Kurtosis and Factor loading Values

Factors/ items	Mean	SD	Skewness	Kurtosis	Factor Loading
Individual drivers					
Q01: Personal Reputation	3.43	1.11	.340	-.654	0.74
Q02: Competent and Reliable People	3.32	1.35	-.213	-.425	0.74
Q03: Caring and Concerning to People	3.49	1.18	-.145	-.844	0.78

Q04: Enjoying of Sharing	3.22	1.29	-.135	-.243	0.73
Q05: Being Confident in Personal Abilities	3.34	1.29	-.140	-.783	0.75
Organisational drivers					
Q06: Increasing the Payment and Salary	3.84	1.35	-.315	-.729	0.97
Q07: Bonus Rewards for Sharing	3.80	1.35	-.411	-.625	0.96
Q08: Job Promotions	3.78	1.32	-.242	-.712	0.95
Q09: Organisational Acknowledgement and Respect	3.72	1.22	-.256	-.754	0.91
Q10: Empowering and Encourage Employees in Public	3.64	1.32	-.432	-.946	0.85
Q11: Managers Support of KS Activities	3.68	1.28	-.245	-.689	0.89
Q12: Respect and Response to Employees' Viewpoints	3.51	1.22	.216	1.03	0.71
Q13: Personnel Informal Meetings	3.62	1.29	-.156	-.352	0.88
Q14: Open Space Policy	3.64	1.33	-.415	-.545	0.86
Q15: Considering KS As Part of The Job Description	3.60	1.19	.151	-.451	0.81
Q16: Accepting the Employees' Mistakes	3.51	1.28	-.312	-.234	0.81
Q17: Team Working	3.41	1.30	.256	.412	0.71
Q18: A Continuous Learning Culture	3.62	1.15	-.415	-.946	0.84
Technological drivers					
Q19: Using of Databases and Repositories	3.32	1.24	-.256	-.855	0.70
Q20: Experts' Profiles System	3.40	1.25	.115	.432	0.79
Q21: Weblogs and messenger apps	3.81	1.28	.275	.414	0.96
Q22: Computer Network Infrastructure (Intranet)	3.32	1.24	-.279	-.554	0.76
Q23: Virtual/ Online Communities	3.77	1.16	-.266	-.396	0.90

2.4.3 Common method bias

In studies conducted on questionnaires and participants' beliefs, the fundamental bias (variances) is always a matter of concern because these variances can negatively affect the relationships in structures and contaminate the results. Therefore, we applied Harman's single-factor test in SPSS to assess the common method bias (CMB) (Sreen *et al.,* 2021), in which items (measuring latent variables) are loaded into one common factor. If single-factor explains more than 50% of the variance of all variables, it can be claimed that there is CMB (Kock *et al.,* 2021). Harman's single-factor test was about 37%, which indicates that CMB is not a problem in this research.

2.4.4 Assessing reliability and validity

The reliability analysis assures researchers to construct reflectivity based on the questionnaire (Field, 2013). Accordingly, we applied Cronbach's alpha to measure internal reliability (values above 0.7 are acceptable). Also, we used the composite reliability (CR) and average variance extracted (AVE) for the reliability and consistency of a latent construct (values above 0.5 are accepted for CR, and the minimum recommended value for AVE is 0.5 (Field, 2013)).

We analysed the convergent validity to measure the internal correlation and items alignment in a category by measuring the AVE and CR (values more than 0.5 and 0.7 are acceptable for AVE and CR, respectively, and CR should be more than AVE; see Table 2.7 (Field, 2013)). The uniqueness of constructed measures for analysing is vital in scientific research, recognised by discriminant validity. Discriminant validity assures researchers of differences in the questions of a factor to other factors' questions. The values less than 0.9 of the Heterotrait-Monotrait ratio (HTMT) indicate that discriminant validity is acceptable (Field, 2013) (see Table 2.8).

Table 2.7 Construct Reliability and Convergent Validity

Construct /Indicators	C. Alpha	CR	AVE	construct reliability	convergent validity
ID	.741	.725	.604	established	established
OD	.948	.882	.511	established	established
TD	.882	.747	.537	established	established

Table 2.8 Discriminant Validity

indicators	ID	OD	TD
ID			
OD	.316		
TD	.328	.324	

2.4.5 Confirmatory factor analysis (CFA)

According to the first study outputs, panellists recognised the most significant factors which drive the KS in the small FBs in the restaurant and fast foods industry. Therefore, for the second study, we analyse the validation of the critical indicators for KS by performing in the second-order CFA that the results are shown in Figure 2.3. The second-order factor (i.e. KS drivers) is reflectively measured by three first-order factors measured by 35 items, namely Individual driver (ID), Organisational driver (OD) and Technological driver (TD). The results clarify that the range of the three coefficients is from 0.74 (ID) to 0.95 (OD) and indicates acceptability in high effect sizes and factor loadings. The t-value output (between 5.44 and 8.27) shows that KS drivers' concept is significantly associated with its three indicators. Furthermore, R square values indicate KS drivers are mainly explained through TD than ID (see Table 2.9).
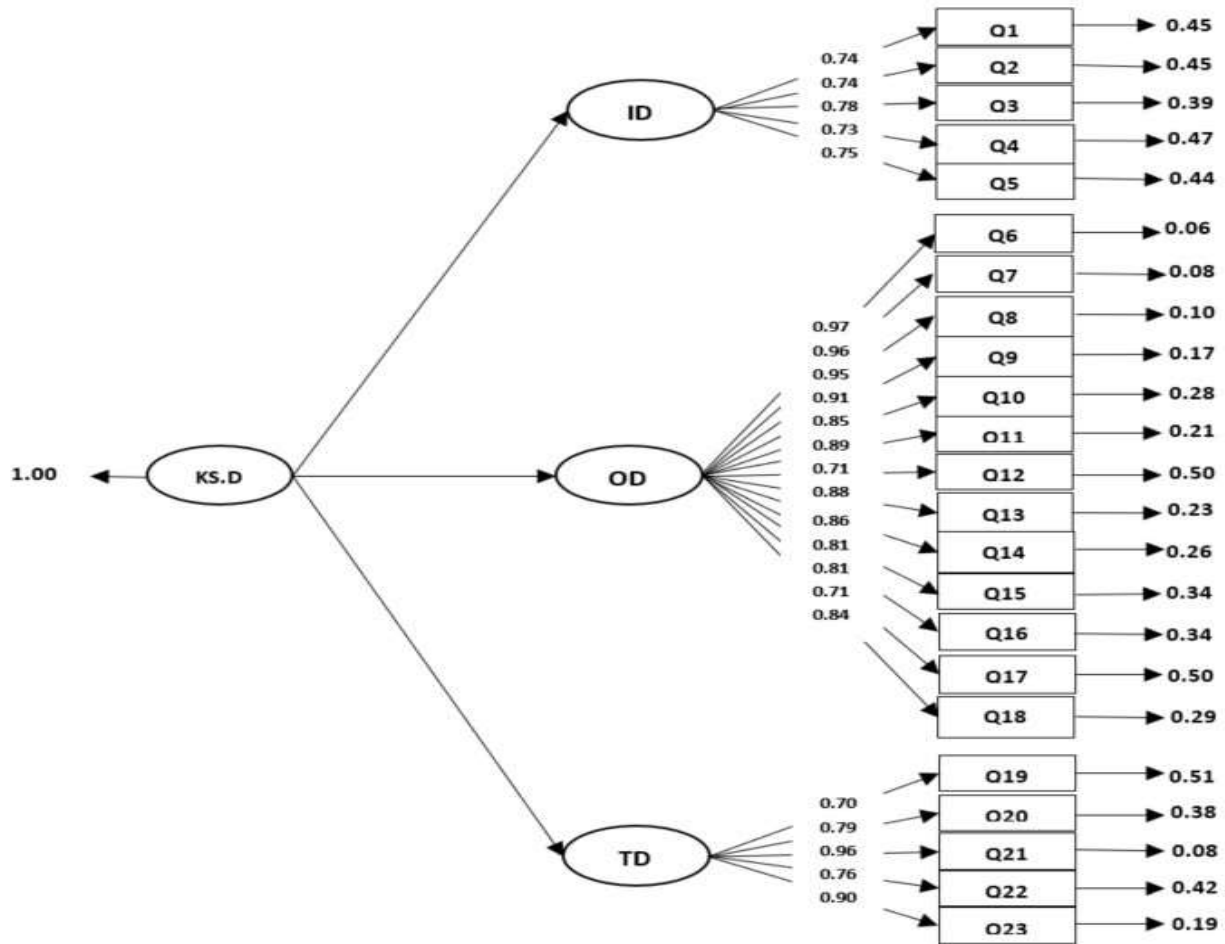
Figure 2.3 Measurement model analysis[*]

1. χ2=321.9, df=227, RMSEA=0.044

Table 2.9 Second-order confirmatory factor analysis (standardised solution)

Second-order variable	First-order factors	Item	λ coefficients	δ (measurement errors)	t-value	R²
	Individual drivers	Q1-Q5	0.74	0.45	5.46	0.55
KS. D	Organisational drivers	Q6-Q18	0.95	0.10	8.27	0.90
	Technological drivers	Q19-Q23	0.88	0.23	7.54	0.77

2.4.6   Model fit

We should also determine how well a model fits a set of observations statistical model using the "goodness of fit indicators" (Marsh *et al.,* 2005; Marshall, 2015). Therefore, we applied some

indexes such as the Chi-square test (x2/df), the goodness of fit index (GFI), adjusted goodness of fit index (AGFI), root mean square error of approximation (RMSEA), comparative fit index (CFI) and non-normed fit index (NNFI) (Jafari-Sadeghi *et al.,* 2020b). The leading model fitness indices analysing suggest a good model fit (Table 2.10 shows the results).

Table 2.10 Fitness Indices

Fit indices	Reference value	Model value	Comments
χ2/df	χ2 /df<3	1.4181	Achieved
P-Value	P-Value <0.05	0.0415	Achieved
RMSEA	RMSEA<0.05	0.042	Achieved
GFI.	More than 0.90	0.90	Achieved
AGFI	More than 0.90	0.91	Achieved
NNFI[*]	More than 0.90	0.90	Achieved
CFI	More than 0.90	0.91	Achieved

* Almost accepted

2.5 Discussion of the results

The restaurant and fast-food industry is a complicated competitive industry that includes many food-related businesses in multi-culture, inter-culture and cross-culture environments. As this industry closely relates to human life's inherent need, it has always been at the forefront of start-up ideas in FBs. There are a lot of instances in families-run restaurants and fast food, which are classified as the most successful business worldwide. These FBs even have been passed down from generation to next. However, what is notable about the most successful restaurants and fast foods, especially intergeneration firms, is their achievement in managing the practices in transferring and sharing the experiences and ideas. One of the most significant reasons for KS's success is identifying the effective drivers of the sharing processes, which also have, in turn, a particular influence on organisational growth, cost-reducing and intangible advantages. This study aims to investigate and find more effective drivers to increase and facilitate KS processes in FB. The outcomes illustrate factors in three groups; ID, TD and OD.

Moreover, according to findings, the ODs driver impacts on the KS in FB are more influential than the other two drivers. OD is more related to rewards, management support and OS and OC. The reward drivers consist of intrinsic and extrinsic organisation rewards. In extrinsic rewards, including financial incentives such as salary and bonuses, employees are encouraged to enjoy these rewards based upon the KS. Although financial incentives are always considerable, our outputs also show that employees have a remarkable reaction to intrinsic rewards, including

acknowledgement and recognition. Many studies have confirmed the impact of the rewards system on promoting the KS processes (e.g. Titi Amayah, 2013; Asrar-ul-Haq and Anwar, 2016; Henttonen *et al.,* 2016; Muhammed and Zaim, 2020). However, some researchers like Hau *et al.* (2013) believe rewards increase the explicit KS more than tacit KS.

Findings on OS also show its fundamental role in promoting the KS. In a less centralised managerial system, members' communication, relationships and interactions\ increase, and they feel more opportunities for sharing and flowing their knowledge. In addition, OS has significant impacts on KS willingness actions, in which organisations known as decentralised, due to democratically features, employees are more desire to participate in KS practices. The other aspect of a less complicated structure is the shaping of an open workplace that increases informal meetings, improves employees' daily social interactions and facilitates the KS in the organisation. Informal meetings allow employees to easily exchange their insights and ideas and discuss technical problems while not feeling any pressure, which is common in a formal meeting. Furthermore, considering the KS as a part of the job description will create this scene in employees whose participation in KS is not an ultra-function and luxury perform but also a duty and routine function.

Our findings indicate that OC is another OD influential driver impacting KS. Organisations that nurture social norms such as teamwork, supportive culture and learning culture will be prone to increase employees' participation and communication for KS. Our findings support the previous result on the impact of supportive OC on KS (Park *et al.,* 2004; Shao *et al.,* 2012; Borges, 2013). One of the crucial issues in the KS is knowledge access, i.e. employees have equal recognised rights to knowledge resources. If an organisation provides and facilitates staff access to databases and repositories, it helps them explore and share explicit knowledge. Our finding proves the vital role of KSS in the KS. Although some studies emphasise the organisational portal system parallel with KSS, our results do not show it in the FB (Oyebisi Oyefolahan and Dominic, 2013; Kosalge, 2015; Ali and Dominic, 2018).

Our results show that Web 2.0 platform capacities impacting the KS are also significant. This vital role is as much that some researchers such as Nonaka and Toyama (2015) believe some types of knowledge could be shared only by these platforms. Another positive function of Web 2.0 is its virtual feature that fills the blanks that traditional communication ways do not support. Even with all equipment, the actual space cannot support all communication; consequently, Web 2.0

(online/virtual CoPs, weblogs) and intranet allow this communication to occur. Therefore, Web 2.0 improves communication in size and time. Our findings complete earlier investigations and emphasise the strong impact of Web 2.0 technology in increasing the KS practice (Oyebisi Oyefolahan and Dominic, 2013; Aljuwaiber, 2016). The foundation of FB is on the trust between family members or amongst families, so trust is a common issue in FB. Our results show that employees tend to share their experiences and ideas with co-workers who seem competent and reliable to share their knowledge with colleagues they favour. These outcomes align with research that empirically proves the positive role of interpersonal trust on the KS (e.g. Titi Amayah, 2013; Ahmad *et al.,* 2019; Talebizadeh *et al.,* 2021).

2.6   Theoretical and managerial implications

First, our study contributes to the KM and FB studies by conceptualising KS drivers in the literature, which are essential for the small FB in the food-related industry. It helps understand the knowledge role in small FB by providing insights into the underlying motives and drivers of KS and, as a scale, e.g. performance and organisational efficiency support future studies.

The outstanding component of this study is the involvement of a wide range of stakeholders, from university faculty members to managers, experts and founders of the food industry and local heads and experts of restaurants and fast-food businesses. As the third implication, this extensive participation helps scholars have a comprehensive pattern for theoretically and empirically enhancing their research. Finally, the findings will fix the gap of inadequate discussions on factors influencing the KS in the FB when the lack of exploratory studies of KS incentives for small FB was evident, and researchers did not provide a clear view. Therefore, this study opens a new window to FB and KM studies.

Our findings also provide practical implications for management and governance policy supporting small FBs. This study emphasises the importance of the KS as the critical forerunner that enhances the business. Therefore, our results by considering the ranging the drivers for KS assist family entrepreneurs in having a clear vision about knowledge role and taking their proper emergent actions for its facilitating. Developing indicators of KS drivers help to detect the inefficient practices in sharing the knowledge. Family firms' managers can use these findings as a plan for tracing the causes of problems in their internal KS system or for empowering it.

Furthermore, the findings help organisational policymakers, such as local authorities and decision-makers, make informed decisions on essential business metrics policies. Finally, the results can

help food-related family firms' managers and owners to understand the cause of their current position in the competitive market and offer them an awareness of why some of their same business competitors perform better. In other words, our results frame a roadmap for evaluating the mechanism for the FB, in which entrepreneurs can identify weaknesses and obstacles to improve their business and eliminate the internal shortcomings of the KS process.

2.7 Limitations and future lines of research

This paper faces limitations that shade up the findings and conclusions. First, since there is not enough background in drivers on KS research in the food-related small and medium-sized FB, our results may cover only some aspects of factors in KS; thus, we cannot be sure about its inclusiveness. Second, we have reduced the inherent risk of CMB by applying statistical tests and methods, indicating its acceptable level, but this reduction does not mean elimination. Third, the research sample is restricted to a specific community; thus, changing the sample size or society may result in different outputs; therefore, survivorship bias is another limitation.

Accordingly, for future research, we suggest conducting more comprehensive investigations on different samples and communities to compare the differences between influential factors of KS for a complete FB model in various industries.

CHAPTER THREE: Second study, "Seeking traces of democracy in the workplace: Effects on knowledge sharing"[2]

3.1 Abstract

Purpose: This study aims to examine the role of organisational democracy (OD) in facilitating the knowledge sharing (KS) process within companies and thereby consider the effect of different OD principles.

Design/methodology/approach: We used a questionnaire to collect data from a sample of 254 employees at private universities and colleges to test the relationship between OD and KS. The data were analysed using the structural equation modelling (SEM) technique.

Findings: Overall, OD directly and significantly affects KS within organisations. The results also show different degrees and intensities among OD's principles (sub-concepts) and their impact on KS.

Implications: The findings highlight the critical role of democracy in an organisation to enhance the organisational climate and employees' behaviour, thus leading to higher KS outcomes. In addition, the results allow managers to consider enhancing democracy in an organisation to improve the effectiveness of internal collaboration in KS.

Originality/value: This paper sheds light and adds new knowledge to embryonic studies directed toward integrating democracy within the main concept of knowledge management (KM). This emphasises the need to employ and stimulate OD and its principles to improve the effectiveness of KM practices with specific attention to KS.

Keywords: Organisational democracy, knowledge management, knowledge sharing
Paper type: Research paper

3.2 Introduction, Research Gap and Questions

During the last two decades, researchers and specialists have tried to explain how vital knowledge's role can be in paving the path to success for an organisation (Rzakhanov, 2012; Del Giudice and Maggioni, 2014; Santoro *et al.,* 2017). Knowledge Management (KM) provides several advantages if its processes and practices that are strongly intertwined with the enhancement of a firm's operational efficiency (Scuotto *et al.,* 2017; Ferraris *et al.,* 2019), its value creation and its sustainable development (North and Kumta, 2018; Rossi *et al.,* 2020). Similarly, KM and its dimensions have always been influential drivers in some scopes, such as knowledge creation,

organisational learning, human resource management, organisational performance, operational performance and long-term planning (Hussinki *et al.,* 2017; Kasemsap, 2018).

Previous research has suggested that knowledge sharing (KS) in different forms (e.g., intra-organisational communication and information sharing) is an essential dimension in a KM system (Mokhtarzadeh *et al.,* 2021). Moreover, KS is positively associated with a wide range of organisational activities, from production and performance to innovation capabilities and employee empowerment (Kremer *et al.,* 2019; Cillo *et al.,* 2019; Singh *et al.,* 2021). On the flip side, while it is proved that the advent of new technology makes KS smooth and efficient, it is individuals who apply and use these new communication tools that make them efficient, meaning that they are heavily dependent on the socio-human factors. Therefore, the effects of socio-human factors on KS can be a critical pattern for identifying the successes and failures of the implementation of KM in organisations (Zhang and Jasimuddin, 2012; Del Giudice and Maggioni, 2014).

The socio-human drivers, such as workplace climate (Alzghoul *et al.,* 2018), organisational and managerial structure (Mahmoudsalehi *et al.,* 2012) and the level of democracy in the workplace (Moglen, 2013), are of great interest in KM studies in particular in the digital transformation era. Democracy is generally known as a political and social subject, and almost everything is understood about its domain, effects, and definitions from the lengthy studies and discussions over the centuries (Grandori, 2017). From an organisational point of view, democracy has been described as dividing power through the decision-making transition from workplace owners and managers to employees (Mokhtarzadeh *et al.,* 2020). From an organisational point of view, democracy has been described as dividing power through the decision-making transition from workplace owners and managers to employees (Holmer Nadesan and Cheney, 2017a). Also, it has been developed with other features such as participation, engagement, and regular and coherent communication. Moreover, some features, such as being broad-based, institutionalised, and written (rules and regulations), also have an essential role in its structure (Timming and Summers, 2020). Recently, management and business studies have opened doors to investigations of the effects of democracy by proving the positive impact of organisational democracy (OD) on different outcomes, such as commitment (Chen, 2013; Safari *et al.,* 2018), trust (Johnson, 2006),

information flow and communication (Holtzhausen, 2002) and employees' motivation (Cheung and Wu, 2011).

Regardless of what indicators configure the democracy level in the organisation, the final purpose of OD is laid in employees' participation in organisational affairs (Deutsch, 2005). This participation could be in a simple contribution to routine duties of employees or involvement in complicated decision-making of long-term strategies. The other side of employees' involvement is the opinion expressing opportunities, in which members share their ideas, thoughts, and experiences to smooth the decision-making process (Holtzhausen, 2002). Also, from a managerial aspect of view, OD decentralises the organisation's governance. This means that sub-managerial parts, e.g., mid-level managers and even employees personally, have the decision-making authority when there is a need for decisions, without any top-level manager interfering, considering their responsibilities. Moreover, OD expands the basis of transparency in the organisation, which leads to an indirectly increased level of trust and a sense of belonging to the organisation as a whole component, where success and defeat of organisation are considered personal success and defeat of members (Fenton, 2012).

On the flip side, the consequences of OD's presence in the organisation influence the knowledge flow. Various studies have similarly proved the direct relationship between KS and increased intraorganisational communication, improved mutual trust, enhanced transparency, and strengthened the sense of belonging to the group. However, despite emphasising the prominent role of OD, the concept of 'organisational democracy' has received less independent attention within the KM literature, and little information is available about the function of democracy components in KS. In other words, KM studies prove that further communications lead to more KS, transparency increases trust and information flow, and a well-arranged participation system positively affects KS, but what about phenomena such as OD as a complete concept? Previous studies are silent in answering this question, and there is not enough study that can explain, by a deep analysing, the influences of OD on KS; therefore, this study attempts to fill this gap.

Therefore, this research tries to trace the consequences of organisational democracy (OD) in knowledge flows to determine workplace democracy principles' different impacts by relying on previous studies. Accordingly, the study's purpose is to explore the effects of OD on KS. To make this possible, we aim to determine how OD principles, as a human-social factor, can facilitate KS

by answering the following research question: 'What is the role of OD in enhancing KS within an organisation?' Moreover, we will unpack the main principles of OD and separately examine the potential effectiveness of the subdimension analytical aspects of OD on KS. The sample consists of 254 employees at private universities and colleges, with the data analysis conducted by the SEM technique with LISREL and SPSS software. As the findings show, the structural equation model explains to a great extent the favourable convergence of the OD principles in the improvement of KS.

Our study contributes to the KM and OD research streams in different ways. First, by analysing democracy in the workplace and its essential effects on KS, we improve prior knowledge and respond to current needs for more exploratory analysis of the influential factors of democracy in the KM domain (e.g., Harrison and Freeman, 2011; Verdorfer *et al.,* 2015). We also recognise and evaluate the most influential factors in OD that can facilitate KS in an organisation, thus providing some important managerial recommendations and action priorities. Next, the findings add to the ongoing discussion of employee participation in KS by individuating a specific feature in an organisational context and highlighting the different intensities of the OD subdimensions effects that positively affect KS behaviours (e.g., Razmerita *et al.,* 2016; Ganguly *et al.,* 2019). Finally, findings come to the aid of stakeholders, such as managers, in empirically shaping and managing a democratic organisational system to expand knowledge inside the organisation. In an overview, the paper has presented theoretical and practical implications that, by considering reference points in the OD factors, set up formatting for developing environmental and managerial indicators in KS and implicitly design an efficient relational plan and methodology for facilitating the KS process.

Against this backdrop, the next section of the paper depicts the theoretical background of OD and the KS concept, followed by hypotheses' development on the relationships among the main principles in OD and KS. Then, the material and methods are introduced in the methodology section, and the presentation and discussion of the results are developed. Finally, the paper is finalised by the conclusions, theoretical and managerial implications, limitations and future lines of research.

3.3   Literature Review

3.3.1   Knowledge management and the relevance of knowledge sharing

Based to Davenport and Prusak (1998), "knowledge is a fluid mix of experiences, values, information, and specific insight" (Rezaei *et al.,* 2020). Hislop *et al.* (2018) defined knowledge as every kind of information, experience and idea that employees have and know, both inside or outside the organisation. Karl Wiig (1986) was the first researcher to focus on managing knowledge at the organisational level. He introduced the term "knowledge management", which has become more popular due to subsequent research (Dalkir, 2017). KM is a set of processes for understanding and deploying the strategic resources of knowledge formed in a structured approach, including identifying, evaluating, organising, storing and applying to meet the needs and goals of the organisation (Dalkir, 2017; Saulais and Ermine, 2019). Some authors describe KM as "a combination of technological and social practices", with particular attention to individuals, culture, organisational structure, and information technology (Schiuma *et al.,* 2012; Dalkir, 2017; Santoro *et al.,* 2018). In some studies, 'KM' is considered as the process of acquiring 'team expertise' in a company from the exchange of data, documents, information and even human thought to generate the highest yield and value (Spies *et al.,* 2005; Nousala *et al.,* 2009; Ouriques *et al.,* 2019).

Among the KM dimensions, sharing stands at the core of importance in the organisation. This is why top managers and executives have consistently traced the practices that effectively facilitate generated and acquired knowledge, transforming it into a more potential to create competitive advantages (Johannessen and Olsen, 2003). Several definitions of KS have been interpreted in various ways depending on the context in which KS is considered. For example, Van Den Hooff *et al.* (2004) defined it as the process of mutually exchanging implicit and explicit knowledge to create knowledge. From other points of view, it has been portrayed as a culture of social interactions involving exchanging employees' information, experiences, and skills (Intezari *et al.,* 2017; Men *et al.,* 2019). Regardless of the variety of keywords used in defining KS, what is very important is participation in the KS process so that the process is known as the source of knowledge. Employees are the prominent participants in the knowledge process; they acquire knowledge directly and indirectly and expand it consciously or unconsciously (Kang and Sung, 2017; Rezaei and Heydari, 2021). Therefore, factors affecting employee participation, such as personality, leadership style, work environment atmosphere and financial and non-financial incentives, play a vital role in employee willingness to participate in the KS process. Human

resource studies in KS highlight those factors that target the capacity and ability of individuals, namely adequate knowledge, training and sufficient authority to cultivate individual characteristics for participation in KS practices (Hislop *et al.,* 2018). Environmental drivers are related to the effects of the organisation's environment and governing structure and highlight the possibility of participation in KS (Dalkir, 2017; Esmaeelinezhad and Afrazeh, 2018).

Some researchers have considered participation a voluntary act (Gibbert and Krause, 2002), making participation and voluntary presence the two prerequisites for KS. Therefore, we should pursue the KS development's ups and downs in the stimuli assessment that impacts individuals.

As a result, the questions that arise in the development of KS include: How can an organisation improve the abilities to share, transfer and distribute knowledge? What factors motivate employees to participate in enhancing the KS management process? Which of these factors have individual impacts, and which of these factors have environmental impacts?

3.3.2   Organisational democracy

Many internal environmental factors in an organisation affect an employee's performance. Democracy in the organisation is one of the weighty factors that can have a significant and comprehensive impact on highlighting the role of employees (Bal and de Jong, 2017). The workplace organisational climate impacts both physically and mentally employee communication and participation. In a dynamic and secure environment, staff performance becomes more rational and can help manage and stabilise the knowledge in an organisation (Holmer Nadesan and Cheney, 2017b).

The first argument for organisational democracy (OD) can be drawn from liberal democratic thinkers. In their view, democracy is more than just a way of monitoring and governing (Franck, 1992). It includes and promotes individual freedom and independence and is closely linked to education and empowerment in all social contexts. Various terms are used to describe democracy in the organisational literature; some researchers have defined it as 'democracy at work', while in other research, it is equal to 'democratic organisation', 'organisational democracy' or a 'freedom-based company' (Foley and Polanyi, 2006; Pevehouse and Russett, 2006; Donno, 2010). Some studies consider it an antibureaucratic issue and have created a 'post-bureaucratic organisation' in which the decision-making procedure is based on dialogue and consensus rather than on authority and command (Kellogg *et al.,* 2006; Pollitt, 2009). In some studies, democracy has been considered as a "leadership and collaboration" point of view; therefore, the term 'leaderless

organisation' or 'labour-cooperative company', which is based on an election management system, has been presented (Nielsen, 2011; Sullivan *et al.,* 2012). This diversity in defining democracy stems from the variety of researcher viewpoints. Therefore, different principles, values, and even characteristics have arisen to recognise a workplace as a democratic organisation.

Many scholars identify the attributes of OD as principles, but there is still some debate around whether they are 'principles' or 'practices. OD is an organisational type of democracy used as a tool for policymaking and management. It also refers to employees' continuous and extensive involvement (Weber *et al.,* 2009). Harrison and Freeman (2011) argued that OD is a kind of participation that makes employees involved in organising; they also defined it as any action, structure or function that enhances the group's power over individuals in influencing the decisions and activities of an organisation. In workplace democracy, as a different form of participatory management, lower-level employees are allowed to offer their opinions to upper-level management (Cameron *et al.,* 2003). In some studies, it has been recognised as more than just participation and involves understanding and enforcement of the standards of a democratic society within organisations (Fine, 2017). Hatcher (2007) referred to workplace democracy as a multidimensional international concept composed of political, economic, sociological, psychological and historical concepts. Wegge *et al.* emphasised that the participation of employees should be ongoing, broad-based and institutionalised with a pervasive and continuous nature rather than one that is ad hoc and occasional. They also explained that a sole institutionalised and observed form of participation could not completely meet the OD condition. Employees should, in reality experience and practise OD and show their practical influence by participating, directly or indirectly, in making the significant decisions on strategic organisational issues (Weber *et al.,* 2020).

Many scholars have attempted to define a normative basis for democracy in an organisation (although whether or not it is a 'principle' or a 'practice' of the attributes of democracy is also a subject of debate). In some studies, the principles of OD are explicitly presented in a structured manner, while in others, these principles are not specified and must be extracted from the context of the material. Fenton (2012) formulated OD dimensions in a coherent list composed of ten principles. She believed that if an organisation wants to enjoy OD successfully, it should employ all of its principles. She also redefined the leader role in this new form of the workplace,

transforming it from being a director to a visionary, coach and facilitator for people's ideas and talent. Peterson (2012) categorised these principles into 14 scales. Based on Hamel and Breen (2008), OD scales are more than principles (as a luxury dimension); they are necessary for today's companies to succeed in market competition. Yazdani (2010) considered the role of organisational structure and strategic leadership style in successfully implementing democratic principles and mentioned participative management and the right to vote as two principles of OD. Although the accepted, or at least consensus, principles of OD have not yet been formulated, it is possible to consider and compare research on this topic and highlight the main issues and scales, irrespective of minor differences, as the main principles of OD. These can generally be concluded to be transparency (Hamel, 2006; Hamel and Breen, 2008; Fenton, 2012; Peterson, 2012; Hamel and Zanini, 2018), communication (Holtzhausen, 2002; Hamel and Breen, 2008; Fenton, 2012; Peterson, 2012; Hamel and Zanini, 2018), decentralisation (Hamel and Breen, 2008; Viggian, 2011; Fenton, 2012; Peterson, 2012; Hamel and Zanini, 2018), vision and meaning (Hamel and Breen, 2008; Hamel, 2011; Fenton, 2012; Peterson, 2012) and involvement and participation (Hamel and Breen, 2008; Yazdani, 2010; Viggian, 2011; Hamel, 2011; Fenton, 2012).

3.4   Hypotheses Development

3.4.1   The effect of organizational democracy on knowledge sharing

Regardless of the variety of goals and methods, organisations have two main tools – technology and individuals (or human resources) – which act as two wings in implementing the KS process. In the technology area, new advances in IT communication tools have eroded the physical boundaries and social distances among individuals and groups and have placed more potential in the hands of organisations to facilitate knowledge flows.

On the flip side is human resources, giving companies an advantage in using and sharing knowledge resources. An optimal combination of these two tools contributes a lot to the successful implementation of a KS process. However, human resources face many challenges due to the dependence of people's behaviour on internal and external factors, such as personality, work environment, organisational structures and culture, while barriers to technology, in particular, are limited to access to financial resources.

As already argued, workplace democracy has been structured based on some values, including freedom, equality and openness. However, some barriers, such as hierarchies, control mechanisms, power structures, and bureaucracies, still impede OD development in an organisation (Hamel,

2011). Therefore, it is fundamental in workplace democracy implementation that all employees are involved in the decision-making process and organisational practices, leading to the empowerment of members to engage in all corporate affairs (Gao *et al.,* 2011; Bal and de Jong, 2016).

According to Weber *et al.* (2009), OD directly and positively affects organisational identification and commitment. Han *et al.* (2010) argued there is a positive relationship between organisational commitment and KS. Cheung and Wu (2011) asserted that OD increases employee participation opportunities. Razmerita *et al.* (2016) considered employee participation an essential factor in KS. In another study, Geckil and Tikici (2016) considered the relationship between OD and citizenship behaviour and found that OD positively impacts the sense of belonging to the organisation as a community. Finally, Rezaei *et al.* (2020) considered the association between identity in an organisation, which refers to the belonging sense, and the KS. They argued that increasing employee identity in the organisation would improve employees' desire to be involved in KS practices.

It has been argued in some studies that by increasing openness in the organisation, mutual trust among individuals will be improved (e.g., Kelloway *et al.,* 2012; Kovač and Jesenko, 2017). Also, some investigations have analysed the impact of trust on KS (e.g., Rezaei *et al.,*2020) and have found that increasing KS is associated with improving trust in the organisation.

According to Wegge *et al.* (2011), OD is interpreted as employee participation and includes employee decision-making involvement. Through OD implementation, the level of involvement will grow, and creative staff can move the organisation on the path of development by conveying pure ideas. Further, OD provides employees with more space and opportunity for participation and improves their sense of belonging as well as how much they care about the values, mission and goals of a more extensive community (Verdorfer *et al.,* 2013). Consequently, the rise of democracy in the workplace has increased the desire for participation among employees (Pircher Verdorfer and Weber, 2016; Ahmed *et al.,* 2019), and the spread of knowledge throughout the organisation will thereby be facilitated. Therefore, it seems OD has a direct relationship to the facilitation of KS in an organisation, and we assert the following as our main hypothesis:

H: Organisational democracy will positively affect KS.

3.4.2   The effect of decentralisation on knowledge sharing

Organisations can be divided into two categories based on the criterion of management: centralised and decentralised. In recent years, especially in the wake of the 'globalisation' phenomenon and the rapid development of new technologies, decentralised organisations have grown significantly. Centralised organisations have a particular system. Their success depends on adhering to a defined framework shaped by a hierarchy classified by coherent leadership at the top. The main pillars of centralised organisations can be plotted using an organisational chart to illustrate the organisation's general nature (Velez *et al.,* 2010).

Decentralised organisations are in contrast to centralised organisations, but this does not mean 'decentralisation' is equal to unstructured. Among the most prominent pioneers in explaining this theory are Brafman and Beckstrom, whose book, *The Starfish and the Spider: The Unstoppable Power of Leaderless Organisations*, was published in 2006, and who played a constructive role in familiarising the public with the concept of decentralised organisations (Brafman and Beckstrom, 2006). Many organisations have considered decentralisation an indispensable tool and method for continuous improvement. Accordingly, various definitions and interpretations related to this subject have been developed. In Hage's (1995) view, decentralisation is staff participation in an organisation's decision-making. He asserts that members of the organisation 'must' be involved in this process. Fenton (2012) believes that decentralisation directly relates to the proper distribution of power within an organisation; thus, she considers decentralisation to be a proportionate sharing of power within an organisation and among its members. The term 'appropriate' rather than 'equal' stands out in this definition. The wide range of decision-makers is also an essential factor in decentralisation (Bardhan, 2002). Viggian (2011) stated that a reduced hierarchy directly affects decentralisation. She believed decentralisation was a crucial element in establishing democracy within a company. Harrison and Freeman (2011) considered the pros and cons of democracy in many organisations and emphasised that decentralised companies are much more successful in decision-making. Yazdani (2010) demonstrated that less vertical hierarchies and decentralisation would be much more suited to the practice of democratic principles than would a large and tall bureaucratic organisation.

Willem and Buelens (2009) emphasised the usefulness of decentralisation in an organizational structure. They argued that a horizontal form of decentralisation is preferable for applying the practice of KS. Chen *et al.* (2010) indicated a positive association between a decentralised

organisational structure and KM activities. According to some scholars, decentralisation is not only helpful but is also a necessity that lets employees explore and experiment with creative process improvement ideas (Zheng *et al.,* 2010; Jeong *et al.,* 2019). Claver-Cortés *et al.* (2007) considered all aspects of the impact of organisational structure on KM. Their results indicated that hierarchy is less in companies with flat organisational forms; therefore, interpersonal communication is more fluent, teamwork has led to more success, and employees' mutual interactions flow smoothly. They concluded that this kind of managerial structure leads to more space and freedom and that staff can have a better advantage in improving the KM process. Based on the output of various studies, increasing participation level is the first and significant impact of decentralised management (Jung *et al.,* 2018; Bao *et al.,* 2019; Terlizzi, 2019). In decentralised structured management, members are eager and excited to transmit and express their beliefs, and, therefore, they are more encouraged to share ideas, personal knowledge, experiences and skills. It can thus be concluded that decentralisation helps improve KS in an organisation. Finally, by considering the practical results of decentralisation in the organisation, and as our sub-hypothesis, we examine the effect of decentralisation as one of the main factors of OD on the KS process in an organisation. Consequently, we state our second hypothesis as:

H1: Decentralisation will positively affect knowledge sharing.

3.4.3   The effect of transparency on knowledge sharing

As a cornerstone of organisation management (Brun-Martos and Lapsley, 2017), transparency means perceiving the quality of information that the sender consciously shares. It is not a one-dimensional construct but a combination of features, such as information disclosure, information clarity and accuracy of information (Schnackenberg and Tomlinson, 2016). In organisations, transparency is usually known as free access to information. Flyverbom and Albu (2017) defined organisational transparency as ensuring accountability through the timely disclosure of information. According to the most straightforward definitions, transparency is a conscious effort to make disclosable details available. Fenton (2012) described transparency as the free flow of ideas and information and the range of shared responsibility. In Peterson's (2012) view, transparency is not only the ability to access information but is also a willingness to share information, an idea the author called openness. Hamel and Zanini (2018) extended this idea, indicating that people know the rightness, but finding out what is proper needs more information; therefore, they need a free flow of information known as transparency. According to Hwang *et al.*

(2018), transparency is a willingness to disclose information that a person wants to share about the job experience. These authors also mentioned that transparency is helpful for workers to acquire appropriate skills, enhance overall information management effectiveness, and help build organisational friendship networks. In another study, Hwang *et al.* (2015) found that transparency positively influenced commitment toward KM and was associated with trust, fairness and openness.

Some scholars have examined the impact of transparency on employee engagement. They have analysed factors such as 'organisational silence', which refers to an unwillingness to participate and is a barrier to engagement in internal organisational affairs. They found that a lack of transparency led to 'the organisational silence' and that this is rooted in the lack of true freedom of communication within the organisation (Shojaie *et al.,* 2011; Zehir and Erdogan, 2011). Therefore, with a decrease in openness, transparency falls. Consequently, organisational silence will increase, meaning that employees are less willing to participate in organisational affairs and communicate with their colleagues and managers (Nikolaou *et al.,* 2011; Acaray and Akturan, 2015). This decrease in participation will directly impact the knowledge flow in the organisation so that information and KS in the organisation can be expected to fall (Fard and Karimi, 2015).

Some studies have shown that transparency has a direct and positive effect on job satisfaction and that with an increase in employee job satisfaction, employee participation, engagement and relationships also improve. It can also be concluded that job satisfaction facilitates sharing of information and knowledge (Tan, 2014; Fard and Karimi, 2015). Some scholars have argued that transparency has a direct association with trust and, parallel with this issue, trust has been proved to be one of the most critical requirements for facilitating the knowledge flow in an organisation. Thus, it is conceived that transparency affects the KS process (Tulubas and Celep, 2012; Dedahanov and Rhee, 2015). Transparency increases trust, engagement, and association in the organisation's corporate culture (Jiang and Luo, 2018; Boudlaie *et al.,* 2020).

In examining the role of these factors, it can be expected that transparency of information in an organisation is one of the criteria of OD that can directly impact the sharing of knowledge in the organisation. Consequently, as the second sub-hypothesis, we propose:

H2: Transparency will positively affect knowledge sharing.

3.4.4 The effect of vision and meaning on knowledge sharing

Organisational vision determines the organisation's direction and path within the scope of its activity (Lattuch and Dankert, 2018). An organisational vision is the desired situation that the organisation intends to achieve and represents an outcome or endpoint towards which the organisation's efforts are made (James and Lahti, 2011; Aithal, 2016). The vision creates a common destination, integrates various and even different goals and keeps the focus of the members' efforts on the right track (Haque *et al.,* 2016).

The meaning indicates the reason for the firm's existence. If we consider the organisation as a two-dimensional element, then in addition to the physical and material dimension of economic and material activities, a second dimension can be imagined, which is the organisation's psychological dimension(Iedema, 1999). Meaning is one of the spiritual dimensions of the company that has been created to answer the philosophical challenge of "why this company exists". For an organisation that wants to succeed in its economic affairs, it is essential to consider "vision and meaning" as a vital pillar for KS. Organisations can improve the path to success by increasing the alignment and convergence of these indicators in the workplace and among employees (Friedman and Lipshitz, 1994). As a critical principle of OD, the meaning and the vision determine the employee's alignment with the company's movement and recognise whether the employee is involved. By increasing the alignment between the organisation's vision and meaning and the employees, the efficiency of the democratical values in the organisation rises (Deetz and Simpson, 2004). When members experience a full and sensible degree of 'vision and meaning', they assume and interpret themselves as an essential part of the corporate structure, and this organisational affiliation will be improved by increasing the degree of democracy (Fenton and Dynamics, 2002). Therefore, empowering a sense of belonging will increase the mutual trust between the management and the employees and among the employees (Kelly, 2011). In an organisation where the atmosphere is full of confidence and mutual trust, knowledge will be adequately and efficiently shared between different parts and segments. This is because the meaning and vision have convinced all employees that whatever knowledge is produced or acquired by them belongs to the entire organisation and that sharing it will lead to individual and collective benefits (Cartwright and Holmes, 2006). Considering the studies conducted in the scope of OD and KM indicate no particular issue that investigated the impacts of vision and meaning on KM despite its appeal.

Accordingly, it is assumed that "vision and meaning" facilitate the KS practices. Therefore, the third hypothesis examines the relationship between 'vision and meaning' as a principle of organisational democracy and KS, thus:

H3: Vision and meaning in the organisation will positively affect knowledge sharing.

3.4.5   The effect of involvement and participation on knowledge sharing

One parameter that can be effective in realising the main characteristics of democracy in the workplace is the "involvement and participation" policy so that employees with a common goal can be involved in running the organisation and freely working together. The philosophy of "involvement and participation" is increasingly intertwined with the notion of 'equality', which is the fundamental pillar of political democracy (Ljungholm, 2017). The concept of participation is as essential as that sometimes workplace democracy is known as worker participation. (Beirne and Ramsay, 2018). In fact, for these scholarly texts, the most critical criterion of democracy is participation. Therefore, participation is the OD's cornerstone; somehow, in most attempts to create a standard definition of democracy in the workplace, participation has been highlighted along with other characteristics, such as equality and co-decision making. According to Holtzhausen (2002), participation is more than the simple form known as routine duties; it involves involvement in top general activities. Davenport and Völpel (2001) focused on the employees' role in KS and found that employee involvement is significant in shaping an effective KS system. Sallis and Jones (2002) believed that sufficient staff involvement is essential for KM strategies, and without employee involvement, organisations should not expect to have a smooth flow of KS. Stankiewicz and Moczulska (2014) analysed the form of individual involvement on a quality and quantity scale and found it was possible to rate the success of KS in an organisation. According to Marchington and Wilkinson (2005), in a workplace where there is proper employee involvement, employees are committed to themselves and the organisation to replace 'pure obedience' with creativity and commitment. Han *et al.* (2010) showed that expanding employee participation in decision-making facilitates the sharing process of knowledge in an organisation. Flinchbaugh *et al.* (2016) found a positive impact from high involvement teamwork practices on enhancing KS in an organisation.

After examining the role in the organisation as one of the foundations of democracy, it seems that the extent of employee participation and involvement reflects the extent of democracy's influence

in the organisation and the growth and expansion of the KS process. Therefore, considering the importance of employee participation and involvement in organisational affairs and the critical role employee participation and involvement play in improving KM practices, our fourth sub-hypothesis focuses on the relationship between KS in the organisation and employee participation as one of the criteria of OD.

 H4: Employee involvement and participation will positively affect knowledge sharing.

3.4.6 The effect of communication on knowledge sharing

Communication refers to human interactions through conversations orally and by body language for exchanging ideas, emotions, thoughts and understandings (Spencer, 2020). Keyton (2017) defined it as a process for information transmission and sharing common understandings between two or more people or groups. A continuous communication network among members is vital for fulfilling organisational tasks". This claim has discussed that without appropriate communication, managers cannot fulfil their duties of coordination, planning, organising and controlling, and employees are not able to perform their tasks efficiently. (e.g., Stohl and Cheney, 2001; Rajhans, 2012; Muscalu *et al.,* 2013). According to Stohl and Cheney (2001), democracy and participation are special drivers for communication to the extent that the level of communication within the organisation is considered an indicator of democracy and participation. There is a close link between participative decision-making, openness, trust and supportiveness strategies. Cheney was critical of the idea of consensus, mainly when parties of unequal power are involved. Communication is a cornerstone in establishing democracy in an organisation that has been linked through the processes of participation and 'effective presentation' (Holmer Nadesan and Cheney, 2017b). Deetz and Simpson (2004) argued that while aiming for OD, an essential structure is necessary. Without persuading the management to change attitudes on the necessity of a communication network, democratic values cannot be established. Harrison and Freeman (2011) found that the participation of subordinates is associated with the staff's quantity and quality of communication with superior levels in an organisation. According to Holtzhausen (2002), as a democratic principle in an organisation, communication positively increases the trust level and eventually improves the sharing of personal experiences, skills, and thoughts. Flinchbaugh *et al.* (2016) reached the same result and found that the level of communication in an organisation is related to the level of trust among employees and that by increasing mutual trust, communication

and KS will increase. Communication is a crucial variable in explaining the quality of a KS implementation (Van Den Hooff, Ridder and De Ridder, 2004) and is strongly related to employees' KS behaviours; therefore, increasing communication within the organisation will raise the employees' tendencies for engagement, participation and KS (Taylor and Kent, 2014; Walden *et al.,* 2017).

Based on these previous research findings on the role of communication, it seems that an open communication climate in the organisation can promote the flow of information; in other words, the spread of democracy in the workplace is an influential element in promoting KS. Thus, the last sub-hypothesis considers the relationship between communication as a fundamental of OD with KS, thus:

H5: Open communication in the organisation will positively affect knowledge sharing.

3.5   Methodology

For this research, we applied a qualitative analysis method to extract, evaluate, and analyse the relevant components and sub-components and the relationships among the main variables and their relationships with the dependent variable. We started with a documentary method by studying and reviewing previous works and extracting the variables and relevant indicators. Our next step was to prepare a questionnaire (in two parts) to evaluate each indicator on a five-point Likert scale based on these variables and indicators. Finally, we confirmed the face validity of the questionnaire with experts to ensure the reliability and normality of the data (using SPSS software).

We analysed the extracted data by applying Confirmatory Factor Analysis (CFA) to confirm the latent and observable variables. We also used Structural Equation Modelling (SEM) to test the hypotheses. SEM examines the adaptation degree of the research data and the conceptual model and whether it has the goodness of fit (Rezaei *et al.,* 2021). Some of the goodness of fit indexes are the Chi-square test (χ^2/df), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), and Root Mean Square Error of Approximation (RMSEA) (Rezaei *et al.,* 2021).

3.5.1   Sample size determination

Universities are an essential part of economic competitiveness and the sustainability of economic growth, particularly in the "knowledge society"(Ardito *et al.,* 2019; Ferraris *et al.,* 2020; Frank

and Meyer, 2020). Many studies proved the economic impact of universities on labour and economic growth (Gyimah-Brempong *et al.,* 2006; Benos and Zotou, 2014; Agasisti and Bertoletti so that the top 10 most developed countries owed their success to their high-qualified higher educational system. Universities also have an essential role in developing democracy, citizenship and social values (Suspitsyna, 2012; Chan, 2016). Furthermore, they are a source of national pride that encourages all countries worldwide to do their best to have the best universities. Meanwhile, as a developing country with a strategic position in the Middle East, universities in Iran significantly improve their economic and social indexes (Habibi and Zabardast, 2020). Universities are also the best communities in a growing knowledge society for various opinions; they exhibit many characteristics of democratic organisations and play a key role in knowledge transfer (CHUGH, 2013; Fullwood *et al.,* 2013).

To meet the research purposes, we selected universities located in the city of Mashhad (the second-largest city in Iran). Consequently, we prepared a list of universities and higher education institutions in the Mashhad metropolitan area (50 universities and colleges), then adjusted and screened this list by considering public or private universities, number of students, and number of employees. Furthermore, since we wanted to examine the level of democracy in the organisation, the sample was selected among employees with no middle or senior management positions to avoid hierarchical interventions and the interests of senior managers.

Although there is no general agreement on the sample size required for factor analysis and structural modelling, determining the minimum sample size is still vital (McQuitty, 2004). According to many researchers, the minimum required sample size is 200 (Taherdoost, 2017; Kock and Hadaya, 2018). Since this methodology is very similar to the multivariate regression method, the principles of sample size determination in multivariate regression analysis can help determine the sample size for SEM (Mueller and Hancock, 2018). On the one hand, it is assumed that each variable should be supported by 5 to 15 samples in the multivariate regression method. On the other hand, some statistics experts, such as Kline (2015), believe each variable requires 10 to 20 samples, but the minimum sample size of 200 is defensible in exploratory factor analysis (EFA).

Moreover, in confirmatory factor analysis (CFA), the minimum sample size is determined by factors, not variables, and about 20 samples are needed for each factor (latent variable). Consequently, we selected a targeted group of 850 employees in 12 universities and higher

education institutions, remained in the primary screened list and distributed 545 questionnaires. After initial refinement and evaluation, we accepted 254 questionnaires (47%) and sent them for final analysis. Table 3.1 shows the sample's composition, age, gender and tenure classes.

The questionnaire consists of two separate sections with items set up on five-point Likert scales (see Table 7.1 in the Appendix). The first part measures the OD scales and principles with 21 questions extracted from previous studies on the workplace and OD. The second part aims to analyse the KS within the organisation with five questions.

Table 3.1 Demographic characteristics of the sample

Variable	Category	Frequency	Percentage
Gender	Male	135	53.15
	Female	119	46.85
Age	20-30	134	52.76
	31-40	73	28.74
	41-50	32	12.60
	51-60	15	05.90
Tenure (Job experience)	1 to 3-year	118	46.46
	4 to 8-year	102	40.16
	9 to 14-year	19	07.48
	Above 15-year	15	05.90

3.5.2 Normality test for statistical data

3.5.2.1 Assessment of multivariate normality and multicollinearity

Before further analysis, the normality test should be performed to detect whether data come from a normal distribution. There are several methods, but assessing the skewness and kurtosis is the best for Likert-scale data (Keller, 2015). Skewness is a measure of the symmetry of the distribution function. According to Garson (2012), if the skewness and kurtosis are not in the range (2, -2), the data will not have a normal distribution. The skewness and kurtosis test results confirm a normal distribution (see Table 7.2 in the Appendix). It is also necessary to consider the independence of the descriptive variables (independent variables). We applied the variance inflation factors (VIF) index to analyse multicollinearity (Rezaei, 2018; S. Talwar *et al.,* 2020). The results ranged from 2.35 to 3.16; thus, multicollinearity is not a problem with this data (Zuur *et al.,* 2010).

3.5.2.2 Common method bias

Common method bias (CMB) happens when variations in responses are caused by the instrument rather than the actual context of the respondents (Kaur *et al.,* 2020). Therefore, it is necessary to

consider the fundamental bias (variances) streaming of common methods in gathering information because these variances effectively weaken the relationships in structures and lead to contamination of the outcomes. To investigate CMB, we used Harman's Single-Factor Test in SPSS (Sreen *et al.,* 2021; Tandon *et al.,* 2021). According to this technique, all items (measuring latent variables) are loaded into one common factor. If the single factor explains more than 50% of the variance of the total variables, it can be claimed that there is CMB (Kock *et al.,* 2021). The results showed that the obtained common factor explains only 31.2282% of the total variance of the variables. Therefore, CMB is not a problem in this research.

3.5.2.3   *Assessing reliability and validity*

According to Field (2013), reliability assures researchers that a concept measured through a research instrument or questionnaire consistently reflects the construct. Internal reliability, composite reliability (CR) and Average Variance Extracted (AVE) are helpful indicators to assess the reliability of the measurement model. Cronbach's Alpha index measures internal reliability; if the values exceed 0.7, it can be concluded that internal consistency is achieved (M. Talwar *et al.,* 2020; Talwar *et al.,* 2021). It is also necessary to measure a latent construct's reliability and internal consistency when the CR indicator illustrates this feature (values above 0.5 are accepted for CR). AVE indicates the average percentage of variation explained by measuring items for a latent construct; its minimum recommended value is 0.5 (Table 3.2).

Validity is a criterion that compares a scale or set of measures with what already has been interested (Field, 2013). Validity analyses the accuracy of a measure and is vital because inappropriate measurements make the outputs of the scientific study worthless. Convergent validity measures the extent of internal correlation and alignment of the items in a category. In other words, whenever a construct (latent variable) is represented based on several items (observable variable), convergent validity reflects the correlation among the items. This assessment can be verified by computing the AVE and Composite Reliability (CR) together (AVE>0.5, CR>0.7 and CR>AVE) (Table 3.2).

Table 3.2 Construct Reliability and Convergent Validity

Construct /Indicators	SRW	C. Alpha	CR	AVE	construct reliability	convergent validity
OD	-	.837	.905	.723	established	established
DEC	.94	.736	.664	.441*	established	established
TRA	.85	.689	.847	.537	established	established
V&M	.80	.742	.788	.560	established	established

INV	.90	.713	.834	.506	established	established
COM	.75	.651	.794	.500	established	established
KS	-	.858	.872	.671	established	established

* Although the value obtained is below 0.5, it is acceptable given the other criteria.

It is also necessary to ensure the uniqueness of a constructed measure. Discriminant validity helps researchers theoretically find how different the questions of one factor are from the questions of other factors. We followed the Henseler *et al.* (2015) method and computed the Heterotrait-Monotrait Ratio (HTMT) to find the divergence. This index is calculated through SPSS and Excel software, and values less than 0.9 indicate that discriminant validity is acceptable (Table 3.3).

Table 3.3 Discriminant Validity

Indicators	DEC	TRA	V&M	INV	COM
DEC					
TRA	.368				
V&M	.506	.433			
INV	.215	.514	.064		
COM	.015	.315	.198	.654	

3.6 Data Analysis and Results

3.6.1 Confirmatory factor analysis (CFA)

As an advanced statistical method, we applied the factor analysis method that meets three general targets: data reduction, structure detection and measurement of the validity and reliability of the questionnaire. With data reduction, researchers are not faced with many variables, while structure detection recognises the optimally structured relationships among categorised variables (called factors). Finally, by measuring the validity and reliability of the questionnaire, researchers find whether the items are placed inside the factors (Bandalos and Finney, 2018). Therefore, we analysed the primarily collected data to confirm the factors of OD and KS. In this study, the final analysis was performed by LISRL software.

The first and second CFA was used to test the model of OD, which had five latent variables (transparency, decentralisation, communication, vision and meaning and involvement) and 21 items. By applying second-order CFA, we wanted to find the structure of the variables. In second-order factor analysis, it is assumed that the latent variables share the common variance caused by one or more higher-order factors. Therefore, the second-order CFA can explain the relationships between primary factors obtained in the first-order factor analysing. For example, the chi-square value, df, p-value and RMSEA are 294.86, 184, 0.00001 and 0.038, respectively (Table A in the

appendix shows the path diagram values). Table 3.4 illustrates the fitness indices of second-order CFA. For KS, we also applied CFA to analyse the latent variable (KS) model with five items.

Table 3.4 Fitness Indices –Second-order factor analysis – OD

Fit measure	$\chi 2$ /df	P-Value	RMSEA	GFI	AGFI
Good fit	$\chi 2$ /df<3	P-Value <0.05	RMSEA<0.05	More than 0.9	More than 0.9
Model value	1.358	0.00001	0.038	0.92	0.91

3.6.2   Analysing the hypotheses

To examine the research hypotheses, we applied the Structural Equation Model. With SEM, we verified the causal relationship among variables and analysed the appropriateness of observed data. Table 3.7 shows the respective values of the standard model and t-value model for H (baseline hypothesis) (chi-square= 47.84, df= 34). The outputs shown in Table 3.5 indicate the goodness of fit of the structural model.

Table 3.5 Fitness Indices – H

Fit measure	$\chi 2$ /df	P-Value	RMSEA	GFI	AGFI
Good fit	$\chi 2$ /df<3	P-Value <0.05	RMSEA<0.05	GFI>0.9	AGFI>0.9
Model value	1.407	0.00000	0.040	0.93	0.92

SEM also analysed the relationship between transparency, decentralisation, communication, vision and meaning, and involvement with KS, explained as H1 to H5 (sub-hypotheses). Table 3.7 displays the standard model and the t-value model values for H1-H5. The values in Table 3.6 illustrate the goodness of fit.

Table 3.6 Fitness Indices – H1 to H5

Fit measure	$\chi 2$ /df	P-Value	RMSEA	GFI	AGFI
Good fit	$\chi 2$ /df<3	P-Value <0.05	RMSEA<0.05	More than 0.9	More than 0.9
Model value	1.214	0.00005	0.029	0.94	0.91

The results support our prediction of the main Hypothesis (OD has a direct and positive impact on KS), where the path coefficient is 0.65. Our study's outputs (Table C in the appendix) confirm the sub-Hypotheses (H1 to H5). The first hypothesis is supported by the path coefficient of 0.57 for decentralisation. This means increasing the decentralisation leads to the KS and transferring improvement. Consistent with this finding, our research's empirical results also show a correlation between transparency and KS by a path coefficient of 0.59. Our analysis also supports H3, H4 and

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H5, confirming the correlation among vision and meaning, involvement and communication with KS by path coefficients 0.43, 0.47 and 0.53, respectively. The summary of the results is included in Table 3.7.

Table 3.7 Results summary

Description of path	Coefficient	t-value*	Conclusion
OD →KS	0.65	12.63	H is accepted
Decentralisation →KS	0.57	5.83	H1 is accepted
Transparency →KS	0.59	5.89	H2 is accepted
Vision & meaning →KS	0.43	5.39	H3 is accepted
Involvement →KS	0.47	5.53	H4 is accepted
Communication →KS	0.53	5.82	H5 is accepted

*$p < 0.05$

3.7   Discussion

This study was motivated by a desire to understand the relationship between organisational democracy and the development of KS. It is expected that democracy would facilitate KS behaviour and increase employees' motivation to take advantage of KS practices in the organisation. The findings illustrate strong evidence of the effects of OD principles on KS, which means that the traces of democracy in the organisation facilitate the process of KS. According to the results, transparency has the highest correlation with KS (hypothesis H2). In an organisation with an acceptable democratic value, it could be helpful to leverage a high level of transparency in facilitating KS. Transparency is the foundation of trust in the organisation(Porumbescu, 2017). By increasing the trust level, individuals tend to participate more in tacit or explicit information exchanges, facilitating information flow and improving the KS (Ahmed *et al.,* 2019). Our findings complete some studies that have examined the indirect impacts of transparency, trust, organisational silence, job satisfaction, corporate culture, and employee participation on KS. However, these investigations have not analysed the OD as independent drivers that we considered in the first place hypothesis (e.g., Morrison and Rothman, 2009; Nikolaou *et al.,* 2011; Shojaie *et al.,* 2011; Zehir and Erdogan, 2011; Tulubas and Celep, 2012; Tan, 2014; Acaray and Akturan, 2015; Dedahanov and Rhee, 2015; Fard and Karimi, 2015; Jiang and Luo, 2018).

The outputs of the first hypothesis show a positive and acceptable correlation between decentralisation and KS. Our finding confirms some outcomes that considered the relationship between a decentralised decision-making system (or decentralisation) in some scopes, such as

organisational culture and organisational effectiveness, with KM (Douglas and Judge, 2001; Jones *et al.,* 2006; Zheng *et al.,* 2010; Jeong *et al.,* 2019). Results of the fifth hypothesis confirm the vital role of communication in developing the process of KS in an organisation. Regardless of the different scopes of previous attempts, our results are close to other research studies (e.g., Van Den Hooff *et al.,* 2004; Taylor and Kent, 2014; Razmerita *et al.,* 2016; Walden *et al.,* 2017).

The findings related to the impact of involvement and participation on KS are also parallel to conducted research outcomes (e.g., Davenport and Völpel, 2001; Sallis and Jones, 2002; Han *et al.,* 2010; Stankiewicz and Moczulska, 2014; Nonaka and Toyama, 2015; Flinchbaugh *et al.,* 2016) and illustrate the fundamental role of OD and the importance of employee involvement and participation in the managing and decision-making procedures of the organisation. The lowest correlation with KS among the principles of OD in this study is seen in the third hypothesis. Regarding this hypothesis, we did not find specific evidence in previous studies that investigated 'vision and meaning' effects as an OD's principle in improving KS, but our finding completes the studies that proved the role of socio-environmental factors in promoting KS. Therefore, the outputs complement the investigations of some management concepts, such as social capital (Mooradian *et al.,* 2006; Akhavan and Mahdi Hosseini, 2016; Rezaei *et al.,* 2020), employee learning (Calantone *et al.,* 2002; Ardichvili, 2008), organisational culture and structure (Al-Alawi *et al.,* 2007; Caimo and Lomi, 2015)(Al-Alawi, Al-Marzooqi and Mohammed, 2007; Caimo and Lomi, 2015) and innovation (Bontis *et al.,* 2009; Akhavan and Mahdi Hosseini, 2016).

3.8 Theoretical and Managerial Implications

3.8.1 Theoretical implications

This paper provides some theoretical implications and expands our understanding of KS by providing significant evidence regarding an under-investigated socio-political issue, organisational democracy. The main theoretical contribution of this study is the contextualization of OD. This research distinguished about different influences of the principles of OD on the KS to shed light on why OD and its most essential principles might be more or less connected with the increasing sharing practices of knowledge within organisations (Ferraris *et al.,* 2017; 2018). In addition, our research showed that OD is crucial in solving main problems related to insufficient KS as well as in helping us identify the differences, effects and intensities in the relationships. In this regard, prior literature in this domain concentrated mainly on single aspects of OD; for

example, Willem and Buelens (2009) and Chen *et al.* (2010) refer to decentralisation, while Tan (2014) and Fard and Karimi (2015) refer to transparency. Also, Rezaei *et al.* (2020) focused on the vision and meaning, while Han *et al.* (2010) and Flinchbaugh *et al.* (2016) on the involvement and participation and Flinchbaugh *et al.* (2016) and Van Den Hooff *et al.* (2004) on the communication aspects. We thus extend this literature by integrating all these concepts into an OD-KS framework and empirically demonstrating heterogeneous effects.

In addition, Van Den Hooff *et al.* (2004) argued that KS is a process of mutually exchanging implicit and explicit knowledge to create knowledge. According to some authors (i.e., Intezari *et al.,* (2017)), KS is a culture of social interactions involving exchanging information, experiences and skills of employees. From an organisational democratic perspective, we posit that exchanging experiences, ideas, information, etc., as volunteered actions, will require a free-structured workplace. The principles of OD would lie at the apex of creating such an environment. A careful literature review explains that there are few, if not any, significant theories in the KM and organisation studies area that include hypothesised or confirmed principles of OD. This study has provided additional knowledge to integrate fragmented pieces of research in the KM domain. The finding is innovative and novel by considering an interactive relationship. In an interactive relationship study, by adopting various OD principles that interact with each other, the direct effect of one principle on KS may be enhanced by the indirect impact of the other tenets as a whole on the KS.

Finally, from a methodological point of view, this study solves some weaknesses recognised in the earlier studies. There are just a few empirical studies in extant literature that measure OD principles, especially in a KM setting. This study adapted existing measures and developed a new scaling assessing OD principles. These measures have distinctly captured the nature of democracy in organisations. With these improvements in theory and methodology, our findings have potentially significant implications for understanding the KM and the role of OD in improving KS, which can be used in future studies in different cultural and organisational contexts.

3.8.2 Practical implications

Our findings have a significant practical implication and can promote KS among employees, especially regarding management, government policy, and human resource departments. Our results give an alternate perspective to managers and stakeholders regarding a more inclusive look

into the dimensions of democracy in an organisation, along with its practical implementation, which can improve the quality and quantity of knowledge flow. In this regard, democratic practices in both administrative processes and interpersonal relations, especially in managing the educational institutions, have a mutual relationship with the effectiveness and efficiency of KM dimensions. In a democratic organisation, both management and employees can focus on fulfilling their tasks in a free, fair and indiscriminate environment and share their knowledge, experiences, skills and ideas. This causes a harmonisation in achieving the goals both in individual and organizational scope. Organisations, including universities, need to manage the knowledge flow in the workplace in such a way that the processes of producing, distributing, sharing and applying are carried out in the best and most effective way. On the flip side, employees need an environment where they can freely express and share their implicit and explicit knowledge while ensuring that any discrimination does not possess them. We believe that democracy in the workplace shapes the environment and enhances the virtues of individuals.

Our results reveal that OD principles such as increasing transparency, participation rights by increasing communication, and decentralization of management in decision-making effectively improve KS. Therefore, our developed and validated indicators assist managers in considering OD impacts in their upcoming actions whenever the organisation needs vital decisions for KS. Thus, in addition to taking advantage of factors such as new communication tools such as Web 2.0 and new technologies, the democratization of organisations has a decisive role in sharing knowledge as well as in developing a digital transformation culture (Bresciani *et al.,* 2021; Popkova *et al.,* 2021). Furthermore, our results suggest a roadmap for evaluating the effectiveness of the KS system in the organisation; hence, managers can analyse the level of OD principles to identify weaknesses and obstacles to improve the flow of knowledge and reduce the internal shortcomings of the organisation. Overall, we provide practical suggestions for managers to consider democracy as leverage to improve internal effectiveness. As an of the positive effects, OD contributes to increasing the co-operational behaviours and will effectively reduce bureaucratic behaviour resulting from the organisational inharmony. Therefore, we suggest how democracy may aid in growing relationships and interpersonal connections and eliminate bureaucratic rules and hierarchy in the service industries such as universities.

Consequently, OD enhances communication networks in the organisation. Finally, in a democratic workplace, by increasing the sense of democratic values, managers will spend less financial and non-financial resources on improving KS. Therefore, universities can widely allocate the potential existing facilities for the organisation's current, short-term and long-term prospects.

3.9   Limitations and Future Lines of Research

This paper has some limitations. Our most important limitation is the type of community selected for testing and measuring the relationship between variables. Since universities and higher educational institutions have almost different conditions from other organisations in terms of work environment, activity (being a service), and the type of administration and management, the consequences cannot be conclusively generalized to other kinds of organisations. However, we screened intensely to eliminate the weaknesses in selecting the sample to test the hypotheses. Although testing CMB did lighten bias concerns to some extent, we cannot reject the possibility of such bias in our research. Survivor bias is another limitation of this research.

Furthermore, our sample is limited to Iranian universities, which may lead to limited generalisability of the results; results may change with different sample sizes or societies. Since we do not have adequately reliable literature on the OD principles, which consists of both the characteristics of comprehensiveness and completeness, we are limited in exploring the principles of OD. Although our analysed OD principles are the most accepted principles extracted from the relevant texts and research on OD, they do not cover all aspects of the impact of OD on KS. Therefore, for future research and to provide a clearer perspective on the effects of OD on KM, more comprehensive studies on other principles of OD and the different dimensions of KM should be conducted. In addition to this, examining the effects of the principles of organisational democracy and the role of controlling factors such as personality, fair promotion, and reward systems cannot be ignored.

CHAPTER FOUR: Third study, "What drives the process of KM in a cross-cultural setting; the impact of social capital"[3]

Rezaei, M., Jafari-Sadeghi, V. and Bresciani, S. (2020), "What drives the process of knowledge management in a cross-cultural setting: The impact of social capital", _European Business Review_, Vol. 32 No. 3, pp. 485-511. https://doi.org/10.1108/EBR-06-2019-0127

4.1 Abstract

Purpose – This paper aims to consider the role and influence of social capital (SC) on knowledge management (KM) and sets out to develop an understanding of the importance of the impact of the cross-cultural environment on this relationship.

Design/methodology/approach – According to the notion, in this study, the relationship between two essential aspects in management and business literature, SC on KM practices, has been analysed. By applying a descriptive and correlational method, the impact of various dimensions of SC on KM in a cross-cultural setting has been investigated, and required data has been obtained through questionnaires consisting of 30 items prepared for a sample of 232 people.

Findings – Although the findings are varied, the results indicated an important relationship between SC dimensions and KM in the research environment, which is cross-cultural. Research limitations/implications – First, as the data is derived from different branches of a big company in Iran, its results cannot be easily extended to other contexts. Therefore, future research streams can expand this paper's scope into other contexts with different characteristics. Moreover, the sample of this paper is taken from different communities (branches), which increases the variety of personality features in distinct cultures. Thus, further research can stress a particular organization/ branch to avoid the problem of cultural variation and focus on a more homogenous sample. Finally, this study targeted a large organization in the IT sector. However, future studies can investigate another type of firm (e.g. small and medium firms) in different sectors (e.g. manufacturing, food sector, etc.).

Practical implications – In this research, using scientific and practical methods, the impacts have been examined carefully and deliberately to assist the managers of organizations theoretically and managerially as these outcomes contribute to the development of a new concept called cross-cultural in knowledge management and social capital, and support organizations to cope with the implications of this concept.

Originality/value – There is not much empirical research on cross-cultural settings and their effects on management, finance and business, especially on correlations between KM and SC. This investigation tries to fill this gap and explain how companies can use SC to enhance the effectiveness of KM by considering cultural diversity impacts.

Keywords – Knowledge management, cross-cultural environment, social capital dimension

Paper type – Research paper

4.2 Introduction, Research Gap and Questions

Current information technology advances have significantly reduced data management costs (Karagouni, 2018). These signs of progress have introduced new concepts such as knowledge management (KM) in the organisation literature. Knowledge value is in its potential ability that helps organisations enhance their assets' value and, consequently, their capital. Moreover, knowledge is a critical source for increasing sustainable competitive advantages (Reich, 1991; Quinn, 1992; Drucker, 2012) that organisations can use to improve intellectual capital efficiency, innovate their processes, promote business activities and reduce the production cost. Therefore, identifying the causes affecting organisational KM is one of the primary measures for effectively using the organisation's intellectual capital.

Notwithstanding various factors' impacts, social contexts, such as social capital (SC), hold significant consequences and, compared to the economic and human resources, have a more extended effectivity domain. SC refers to the networks of relationships and connections among members that create shared norms and mutual that directly and indirectly are associated with a wide range of organisational issues. Therefore, SC and its impact on organisation and business have always been an interesting subject for researchers in human resources, organisational performance analysing, entrepreneurship, internationalisation, KM etc. (Widén-Wulff and Ginman, 2004; Hoffman *et al.,* 2005; Smedlund, 2008; Manning, 2010).

Besides these drivers, another factor has implicit and explicit effects on all issues related to human relationships. Culture affects human behaviour, feelings, reactions and interactions, individually or collectively. Many detailed and meaningful research has been done on the role of culture and its dimension impacts on organisations. In the meantime, cultural diversity effects are a prominent issue seen at the highest level in a cross-cultural environment. Therefore, studying organisational matters, such as KM and SC relationships, considering the cross-cultural settings, has become an interesting topic for researchers by raising such questions: What is the role of a cross-cultural environment in KM and SC interactions? In this chapter, we study the effects of SC on KM in an organisation by considering the impact of the cross-cultural environment.

Our study contributes to the KM and SC research streams in different ways. First, by analysing SC impacts on KM in the cross-cultural setting, we improve prior knowledge and respond to current needs for more exploratory analysis of the influential factors of SC and KM in cross-cultural settings (e.g., Harrison and Freeman, 2011; Verdorfer *et al.,* 2015). We also recognise and evaluate

the most effective SC dimensions impacts that can facilitate knowledge sharing in organisations with a cross-cultural environment, thus providing some important managerial recommendations and action priorities. Next, the findings add to the ongoing discussion of employee participation in KS by individuating specific features in a cross-cultural organisation and highlighting the different intensities of the SC dimensions' effects that positively impress KS and KM. Finally, findings come to the aid of stakeholders, such as managers, owners and founders, in empirically shaping and managing the social capital in a cross-cultural workplace to expand knowledge inside the organisation.

In an overview, the paper has presented theoretical and practical implications that set up formatting for developing environmental and managerial indicators in a cross-cultural setting by considering reference points in the SC factors that drive KS. This paper implicitly designs an efficient relational plan and methodology for facilitating the KS process in this environment.

Against this backdrop, the next section of the paper depicts the theoretical background of SC and the KM concept considering the cross-cultural setting features, followed by hypotheses development on the relationships among the main principles in SC, KM and KS. The material and methods for conducting empirical research are then introduced in the methodology section. Moreover, from this, the presentation and discussion of the results are developed. Finally, the paper is finalised by the conclusions, theoretical and managerial implications, limitations and future lines of research.

4.3   Literature Review

4.3.1   Social capital and knowledge management

Organisational knowledge is everything employees know about the organisation's processes, products, services, customers, the market, and competitors (Civi, 2000). Davenport and Prusak (1998) defined knowledge as "a flow of experiences, values, information and insight which provides a coherent and integrated framework for evaluating and acquiring new experiences and skills." In Chinying Lang's (2001) view, the human is the main element in creating knowledge. Knowledge is shaped through circulation and sharing (informally) among people who come together through shared interests and remain in the organisation (Liao *et al.,* 2004).

In a general classification, knowledge includes unique information originating in the individual's minds through organisational communication, developed by interactions between technology, techniques and individuals in an organisation and exists in two types; explicit and tacit knowledge (Smith, 2001).

Explicit knowledge is organised knowledge with content that can be modified, compiled, and published using information technology (Johannessen *et al.,* 2001). This knowledge as the upper part of the "iceberg" is a visible section of the organisation's knowledge resources found in databases and reference books in organisations. However, an "iceberg" has another invisible part, known as tacit knowledge (Haldin-Herrgard, 2000). This part of knowledge is personal, cognitive, and affiliated with the text that lies in individuals' minds, behaviour, and perception. Values, beliefs, insights and intuition are examples of this type of knowledge in organisations. Such definitions of organisational knowledge explain the importance of the human element and the relationships among individuals in organising the creation and sharing of organisational knowledge.

According to Teece (1998), knowledge is fundamental to sustained competitive advantage. Malhotra believes that KM involves the organisational process, seeking to find a synergistic combination of information technology's data and information processing capacity and individuals' capacity for creativity and innovation. Also, KM is considered a process in which an organisation generates value and wealth through its intellectual property and knowledge (Bukowitz and Williams, 2000). Chang Lee *et al.* (2005), in their experimental research, considered KM as the process of applying and providing skills and expertise of individuals in the organisation supported by information technology, while Bhatt (2001) explained it as the process of creating, presenting, distributing and applying in the organisation by individuals. However, KM is regarded as a process for the flow of knowledge among individuals as an instrument for innovation in processes, products and services, effective decision-making and adapting the organisation to a dynamic and competitive marketplace (Stevenson *et al.,* 2018). Therefore, it can contribute to the refinement of business strategy that exploits opportunities in challenging new markets.

The concept of KM provides a more comprehensive understanding of the processes and essential foundations of an organisation (Hislop *et al.,* 2018). KM is an approach directly associated with developing and facilitating the organisational learning process by smoothing the exchange and dissemination of knowledge (both implicitly and explicitly) (Jafari Sadeghi *et al.,* 2014; Pucci *et al.,* 2018). There are many physical and non-physical drivers for KM practices in an organisation that by any change in their effectiveness, KM procedures will affect. Technology infrastructures, known as IT tools (including hardware and software), provide electronic forms of organisational knowledge, facilitating exchanging and sharing (Naqshbandi and Jasimuddin, 2018).

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Organisational structure (OS) is a defined framework in which staff interact with each other within groups and teams. Members in OS follow a series of instructions and purposes in association with the defined strategy for the organisation (Zheng *et al.,* 2010). Organisational culture (OC) contains shared values, norms, ethics, and behavioural forms. Therefore, organisations need to prepare and expand a culture and atmosphere that encourages communication and interaction to improve KM practices. Effective communication and interaction in an organisation and creating and improving mutual trust are associated with another concept in organisation sciences, known as SC (Prieto-Pastor *et al.,* 2018; Holdt Christensen and Pedersen, 2018). The SC term was primly raised in the sociology literature. Coleman (1988), Portes (1998) and Adler and Kwon (2002) define SC as an accumulation of potential and actual resources that are linked with integrated networks of institutionalised relationships based on mutual understanding (Zhang and Fung, 2006). According to Nahapiet and Ghoshal (1998a), "SC is all resources and values derived from a network of people through organisational relationships". In other words, communication networks are considered a value-creating resource (capital) for individuals or organisations. Van Engelen *et al.* (2006) argue that SC is a mixed concept of knowledge and organisational resources, which improves the potential of individual and group activities in human social systems. SC could be interpersonal or inter-organisational. Interpersonal SC is created in communication networks between individuals, while inter-organisational is due to communication networks between organisations (Hoffman *et al.,* 2005; Ganguly *et al.* (2019). It is also a mechanism to transfer knowledge within and between organisations (i.e., via membership in specific social networks) (Rhodes *et al.,* 2008). Stone (2001) believes that interpersonal SC includes existing organisational resources supported by trust and collaboration within human networks.

Moreover, SC explains the capacities of mutual benefits, which are exchanged due to membership in a social network or other social structures (Coleman, 1998). However, in early literature, Fukuyama (1995) described SC as an ability individuals achieve by cooperation in common objectives in groups and organisations. Francis (2002) believes SC can be derived from mutual trust, mutual interaction, social groups, collective identity, the feeling of a shared vision of the future and teamwork in a social system. Hence, the "network of trust" and "radius of trust" are two fundamental concepts in which the network of trust includes relationships based on mutual trust; individuals practice the same information, norms and values in their interchange (Hoffman *et al.,* 2005; Rossi *et al.,* 2019). Thus, mutual trust will play a crucial role in facilitating processes,

increasing benefits and reducing the costs associated with such human exchanges, while the radius of trust means the extent of the circle of cooperation and the mutual trust of the members in a group (Nahapiet and Ghoshal, 1998a; Rossi *et al.,* 2019).

Therefore, it is arguable that KM, through SC's dimensions, will be run more effectively due to its potential capacity for influencing conditions vital for knowledge creation and sharing (Hoffman *et al.,* 2005). More precisely, SC facilitates variety, enabling organisations to create more value through innovative practices (Tsai, 2018; Kanter, 1988; Kogut and Zander, 1993).

4.4   Hypotheses Development

4.4.1   The impact of social capital on knowledge management in a cross-cultural environment

Social values, culture, personality, and workplace conditions are vital in creating and sharing information and knowledge at the micro and macro levels (Levy *et al.,* 2003). If an organisation enhances effective interactions among its staff, within the groups or organisational components, the reliability of the effectiveness of exchanged information will increase and can take more advantage of knowledge (Hardaker *et al.,* 2004; Donate and Sánchez de Pablo, 2015). Adler and Kwon (2002) noted that the correlation between SC and knowledge sharing is vital. Amara *et al.* (2002) have found a noticeable link between SC and KM. However, they have considered KM in its general concept, without distinction in different dimensions. Tymon and Stumpf (2003) illustrated the association between SC and KM to achieve higher organisational performance. Lioukas and Reuer (2015) have presented that SC in the organisation affects KS among members of the networks. However, there is a gap in these studies, where they ignore the role of the cross-cultural environment.

Studies mainly focus on technology factors' impacts on KM development and have less attention on human-related aspects. Nonaka and Toyama (2015) considered the role of organisational leadership, cultural structures, and OS in KC and KS and found their effectiveness in creating and sharing processes of KM. Darroch (2005) investigated KM as a coordinating mechanism, revealing a significant positive relationship between KM capability and innovation. Zhang (2018) examined the role of OC in KM and illustrated that flexible OS, adequate information systems, designing the appropriate reward system, and ultimately attracting people's trust, are the strategic factors in KM. These researches are some examples of efforts to create a link between SC and KM without considering the role of a cross-cultural setting.

Nahapiet and Ghasal (1998b) expanded the SC concept and specified three dimensions; structural, cognitive, and relational. The tangible structural dimension includes the impersonal linkage

between members of a group or social component and consists of three factors: network ties, network configuration, and appropriable organisation (Liao and Welsch (2005). The network ties involve specific methods in that social unit members are interconnected. Network configuration describes the patterns of relationships between members of a social group. The cognitive dimension consists of shared language and codes, cultural and social beliefs, and concepts shared by common concepts, memories and narratives (Pearson *et al.,* 2008). The most straightforward interpretation of the relational dimension can be related to the degree of shared feeling of trust among members. Finally, the relational dimension describes the personal relationships in an organisation that influence an individual's respect and friendship behaviours.

Bhatt (2001) considered the KM process in five-step phases: creation, validation, presentation, distribution (sharing), and application of knowledge. He explains that creation includes activities to develop fresh and valuable ideas and solutions to gain novel understanding. Knowledge validation refers to how a firm can reflect on knowledge and evaluate its effectiveness for the existing organisational environment. How knowledge is displayed to the corporate members is deemed a knowledge presentation. In the distribution step, knowledge is shared throughout the organisation. The interactions in all organisation sections, such as technologies and people, directly involve knowledge distribution. The final destination of this procedure is the application, which argues that knowledge needs to be used in production, processing and servicing.

Although cultural features are essential factors in the organisational processes, it has been less investigated in literature in SC and KM. Culture is significant by affecting thinking, attitudes, interests, and behaviours, both organisational and personal dimensions (Hofstede, 1998). According to Edgar Schein (2013), culture can be considered a phenomenon surrounding people and impacting their behaviours and social reactions. In Schein's view, when a person brings culture into an organisation or a group, he can obviously understand its impacts in creating, capturing and developing, and ultimately influencing, managing, and then changing. In general, the concept of culture is the quality of life of a group of human beings that passes from generation to generation (Schein, 2013). Hofstede defines culture as; "[. . .] the collective programming of the human mind that distinguishes the members of one human group from those of another. Culture, in this sense, is a system of collectively held values" (Karin Andreassi *et al.,* 2014). He also adds, "Nevertheless, no one has ever been able or cannot establish a one-to-one and straightforward relationship between each aspect of culture and the organisation's operational elements".

However, there is no doubt that culture can influence the organisation's performance and, over a long time, can have a decisive impact on the organisation's survival in the market. Culture is a blend of values, principles, and beliefs that individuals have achieved from their childhood environment (idem). This combination can vary from person to person in a community, and these differences can create a variety of decisions at the same time and place in different people. Sociologists call these cultural distinctions in society "cultural diversity, " a contextual and comprehensive word in organisation literature (Eriksson and Hägg, 2016). It is also a vital topic of concern for managers considering its effects on organisation performance have grown. Cultural diversity is defined as essential differences distinguishing one individual from another (Ogbu, 1992). This definition covers many apparent qualities and hidden capabilities (Slavova, 2013).

In a diverse cultural environment, personal differences in thinking, attitude, action and reaction can be effective in the role of individuals in a larger society, such as an organisation. The cross-cultural setting is a simple instance where cultural diversity can be defined and observed (Jelavic and Ogilvie, 2010). In business, cross-culture is described as a corporation's efforts to improve its staff's ability by increasing cooperation effectively with employees from different backgrounds and nationalities. That is why exploring the role of cross-cultural behaviours in organisational issues has become the recent concern of researchers in organisation management (Hejase *et al.,* 2013). Moreover, organisations need an optimal combination of financial and non-financial resources, such as human resources, to fulfilling their business and performance purposes. Therefore, with a profound impact on individuals, cultural variety can influence the organisation's performance yield (Rossi *et al.,* 2017; Jafari Sadeghi and Biancone, 2017b).

In this research, we investigate the role of SC on KM. We identified five of the different SC dimensions: trust, shared language and codes, network ties, identity and obligations, and expectations. Therefore, for the primary hypothesis, we assert:

H. SC positively affects KM practices in a cross-cultural environment.

4.4.2   The impact of trust on knowledge management in a cross-cultural environment

Trust is a set of beliefs that a person has toward people, making them feel optimistic about the other's behaviours and reactions (Dierks, 2005). Trust is the source of communication and discourse, which comes in different forms, such as trust as a belief, a decision and an action (act) (Dietz and Den Hartog, 2006). In Fukuyama's definition, trust is a presumption within a traditional and honest society and cooperative behaviours based on shared norms (Fukuyama, 1995).

Fukuyama knows trust as a behaviour's predictor concerning commitments that enhance the predicting possibility of negotiations outputs considering its opportunistic. In addition, he argued that trust could facilitate the creation of intellectual capital (Caputo *et al.,* 2016; Ferraris *et al.,* 2016). Trust is an influential factor in SC that promotes the relationships between individuals in a community (Li *et al.,* 2019).

According to Jones and George (1998), there is a mutual relationship between trust and cooperation. Therefore, collaboration improves by increasing interpersonal confidence, and when mutual trust enhances, the individuals' collaboration will increase. Consequently, the ultimate yield of employees' cooperation and mutual trust is strengthening the confidence in the whole organisation.

In many studies, the trust impacts on KM activities have been discussed, concluding that employees tend to be more willing to create and share knowledge in a more secure environment (Blaas-Franken *et al.,* 2016; Ho *et al.,* 2018; Le and Lei, 2018). Trust also increases interpersonal interactions. If people ensure on each other, they dare to talk more about their thoughts and hear, propagating novel thoughts and new ideas and ultimately creating and sharing knowledge.

In an empirical study, Zhu *et al.* (2004) examined the relationship between SC and knowledge sharing in various companies. The results show that social trust does not directly impact the sharing of organisational KM. Paliszkiewicz *et al.* (2014) examined the trust effects on organisational performance in 469 managers in 278 top companies selected by Forbes as a basis for knowledge sharing. They found that trust is the precondition for knowledge sharing among employees. Finally, Hajidimitriou *et al.* (2012) showed that trust is a prerequisite for transferring implicit and explicit knowledge.

Meanwhile, considering all mentioned studies, no specific investigation has been conducted in a cross-cultural setting, which let researchers be ensured of the results from the impacts of this kind of environment. Therefore, considering the conducted research, it is expected that there is a positive relationship between trust, as a feature of SC, and KM. Hence, we propose:

H1. trust positively influences KM practices in a cross-cultural setting.

4.4.3   The impact of shared language and codes on knowledge management in a cross-cultural environment

The cognitive dimension provides group members a shared vision of objectives and values (Chiu *et al.,* 2006). This dimension involves how staff members share a social network on a shared vision

or shared understanding, including language and codes and narratives (Claridge, 2018). At the organisational level, especially in large organisations, creating a shared vision among the members and bringing their thoughts and views closer are effective methods to develop the cognitive dimension (Pee and Kankanhalli, 2016). Shared language and codes influence the KS and KC in many ways (Chua, 2002). First, language has a vital role in social relationships. Language provides people with communication and lets them express and exchange views (Halliday, 1994). With the common language, they can capture and analyse each other's information and employ it to provide new information or knowledge (Reiche *et al.,* 2017). Moreover, language affects human perceptions—the greater the linguistic distribution of people, the more they understand each other. Increasing mutual understanding leads to a suitable environment for KS and KC (Büchel and Raub, 2002).

On the other hand, shared codes, i.e. a specific framework and reference for analysing and interpreting information, also have the same effect (Carroll and Swatman, 2000). By creating a shared thought manner, these frameworks will set ideas in the form of information and knowledge and ultimately facilitate KS(Akhavan and Mahdi Hosseini, 2016). Commons language and codes enable converting new ideas into knowledge. Given the cultural diversity and differences in a cross-cultural environment, shared codes and languages can affect KM specifically. In other words, more verbal communication through the common language and codes leads to more KS (Ritala *et al.,* 2015). Therefore, as the second hypothesis:

H2. Shared language and codes positively impact KM practices in a cross-cultural setting.

4.4.4   The impact of network ties on knowledge management in a cross-cultural environment

Network ties are one of the most critical parts of the structural dimension in SC that facilitate access to resources (such as knowledge) (Aldrich and Meyer, 2014). This SC dimension shapes the overall configuration of a social structure, such as an organisation, and affects the development of intellectual capital and KM and their performance (Nahapiet and Ghoshal, 1998b; Claridge, 2018). For example, in an organisation, individuals (as the primary KS and KC operators) will be able to access resources (such as knowledge) with a coherent network of relationships (Miller and Read, 2013). Network ties also reduce the time to access information by creating information channels and, finally, the cost of KC and KS (Hoffman *et al.,* 2005). In addition, by making structured networks, these simple interconnections can increase methods of emerging and

exchanging ideas and ultimately transforming them into knowledge (Horvat *et al.,* 2003). Weber and Weber (2007) indicated that networks and employee interactions in the organisation provide opportunities for KS. In this regard, Merlo *et al.* (2006) point out that the information flow in the organisation is associated with the relationships network extension among individuals. Karkoulian *et al.* (2010), while pointing out the effect of employees' personality, believe that interpersonal sharing is the most effective way of enhancing KS among employees.

On the other hand, the quality and quantity of the relationships among individuals in the organisation are also essential aspects of SC that affect the KS (Omar Sharifuddin Syed- Ikhsan and Rowland, 2004). Therefore, a suitable communications network and an effective cooperation system will increase the KS (Nguyen *et al.,* 2016). Mu *et al.* (2008) found that internal and external relationships expanding and preparing the requirements for facilitating the individuals' communication would strengthen the KS capacities and smooth the organisation's path to success. According to Hejase *et al.* (2013), the individuals' relationships are related to the cultural characteristics of the hosted community.

The primary consequence of the diminution of varieties in society is the closer members' relationships and the strength of social links. In this regard, studying the impact of the cross-cultural environment features on the correlation between network ties and KM is vital (Hejase *et al.,* 2013). Consequently, it seems essential to analyse the role of network ties and KC in a cross-cultural environment. Therefore, the third hypothesis would be:

H3. The network ties positively influence KM practices in a cross-cultural setting.

4.4.5   The Impact of identity on knowledge management in a cross-cultural environment
Identity is the process in which an individual feels belonging to a group with a person or a group of people (Hopkins, 2011). Identity modifies one's concerns and cares from "personal" to "group" (Boutilier, 2017). In other words, individuals in a "group identity" assign themselves responsible for the consequences of group function and, as a result, do their best to promote group success. Hoffman *et al.* (2005) illustrated that raising the identity sense increases the opportunity for information exchange and teamworking. In contrast, where there is no such joint feeling, sharing knowledge and information faces many barriers. According to Mu *et al.* (2008), identity in the organisation increases individuals' awareness of themselves as a part of the whole; therefore, they sacrifice more to improve organisational efficiency. Thus, this improvement will strengthen

interpersonal relationship ties, and KS and KC will grow. Identity as "collectivism" creates the insight that organisational success is one's success; therfore, it gives employees more incentive to collaborate to acquire the best results (Triandis, 2018). Identity is also essential in creating different cultural features and attitudes (Schutte and Barkhuizen, 2015). The specific identity of a group or community means that they have a degree of dependence and convergence on their particular culture and not another specific one (Dittmer and Bos, 2019). Therefore, in the simplest sense, different identities mean that there are new ideas. This diversity will develop the organisation's required knowledge if appropriate convergence is created between different identities. Therefore, in the fourth hypothesis, we propose:

H4. Identity positively affects KM practices in a cross-cultural setting.

4.4.6 The impact of obligations and expectations on knowledge management in a cross-cultural environment

According to Coleman (1988), the essential feature of SC is the obligations and expectations. The simplest example for defining obligations and expectations is the emerged expectations in A and responsibilities in B when person A accomplishes something for B. This commitment creates a capital called reputation for A, and as long as A has more credibility, it has an assured capital that it can use if necessary. Therefore, obligations and expectations mean a person's or group's commitment or duty to do something in the future (Coleman, 1988; Nahapiet and Ghoshal, 1998b). Trust will increase in trust in a community where expectations and obligations are deep-rooted, and members obligate strongly to each other's expectations (Hoffman *et al.,* 2005).

Accordingly, this community will have a network of collective trust, high reliability, and an acceptable level of collaboration for solving problems and achieving the group's goals. Undoubtedly, the relationship between collective trust and expectations and obligations is reciprocal. I.e., by increasing it, collaborations among members become closer and expectations and commitments grow (Hoffman *et al.,* 2005). Coleman (1988) distinguishes the obligations from the social norms and considers them as expectations formed within particular personal relationships. Weick and Putnam (2006) viewed these interactions as positive factors because they create trust in social groups. Therefore, the employees' close relationship and trust will facilitate the KM activities in the organisation. Nahapiet and Ghoshal (1998b) assessed the effects of expectations and duties on the perseverance and motivation of individuals and groups to exchange and create knowledge. Lesser (2000) called it "A set of positive interactions".In an organisation

where expectations, obligations, and trust are substantial, individuals will discover their potential ideas more efficiently and share knowledge through close cooperation (Forsyth *et al.,* 2011; Hernaus and Mikuli_c, 2014).

On the other hand, the cross-cultural environment features affect the level of expectations and commitment in individuals; increasing cultural differences among people leads to lower collective trust, lower level of expectations, and finally, lower level of commitment. Therefore, considering the cross-cultural environment impacts the relationship between SC and KM is essential. Consequently, in the fifth hypothesis, we propose:

H5. The obligations and exceptions positively impact KM practices in a cross-cultural setting.

4.5 Methodology

4.5.1 Sample size determination

This study examined the SC impacts on KM in a cross-cultural setting. The primary research methods are literature and conceptual modelling. First, we extracted all necessary information about SC, KM and culture from sources such as; books, journals, and papers. Then we collected the required data for the hypotheses using a questionnaire.

We identified the cultural varieties scales based on Hofstede's culture definition, where he defined it as "an inherited bunch of values, beliefs and assumptions". Therefore, our criteria were identified as race and ethnicity, religious beliefs, and mother tongue and, based on them, we recognised 17 scales for cultural differentiation. For the final sample, we screened data with the scale of having a minimum of two cultural diversity to identify a cross-cultural setting. Therefore, based on the scales, in the first step of sample selection, among 53 branch offices of SGs (an IT-related firm with more than 1300 employees), 37 branches, consisting of 911 employees, were selected with the minimum specified feature. For the second step, we assessed the first step outputs' KM infrastructures; consequently, 27 branches with 698 people were eligible for the final statistical population.

Based on the sampling formula of the finite population at the error level of 0.05, the minimum of our sample should be 232 people. Therefore, we distributed 385 questionnaires in two separate sections using the Likert Scales (Harpe, 2015). In the first part, by 20 items, we assessed the SC and in the second part were ten items for evaluating KM. Cronbach's alpha coefficient was applied to determine the questionnaire reliability, and the results (81% and 95% for SC and KM, respectively) indicate an acceptable confidence level.

We used exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) to identify and analyse the latent and observable variables and the structural equation model (SEM) for testing the hypotheses. SEM examines the data's adaptation and the research's conceptual model, whether it is a goodness of fit (Jafari Sadeghi *et al.,* 2019). Chisquare test (x 2/df), the goodness of fit index (GFI), the adjusted goodness of fit index (AGFI) and the root mean square error of approximation (RMSEA) are scales employed for estimating the goodness of fit.

4.6   Factor Analysis

As a developed statistical method, factor analysis categorises variables (items) into two or more factors. This method is used for three purposes: first, for data reduction, which helps researchers reduce the large volume of variables to a limited number of factors. The second is structure detection which identifies the relationships of a set of variables in a specific conceptual domain. In other words, the FA sorts out the variables by two or more categories, named "factor", based on their common attributes and then determines relationships among the factors. Finally, it calculates the relations between each factor's variables and between factors. The third is to estimate the validity and reliability, whether the items are positioned inside the factors properly (Bandalos and Finney, 2018).

4.6.1   Factor analysis- SC items

We performed EFA to verify the number of different observable variables in the SC questionnaire, which led to identifying seven factors in the first-order factor analysis. Accordingly, we deleted five items and two factors because of inadequate structure and community. According to the logic of preparing and setting the questionnaire and previous theoretical concepts, the remaining items considering the factor loading were categorised into five groups: trust, shared languages and codes, network ties, identity and obligations and expectations (Appendix - Table 7.3).

In addition, to confirm the significance of these relationships and the independent variable measurement model, CFA was executed (Figure 4.1). Table 4.1 shows the goodness of fit model for the first order. Following the first-order factor analysis, we performed the second-order analysis to differentiate and characterise the dimensions of SC (see Figure 4.2). Therefore, as shown in Figure 4.1, all recognised factors in the first analysis are suitable for only a single factor, "SC". Finally, we performed the CFA to confirm the significance of these relationships and the independent variable measurement model in the following. Regarding the outputs, the value of x 2 is 5.68, which is appropriate and illustrates no significant difference between the conceptual

model and the data. In addition, the output shows the suitable value for RMSEA (= 0.026), which confirms the model's goodness of fit (Table 4.1).

The value of the obtained coefficients of the SC's model explains that all the coefficients are significant. In other words, it indicates the meaningfulness of each item in the five factors extracted in the EFA and, finally, the model confirmation.

Table 4.1 Fitness Indices –First-order factor analysis – SC

Fit indices	Reference value	Model value
$\chi 2/df$	$\chi 2\ /df<3$	1.154
P-Value	P-Value <0.05	0.04725
RMSEA	RMSEA<0.05	0.028
GFI	More than 0.9	0.92
AGFI	More than 0.9	0.91
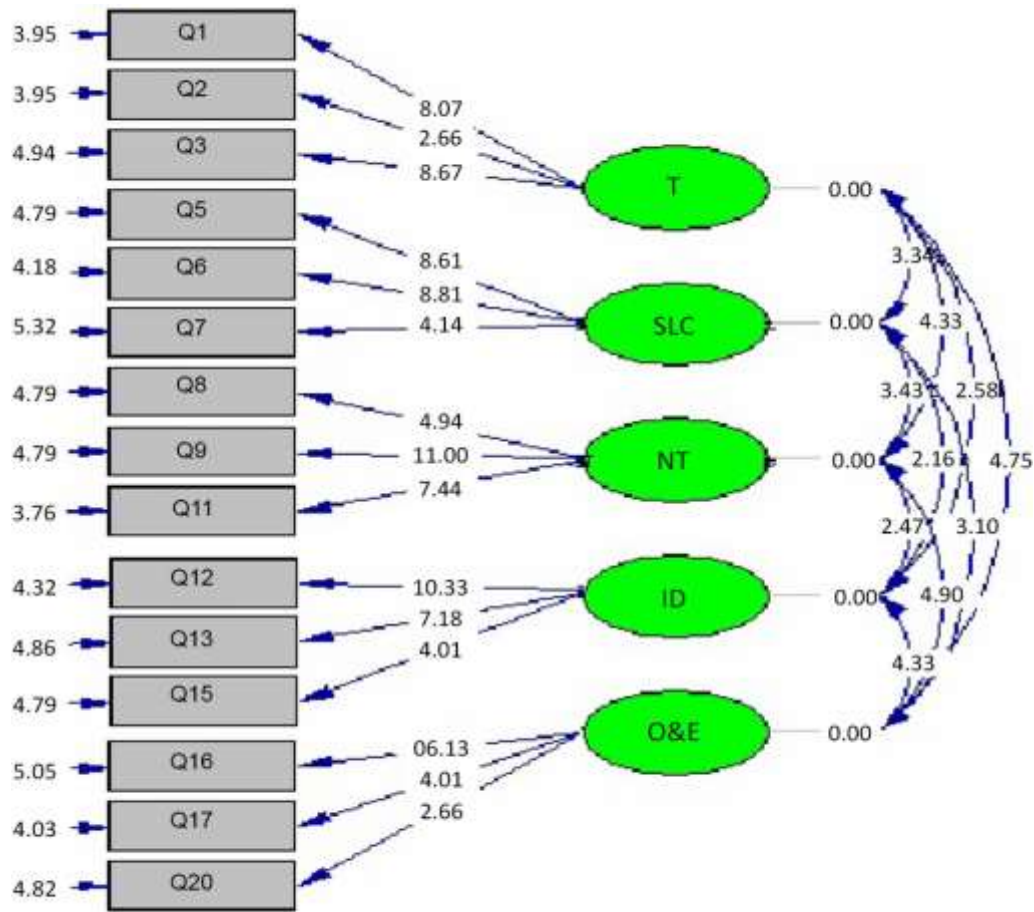
Chi-Square = 92.32, df = 80, *P*-value = 0.04725, RMESA = 0.028

Figure 4.1 First-order factor analysis – SC

Table 4.2 Fitness Indices- Second-order factor analysis -SC

Fit indices	Reference value	Model value
$\chi 2/df$	$\chi 2\ /df < 3$	1.136
P-Value	P-Value <0.05	0.04562
RMSEA	RMSEA<0.05	0.026
GFI	More than 0.9	0.92
AGFI	More than 0.9	0.91
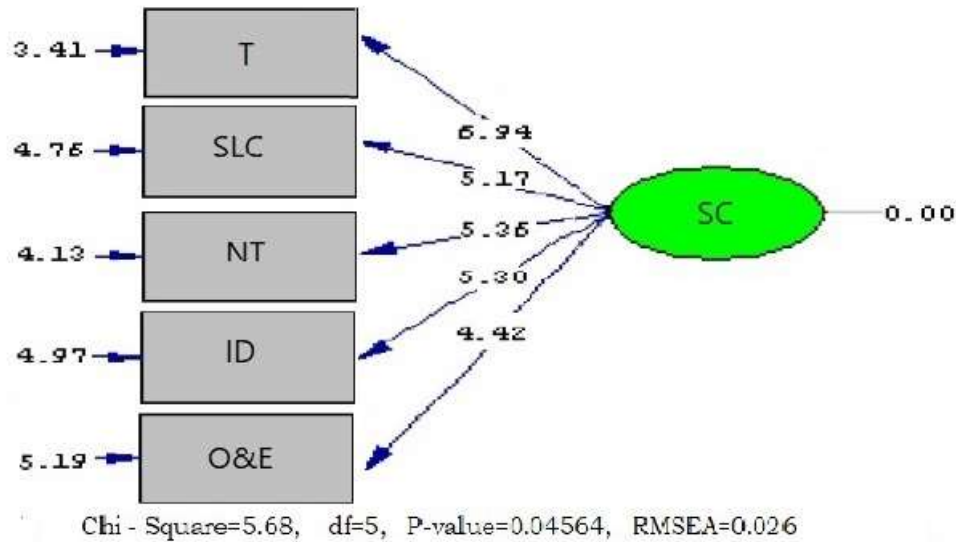
Figure 4.2 Second-order factor analysis -SC

4.6.2 Factor analysis- KM items

We screened ten questions (item) for the suitability of the KM structure, which led to the removing the two objects. Subsequently, we identified a factor that included all recognised items (Appendix - Table 7.4). The CFA was followed to determine the significance of these relationships and the independent variable measurement model. The output illustrates a slight difference between the conceptual model and data, indicating the goodness of fit for this model (Table 4.3). Furthermore, all coefficients of the KM model are significant, and this matter shows the significance and confirms EFA. In other words, it indicates that each item extracted in the EFA is meaningful; therefore, we can ensure the conceptual model (Figure 4.4).

Table 4.3 Fitness Indices -KM

Fit indices	Reference value	Model value
$\chi 2$ /df	$\chi 2$ /df<3	1.246
P-Value	P-Value <0.05	0.03478
RMSEA	RMSEA<0.05	0.036
GFI	More than 0.9	0.94
AGFI	More than 0.9	0.92

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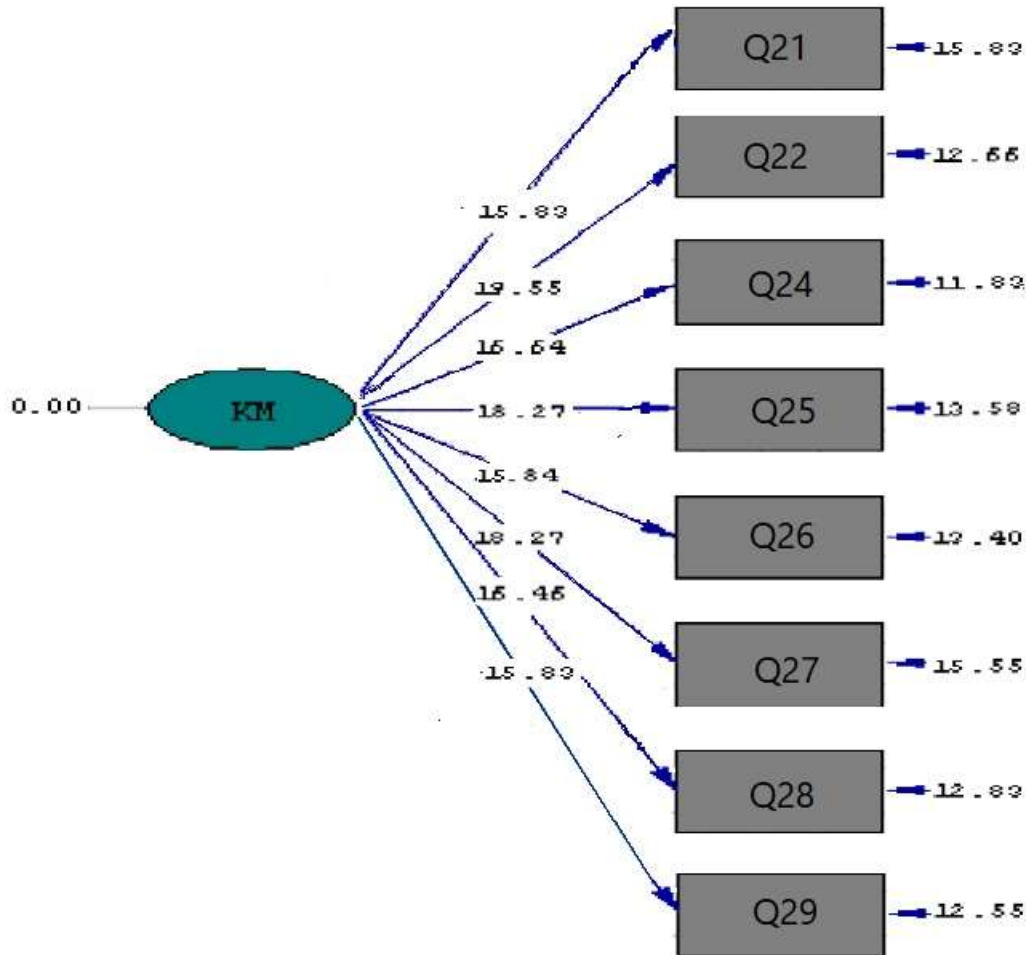
Chi - Square=24.92,   df=20 ,   P-value=0.0347,   RMSEA=0.036

Figure 4.3 First-order factor analysis- KM

4.7   Data Analysing

4.7.1   SEM analysing- H

Figure 4.4 shows the model path diagram. First, we examined the H of the research by applying the SEM to verify the existence of a causal relationship among the research variables and analyse the appropriateness of observed data with the conceptual models. The outputs of executing SEM for the first hypothesis analysing indicate that the structural model is appropriate. In other words, the data are broadly consistent with the conceptual model (Table 4.4).

According to the path diagram (Figure 4.4), the coefficient is 0.69, which means up to 69% of the variation of KM is explained by SC in a cross-cultural setting, while the rest coefficients are involved by just 31 per cent. Based on the t-value model (see Figure 7.1 in Appendix), which

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determines whether the coefficient of the hypothesis is significant, it is proved the SC directly and

Chi-Square = 89.41, df = 64, *P*-value = 0.04647, RMSEA = 0.045
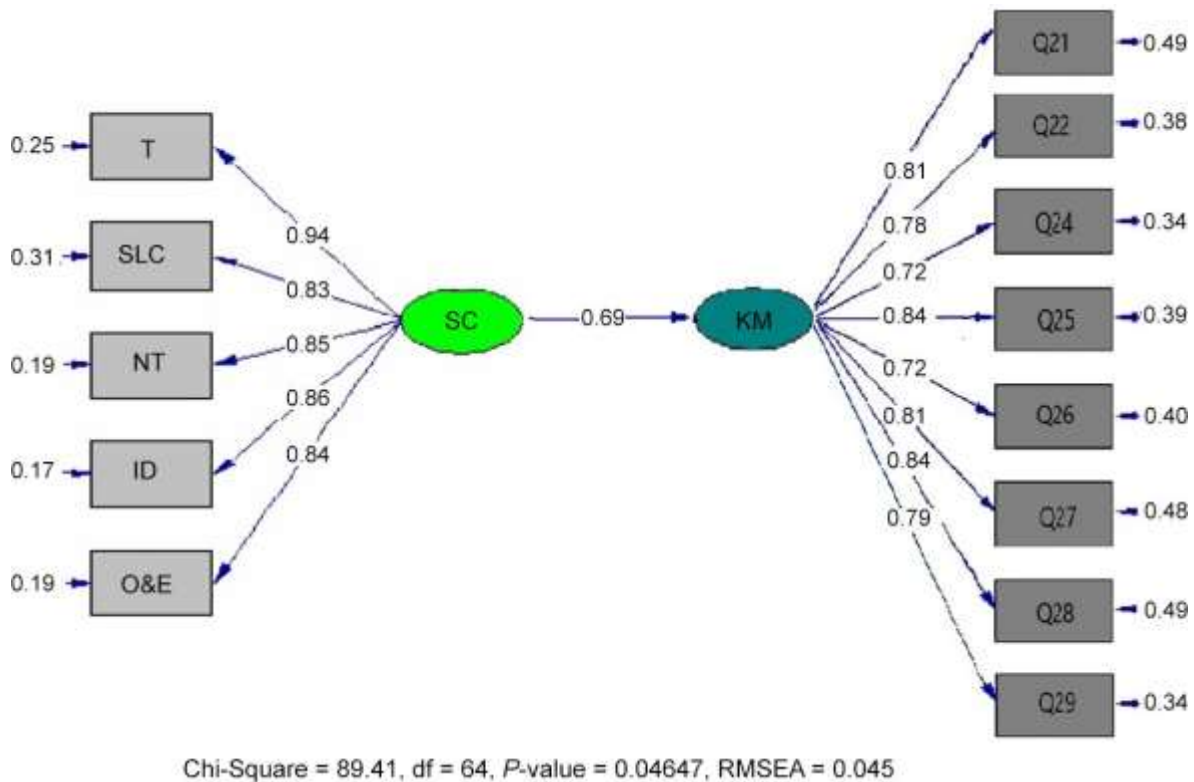
Figure 4.4 Path diagram- H

significantly impacts KM in a cross-cultural environment. Therefore, the H (main H) was confirmed (The t-value of this model is more than 61.96).

Table 4.4 Fitness indices - H

Fit indices	Reference value	Model value	Does global model fit?
$\chi 2$ /df	$\chi 2$ /df<3	1.397	Yes (Acceptable)
P-Value	P-Value <0.05	0.04647	Yes
RMSEA	RMSEA<0.05	0.045	Yes
GFI	More than 0.9	0.93	Yes
AGFI	More than 0.9	0.91	Yes

4.7.2   SEM analysing- H1-H5

We also applied SEM to analyse the relationship between SC dimensions and KM in a cross-cultural setting. According to the path diagram, six latent variables are recognised. The standard model illustrates the appropriateness of observed data with the conceptual models (Table 4.5). The model shows the impact of exogenous latent factors, SC dimensions, on KM practices. Based on the path diagram, these five dimensions, trust, shared languages and codes, networks ties, identity

and obligations and expectations, explain 0.39, 0.34, 0.28, 0.17 and 0.23 of KM, respectively (Figure 4.5). In other words, the results confirm all the sub-hypotheses. Furthermore, we can ensure that the SC dimensions positively and significantly affect KM practices regarding the T-value model for the sub-hypotheses (see Figure 7.2 in Appendix), presented in Table 4.6.

Table 4.5 Fitness Indices – sub-hypotheses

Fit indices	Reference value	Model value	Does global model fit?
$\chi2$ /df	$\chi2$ /df<3	1.298	Yes
P-Value	P-Value <0.05	0.03941	Yes
RMSEA	RMSEA<0.05	0.039	Yes
GFI	More than 0.9	0.92	Yes
AGFI	More than 0.9	0.91	Yes
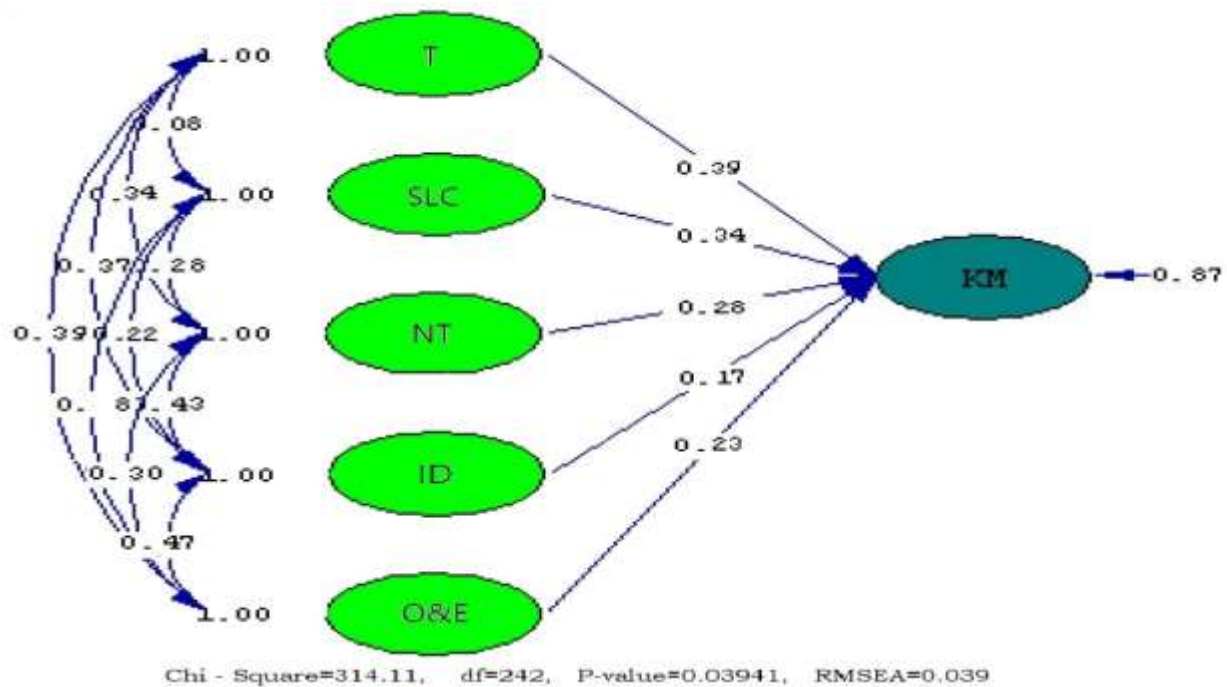
Figure 4.5 Path diagram sub-hypotheses

Table 4.6 T-Value results – sub-hypotheses

hypothesis	Social dimension	T- value	Reference value	result
H1	Trust	3.82	±1.96	accepted
H2	Shared Languages and Codes	3.47	±1.96	accepted
H3	Networks Ties	2.38	±1.96	accepted
H4	Identity	3.39	±1.96	accepted
H5	Obligations and expectations	5.33	±1.96	accepted

4.8 Discussion of the Results

Our findings prove the notion that there is a significant association between SC and KM in a cross-cultural environment. Some investigations theoretically examine the KM and SC relationship, but less study has been carried out empirically. Moreover, these few empirical studies did not consider the cross-cultural environment effects. For instance, Manning's (2010), Baron and Markman's (2003), and Lazarova and Taylor's (2009) studies assessed the relationship between SC and KM, but they provided no empirical evidence. Therefore, regardless of the cross-cultural setting impacts analysed in our research, we found some same outcomes in the past investigations. For example, Ostrom (2009) and Rumizen (2001) confirmed a strong relationship between SC and KM. Trust has the highest correlation with KM (hypothesis H1) based on the results. In environments with a high level of trust, individuals tend to have a greater social exchange, deep communication and cooperative interaction, which, in turn, facilitates the information flow in the organisation and the sharing and creating of knowledge. These findings support prior outcomes and illustrate that trust in social relationships is fundamental (Politis, 2003; Mooradian *et al.,* 2006; Renzl, 2008; Blaas-Franken *et al.,* 2016).

Identity is a process in which people consider themselves part of an integrated group (Serenko, 2013). Creating a sense of responsibility for collective results and team performance increases collaboration and exchange of skills and experiences (Maier and Hadrich, 2011). Based on the findings, identity has a lower correlation among these five SC dimensions. The interpretation may be that in a cross-cultural environment, individuals, while having a proper level of collective trust, do not feel they belong to a particular group and regard their religious, ethnic and linguistic distinctions as priorities. According to the fifth hypothesis, the relationship between shared language and codes with KM is ranked second in the correlation results, which indicates this SC dimension is expanded to the appropriate extent in the research sample and environment.

We can also conclude that shared codes among people in this cross-cultural environment might differ from the three main distinguishing factors (ethnicity and race, language and religion). According to Hatch and Schultz (2004), identity is something that employees accept about the company, receive, feel, believe, and are a common understanding of the firm's values and attributes. Therefore, these codes may vary in organisations because they are affected by management and organisational systems.

In analysing the results, perhaps the most crucial reason for the correlation between SC and KM stands in the human-social essence of knowledge processes. So, the nature, type, and degree of communication between individuals significantly affect their ability and tendency to create and share knowledge (Hsu and Chen, 2018). Based on the definitions of the KM, individuals' interaction, more than any other factor, are necessary and practical for KS and KC. According to Ramadan *et al.* (2017) and Leana and Van Buren (1999), KC is the organisation's ability to generate new and beneficial ideas and initiatives. Robertson and O'Malley Hammersley (2000) define knowledge as a commodity that can be transmitted through the interaction of individuals and their communications.

In other words, the KS can also be comprehended as a centralised directional process for disseminating knowledge among a specific group of employees. Also, it can be the sharing of knowledge among individuals within the working groups (Thrassou *et al.,* 2011). Researchers have emphasised individuals' interactions, connections, motivations and subjective ideas in explaining the main elements of people's processes and knowledge sharing (Donate and Sánchez de Pablo, 2015; Jafari Sadeghi and Biancone, 2017a). Zhu *et al.* (2004) categorised intellectual capital in the organisation into two dimensions, human and structural. The human dimension is the implicit knowledge learned and saved in the minds of the staff. Therefore, it seems logical that KM development in an organisation is required to improve communication and interactions among the members. In other words, strengthening the dimensions of SC in the organisation will act as a motivating factor for expanding the activities of KM (Thrassou *et al.,* 2011).

On the other hand, if exchanging ideas and interactions, which are the source of knowledge creation, remain in this phase and do not share among employees due to a lack of proper structure and communications, the knowledge circle would not be effective for the organisation (Earl, 2001). In other words, organisations cannot meet the ultimate target of this process, which is applying novel knowledge to develop and improve processes and products. Furthermore, improving social indicators in a cross-cultural environment requires a shared purpose among individuals (Santoro *et al.,* 2018).

However, it should also be noted that different cultural groups have different views on some organisation issues such as choosing leaders, managing conflicts and differences, and carrying out a structured program, for instance, KM, etc.

The organisation requires a rigorous plan and a solid intention to establish cooperation among people who are not usually together to achieve this purpose. The effectiveness of collaboration in the cross-cultural environment requires individuals to overcome conflicts and increase solidarity (Shams, 2012; Belyaeva *et al.,* 2019). Perhaps differences in the level of skills and knowledge, the motivation of individuals and their attitudes towards different cultures may show the outcomes would be unsuccessful at the beginning of the program. However, organisations can achieve such cooperation by relying on common goals, collective decision-making, regulations, tasks, and timelines (North and Kumta, 2018).

4.9   Conclusions

KM is a multi-factorial process covering many management processes, principles, and variables. In an organisation, appropriate and effective implementation of KM requires a comprehensive approach that includes structural, technological and social and human-based study factors. Scholars, in many studies, with the growing growth of technology, examined the effects of technical and structural dimensions on KM. Most of them in management science have also focused on these two complex dimensions. Consequently, the results of some factors, such as behavioural sciences and SC, have been less developed.

On the other hand, as an inclusive element, the cultural impact of the workplace setting affects all research that addresses human behaviours. Culture is decisive in any study investigating humans' behaviours, interests, tendencies, and reactions. As a result, this study examined the relationship between KM and CS in a cross-cultural environment to fill the gap in the relevant research. The results show that SC has a positive relationship with KM.

Given that we have defined SC in five dimensions and KM in two steps, findings show that trust has the most significant impact on KM in the cross-cultural environment. Based on the outputs, the effectiveness of human-social factors and those activities directly related to the nature of the relationship, even individually or in group form, is vital for KM. Therefore, the SC dimensions can be recognised as an essential and effective means that continuously and increasingly improves the KM processes in an organisation.

4.10   Limitation

This study has some limitations. Our most important limitation is the type of community selected for testing and measuring the relationship between variables. Since we used data collected from branches of a large firm in Iran, this firm has almost different conditions from other organisations regarding work environment, activity (being a service), and the type of administration and

management. Therefore, we cannot easily extend it to other contexts, although we screened intensely to eliminate the weaknesses in selecting the sample to test the hypotheses. Furthermore, survivor bias is another limitation of this research as our sample was limited to a firm, which may result in limited generalisability of the results; that is, results may change with different sample sizes or societies.

Future studies can investigate other types of firms (e.g., small and medium-sized enterprises-SMEs) in different sectors (e.g., manufacturing, food sector, etc.) and expand this paper's scope into other contexts with various features.

CHAPTER FIVE: Conclusions, implications and limitations

5.1 Conclusions

Based on the resource-based view (RBV), which considers resources essential for keeping a business activity sustainable and continuing, organisations have two significant tangible and intangible resources. Certainly, SMEs are more limited in benefiting from tangible resources (due to their dependence on the financial source) than large firms; therefore, the intangible resources such as intellectual capital and, particularly their potential knowledge, will have a particular function. Moreover, according to the knowledge-based view (KBV), organisations are communities of knowledge and innovation by creating, storing, transferring and transforming it into a sustainable competitive advantage. Therefore, the knowledge lets organisations pioneer business competition by creating a key and differentiating advantage. Accordingly, enterprises, particularly SMEs, depend more on intangible resources to the extent that the most significant risk for SMEs' dissolution is tied to inefficient management in applying these sources. The flip side of knowledge efficiency, as an intangible asset, is its inherent potential to provide SMEs with initiatives for overcoming the problems where they have restrictions in affording required tangible assets. Therefore, KM is a vital strategy in every organisation, whether it is a knowledge-based firm. KM is a multi-factorial process including principles, patterns, tools and technology, and interactions that impact efficiency. Therefore, an effective KM implementation requires a harmonious among the drivers and a comprehensive look that covers all structural, technological, social and human-based factors. Drivers are fundamental regulators connected with all KM processes, from knowledge acquisition to sharing and application. The drivers' effectiveness is their relation with organisations' features. It means inherent characteristics are important factors in ranking drivers for analysing their impacts on KM processes such as KS. Therefore, considering and sorting drivers by a particular view on firms' specific attributes such as size, business scope, and probable family business ties can be helpful for other firms in the same categories.

On the flip side, in many studies, scholars parallel with the growing growth of technology have tried to discover and analyse the various drivers, examined the effects of technical and structural factors on KM, and mainly focused on these two complex drivers. Therefore, the effects of other aspects, i.e., environmental factors such as OD and SC, have been less developed.

Accordingly, this study provided three distinguished papers in three chapters that analysed the main drivers in small FB in the restaurant and fast-food industry, the impact of OD on KS in the academic setting and the SC impact on KM (KS and KC) in a cross-cultural environment.

In the second chapter, the outcomes illustrate factors in three groups; ID, TD and OD. Moreover, according to findings, the ODs driver impacts on the KS in FB are more influential than the other two dimensions. OD is more related to rewards, management support and OS and OC. The reward drivers consist of intrinsic and extrinsic organisation rewards. In extrinsic rewards, including financial incentives such as salary and bonuses, employees are encouraged to enjoy these rewards based upon the KS. Although financial incentives are always considerable, our outputs also show that employees react remarkably to intrinsic rewards, including acknowledgement and recognition.

In the third chapter, the findings illustrate strong evidence of the effects of OD principles on KS, which means that the traces of democracy in the organisation facilitate the process of KS. According to the results, transparency has the highest correlation with KS. In an organisation with an acceptable democratic value, it could be helpful to leverage a high level of transparency in facilitating KS. Transparency is the foundation of trust in the organisation. By increasing the trust level, individuals tend to participate more in implicit or explicit information exchanges, facilitating information flow and improving the KS. The outputs also show a positive and acceptable correlation between decentralisation and communication with KS.

In the fourth chapter, we analysed the SC dimensions on KM. Findings show that trust has the most significant impact on KM in the cross-cultural environment. Based on the outputs, the effectiveness of human-social factors and those activities directly related to the nature of the relationship, whether individually or in group form, is vital for KM. Therefore, the SC dimensions can be recognised as an essential and effective factor that continuously and increasingly improves the KM processes in an organisation.

5.2   Implications

This study consists of three papers conducted in three different settings; therefore, it will contribute to a large group of stakeholders with different levels and interests. However, the researchers and investigators in KM studies can generally use the findings to enhance their knowledge about drivers and socio-human factors important for KM processes and dimensions.

The first study contributes to the KM field and FB studies by conceptualising KS drivers in the literature, which are essential for the small FB in the food-related industry. Furthermore, it helps understand the knowledge role in small FB by providing insights into the underlying motives and drivers of KS and, as a scale, e.g., performance and organisational efficiency support future studies.

The outstanding component of this study is the involvement of a wide range of stakeholders, from university faculty members to managers, experts and founders of the food industry and local heads and experts of restaurants and fast-food businesses. As the third implication, this extensive participation helps scholars have a comprehensive pattern for theoretically and empirically enhancing their research. Finally, the findings will fix the gap of preliminary discussions on factors influencing the KS in the FB when the lack of exploratory studies of KS incentives for small FB was evident, and researchers did not provide a clear view. Therefore, this study opens a new window to FB and KM studies. Our findings also provide practical implications for management and governance policy supporting small FBs. This study emphasises the importance of the KS as the critical forerunner that enhances the business. Therefore, our results by considering the ranging the drivers for KS assist family entrepreneurs in having a clear vision about knowledge role and taking their proper emergent actions for its facilitating. Developing indicators of KS drivers help to detect the inefficient practices in sharing the knowledge. Family firms' managers can use these findings as a plan for tracing the causes of problems in their internal KS system or for empowering it.

Furthermore, the findings help organisational policymakers, such as local authorities and decision-makers, make informed decisions on essential business metrics policies. Finally, the results can help food-related family firms' managers and owners to understand the cause of their current position in the competitive market and offer them an awareness of why some of their same business competitors perform better. In other words, our results frame a roadmap for evaluating the mechanism for the FB, in which entrepreneurs can identify weaknesses and obstacles to improve their business and eliminate the internal shortcomings of the KS process.

The second paper in chapter three provides some theoretical implications and expands our understanding of KS by providing significant evidence regarding an under-investigated socio-political issue called organisational democracy. The main theoretical contribution of this study is the contextualisation of OD. This research distinguished about different influences of the principles of OD on the KS to shed light on why OD and its most essential principles might be more or less connected with the increasing sharing practices of knowledge within organisations. In addition, our research showed that OD is crucial in solving main problems related to insufficient KS as well as in helping us identify the differences, effects and intensities in the relationships. In

this regard, prior literature in this domain concentrated mainly on single aspects of OD. From an organisational democratic perspective, this study posits that exchanging experiences, ideas, information, etc., as volunteered actions, will require a free-structured workplace. The principles of OD would lie at the apex of creating such an environment.

A careful literature review explains that there are few, if not any, significant theories in the KM and organisation studies area that include hypothesised or confirmed principles of OD. This study has provided additional knowledge to integrate fragmented pieces of research in the KM domain. Finally, from a methodological point of view, this study solves some weaknesses recognised in the earlier studies. This study adapted existing measures and developed a new scaling assessing OD principles. These measures have distinctly captured the nature of democracy in organisations. With these improvements in theory and methodology, our findings have potentially significant implications for understanding the KM and the role of OD in improving KS, which can be used in future studies in different cultural and organisational contexts. The findings have a significant practical implication and can promote KS among employees, especially regarding management, government policy, and human resource departments. The results give an alternate perspective to managers and stakeholders regarding a more inclusive look into the dimensions of democracy in an organisation, along with its practical implementation, which can improve the quality and quantity of knowledge flow. In this regard, democratic practices in both administrative processes and interpersonal relations, especially in managing the educational institutions, have a mutual relationship with the effectiveness and efficiency of KM dimensions. In a democratic organisation, management and employees can focus on fulfilling their tasks in a free, fair and indiscriminate environment and share their knowledge, experiences, skills and ideas. This causes a harmonisation in achieving the goals both in individual and organisational scope. Organisations, including universities, need to manage the knowledge flow in the workplace so that the processes of producing, distributing, sharing and applying are carried out in the best and most effective way. The results reveal that OD principles such as increasing transparency, participation rights by increasing communication, and decentralisation of management in decision-making improve KS. Therefore, the developed and validated indicators assist managers in considering OD impacts in their upcoming actions whenever the organisation needs vital decisions for KS. Furthermore, our results suggest a roadmap for evaluating the effectiveness of the KS system in the organisation; hence, managers can analyse the level of OD principles to identify weaknesses and obstacles to

improve the flow of knowledge and reduce the internal shortcomings of the organisation. Overall, we provide practical suggestions for managers to consider democracy as leverage to improve internal effectiveness.

The last study, in chapter four, provides some theoretical implications and expands our understanding of KM and SC by providing significant evidence regarding an under-investigated social-environmental issue, namely SC. As a theoretical contribution, this study contextualises SC and its dimensions in a different setting, i.e., a cross-cultural environment. It differentiates the various influences of the SC dimensions on the KS and KC to shed light on why SC and its most essential principles might be more or less connected with improving sharing practices in an organisation with a cross-cultural setting. The finding showed that SC is crucial in solving main problems related to KS as well as in helping us identify the differences, effects and intensities in the relationship. From an SC perspective, it is posited that exchanging experiences, ideas, information, etc., as volunteered actions in a cross-cultural setting, will require well-developed social norms in the workplace. The SC dimensions would be the most critical indicators in creating such an environment. A careful literature review explains that there are few, if not any, significant theories in a cross-cultural setting study that include hypothesised or confirmed SC dimensions impacts on KM. Therefore, the outputs have provided additional knowledge to integrate fragmented pieces of research in the KM and the cultural effects that make it innovative. In an interactive relationship study, by adopting various SC dimensions that interact with each other and by considering the unique characteristics of the cross-cultural setting, the direct effect of one principle on KM may be enhanced by the indirect impact of the other tenets as a whole on the KM.

Finally, this study methodologically fills some gaps recognised in the earlier studies. Considering the keywords of SC, KS, and cross-cultural environment, a few empirical studies have analysed social norms' impacts on KM processes, mainly in multi-culture and not cross-cultural settings. Therefore, this investigation pioneer in making a new stream in KM and SC in a cross-cultural environment which can be used in different processes and concepts related to KM in future studies. Furthermore, from a practical point of view, this research can promote KS among employees, especially regarding managing human resources driven by features of a cross-cultural setting. The results give a comprehensive perspective to managers and stakeholders of a cross-cultural organisation regarding a more inclusive look into the SC and its practical implementation,

improving the quality and quantity of knowledge flow. Accordingly, social capital dimensions have related to interpersonal interaction and relationships and enhance communication networks in the organisation, leading to improving the knowledge processes implications. Therefore, managers will spend fewer resources on improving KS in a cross-cultural setting by increasing the sense of social values. As a result, organisations have more options for allocating resources to their short and long-term prospects.

5.3   Limitations

This paper considered some concepts in management such as KM, KS, KC, SC, KS drivers, OD, FB, cross-cultural environment, and academic setting. Regardless of inherent limitations charged with every research such as issues with research samples and selection, the insufficient sample size for statistical measurements, lack of previous research studies on the topic, methods/instruments/techniques used to collect the data and limited access to data and time constraints, and considering this matter that current study is conducted in three papers, some particular limitations also exist related to dependent (latent) and independent variables.

The first paper has limitations that shade up the findings and conclusions. First, since there is not enough background in drivers on KS research in the food-related small and medium-sized FB, our results may cover only some aspects of factors in KS; thus, we cannot be sure about its inclusiveness. Second, we have reduced the inherent risk of CMB by applying statistical tests and methods, indicating its acceptable level, but this reduction does not mean elimination. Third, the research sample is restricted to a specific community; thus, changing the sample size or society may result in different outputs; therefore, survivorship bias is another limitation.

The second study's most important limitation is the type of community selected for testing and measuring the relationship between variables. Since universities and higher educational institutions have almost different conditions from other organisations in terms of work environment, activity (being a service), and the type of administration and management, the consequences cannot be conclusively generalised to other kinds of organisations. However, we screened intensely to eliminate the weaknesses in selecting the sample to test the hypotheses. Although testing CMB did lighten bias concerns to some extent, we cannot reject the possibility of such bias in our research. Survivor bias is another limitation of this research.

Furthermore, our sample is limited to Iranian universities, which may lead to limited generalisability of the results; results may change with different sample sizes or societies. Since we do not have adequately reliable literature on the OD principles, which consists of both the characteristics of comprehensiveness and completeness, we are limited in exploring the principles of OD. Although our analysed OD principles are the most accepted principles extracted from the relevant texts and research on OD, they do not cover all aspects of the impact of OD on KS. Therefore, for future research and to provide a clearer perspective on the effects of OD on KM, more comprehensive studies on other principles of OD and the different dimensions of KM should be conducted. In addition to this, examining the effects of the principles of organisational democracy and the role of controlling factors such as personality, fair promotion, and reward systems cannot be ignored.

There are some limitations which also impact the third study's outputs. The selected community for analysing the relationship between variables can potentially limit the findings. Since the data was collected from a large firm branches, that has almost outstanding features from other organisations regarding business scope environment, activity (being a service), and the type of administration and management; therefore, it can not easily be extended it to other contexts, however, an intense screening has been applied to eliminate the deficiencies in sample selection. Furthermore, CMB is another limitation of this research because the sample was limited to a firm, which may lead to a limited generalisability; i.e., results may change with different sample sizes or societies. Furthermore, the applied cross-cultural scales in this study are restricted; therefore, results can be different from other scales and cultural dimensions, and naming this environment as a cross-cultural setting can be distorted. Moreover, although this study applied the most important recognised SC dimensions, different dimensions extracted in other theoretical concepts in SC can have various impacts on KM in a cross-cultural setting.

Bibliography

Abdelwhab Ali, A., Panneer Selvam, D.D.D., Paris, L. and Gunasekaran, A. (2019), "Key factors influencing knowledge sharing practices and its relationship with organisational performance within the oil and gas industry", *Journal of Knowledge Management*, Vol. 23 No. 9, pp. 1806-1837, doi: 10.1108/JKM-06-2018-0394.

Acaray, A. and Akturan, A. (2015), "The relationship between organisational citizenship behaviour and organisational silence", *Procedia – Social and Behavioral Sciences*, Vol. 207, pp. 472-482, doi: 10.1016-bspro.2015.10.117.

Adler, P.S. and Kwon, S.-W. (2002), "Social capital: prospects for a new concept", *Academy of Management Review*, Vol. 27 No. 1, pp. 17-40.

Agasisti, T. and Bertoletti, A. (2020), 'Higher Education and Economic Growth: A Longitudinal Study of European Regions 2000–2017', *Socio-Economic Planning Sciences*. Elsevier, p. 100940.

Ahmad, M., Mushtaq, I. and Umar, R.M. (2019), "Knowledge sharing and affective commitment: mediating role of trust between knowledge sender and receiver", *Journal of Management and Research*, Vol. 6 No. 2, pp. 1-17.

Ahmed, K., Adeel, A., Ali, R. and Rehman, R.U. (2019), "Organisational democracy and employee outcomes: the mediating role of organisational justice", *Business Strategy & Development*, Vol. 2 No. 3, pp. 204-219, doi: 10.1002/bsd2.55.

Aithal, P.S. (2016), "Creating innovators through setting up organisational vision, mission and core values: a strategic model in higher education", *International Journal of Management, IT and Engineering*, Vol. 6 No. 1, pp. 310-324.

Akhavan, P. and Mahdi Hosseini, S. (2016), "Social capital, knowledge sharing, and innovation capability: an empirical study of R&D teams in Iran", *Technology Analysis & Strategic Management*, Vol. 28 No. 1, pp. 96-113, doi: 10.1080/09537325.2015.1072622.

Al Saifi, S.A., Dillon, S. and McQueen, R. (2016), "The relationship between face-to-face social networks and knowledge sharing: an exploratory study of manufacturing firms", *Journal of Knowledge Management*, Vol. 20 No. 2, pp. 308-326, doi: 10.1108/JKM-07-2015-0251.

Al-Alawi, A.I., Al-Marzooqi, N.Y. and Mohammed, Y.F. (2007), "Organisational culture and knowledge sharing: critical success factors", *Journal of Knowledge Management*, Vol. 11 No. 2, pp. 22-42, doi: 10.1108/13673270710738898.

Alavi, M. and Leidner, D.E. (2001), "Knowledge management and knowledge management systems: conceptual foundations and research issues", *MIS Quarterly*, pp. 107-136.

Al-Debei, M.M., Jalal, D. and Al-Lozi, E. (2013), "Measuring web portals success: a re-specification and validation of the DeLone and McLean information systems success model", *International Journal of Business Information Systems*, Vol. 14 No. 1, pp. 96-133.

Aldrich, D.P. and Meyer, M.A. (2014), "Social capital and community resilience", *American Behavioral Scientist*, Vol. 59 No. 2, pp. 254-269, doi: 10.1177/0002764214550299.

Ali, A.A. and Dominic, P.D.D. (2018), "The influence of technological factors on individual's intention towards knowledge sharing practice", *International Journal of Business Information Systems*, Vol. 27 No. 3, pp. 331-348.

Aljuwaiber, A. (2016), "Communities of practice as an initiative for knowledge sharing in business organisations: a literature review", *Journal of Knowledge Management*, Vol. 20 No. 4, pp. 731-748, doi: 10.1108/JKM-12-2015-0494.

Al-Kurdi, O.F., El-Haddadeh, R. and Eldabi, T. (2020), "The role of organisational climate in managing knowledge sharing among academics in higher education", *International Journal of Information Management*, Vol. 50, pp. 217-227.

AlShamsi, O. and Ajmal, M. (2018), "Critical factors for knowledge sharing in technology-intensive organisations: evidence from UAE service sector", *Journal of Knowledge Management*, Vol. 22 No. 2, pp. 384-412, doi: 10.1108/JKM-05-2017-0181.

Alzghoul, A., Elrehail, H., Emeagwali, O.L. and AlShboul, M.K. (2018), "Knowledge management, workplace climate, creativity and performance", *Journal of Workplace Learning*, Vol. 30 No. 8, pp. 592-612.

Amara, N., Lamari, M. and Landry, R. (2002), "Does social capital determine innovation? To what extent?", *Technological Forecasting and Social Change*, Vol. 69, pp. 1-25.

Amoozad Mahdiraji, H., Beheshti, M., Jafari-Sadeghi, V. and Garcia-Perez, A. (2021), "What drives inter-organisational knowledge management? The cause-and-effect analysis using a multi-layer multi-

criteria decision-making framework*", Journal of Knowledge Management*, Vol. ahead-of- print No. ahead-of-print, doi: 10.1108/JKM-05-2021-0394.

Andreeva, T. and Sergeeva, A. (2016), "The more the better... or is it? The contradictory effects of HR practices on knowledge-sharing motivation and behaviour", *Human Resource Management Journal*, Vol. 26 No. 2, pp. 151-171.

Ardichvili, A. (2008), "Learning and knowledge sharing in virtual communities of practice: motivators, barriers, and enablers", *Advances in Developing Human Resources*, Vol. 10 No. 4, pp. 541-554, doi: 10.1177/1523422308319536.

Ardito, L., Ferraris, A., Petruzzelli, A.M., Bresciani, S. and Del Giudice, M. (2019), "The role of universities in the knowledge management of smart city projects", *Technological Forecasting and Social Change*, Vol. 142, pp. 312-321.

Arif, M., Mohammed, A.-Z. and Gupta, A.D. (2015), "Understanding knowledge sharing in the Jordanian construction industry", *Construction Innovation*, Vol. 15 No. 3, pp. 333-354, doi: 10.1108/CI-03-2014-0018.

Asrar-ul-Haq, M. and Anwar, S. (2016), "A systematic review of knowledge management and knowledge sharing: trends, issues, and challenges", *Cogent Business and Management*, Vol. 3 No. 1, 1127744.

Asriran (2016), Mashhad has 5 million Foreign Pilgrims and Tourists Annually, Asrian Agency News, available at: https://www.asriran.com/fa/news/491537/

Astrachan, J.H. and Shanker, M.C. (2003), "Family businesses' contribution to the US economy: a closer look", *Family Business Review*, Vol. 16 No. 3, pp. 211-219.

Bal, P.M. and de Jong, S.B. (2017), "From human resource management to human dignity development: a dignity perspective on HRM and the role of workplace Democracy", *Dignity and the Organization*, Springer, pp. 173-195.

Bandalos, D.L. and Finney, S.J. (2018), "'Factor analysis: exploratory and confirmatory", *The Reviewer's Guide to Quantitative Methods in the Social Sciences*, Routledge, pp. 110-134.

Bao, J., Gao, S. and Ge, J. (2019), "Centralisation and decentralisation: coastal management pattern changes since the late 19th century, Jiangsu province, China", *Marine Policy*, Vol. 109, p. 103705.

Baptista Nunes, M., Annansingh, F., Eaglestone, B. and Wakefield, R. (2006), "Knowledge management issues in knowledge-intensive SMEs", *Journal of Documentation*, Vol. 62 No. 1, pp. 101-119, doi: 10.1108/00220410610642075.

Bardhan, P. (2002), "Decentralisation of governance and development", *Journal of Economic Perspectives*, Vol. 16 No. 4, pp. 185-205.

Barner-Rasmussen, W. and Aarnio, C. (2011), "Shifting the faultlines of language: a quantitative functional-level exploration of language use in MNC subsidiaries", *Journal of World Business*, Vol. 46 No. 3, pp. 288-295.

Baron, R.A. and Markman, G.D. (2003), "Beyond social capital: the role of entrepreneurs' social competence in their financial success", *Journal of Business Venturing*, Vol. 18 No. 1, pp. 41-60.

Beirne, M. and Ramsay, H. (2018), Manna or monstrous regiment? Technology, control, and democracy in the workplace. In Information technology and workplace democracy (pp. 1-55). Routledge.

Belyaeva, Z. Vrontis, D. and Thrassou, A. (2019), "Cross-cultural knowledge management for organisational efficacy: the role of stakeholder causal scope analysis". *European Business Review*, 32(3), 349-358.

Benbya, H., Passiante, G. and Belbaly, N.A. (2004), "Corporate portal: a tool for knowledge management synchronisation", *International Journal of Information Management*, Vol. 24 No. 3, pp. 201-220.

Benos, N. and Zotou, S. (2014), "Education and economic growth: a meta-regression analysis", *World Development*, Vol. 64, pp. 669-689.

Bettinelli, C., Sciascia, S., Randerson, K. and Fayolle, A. (2017), *Researching Entrepreneurship in Family Firms*, Vol. 55 No. 4, pp. 506-529, doi: 10.1111/jsbm.12347.

Bhatt, G.D. (2001), "Examining the interaction between technologies, techniques, and people", *Journal of Knowledge Management*, Vol. 5 No. 1, pp. 68-75.

Blaas-Franken, J., Rutten, W. and Martin, H. (2016), "The impact of (low) trust on knowledge sharing", *Journal of Knowledge Management*, Vol. 20 No. 2, pp. 199-214, doi: 10.1108/JKM-10-2015-0391.

Bontis, N., Bart, C., Sa´enz, J., Aramburu, N. and Rivera, O. (2009), "Knowledge sharing and innovation performance", *Journal of intellectual capital*, Vol. 10 No. 1, pp. 22-36, doi:10.1108/14691930910922879.

Borges, R. (2013), "Tacit knowledge sharing between IT workers: the role of organisational culture, personality, and social environment", *Management Research Review*, Vol. 36 No. 1, pp. 89-108, doi: 10.1108/01409171311284602.

Boudlaie, H., Mahdiraji, H.A., Shamsi, S., Jafari-Sadeghi, V. and Garcia-Perez, A. (2020), Designing a Human Resource Scorecard: An Empirical Stakeholder-Based Study with a Company Culture Perspective*, in Kucharska, W*. (Ed.), p. 113.

Boutilier, R. (2017), Stakeholder Politics: Social Capital, Sustainable Development, and the Corporation, Routledge.

Boyd, B. and Royer, S. (2012), "The suitability of internal versus external successors: relevant knowledge types in family business succession", *International Journal of Management Practice*, Vol. 5 No. 4, pp. 361-382.

Brafman, O. and Beckstrom, R.A. (2006), The Starfish and the Spider: The Unstoppable Power of Leaderless Organisations, Penguin.

Bresciani, S., Ferraris, A. and Del Giudice, M. (2016), "R&D internationalization in Asian developing countries: evidence from European multinationals", *multinationals*, 25-44

Bresciani, S., Ferraris, A., Romano, M. and Santoro, G. (2021), *Digital Transformation Management for Agile Organisations: A Compass to Sail the Digital World*, Emerald Group Publishing.

Brun-Martos, M.I. and Lapsley, I. (2017), "Democracy, governmentality and transparency: participatory budgeting in action", *Public Management Review*, Vol. 19 No. 7, pp. 1006-1021.

Buch, R., Dysvik, A., Kuvaas, B. and Nerstad, C.G.L. (2015), "It takes three to tango: exploring the interplay among training intensity, job autonomy, and supervisor support in predicting knowledge sharing", *Human Resource Management*, Vol. 54 No. 4, pp. 623-635.

Büchel, B. and Raub, S. (2002), "Building knowledge-creating value networks", *European Management Journal*, Vol. 20 No. 6, pp.5, pp. 87-596.

Bukowitz, W.R. and Williams, R.L. (2000), The Knowledge Management Field book, Financial Times/ Prentice Hall.

Cabrera-Su´arez, K., De Sa´a-P´erez, P. and Garc´ıa-Almeida, D. (2001), "The succession process from a resource-and knowledge-based view of the family firm", *Family Business Review*, Vol. 14 No. 1, pp. 37-48.

Caimo, A. and Lomi, A. (2015), "Knowledge sharing in organisations: a bayesian analysis of the role of reciprocity and formal structure", *Journal of Management*, Vol. 41 No. 2, pp. 665-691, doi: 10.1177/ 0149206314552192.

Calantone, R.J., Cavusgil, S.T. and Zhao, Y. (2002), "Learning orientation, firm innovation capability, and firm performance", *Industrial Marketing Management*, Vol. 31 No. 6, pp. 515-524.

Cameron, K.S., Dutton, J.E. and Quinn, R.E. (2003), "An introduction to positive organisational scholarship", *Positive Organizational Scholarship*, Vol. 3 No. 13.

Caputo, F., Giudice, M.D., Evangelista, F. and Russo, G. (2016), "Corporate disclosure and intellectual capital: the light side of information asymmetry", *International Journal of Managerial and Financial Accounting*, Vol. 8 No. 1, pp. 75-96.

Carnes, C.M. and Ireland, R.D. (2013), "Familiness and innovation: resource bundling as the missing link", *Entrepreneurship Theory and Practice*, Vol. 37 No. 6, pp. 1399-1419.

Carroll, J.M. and Swatman, P.A. (2000), "Structured-case: a methodological framework for building theory in information systems research", *European Journal of Information Systems*, Vol. 9 No. 4, pp. 235-242.

Cartwright, S. and Holmes, N. (2006), "The meaning of work: the challenge of regaining employee engagement and reducing cynicism", *Human Resource Management Review*, Vol. 16 No. 2, pp. 199-208.

Casimir, G., Lee, K. and Loon, M. (2012), "Knowledge sharing: influences of trust, commitment and cost", *Journal of Knowledge Management*, Vol. 16 No. 5, pp. 740-753, doi: 10.1108/ 13673271211262781.

Central Bank of I.R.I. (2018), *Household Budget Survey in Urban Areas in Iran*, Economic Statistics Department, Tehran, available at: www.cbi.ir.

Chae, H., Park, J. and Choi, J.N. (2019), "Two facets of conscientiousness and the knowledge sharing dilemmas in the workplace: contrasting moderating functions of supervisor support and coworker support", *Journal of Organisational Behavior*, Vol. 40 No. 4, pp. 387-399.

Chan, R.Y. (2016), "Understanding the purpose of higher education: an analysis of the economic and social benefits for completing a college degree", *Journal of Education Policy, Planning and Administration*, Vol. 6 No. 5, pp. 1-40.

Chatterjee, S., Rana, N.P. and Dwivedi, Y.K. (2020), "Social media as a tool of knowledge sharing in academia: an empirical study using valance, instrumentality and expectancy (VIE) approach", *Journal of Knowledge Management*, Vol. 24 No. 10, pp. 2531-2552, doi: 10.1108/JKM-04- 2020-0252.

Chen, B. (2013), "An exploration of determinants of organisational commitment: emphasis on the relationship between organisational democracy and commitment".

Chen, C., Huang, J. and Hsiao, Y. (2010), "Knowledge management and innovativeness", *International Journal of Manpower*, Vol. 31 No. 8, pp. 848-870, doi: 10.1108/01437721011088548

Chen, W.J. and Cheng, H.Y. (2012), "Factors affecting the knowledge sharing attitude of hotel service personnel", *International Journal of Hospitality Management*, Vol. 31 No. 2, pp. 468-476.

Cheung, M.F.Y. and Wu, W. (2011), "Participatory management and employee work outcomes: the moderating role of supervisor-subordinate guanxi", *Asia Pacific Journal of Human Resources*, Vol. 49 No. 3, pp. 344-364.

Chinying Lang, J. (2001), "Managerial concerns in knowledge management", *Journal of Knowledge Management*, Vol. 5 No. 1, pp. 43-59, doi: 10.1108/13673270110384392.

Chiu, C.M., Hsu, M.H. and Wang, E.T. (2006), "Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories", *Decision Support Systems*, Vol. 42 No. 3, pp. 1872-1888.

Chua, A. (2002), "The influence of social interaction on knowledge creation", *Journal of Intellectual Capital,* Vol. 3 No. 4, pp. 375-392, doi: 10.1108/14691930210448297.

Chua, J.H., Chrisman, J.J. and Sharma, P. (1999), "Defining the family business by behavior", *Entrepreneurship Theory and Practice*, Vol. 23 No. 4, pp. 19-39.

Chugh, R. (2013), "Workplace dimensions: tacit knowledge sharing in universities", *Journal of Advanced Management Science*, Vol. 1 No. 1, pp. 24-28, doi: 10.12720/joams.1.1.24-28.

Civi, E. (2000), "Knowledge management as a competitive asset: a review", *Marketing Intelligence and Planning*, Vol. 18 No. 4, pp. 166-174.

Claridge, T. (2018), "Dimensions of social capital – structural, cognitive, and relational", *Social Capital Research*, pp. 1-4.

Claver-Corte´s, E., Zaragoza-Sa´ez, P. and Pertusa-Ortega, E. (2007), "Organisational structure features supporting knowledge management processes", *Journal of Knowledge Management*, Vol. 11 No. 4.

Coleman, J.S. (1988), "Social capital in the creation of human capital", *American Journal of Sociology*, Vol. 94, pp. S95-S120.

Connelly, C.E. and Kevin Kelloway, E. (2003), "Predictors of employees' perceptions of knowledge sharing cultures", *Leadership and Organization Development Journal*, Vol. 24 No. 5, pp. 294-301, doi: 10.1108/01437730310485815.

Costa, A.C., Fulmer, C.A. and Anderson, N.R. (2018), "Trust in work teams: an integrative review, multilevel model, and future directions", *Journal of Organizational Behavior*, Vol. 39 No. 2, pp. 169-184.

Cunningham, J., Seaman, C. and McGuire, D. (2017), "Perceptions of knowledge sharing among small family firm leaders: a structural equation model", *Family Business Review*, Vol. 30 No. 2, pp. 160-181.

Dalkir, K. (2017), Knowledge Management in Theory and Practice, MIT press.

Darroch, J. (2005), "Knowledge management, innovation and firm performance", *Journal of Knowledge Management*, Vol. 9 No. 3, pp. 101-115, doi: 10.1108/13673270510602809.

Davenport, T.H. and Prusak, L. (1998), Working Knowledge: How Organisations Manage What They Know, *Harvard Business School Press*, Boston.

Davenport, T.H. and Vo¨lpel, S.C. (2001), "The rise of knowledge towards attention management", *Journal of Knowledge Management*, Vol. 5 No. 3, pp. 212-222, doi: 10.1108/13673270110400816

De Jesus, A., Antunes, P., Santos, R. and Mendonça, S. (2019), "Eco-innovation pathways to a circular economy: envisioning priorities through a Delphi approach", *Journal of Cleaner Production*, Vol. 228, pp. 1494-1513.

De Lo€e, R.C., Melnychuk, N., Murray, D. and Plummer, R. (2016), "Advancing the state of policy Delphi practice: a systematic review evaluating methodological evolution, innovation, and opportunities", *Technological Forecasting and Social Change*, Vol. 104, pp. 78-88.

De Oliveira Tavares, K. (2011), "Evaluating organizational democracy", doi:10.16194/j.cnki.31-1059/ g4.2011.07.016.

Dedahanov, A.T. and Rhee, J. (2015), "Examining the relationships among trust, silence and organisational commitment", *Management Decision*, Vol. 53 No. 8, pp. 1843-1857, doi: 10.1108/MD-02- 2015-0041.

Deetz, S. and Simpson, J. (2004), Critical organisational dialogue, Dialogue: *Theorising difference in communication studies*, Sage, London, pp. 141-158.

Del Giudice, M. and Maggioni, V. (2014), "Managerial practices and operative directions of knowledge management within inter-firm networks: a global view", *Journal of Knowledge Management*, Vol. 18 No. 5, pp. 841-846, doi: 10.1108/JKM-06-2014-0264.

Desouza, K.C. and Awazu, Y. (2006), "Knowledge management at SMEs: five peculiarities", *Journal of Knowledge Management*, Vol. 10 No. 1, pp. 32-43, doi: 10.1108/13673270610650085.

Deutsch, S. (2005), "A researcher's guide to worker participation, labor and economic and industrial democracy", *Economic and Industrial Democracy*, Vol. 26 No. 4, pp. 645-656.

Dierks, L.H. (2005), Trust as a Determinant of Consumer Behaviour under Uncertainty: An Empirical Analysis of Consumers' Reactions to a Random External Shock in Europe, Cuvillier Verlag.

Dietz, G. and Den Hartog, D.N. (2006), "Measuring trust inside organisations", *Personnel Review*, Vol. 35 No. 5, pp. 557-588.

Dittmer, J. and Bos, D. (2019), *Popular Culture, Geopolitics, and Identity*, Rowman and Littlefield Publishers.

Donate, M.J. and Sánchez de Pablo, J.D. (2015), "The role of knowledge-oriented leadership in knowledge management practices and innovation", *Journal of Business Research*, Vol. 68 No. 2, pp. 360-370, doi: 10.1016/j.jbusres.2014.06.022.

Donno, D. (2010), "Who is punished? Regional intergovernmental organisations and the enforcement of democratic norms", *International Organization*, Vol. 64 No. 4, pp. 593-625.

Dotsika, F. and Patrick, K. (2013), "Collaborative KM for SMEs: a framework evaluation study", *Information Technology and People*, Vol. 26 No. 4, pp. 368-382, doi: 10.1108/ITP-11-2012-0142.

Douglas, T.J. and Judge, W. (2001), "TQM implementation and competitive advantage – structural control and exploration", *Academy of Management Journal*, Vol. 44 No. 1, pp. 158-189.

Drucker, P. (2012), *Post-Capitalist Society*, Routledge.

Du Plessis, M. (2005), "Drivers of knowledge management in the corporate environment", International *Journal of Information Management*, Vol. 25 No. 3, pp. 193-202.

Duh, M., Belak, J. and Milfelner, B. (2010), "Core values, culture and ethical climate as constitutional elements of ethical behaviour: exploring differences between family and non-family enterprises", *Journal of Business Ethics*, Vol. 97 No. 3, pp. 473-489.

Durst, S. and Runar Edvardsson, I. (2012), "Knowledge management in SMEs: a literature review*", Journal of Knowledge Management,* Vol. 16 No. 6, pp. 879-903, doi: 10.1108/13673271211276173

Earl, M. (2001), "Knowledge management strategies: toward a taxonomy", *Journal of Management Information Systems*, Vol. 18 No. 1, pp. 215-233.

Edwards, J.S. (2011), "A process view of knowledge management: it ain't want you do, it's the way that you do it", *Electronic Journal of Knowledge Management*, Vol. 9 No. 4, pp. 297-306.

Eriksson, S. and Hägg, C. (2016), "Cultural diversity: how to manage a cross-cultural workforce in a global organisation -a study between India and Sweden", available at: www.diva-portal.org/ smash/get/diva2: 954206/FULLTEXT01.pdf

Esmaeelinezhad, O. and Afrazeh, A. (2018), "Linking personality traits and individuals' knowledge management behavior", *Aslib Journal of Information Management*, Vol. 70 No. 3.

Family Business Review, Vol. 21 No. 3, pp. 203-216.

Fard, P.G. and Karimi, F. (2015), "The relationship between organisational trust and organisational silence with job satisfaction and organisational commitment of the employees of university", *International Education Studies*, Vol. 8 No. 11, pp. 219-227.

Farooq, R. (2018), "A conceptual model of knowledge sharing", *International Journal of Innovation Science*, Vol. 11 No. 1, pp. 139-160, doi: 10.1108/IJIS-07-2018-0068.

Fenton, T.L. (2012), "Democracy in the workplace: from fear-based to organisations", *Leader to Leader*, Vol. 2012 No. 64, pp. 57-64.

Fenton, T.L. and Dynamics, W. (2002), "The democratic company, four organisations transforming our workplace and our world". Washington, DC, World Dynamics, Inc.

Ferraris, A., Belyaeva, Z. and Bresciani, S. (2020), "The role of universities in the smart city innovation: multistakeholder integration and engagement perspectives", *Journal of Business Research*, Vol. 119, pp. 163-171.

Ferraris, A., Bresciani, S. and Del Giudice, M. (2016), "International diversification and firm performance: a four-stage model", *EuroMed Journal of Business*, Vol. 11 No. 3, pp. 362-375.

Ferraris, A., Santoro, G. and Dezi, L. (2017), "How MNC's subsidiaries may improve their innovative performance? The role of external sources and knowledge management capabilities", *Journal of Knowledge Management*, Vol. 21 No. 3.

Ferraris, A., Santoro, G. and Scuotto, V. (2018), "Dual relational embeddedness and knowledge transferin European multinational corporations and subsidiaries", *Journal of Knowledge Management*, Vol. 24 No. 3.

Field, A. (2013), *Discovering Statistics Using IBM SPSS Statistics*, 4th ed., Sage Publications, London.

Fine, J. (2017), "Enforcing labor standards in partnership with civil society: can co-enforcement succeed where the state alone has failed?", *Politics & Society*, Vol. 45 No. 3, pp. 359-388.

Flinchbaugh, C., Li, P., Luth, M.T. and Chadwick, C. (2016), "Team-level high involvement work practices: investigating the role of knowledge sharing and perspective taking", *Human Resource Management Journal*, Vol. 26 No. 2, pp. 134-150, doi: 10.1111/1748-8583.12098.

Flyverbom, M. and Albu, O.B. (2017), *'Transparency', the International Encyclopedia of Organizational Communication*, Wiley Online Library, pp. 1-9.

Foley, J.R. and Polanyi, M. (2006), "Workplace democracy: why bother?", *Economic and Industrial Democracy*, Vol. 27 No. 1, pp. 173-191.

Forsyth, P.B. Adams, C.M. and Hoy, W.K. (2011), "Collective trust', why schools can't improve".

Francis, P. (2002), 'Social capital at the World Bank: Strategic and Operational Implications of the Concept', *Social Development Strategy*. Washington DC: World Bank. E, 34.

Franck, T.M. (1992), "The emerging right to democratic governance", *American Journal of International Law*, Vol. 86 No. 1, pp. 46-91. Cambridge University Press,

Frank, D.J. and Meyer, J.W. (2020), *The University and the Global Knowledge Society*, Princeton University Press.

Frank, H., Kessler, A., Rusch, T., Suess–Reyes, J. and Weismeier–Sammer, D. (2017), "Capturing the familiness of family businesses: development of the family influence familiness scale (FIFS)", *Entrepreneurship Theory and Practice*, Vol. 41 No. 5, pp. 709-742.

Friedman, V.J. and Lipshitz, R. (1994), "Human resources or politics: framing the problem of appointing managers in an organisational democracy", *The Journal of Applied Behavioural Science*, CA, Vol. 30 No. 4, pp. 438-457.

Fritschy, C. and Spinler, S. (2019), "The impact of autonomous trucks on business models in the automotive and logistics industry–a Delphi-based scenario study", *Technological Forecasting and Social Change*, Vol. 148, 119736.

Fukuyama, F. (1995), 'boekrecensie TRUST: THE SOCIAL VIRTUES AND'.

Fullwood, R. and Rowley, J. (2017), "An investigation of factors affecting knowledge sharing amongst UK academics", *Journal of Knowledge Management*, Vol. 21 No. 5, pp. 1254-1271, doi: 10.1108/ JKM-07-2016-0274.

Fullwood, R., Rowley, J. and Delridge, R. (2013), "Knowledge sharing amongst academics in UK universities", *Journal of Knowledge Management*, Vol. 17 No. 1, pp. 123-136, doi: 10.1108/ 13673271311300831.

Galati, A., Crescimanno, M., Tinervia, S., Iliopoulos, C. and Theodorakopoulou, I. (2017), "Internal resources as tools to increase the global competition: the Italian wine industry case", *British Food Journal*, Vol. 119 No. 11, pp. 2406-2420.

Ganguly, A., Talukdar, A. and Chatterjee, D. (2019), "Evaluating the role of social capital, tacit knowledge sharing, knowledge quality and reciprocity in determining innovation capability of an organisation", *Journal of Knowledge Management*, Vol. 23 No. 6.

Gao, L., Janssen, O. and Shi, K. (2011), "Leader trust and employee voice: the moderating role of empowering leader behaviors", *The Leadership Quarterly*, Elsevier, Vol. 22 No. 4, pp. 787-798.

Garousi, M.N., Amoozad Mahdiraji, H., Jafarpanah, I., Jafari-Sadeghi, V. and Bresciani, S. (2021), "Classification of inter-organisational knowledge mechanisms and their effects on networking capability: a multi-layer decision-making approach", *Journal of Knowledge Management*, Vol. 25 No. 7, pp. 1665-1688, doi: 10.1108/JKM-07-2020-0579.

Garson, G.D. (2012), Testing Statistical Assumptions, Statistical Associates Publishing, Asheboro, NC.

Gaviria-Marin, M., Merig´o, J.M. and Baier-Fuentes, H. (2019), "Knowledge management: a global examination based on bibliometric analysis", *Technological Forecasting and Social Change*, Vol. 140, pp. 194-220.

Geckil, T. and Tikici, M. (2016), "Hospital employees' organisational democracy perceptions and its effects on organisational citizenship behaviors", *Asian Pacific Journal of Health Sciences*, Vol. 3 No. 2, pp. 123-136.

Ghobadi, S. and Mathiassen, L. (2016), "Perceived barriers to effective knowledge sharing in agile software teams", *Information Systems Journal*, Vol. 26 No. 2, pp. 95-125.

Giacomarra, M., Crescimanno, M., Sakka, G. and Galati, A. (2019a), "Stakeholder engagement toward value co-creation in the F&B packaging industry", *EuroMed Journal of Business*.

Giacomarra, M., Shams, S.R., Crescimanno, M., Sakka, G., Gregori, G.L. and Galati, A. (2019b), "Internal vs. external R&D teams: Evidences from the Italian wine industry", Journal of Business Research.

Gibbert, M. and Krause, H. (2002), "Practice exchange in a best practice Marketplace'", Knowledge Management Case Book: Siemens Best Practices, Publicis Corporate Publishing Erlangen, pp. 89-105.

Giovannoni, E., Maraghini, M.P. and Riccaboni, A. (2011), "Transmitting knowledge across generations: the role of management accounting practices", Family Business Review, Vol. 24 No. 2, pp. 126-150.

Goh, S.K. and Sandhu, M.S. (2013), "Knowledge sharing among Malaysian academics: influence of affective commitment and trust", *Electronic Journal of Knowledge Management*, Vol. 11 No. 1, pp. 33-48.

Grandori, A. (2017), "Democratic governance and the firm", *Revista de Administracao*, Vol. 52 No. 3, pp. 353-356, doi: 10.1016/j.rausp.2017.05.008. /USP.

Gyimah-Brempong, K., Paddison, O. and Mitiku, W. (2006), "Higher education and economic growth in Africa", *The Journal of Development Studies*, Vol. 42 No. 3, pp. 509-529.

Habbershon, T.G. (2006), "Commentary: a framework for managing the familiness and agency advantages in family firms", *Entrepreneurship Theory and Practice*, Vol. 30 No. 6, pp. 879-886.

Habibi, F. and Zabardast, M.A. (2020), "Digitalization, education and economic growth: a comparative analysis of Middle East and OECD countries", *Technology in Society*, Vol. 63, p. 101370.

Hage, J. (1995), "Decentralisation", The Blackwell Encyclopaedic Dictionary of Organizational Behavior, Blackwell, Cambridge, MA, pp. 127-128.

Hajidimitriou, Y.A., Sklavounos, N.S. and Rotsios, K.P. (2012), "The impact of trust on knowledge transfer in international business systems", *Scientific Bulletin–Economic Sciences*, Vol. 11 No. 2, pp. 39-49.

Haldin-Herrgard, T. (2000), "Difficulties in diffusion of tacit knowledge in organisations", *Journal of Intellectual Capital*, Vol. 1 No. 4, pp. 357-365.

Halliday, M.A.K. (1994), Language as social semiotic. language and literacy in social practice, pp. 23-43.

Hamel, G. (2006), "The why, what, and how of management innovation", *Harvard Business Review*, Vol. 84 No. 2, p. 72.

Hamel, G. (2011), "First, let's fire all the managers", *Harvard Business Review*, Vol. 89 No. 12, pp. 48-60.

Hamel, G. and Breen, B. (2008), *Budoucnost Managementu*, Management Press.

Hamel, G. and Zanini, M. (2018), "The end of bureaucracy", *Harv Bus Rev*, Vol. 3 No. 3, pp. 44-51.

Han, T.-S.S., Chiang, H.-H.H. and Chang, A. (2010), "Employee participation in decision making, psychological ownership and knowledge sharing: mediating role of organisational commitment in Taiwanese high-tech organisations", *The International Journal of Human Resource Management*, Vol. 21 No. 12, pp. 2218-2233, doi: 10.1080/09585192.2010.509625.

Haque, M.D., TitiAmayah, A. and Liu, L. (2016), "The role of vision in organisational readiness for change and growth", *Leadership & Organization Development Journal*, Vol. 37 No. 7, pp. 983-999, doi: 10.1108/ LODJ-01-2015-0003

Hardaker, G., *et al.* (2004), "The knowledge management fieldbook", *European Business Review*, Vol. 16 No. 1, pp. 205-206, doi: 10.1108/ebr.2005.05417eae.001.

Harpe, S.E. (2015), "How to analyse Likert and other rating scale data", *Currents in Pharmacy Teaching and Learning*, Vol. 7 No. 6, pp. 836-850.

Harris, S. and Wheeler, C. (2005), "Entrepreneurs' relationships for internationalisation: functions, origins and strategies", *International Business Review*, Vol. 14 No. 2, pp. 187-207.

Harrison, J.S. and Freeman, R.E. (2011), "Special topic: democracy in and around organisations", *Academy of Management Perspectives*, Vol. 18 No. 3, pp. 49-53, doi: 10.5465/ame.2004.14776168.

Hatak, I.R. and Roessl, D. (2015), "Relational competence-based knowledge transfer within intrafamily succession: an experimental study", *Family Business Review*, Vol. 28 No. 1, pp. 10-25.

Hatch, M.J. and Schultz, M. (2004), Organizational Identity: A Reader, Oxford University Press on Demand.

Hatcher, T. (2007), "Workplace democracy: a review of literature and implications for human resource development", Online Submission.

Hau, Y.S., Kim, B., Lee, H. and Kim, Y.G. (2013), "The effects of individual motivations and social capital on employees' tacit and explicit knowledge sharing intentions", International Journal of Information Management, Vol. 33 No. 2, pp. 356-366.

Heiko, A. (2012), "Consensus measurement in Delphi studies: review and implications for future quality assurance", *Technological Forecasting and Social Change*, Vol. 79 No. 8, pp. 1525-1536.

Heisig, P. (2009), "Harmonisation of knowledge management–comparing 160 KM frameworks around the globe", *Journal of Knowledge Management*, Vol. 13 No. 4, pp. 4-31, doi: 10.1108/13673270910971798.

Heisig, P. and Kannan, S. (2020), "Knowledge management: does gender matter? A systematic review of literature", *Journal of Knowledge Management*, Vol. 24 No. 6, pp. 1315-1342, doi: 10.1108/JKM- 08- 2018-0472.

Hejase, H.J. Hamdar, B. and Raslan, M. (2013), 'Journal of Business and Management, COES&RJ-JBM Publisher: *Centre of Excellence for Scientific and Research Journalism* Online Issue: Volume1 Number 1, January 2013', 1(1), pp. 1–13.

Henderson, J.C. (2009), "Food tourism reviewed", *British Food Journal*, Vol. 111 No. 4, pp. 317-326, doi: 10.1108/00070700910951470.

Henseler, J., Ringle, C.M. and Sarstedt, M. (2015), "A new criterion for assessing discriminant validity in variance-based structural equation modeling", *Journal of the Academy of Marketing Science*, Vol. 43 No. 1, pp. 115-135, doi: 10.1007/s11747-014-0403-8.

Henttonen, K., Kianto, A. and Ritala, P. (2016), "Knowledge sharing and individual work performance: an empirical study of a public sector organisation", *Journal of Knowledge Management*, Vol. 20 No. 4, pp. 749-768, doi: 10.1108/JKM-10-2015-0414.

Hernaus, T. and Mikuli´c, J. (2014), "Work characteristics and work performance of knowledge workers", *EuroMed Journal of Business*, Vol. 9 No. 3, pp. 268-292.

Hislop, D., Bosua, R. and Helms, R. (2018), Knowledge Management in Organisations: A Critical Introduction, 4th ed., Oxford University Press, Oxford.

Ho, M.H.-W., Ghauri, P.N. and Larimo, J.A. (2018), "Institutional distance and knowledge acquisition in international buyer-supplier relationships: the moderating role of trust", *Asia Pacific Journal of Management*, Vol. 35 No. 2, pp. 427-447, doi: 10.1007/s10490-017-9523-2.

Hoffman, J.J., Hoelscher, M.L. and Sherif, K. (2005), "Social capital, knowledge management, and sustained superior performance", *Journal of Knowledge Management*, Vol. 9 No. 3, pp. 93-100, doi: 10.1108/13673270510602791.

Holdt Christensen, P. and Pedersen, T. (2018), "The dual influences of proximity on knowledge sharing", *Journal of Knowledge Management*, Vol. 22 No. 8, pp. 1782-1802.

Holmer Nadesan, M. and Cheney, G. (2017), "Workplace democracy", The international encyclopaedia of organisational communication, pp. 1-20, doi: 10.1002/9781118955567.wbieoc221.

Holste, J.S. and Fields, D. (2010), "Trust and tacit knowledge sharing and use", *Journal of Knowledge Management,* Vol. 14 No. 1, pp. 128-140, doi: 10.1108/13673271011015615.

Holtzhausen, D.R. (2002), "The effects of workplace democracy on employee communication behavior: implications for competitive advantage", *Competitiveness Review*, Vol. 12 No. 2, pp. 30-48, doi: 10.1108/ eb046440.

Hopkins, N. (2011), "Religion and social capital: identity matters", *Journal of Community and Applied Social Psychology*, Vol. 21 No. 6, pp. 528-540.

Horvat, E.M., Weininger, E.B. and Lareau, A. (2003), "From social ties to social capital: class differences in the relations between schools and parent networks", *American Educational Research Journal*, Vol. 40 No. 2, pp. 319-351, doi: 10.3102/00028312040002319.

Hsu, C.C. and Sandford, B.A. (2007), "The Delphi technique: making sense of consensus", *Practical Assessment, Research, and Evaluation*, Vol. 12 No. 1, p. 10.

Hsu, Y.-S. and Chen, Y.-P. (2018), "A social capital model of cross-cultural knowledge transfer", in Academy of Management Proceedings, *Academy of Management Briarcliff Manor*, New York, NY, p. 15505.

Hussinki, H., Ritala, P., Vanhala, M. and Kianto, A. (2017), "Intellectual capital, knowledge management practices and firm performance", *Journal of Intellectual Capital*, Vol. 18 No. 4, pp. 904-922, doi: 10.1108/ JIC-11-2016-0116

Hwang, Y., Kettinger, W.J. and Yi, M.Y. (2015), "Personal information management effectiveness of knowledge workers: conceptual development and empirical validation*", European Journal of Information Systems,* Vol. 24 No. 6, pp. 588-606.

Hwang, Y., Lin, H. and Shin, D. (2018), "Knowledge system commitment and knowledge sharing intention: the role of personal information management motivation", *International Journal of Information Management*, Vol. 39, pp. 220-227.

Iedema, R. (1999), "Formalising organisational meaning', *discourse & society*", Sage Publications, Vol. 10 No. 1, pp. 49-65.

Inkinen, H.T., Kianto, A. and Vanhala, M. (2015), "Knowledge management practices and innovation performance in Finland", *Baltic Journal of Management*, Vol. 10 No. 4, pp. 432-455, doi: 10.1108/ BJM-10-2014-0178.

Intezari, A., Taskin, N. and Pauleen, D.J. (2017), "Looking beyond knowledge sharing: an integrative approach to knowledge management culture", *Journal of Knowledge Management*, Vol. 21 No. 2, pp. 492-515.

Jafari Sadeghi, V. and Biancone, P.P. (2017b), "How micro, small and medium-sized enterprises are driven outward the superior international trade performance? A multidimensional study on Italian food sector", *Research in International Business and Finance*, Vol. 45, pp. 597-606, doi: 10.1016/j.ribaf.2017.07.136.

Jafari Sadeghi, V., Biancone, P.P. (2017a), "Exploring the drivers of gender entrepreneurship: focus on the motivational perspectives in USA, Italy and France", In Ratten, V. Ramadani, V., Dana, L.-P., Hisrich, R.D. and Ferreira, J. (Eds), Gender and Family Entrepreneurship, Routledge Taylor and Francis Group, pp. 124-141, available at: www.routledge.com/Gender-and-Family- Entrepreneurship/Ratten-Ramadani-Dana-Hisrich-Ferreira/p/book/9781138228870

Jafari Sadeghi, V., Jashnsaz, A. and Honari Chobar, M. (2014), "Organization's conformity assessment with Peter Senge's learning organisation principles in Municipality of Saveh: a case study", *IOSR Journal of Business and Management*, Vol. 16 No. 5, pp. 51-58.

Jafari Sadeghi, V., Kimiagari, S. and Biancone, P.P. (2019), "Level of education and knowledge, foresight competency, and international entrepreneurship: a study of human capital determinants in the European countries", *European Business Review*, Vol. 32 No. 2.

Jafari Sadeghi, V., Nkongolo-Bakenda, J.-M., Anderson, R.B. and Dana, L.-P. (2019), "An institution-based view of international entrepreneurship: a comparison of context-based and universal determinants in developing and economically advanced countries", *International Business Review*, pp. 1-16, doi: 10.1016/j.ibusrev.2019.101588.

Jafari-Sadeghi, V., Amoozad Mahdiraji, H., Devalle, A. and Pellicelli, A.C. (2022), "Somebody is hiding something: exploring team level determinants of knowledge hiding in international entrepreneurial firms", *Journal of Business Research*, Vol. 139, February, pp. 383-396, doi: 10. 1016/j.jbusres.2021.09.068.

Jafari-Sadeghi, V., Dutta, D.K., Ferraris, A. and Del Giudice, M. (2020b), "Internationalisation business processes in an under-supported policy context: evidence from Italian SMEs", *Business Process Management Journal*, Vol. 26 No. 5, pp. 1055-1074, doi: 10.1108/BPMJ-03-2019-0141.

Jafari-Sadeghi, V., Kimiagari, S. and Biancone, P.P. (2020a), "Level of education and knowledge, foresight competency and international entrepreneurship: a study of human capital determinants in the European countries", *European Business Review*, Vol. 32 No. 1, pp. 46-68, doi: 10.1108/EBR-05-2018-0098.

James, K. and Lahti, K. (2011), "Organisational vision and system influences on employee inspiration and organisational performance", *Creativity and Innovation Management*, Vol. 20 No. 2, pp. 108-120.

Javaid, J., Soroya, S. and Mahmood, K. (2020), "Impact of personal and organisational factors on knowledge sharing attitude of university teachers in Pakistan", *The Electronic Library*, Vol. 38 No. 2, pp. 317-336, doi: 10.1108/EL-05-2019-0121.

Jelavic, M. and Ogilvie, K. (2010), "Knowledge management views in Eastern and Western cultures: an integrative analysis", *Journal of Knowledge Globalization*, Vol. 3 No. 2, pp. 51-69.

Jeong, Y., Ali, M., Zacca, R. and Park, K. (2019), "The effect of entrepreneurship orientation on firm performance: a multiple mediation model", *Journal of East-West Business*, Vol. 25 No. 2, pp. 166-193.

Jiang, H. and Luo, Y. (2018), "Crafting employee trust: from authenticity, transparency to engagement", *Journal of Communication Management*, Vol. 22 No. 2.

Johannessen, J.-A. and Olsen, B. (2003), "Knowledge management and sustainable competitive advantages: the impact of dynamic contextual training", *International Journal of Information Management*, Vol. 23 No. 4, pp. 277-289.

Johannessen, J.A., Olaisen, J. and Olsen, B. (2001), "Mismanagement of tacit knowledge: the importance of tacit knowledge, the danger of information technology, and what to do about it", *International Journal of Information Management*, Vol. 21 No. 1, pp. 3-20.

Johnson, P. (2006), "Whence democracy? A review and critique of the conceptual dimensions and implications of the business case for organisational democracy", *Organization*, Vol. 13 No. 2, pp. 245-274.

Jones, G.R. and George, J.M. (1998), "The experience and evolution of trust: implications for cooperation and teamwork", *The Academy of Management Review*, Vol. 23 No. 3, pp. 531-546.

Jones, M.C., Cline, M. and Ryan, S. (2006), "Exploring knowledge sharing in ERP implementation: an organisational culture framework", *Decision Support Systems*, Vol. 41 No. 2, pp. 411-434.

Jung, Y.T., Narayanan, N.C. and Cheng, Y.-L. (2018), "Cost comparison of centralised and decentralised wastewater management systems using optimisation model", *Journal of Environmental Management*, Vol. 213, pp. 90-97.

Kang, M. and Sung, M. (2017), "How symmetrical employee communication leads to employee engagement and positive employee communication behaviors", *Journal of Communication Management,* Vol. 21 No. 1, pp. 82-102, doi: 10.1108/JCOM-04-2016-0026

Kanter, R.M. (1988), "When 1,000 flowers bloom: structural, collective, and social conditions for innovation in organisations", in Staw, B.M. and Cummings, L.L. (Eds), *Research in Organizational Behavior*, Vol. 10, JAI Press, Greenwich, CT, pp. 169-211.

Karagouni, G. (2018), "Production technologies and low-technology knowledge-intensive venturing", *EuroMed Journal of Business*, Vol. 13 No. 1, pp. 75-85.

Karin Andreassi, J., *et al.* (2014), "Cultural impact of human resource practices on job satisfaction", *Cross-Cultural Management*: *An International Journal*, Vol. 21 No. 1, pp. 55-77, doi: 10.1108/ccm- 05-2012-0044.

Karkoulian, S., Harake, N.A. and Messarra, L.C. (2010), "Correlates of organisational commitment and knowledge sharing via emotional intelligence: an empirical investigation", *Business Review*, Vol. 15 No. 1, pp. 89-96.

Karra, N., Tracey, P. and Phillips, N. (2006), "Altruism and agency in the family firm: exploring the role of family, kinship, and ethnicity", *Entrepreneurship Theory and Practice*, Vol. 30 No. 6, pp. 861-877.

Kasemsap, K. (2018), "The importance of knowledge creation and knowledge sharing", *Handbook of Research on Knowledge Management for Contemporary Business Environments*, IGI Global, pp. 37-49.

Kattirtzi, M. and Winskel, M. (2020), "When experts disagree: using the Policy Delphi method to analyse divergent expert expectations and preferences on UK energy futures", *Technological Forecasting and Social Change*, Vol. 153, 119924.

Kaur, P., Dhir, A., Talwar, S. and Ghuman, K. (2020), "The value proposition of food delivery apps from the perspective of theory of consumption value*", International Journal of Contemporary Hospitality Management*, Vol. 33 No. 4, pp. 1129-1159, doi: 10.1108/IJCHM-05-2020-0477.

Keller, G. (2015), Statistics for Management and Economics, Abbreviated. Cengage Learning, Boston.

Kellogg, K.C., Orlikowski, W.J. and Yates, J. (2006), "Life in the trading zone: structuring coordination across boundaries in post-bureaucratic organisations", *Organization Science*, Vol. 17 No. 1, pp. 22-44.

Kelloway, E.K., Turner, N., Barling, J. and Loughlin, C. (2012), "Transformational leadership and employee psychological well-being: the mediating role of employee trust in leadership", *Work & Stress*, Vol. 26 No. 1, pp. 39-55.

Keyton, J. (2017), "Communication in organisations", *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 4 No. 1, pp. 501-526.

Killingsworth, B., Xue, Y. and Liu, Y. (2016), "Factors influencing knowledge sharing among global virtual teams", *Team Performance Management*, Vol. 22 Nos 5/6, pp. 284-300, doi: 10.1108/ TPM-10-2015-0042.

Kim, E.-J. and Park, S. (2020), "Transformational leadership, knowledge sharing, organisational climate and learning: an empirical study", *Leadership and Organisation Development Journal*, Vol. 41 No. 6, pp. 761-775, doi: 10.1108/LODJ-12-2018-0455.

Kitchentech (2020), "History-of-sandwich", Kitchentech, available at: http://kitchentech.ir/news-and-articles/news/history-of-sandwich.

Kline, R.B. (2015), Principles and Practice of Structural Equation Modelling, Guilford publications.

Kock, F., Berbekova, A. and Assaf, A.G. (2021), "Understanding and managing the threat of common method bias: detection, prevention and control", *Tourism Management*, Vol. 86, p. 104330, doi: 10.1016/ j.tourman.2021.104330.

Kock, N. and Hadaya, P. (2018), "Minimum sample size estimation in PLS-SEM: the inverse square root and gamma-exponential methods", *Information Systems Journal*, Vol. 28 No. 1, pp. 227-261.

Kogut, B. and Zander, U. (1993), "Knowledge of the firm and the evolutionary theory of the multinational corporation*", Journal of International Business Studies*, Vol. 24 No. 4, pp. 625--645.

Kosalge, P. (2015), "An empirical examination of Web 2.0 technologies and its readiness for business", *International Journal of Business Information Systems,* Vol. 19 No. 1, pp. 19-40.

Kovacˇ, J. and Jesenko, M. (2017), "The connection between trust and leadership styles in Slovene organisations", Management in CEE Countries between 1996 and 2016: *Emerging and Enduring Issues*, Nomos Verlag, p. 302.

Kremer, H., Villamor, I. and Aguinis, H. (2019), "Innovation leadership: best-practice recommendations for promoting employee creativity, voice, and knowledge sharing", *Business Horizons*, Vol. 62 No. 1, pp. 65-74.

Kukko, M. (2013), "Knowledge sharing barriers in organic growth: a case study from a software company", *The Journal of High Technology Management Research*, Vol. 24 No. 1, pp. 18-29.

Lattuch, F. and Dankert, P. (2018), "The glue that holds an organisation together: building organisational vision with top management teams", *Development and Learning in Organisations: An International Journal,* Vol. 32 No. 6, pp. 1-4, doi: 10.1108/DLO-03-2018-0037

Lazarova, M. and Taylor, S. (2009), "Boundaryless careers, social capital, and knowledge management: implications for organisational performance", *Journal of Organizational Behaviour*, Vol. 30 No. 1, pp. 119-139.

Le Breton-Miller, I. and Miller, D. (2016), "Family firms and practices of sustainability: a contingency view", *Journal of Family Business Strategy*, Vol. 7 No. 1, pp. 26-33.

Le, P.B. and Lei, H. (2018), "The mediating role of trust in stimulating the relationship between transformational leadership and knowledge sharing processes", *Journal of Knowledge Management*, Vol. 22 No. 3, pp. 521-537, doi: 10.1108/JKM-10-2016-0463.

Leana, C.R., III. and Van Buren, H.J. (1999), "Organisational social capital and employment practices", *Academy of Management Review*, Vol. 24 No. 3, pp. 538-555.

Lee, J.C., Shiue, Y.C. and Chen, C.Y. (2016), "Examining the impacts of organisational culture and top management support of knowledge sharing on the success of software process improvement", *Computers in Human Behavior*, Vol. 54, pp. 462-474.

Lee, K.C., Lee, S. and Kang, I.W. (2005), "KMPI: measuring knowledge management performance", *Information and Management*, Vol. 42 No. 3, pp. 469-482.

Lesser, E.L. (2000), Knowledge and Social Capital: Foundations and Applications, Routledge.

Levy, M., Loebbecke, C. and Powell, P. (2003), "SMEs, co-opetition and knowledge sharing: the role of information systems", *European Journal of Information Systems*, Vol. 12 No. 1, pp. 3-17.

Li, C., Turmunkh, U. and Wakker, P.P. (2019), "Trust as a decision under ambiguity", *Experimental Economics*, Vol. 22 No. 1, pp. 51-75, doi: 10.1007/s10683-018-9582-3.

Li, L. (2005), "The effects of trust and shared vision on inward knowledge transfer in subsidiaries' intra- and inter-organisational relationships", *International Business Review*, Vol. 14 No. 1, pp. 77-95.

Liao, J. and Welsch, H. (2005), "Roles of social capital in venture creation: key dimensions and research implications", *Journal of Small Business Management*, Vol. 43 No. 4, pp. 345-362.

Liao, S.H., Chang, J.C., Cheng, S.C. and Kuo, C.M. (2004), "Employee relationship and knowledge sharing: a case study of a Taiwanese finance and securities firm", *Knowledge Management Research and Practice*, Vol. 2 No. 1, pp. 24-34.

Lin, W. (2013), "Research on knowledge sharing and interpersonal relationships", *Empirical Study of Family Firms and Non-family Firms* No. 116, pp. 151-166, doi: 10.1007/s11135-011-9509-y.

Lioukas, C.S. and Reuer, J.J. (2015), "Isolating trust outcomes from exchange relationships: Social exchange and learning benefits of prior ties in alliances", *Academy of Management Journal*, Vol. 58 No. 6, pp. 1826-1847, doi: 10.5465/amj.2011.0934.

Ljungholm, D.P. (2017), "Democratic forms of workplace governance", Analysis and Metaphysics, Addleton Academic Publishers, pp. 110-116.

Ma, Z., Huang, Y., Wu, J., Dong, W. and Qi, L. (2014), "What matters for knowledge sharing in collectivistic cultures? Empirical evidence from China", *Journal of Knowledge Management*, Vol. 18 No. 5, pp. 1004-1019, doi: 10.1108/JKM-06-2014-0252.

Mahmoudsalehi, M., Moradkhannejad, R. and Safari, K. (2012), "How knowledge management is affected by organisational structure", *The learning organisation*, Emerald Group Publishing Limited.

Maier, R. and Hadrich, T. (2011), "Knowledge management systems", in *Encyclopaedia of Knowledge Management, 2nd ed.*, IGI Global, pp. 779-790.

Manning, P. (2010), "Explaining and developing social capital for knowledge management purposes", *Journal of Knowledge Management*, Vol. 14 No. 1, pp. 83-99, doi: 10.1108/13673271011015589.

Marchington, M. and Wilkinson, A. (2005), "Direct participation and involvement", *Managing Human Resources: Personnel Management in Transition*, Blackwell, Oxford, pp. 398-423.

Marsh, H.W., Hau, K.T. and Grayson, D. (2005), Goodness of Fit in Structural Equation Models.

Marshall, C.M. (2015), "Isolating the systematic and unsystematic components of a single stock's (or portfolio's) standard deviation", *Applied Economics*, Vol. 47 No. 1, pp. 1-11, doi: 10.1080/ 00036846.2014.959652.

Mart´ın-Santana, J.D., Cabrera-Su´arez, M.K. and D´eniz-D´eniz, M.d.l.C. (2020), "Familiness, social capital and market orientation in the family firm", *European Journal of Marketing*, Vol. 54 No. 7, pp. 1731-1760, doi: 10.1108/EJM-04-2018-0274.

Martin, M.M. (1999), "Trust leadership", *Journal of Leadership Studies*, Vol. 5 No. 3, pp. 41-49.

Mashhadfastfood (2021), "Fast food database of Holy Mashhad city, mashhadfastfood", available at: http://mashhadfastfood.ir/fastfoods.html.

Matzler, K., Renzl, B., Mu€ller, J., Herting, S. and Mooradian, T.A. (2008), "Personality traits and knowledge sharing", *Journal of Economic Psychology*, Vol. 29 No. 3, pp. 301-313.

McKelvie, A., McKenny, A.F., Lumpkin, G. and Short, J.C. (2014), "Corporate entrepreneurship in family businesses: past contributions and future opportunities", The Sage Handbook of Family Business, SAGE Publications, pp. 340-363, doi: 10.4135/9781446247556.n17.

McLeod, M. (2020), "Understanding knowledge flows within a tourism destination network", *Journal of Hospitality and Tourism Insights*, Vol. 3 No. 5, pp. 549-566, doi: 10.1108/JHTI-02- 2020-0017.

McQuitty, S. (2004), "Statistical power and structural equation models in business research", *Journal of Business Research*, Vol. 57 No. 2, pp. 175-183.

Men, C., Fong, P.S.W., Luo, J., Zhong, J. and Huo, W. (2019), "When and how knowledge sharing benefits team creativity: the importance of cognitive team diversity", *Journal of Management & Organization*, Vol. 25 No. 6, pp. 807-824.

Miller, L.C. and Read, S.J. (2013), "On the coherence of mental models of persons and relationships: a knowledge structure approach", *In Cognition in Close Relationships*, *Psychology Press*, pp. 79-110.

Mirzaee, S. and Ghaffari, A. (2018), "Investigating the impact of information systems on knowledge sharing", *Journal of Knowledge Management*, doi: 10.1108/JKM-08-2017-0371.

Moglen, S. (2013), "Sharing knowledge, practising democracy", *Education, Justice, and Democracy*, pp. 267-284.

Mohammed Fathi, N., Cyril Eze, U. and Guan Gan Goh, G. (2011), "Key determinants of knowledge sharing in an electronics manufacturing firm in Malaysia", *Library Review*, Vol. 60 No. 1, pp. 53-67, doi: 10. 1108/00242531111100577.

Mokhtarzadeh, N.G., Mahdiraji, H.A. and Jafarpanah, I. (2021), "Classification of inter-organisational knowledge mechanisms and their effects on networking capability: a multi-layer decision-making

approach", *Journal of Knowledge Management*, Vol. 25 No. 7, pp. 1665-1688, doi: 10. 1108/JKM-07-2020-0579.

Mokhtarzadeh, N.G., Mahdiraji, H.A., Jafari-Sadeghi, V., Soltani, A. and Kamardi, A.A. (2020), "A product-technology portfolio alignment approach for food industry: a multi-criteria decision making with z-numbers", *British Food Journal*, Vol. 122 No. 12, pp. 3947-3967, doi: 10.1108/BFJ- 02-2020-0115.

Mokhtarzadeh, N.G., Mahdiraji, H.A., Jafarpanah, I., Jafari-Sadeghi, V. and Bresciani, S. (2021), "Classification of inter-organisational knowledge mechanisms and their effects on networking capability: a multi-layer decision-making approach", *Journal of Knowledge Management*, Vol. 25 No. 7, pp. 1665-1688, doi:10.1108/JKM-07-2020-0579.

Molenaar, P.C.M. (2019), Review of Multivariate Analysis with LISREL, Taylor and Francis.

Mooradian, T., Renzl, B. and Matzler, K. (2006), "Who trusts? Personality, trust and knowledge sharing", *Management Learning*, Vol. 37 No. 4, pp. 523-540.

Morrison, E.W. and Rothman, N.B. (2009), "Silence and the dynamics of power", *Voice and Silence in Organisations*, Vol. 6, pp. 111-134.

Mu, J., Peng, G. and Love, E. (2008), "Interfirm networks, social capital, and knowledge flow", *Journal of Knowledge Management*, Vol. 12 No. 4, pp. 86-100.

Mueller, J. (2015), "Formal and informal practices of knowledge sharing between project teams and enacted cultural characteristics", *Project Management Journal*, Vol. 46 No. 1, pp. 53-68.

Mueller, R.O. and Hancock, G.R. (2018), Structural Equation Modelling, Routledge.

Muhammed, S. and Zaim, H. (2020), "Peer knowledge sharing and organisational performance: the role of leadership support and knowledge management success", *Journal of Knowledge Management*, Vol. 24 No. 10, pp. 2455-2489, doi: 10.1108/JKM-03-2020-0227.

Muscalu, E., Todericiu, R. and Fraticiu, L. (2013), "Efficient organisational communication – a key to success", *Studies in Business and Economics*, Vol. 8 No. 2, pp. 74-78.

Nahapiet, J. and Ghoshal, S. (1998b), "Social capital, intellectual capital, and the organisational advantage", *Academy of Management Review*, Vol. 23 No. 2, pp. 242-266, doi: 10.5465/ AMR.1998.533225.

Naqshbandi, M.M. and Jasimuddin, S.M. (2018), "Knowledge-oriented leadership and open innovation: role of knowledge management capability in France-based multinationals", *International Business Review*, Vol. 27 No. 3, pp. 701-713.

Nguyen, N.T.B., Umemoto, K. and Medeni, T.D. (2016), "Towards a theoretical model of cross-cultural knowledge management", *The International Journal of Knowledge, Culture, and Change Management*: *Annual Review*, Vol. 7 No. 9, pp. 33-40, doi: 10.18848/1447-9524/cgp/v07i09/50418.

Nguyen, T.-M., Nham, T.P., Froese, F.J. and Malik, A. (2019), "Motivation and knowledge sharing: a meta-analysis of main and moderating effects", *Journal of Knowledge Management*, Vol. 23 No. 5, pp. 998-1016, doi: 10.1108/JKM-01-2019-0029.

Nielsen, C. and Thangadurai, M. (2007), "Janus and the Delphi oracle: entering the new world of international business research", *Journal of International Management*, Vol. 13 No. 2, pp. 147-163.

Nielsen, J.S. (2011), The Myth of Leadership: Creating Leaderless Organisations, Hachette.

Nikolaou, I., Vakola, M. and Bourantas, D. (2011), "The role of silence on employees' attitudes 'the day after' a merger", *Personnel Review*, Vol. 40 No. 6, pp. 723-741, doi: 10.1108/00483481111169652

Nonaka, I. and Toyama, R. (2015), "The knowledge-creating theory revisited: knowledge creation as a synthesising process BT - the essentials of knowledge management", in Edwards, J.S. (Ed.), Palgrave Macmillan UK, London, pp. 95-110, doi: 10.1057/9781137552105_4.

Nooshinfard, F. and Nemati-Anaraki, L. (2014), "Success factors of inter-organisational knowledge sharing: a proposed framework", *The Electronic Library,* Vol. 32 No. 2, pp. 239-261, doi: 10.1108/ EL-02-2012-0023.

North, K. and Kumta, G. (2018), Knowledge Management: Value Creation through Organizational Learning, Springer.

Nousala, S., Miles, A., Kilpatrick, B. and Hall, W.P. (2009), "Building knowledge sharing communities using team expertise access maps", *International Journal of Business and Systems Research*, Vol. 3 No. 3, pp. 279-296.

Ogbu, J.U. (1992), "Understanding cultural diversity and learning", *Educational Researcher*, Vol. 21 No. 8, pp. 5-14.

Okoli, C. and Pawlowski, S.D. (2004), "The Delphi method as a research tool: an example, design considerations and applications", *Information and Management*, Vol. 42 No. 1, pp. 15-29.

Omar Sharifuddin Syed-Ikhsan, S. and Rowland, F. (2004), "Knowledge management in a public organisation: a study on the relationship between organisational elements and the performance of knowledge transfer", *Journal of Knowledge Management*, Vol. 8 No. 2, pp. 95-111.

Ostrom, E. (2009), "What is social capital", Social Capital: Reaching out, Reaching in, Edward Elgar Publishing Northampton, MA, pp. 17-38.

Ouriques, R.A.B., Wnuk, K., Gorschek, T. and Svensson, R.B. (2019), "Knowledge management strategies and processes in agile software development: a systematic literature review", *International Journal of Software Engineering and Knowledge Engineering*, Vol. 29 No. 03, pp. 345-380.

Oyebisi Oyefolahan, I. and Dominic, P.D.D. (2013), "Knowledge management systems use and competency development among knowledge workers: the role of socio-technical antecedents in developing autonomous motivation to use", *VINE*, Vol. 43 No. 4, pp. 482-500, doi: 10.1108/VINE- 07-2012-0023.

Oyemomi, O., Liu, S., Neaga, I. and Alkhuraiji, A. (2016), "How knowledge sharing and business process contribute to organisational performance: using the fsQCA approach", *Journal of Business Research*, Vol. 69 No. 11, pp. 5222-5227.

P´erez-Lun~o, A., Alegre, J. and Valle-Cabrera, R. (2019), "The role of tacit knowledge in connecting knowledge exchange and combination with innovation", *Technology Analysis and Strategic Management*, Vol. 31 No. 2, pp. 186-198.

Paliszkiewicz, J., *et al.* (2014), 'Management Trust, Organizational Trust, and Organizational Performance: advancing and Measuring a Theoretical Model, De Gruyter Open.

Pandya, K., Sukumar, A., Jafari-Sadeghi, V. and Tomlins, R. (2021), "An Empirical study on the relationship among IT capabilities, business process and firm's performance", *International Journal of Technology Transfer and Commercialisation*, Vol. 18 No. 4, pp. 347-367, doi: 10.1504/ IJTTC.2021.120199.

Park, H., Ribi`ere, V. and Schulte, W.D. (2004), "Critical attributes of organisational culture that promote knowledge management technology implementation success", *Journal of Knowledge Management*, Vol. 8 No. 3, pp. 106-117, doi: 10.1108/13673270410541079.

Park, J.-G. and Lee, J. (2014), "Knowledge sharing in information systems development projects: explicating the role of dependence and trust", *International Journal of Project Management*, Vol. 32 No. 1, pp. 153-165.

Paroutis, S. and Al Saleh, A. (2009), "Determinants of knowledge sharing using Web 2.0 technologies", *Journal of Knowledge Management*, Vol. 13 No. 4, pp. 52-63, doi: 10.1108/13673270910971824.

Patil, S.K. and Kant, R. (2012), "Organisational culture a HR strategy for successful knowledge management", *Strategic HR Review*, Vol. 11 No. 6, pp. 322-328, doi: 10.1108/14754391211264785.

Pearson, A.W., Carr, J.C. and Shaw, J.C. (2008), "Toward a theory of familiness: a social capital perspective", *Entrepreneurship Theory and Practice*, Vol. 32 No. 6, pp. 949-969.

Pee, L.G. and Kankanhalli, A. (2016), "Interactions among factors influencing knowledge management in public-sector organisations: a resource-based view", *Government Information Quarterly*, Vol. 33 No. 1, pp. 188-199, doi: 10.1016/j.giq.2015.06.002.

Peterson, P.E. (2012), The Price of Federalism, Brookings Institution Press.

Pevehouse, J. and Russett, B. (2006), "Democratic international governmental organisations promote peace", *International Organization*, Vol. 60 No. 04, pp. 969-1000.

Pircher Verdorfer, A. and Weber, W.G. (2016), "Examining the link between organisational democracy and employees' moral development", *Journal of Moral Education*, Vol. 45 No. 1, pp. 59-73.

Politis, J.D. (2003), "The connection between trust and knowledge management: what are its implications for team performance", *Journal of Knowledge Management*, Vol. 7 No. 5, pp. 55-66.

Pollitt, C. (2009), "Bureaucracies remember, post-bureaucratic organisations forget?", *Public Administration*, Vol. 87 No. 2, pp. 198-218.

Popkova, E.G., Sergi, B.S., Rezaei, M. and Ferraris, A. (2021), "Digitalisation in transport and logistics: a roadmap for entrepreneurship in Russia", *International Journal of Technology Management*, Vol. 87 No. 1, pp. 7-28.

Portes, A. (1998), "Social capital: its origins and applications in modern sociology", *Annual Review of Sociology*, Vol. 24 No. 1, pp. 1-24.

Porumbescu, G. (2017), "Linking transparency to trust in government and voice", *The American Review of Public Administration*, Vol. 47 No. 5, pp. 520-537.

Poza, L., Brooks, M.D. and Vald´es, G. (2014), "Entre familia: immigrant parents' strategies for involvement in children's schooling", *School Community Journal*, Vol. 24 No. 1, pp. 119-148.

Prieto-Pastor, I., Martín-Pérez, V. and Martín-Cruz, N. (2018), "Social capital, knowledge integration, and learning in project-based organisations: a CEO-based study*", Journal of Knowledge Management*, Vol. 22 No. 8, pp. 1803-1825.

Pucci, T., Casprini, E., Galati, A. and Zanni, L. (2018), "The virtuous cycle of stakeholder engagement in developing a sustainability culture: Salcheto winery", *Journal of Business Research.*

Qi, C. and Chau, P.Y.K. (2018), "Will enterprise social networking systems promote knowledge management and organisational learning? An empirical study", *Journal of Organizational Computing and Electronic Commerce*, Vol. 28 No. 1, pp. 31-57.

Quinn, J.B. (1992), "The intelligent enterprise a new paradigm", *Academy of Management Perspectives*, Vol. 6 No. 4, pp. 48-63.

Rahim, M.A. (2014), "A structural equations model of leaders' social intelligence and creative performance", *Creativity and Innovation Management*, Vol. 23 No. 1, pp. 44-56.

Rajhans, K., Muscalu, E., Todericiu, R., Fraticiu, L., Rajhans, K., McClellan, J.G., Simoes, P.M.M., Esposito, M. and Keyton, J. (2012), "Effective organisational communication: a key to employee motivation and performance", *Inter science Management Review*, Vol. 2 No. 2, pp. 81-85.

Ramadan, B.M., *et al.* (2017), "Intellectual capital, knowledge management and social capital within the ICT sector in Jordan", *Journal of Intellectual Capital*, Vol. 18 No. 2, pp. 437-462, doi: 10.1108/JIC- 06- 2016-0067.

Razmerita, L., Kirchner, K. and Nielsen, P. (2016), "What factors influence knowledge sharing in organisations? A social dilemma perspective of social media communication", *Journal of Knowledge Management*, Vol. 20 No. 6, pp. 1225-1246, doi: 10.1108/JKM-03-2016-0112.

Reich, R.B. (1991), The Work of Nations, Preparing Ourselves for 21st-Century Capitalism, Economist Newspaper, NA, 318, p. 95.

Reiche, B.S., Harzing, A.-W. and Pudelko, M. (2017), "Why and how does shared language affect subsidiary knowledge inflows?", A Social Identity Perspective BT – Language in International Business: Developing a Field, in Brannen, M.Y. and Mughan, T. (Eds). Springer International Publishing, Cham, pp. 209-253, doi: 10.1007/978-3-319-42745-4_9.

Renzl, B. (2008), "Trust in management and knowledge sharing: the mediating effects of fear and knowledge documentation", Omega, Vol. 36 No. 2, pp. 206-220.

Rezaei, M. (2018), "Islamic accounting laws or Islamic laws in accounting", *European Journal of Islamic Finance*, No. 11, doi: 10.13135/2421-2172/2631.

Rezaei, M. and Heydari, E. (2021), "Exploring the effect of accounting information on systematic risk: an empirical evidence of Tehran stock exchange", *International Journal of Economics and Management Engineering*, Vol. 15 No. 4, pp. 350-357. publications.waset.org/10011944/pdf

Rezaei, M., Ferraris, A., Busso, D. and Rizzato, F. (2021a), "Seeking traces of democracy in the workplace: effects on knowledge sharing", *Journal of Knowledge Management*, November, [Preprint], doi: 10.1108/JKM-02-2021-0103.

Rezaei, M., Ferraris, A., Heydari, E. and Rezaei, S. (2021b), "How do experts think? An investigation of the barriers to internationalisation of SMEs in Iran BT - empirical international entrepreneurship: a Handbook of Methods, Approaches, and applications", in Jafari-Sadeghi, V., Amoozad Mahdiraji, H. and Dana, L.P. (Eds), Springer International Publishing, Cham, pp. 337-357, doi: 10.1007/978-3-030-68972-8_17.

Rezaei, M., Jafari-Sadeghi, V. and Bresciani, S. (2020), "What drives the process of knowledge management in a cross-cultural setting", *European Business Review*, Vol. 32 No. 3, pp. 485-511, doi: 10.1108/EBR-06-2019-0127.

Rezaei, M., Jafari-Sadeghi, V., Cao, D. and Mahdiraji, H.A. (2021c), "Key indicators of ethical challenges in digital healthcare: a combined Delphi exploration and confirmative factor analysis approach with evidence from Khorasan province in Iran", *Technological Forecasting and Social Change*, Vol. 167, p. 120724.

Rhodes, J., Lok, P., Yu-Yuan Hung, R. and Fang, S.C. (2008), "An integrative model of organisational learning and social capital on effective knowledge transfer and perceived organisational performance", *Journal of Workplace Learning*, Vol. 20 No. 4, pp. 245-258.

Riege, A. (2007), "Actions to overcome knowledge transfer barriers in MNCs", *Journal of Knowledge Management*, Vol. 11 No. 1, pp. 48-67, doi: 10.1108/13673270710728231.

Rikkonen, P., Tapio, P. and Rintam€aki, H. (2019), "Visions for small-scale renewable energy production on Finnish farms–A Delphi study on the opportunities for new business", *Energy Policy*, Vol. 129, pp. 939-948.

Ritala, P., *et al.* (2015), "Knowledge sharing, knowledge leaking and relative innovation performance: an empirical study", *Tec novation*, Vol. 35, pp. 22-31, doi: 10.1016/j.technovation.2014.07.011.

Robertson, M. and O'Malley Hammersley, G. (2000), "Knowledge management practices within a knowledge-intensive firm: the significance of the people management dimension*", Journal of European Industrial Training*, Vol. 24 Nos 2/3/4, pp. 241-253.

Rodrigues, G., Sarabdeen, J. and Balasubramanian, S. (2016), "Factors that influence consumer adoption of e-government services in the UAE: a UTAUT model perspective", *Journal of Internet Commerce*, Vol. 15 No. 1, pp. 18-39.

Rossi, M., Festa, G., Papa, A. and Scorrano, P. (2019), Corporate Venture Capitalists' Ambidexterity: Myth or Truth? IEEE Transactions on Engineering Management.

Rossi, M., Festa, G., Solima, L. and Popa, S. (2017), "Financing knowledge-intensive enterprises: evidence from CVCs in the US", *The Journal of Technology Transfer*, Vol. 42 No. 2, pp. 338-353.

Rowe, A., Wright, S., Nyland, J., Caborn, D.N.M., Kling, R., Dalkey, N., Helmer, O., Rowe, G. and Wright, G. (1999), "An experimental application of the Delphi method to the use of experts", *Management Science*, Vol. 29 No. 3, pp. 353-375.

Rumizen, M.C. (2001), The Complete Idiot's Guide to Knowledge Management, Penguin.

Rutherford, J. (1990), Identity: Community, Culture, Difference, Lawrence and Wishart.

Rzakhanov, Z. (2012), "Multistage investment, systematic risk premium and CAPM beta: empirical evidence from product development", *Applied Financial Economics*, Vol. 22 No. 10, pp. 777-790, doi: 10.1080/09603107.2011.627209.

Safari, A., Salehzadeh, R. and Ghaziasgar, E. (2018), "Exploring the antecedents and consequences of organisational democracy", *The TQM Journal*, Vol. 30 No. 1, pp. 74-96, doi: 10.1108/TQM-05-2017-0057.

Saghapour, M., Iranmanesh, M., Zailani, S. and Goh, G.G.G. (2018), "An empirical investigation of campus portal usage", *Education and Information Technologies*, Vol. 23 No. 2, pp. 777-795.

Sallis, E. and Jones, G. (2002), *Knowledge Management in Education: Enhancing Learning & Education*, Psychology Press.

Santoro, G., Bresciani, S. and Papa, A. (2018), "Collaborative modes with cultural and creative industries and innovation performance: the moderating role of heterogeneous sources of knowledge and absorptive capacity", *Tec novation*, Vol. 92-93, pp. 0–1, doi: 10.1016/j.technovation.2018.06.003.

Santoro, G., *et al.* (2018), "The internet of things: building a knowledge management system for open innovation and knowledge management capacity", *Technological Forecasting and Social Change*, Vol. 136, pp. 347-354.

Saulais, P. and Ermine, J.-L. (2019), Knowledge Management in Innovative Companies 1: Understanding and Deploying a KM Plan within a Learning Organization, John Wiley & Sons.

Schein, E.H. (2013), Organizational Culture and Leadership, John Wiley and Sons.

Schiuma, G., Andreeva, T. and Kianto, A. (2012), "Does knowledge management really matter? Linking knowledge management practices, competitiveness and economic performance", *Journal of Knowledge Management*, Vol. 16 No. 4, pp. 617-636, doi: 10.1108/13673271211246185.

Schmidt, R.C. (1997), "Managing Delphi surveys using nonparametric statistical techniques", *Decision Sciences*, Vol. 28 No. 3, pp. 763-774.

Schnackenberg, A.K. and Tomlinson, E.C. (2016), "Organisational transparency: a new perspective on managing trust in organisation-stakeholder relationships", *Journal of Management*, Vol. 42 No. 7, pp. 1784-1810.

Schutte, N. and Barkhuizen, N. (2015), "Knowledge management and sharing in local government: a social identity theory perspective", *Electronic Journal of Knowledge Management*, Vol. 13 No. 2.

Scott, M. (2007), "Global competitors: the supermarkets", Business Week Online. November 7.

Scuotto, V., Del Giudice, M., Bresciani, S. and Meissner, D. (2017), "Knowledge-driven preferences in informal inbound open innovation modes. An explorative view on small to medium enterprises", *Journal of Knowledge Management*, Vol. 21 No. 3, pp. 640-655, doi: 10.1108/JKM-10-2016-0465.

Seba, I., Rowley, J. and Lambert, S. (2012), "Factors affecting attitudes and intentions towards knowledge sharing in the Dubai Police Force", *International Journal of Information Management*, Vol. 32 No. 4, pp. 372-380.

Sedighi, M., van Splunter, S., Brazier, F., van Beers, C. and Lukosch, S. (2016), "Exploration of multi-layered knowledge sharing participation: the roles of perceived benefits and costs", *Journal of Knowledge Management*, Vol. 20 No. 6, pp. 1247-1267, doi: 10.1108/JKM-01-2016-0044.

Serenko, A. (2013), "Meta-analysis of scientometric research of knowledge management: discovering the identity of the discipline", *Journal of Knowledge Management*, Vol. 17 No. 5, pp. 773-812.

Shams, S.M.R. (2012), "Stakeholder causal scope centric market positioning", *Customer-Centric Marketing Strategies*, pp. 245-263, doi: 10.4018/978-1-4666-2524-2.ch012.

Shao, Z., Feng, Y. and Liu, L. (2012), "The mediating effect of organisational culture and knowledge sharing on transformational leadership and Enterprise Resource Planning systems success: an empirical study in China", *Computers in Human Behavior*, Vol. 28 No. 6, pp. 2400-2413.

Sharma, P. and Nordqvist, M. (2008), "A classification scheme for family firms: from family values to effective governance to firm performance", *Family Values and Value Creation*, Springer, pp. 71-101.

Shojaie, S., Matin, H.Z. and Barani, G. (2011), "Analysing the infrastructures of organisational silence and ways to get rid of it", *Procedia - Social and Behavioral Sciences*, Vol. 30, pp. 1731-1735.

Singh, S.K., Gupta, S., Busso, D. and Kamboj, S. (2021), "Top management knowledge value, knowledge sharing practices, open innovation and organisational performance", *Journal of Business Research*, Vol. 128, pp. 788-798.

Singh, S.K., Mazzucchelli, A., Vessal, S.R. and Solidoro, A. (2021), "Knowledge-based HRM practices and innovation performance: role of social capital and knowledge sharing", *Journal of International Management*, Vol. 27 No. 1, p. 100830.

Sirmon, D.G. and Hitt, M.A. (2003), "Managing resources: linking unique resources, management, and wealth creation in family firms", *Entrepreneurship Theory and Practice*, Vol. 27 No. 4, pp. 339-358.

Slavova, I. (2013), "Strategic perspective of corporate social responsibility", *Economic Alternatives*, No. 3, pp. 90-105. Available at: www.unwe.bg/eajournal/en%0Ahttp://search.ebscohost.com/ login. aspX?direct=true&db=ecn&AN=1434222&site=ehost-live

Smedlund, A. (2008), "The knowledge system of a firm: social capital for explicit, tacit and potential knowledge", *Journal of Knowledge Management*, Vol. 12 No. 1, pp. 63-77, doi: 10.1108/ 13673270810852395.

Smirnova, V.G., Baziyan, Z.K. and Latfullin, G.R. (2020), "Corporate portal of a technopark as a unified communication platform", *Institute of Scientific Communications Conference*, Springer, pp. 1432-1439.

Smith, E.A. (2001), "The role of tacit and explicit knowledge in the workplace", *Journal of Knowledge Management*, Vol. 5 No. 4, pp. 311-321.

Spencer, C. (2020), *Introduction: Communication Studies*, Manchester University Press.

Spies, M., Clayton, A.J. and Noormohammadian, M. (2005), "Knowledge management in a decentralised global financial services provider: a case study with Allianz group", *Knowledge Management Research & Practice*, Vol. 3 No. 1, pp. 24-36.

Sreen, N., Dhir, A., Talwar, S., Tan, T.M. and Alharbi, F. (2021), "Behavioral reasoning perspectives to brand love toward natural products: moderating role of environmental concern and household size", *Journal of Retailing and Consumer Services*, Vol. 61, March, 102549, doi: 10.1016/j.jretconser.2021.102549.

Stankiewicz, J. and Moczulska, M. (2014), "Zaangaźowanie pracowników i jego' druga strona": pracoholizm i wypalenie zawodowe", *Przegląd Organizacji*, No. 2, pp. 25-30.

Steurer, J. (2011), "The Delphi method: an efficient procedure to generate knowledge", *Skeletal Radiology*, Vol. 40 No. 8, pp. 959-961.

Stevenson, E.L., *et al.* (2018), "Knowledge and decision making about future fertility and oocyte cryopreservation among young women", Human Fertility, pp. 1-10.

Stohl, C. and Cheney, G. (2001), "Participatory processes/paradoxical practices: communication and the dilemmas of organisational democracy", *Management Communication Quarterly*, Vol. 14 No. 3, pp. 349-407.

Stone, W. (2001), "Measuring social capital", *Australian Institute of Family Studies*, Research paper, 24.

Sullivan, S.E., Drucker, P., Quinn, J.B., Reich, R.B., Smedlund, A., Widén-Wulff, G., Ginman, M., Edvinsson, L., Manning, P., Tymon, W.G., Stumpf, S.A., Hoffman, J.J., Hoelscher, M.L., Sherif, K., van Engelen, J., Jorna, R.J. and McElroy, M.W. (2012), "The knowledge system of a firm: social capital for explicit, tacit and potential knowledge", *Journal of Knowledge Management*, Vol. 30 No. 1, pp. 448-458, doi: 10.1108/13673270610691233.

Sullivan, H., Williams, P. and Jeffares, S. (2012), "Leadership for collaboration: situated agency in practice", *Public Management Review*, Vol. 14 No. 1, pp. 41-66.

Sullivan, S.E. (1999), "The changing nature of careers: a review and research agenda", *Journal of Management*, Vol. 25 No. 3, pp. 457-484, doi: 10.1177/014920639902500308.

Suspitsyna, T. (2012), "Higher education for economic advancement and engaged citizenship: an analysis of the US Department of education discourse", *The Journal of Higher Education*, Vol. 83 No. 1, pp. 49-72.

Swanson, E., Kim, S., Lee, S.M., Yang, J.J. and Lee, Y.K. (2020), "The effect of leader competencies on knowledge sharing and job performance: social capital theory", *Journal of Hospitality and Tourism Management*, Vol. 42, pp. 88-96.

Taherdoost, H. (2017), "Determining sample size; how to calculate survey sample size", *International Journal of Economics and Management Systems*, Vol. 2.

Talebizadeh, S.M., Hosseingholizadeh, R. and Bellibaş, M.Ş. (2021), "Analysing the relationship between principals' learning-centred leadership and teacher professional learning: the mediation role of trust and knowledge sharing behavior", *Studies in Educational Evaluation*, Vol. 68, 100970.

Talwar, M., Talwar, S., Kaur, P., Islam, A.K.M.N. and Dhir, A. (2020), "Positive and negative word of mouth(WOM) are not necessarily opposites: a reappraisal using the dual-factor theory", *Journal of Retailing andConsumer Services*, Vol. 63, p. 102396, doi: 10.1016/j.jretconser.2020.102396.

Talwar, M., Talwar, S., Kaur, P., Tripathy, N. and Dhir, A. (2021), "Has financial attitude impacted the trading activity of retail investors during the COVID-19 pandemic?", *Journal of Retailing and Consumer Services*, Vol. 58, p. 102341, doi: 10.1016/j.jretconser.2020.102341.

Talwar, S., Dhir, A., Kaur, P. and Mäntymäki, M. (2020), "Barriers toward purchasing from online travel agencies", *International Journal of Hospitality Management*, Vol. 89, pp. 102593, doi: 10.1016/j.ijhm.2020.102593.

Tamjidyamcholo, A., Baba, M.S.B., Tamjid, H. and Gholipour, R. (2013), "Information security–Professional perceptions of knowledge-sharing intention under self-efficacy, trust, reciprocity,and shared-language", *Computers and Education*, Vol. 68, pp. 223-232.

Tan, C. (2014), "Organisational justice as a predictor of organisational silence", *Educational Research and Reviews*, Vol. 9 No. 21, pp. 1190-1202.

Tandon, A., Jabeen, F., Talwar, S., Sakashita, M. and Dhir, A. (2021), "Facilitators and inhibitors of organic food buying behavior", *Food Quality and Preference*, Vol. 88, p. 104077, doi: 10.1016/j.foodqual.2020.104077.

Taylor, M. and Kent, M.L. (2014), "Dialogic engagement: clarifying foundational concepts", *Journal of Public Relations Research*, Vol. 26 No. 5, pp. 384-398.

Teece, D.J. (1998), "Research directions for knowledge management", California Management Review, Vol. 40 No. 3, pp. 289-292.

Terlizzi, A. (2019), *Health System Decentralization and Recentralization*, Springer.

Thrassou, A., *et al.* (2011), "The role of social capital in knowledge sharing: the case of a specialist rock construction company", *International Studies of Management and Organization*, Vol. 6 No. 1, pp. 941-951, doi: 10.1080/01446190802259035.

Thuan, L.C. (2020), "The role of supervisor knowledge sharing behavior in stimulating subordinate creativity", *VINE Journal of Information and Knowledge Management Systems*, Vol. 50 No. 4, pp. 597-613.

Timming, A. and Summers, J. (2020), "Is workplace democracy associated with wider pro-democracy affect? A structural equation model", *Economic and Industrial Democracy*, Vol. 41 No. 3, pp. 709-726, doi: 10.1177/0143831X17744028.

Titi Amayah, A. (2013), "Determinants of knowledge sharing in a public sector organisation", *Journal of Knowledge Management*, Vol. 17 No. 3, pp. 454-471, doi: 10.1108/JKM-11-2012-0369.

Triandis, H.C. (2018), Individualism and Collectivism, Routledge.

Tsai, S.P. (2018), "Innovative behaviour of knowledge workers and social exchange attributes of financial incentive: implications for knowledge management", *Journal of Knowledge Management*, Vol. 22 No. 8, pp. 1712-1735.

Tulubas, T. and Celep, C. (2012), "Effect of perceived procedural justice on faculty members' silence: the mediating role of trust in supervisor", *Procedia - Social and Behavioral Sciences*, Vol. 47, pp. 1221-1231.

Tymon, W.G. and Stumpf, S.A. (2003), "Social capital in the success of knowledge workers", *Career Development International,* Vol. 8 No. 1, pp. 12-20, doi: 10.1108/13620430310459478.

Valio Dominguez Gonzalez, R. and Fernando Martins, M. (2014), "Mapping the organisational factors that support knowledge management in the Brazilian automotive industry", *Journal of Knowledge Management*, Vol. 18 No. 1, pp. 152-176, doi: 10.1108/JKM-08-2013-0300.

Van Den Hooff, B., Ridder, J.A. and De Ridder, J.A. (2004), "Knowledge sharing in context: the influence of organisational commitment, communication climate and CMC use on knowledge sharing", *Journal of Knowledge Management*, Vol. 8 No. 6, pp. 117-130, doi: 10.1108/ 13673270410567675.

Van Engelen, J., Jorna, R.J. and McElroy, M.W. (2006), "Rethinking social capital theory: a knowledge management perspective", *Journal of Knowledge Management*, Vol. 10 No. 5, pp. 124-136, doi: 10.1108/13673270610691233.

Van Esch, E., Chiang, F., Birtch, T.A. and Lee, J.S.K. (2018), "Intergenerational knowledge sharing in Chinese family firms: the importance of emotional ownership", *Academy of Management Proceedings*, Academy of Management Briarcliff Manor, NY, 13665.

Velez, M.A., Murphy, J.J. and Stranlund, J.K. (2010), "Centralised and decentralised management of local common-pool resources in the developing world: experimental evidence from fishing communities in Colombia", *Economic Inquiry*, Vol. 48 No. 2, pp. 254-265.

Verdorfer, A.P., *et al.* (2013), "The relationship between organisational democracy and socio-moral climate: exploring effects of the ethical context in organisations", *Economic and Industrial Democracy*, Vol. 34 No. 3, pp. 423-449.

Verdorfer, A.P., Steinheider, B. and Burkus, D. (2015), "Exploring the socio-moral climate in organisations: an empirical examination of determinants, consequences, and mediating mechanisms", *Journal of Business Ethics*, Vol. 132 No. 1, pp. 233-248.

Viggian, F. (2011), "Phoenix trucking – 'I believe in democracy up to a point': democratising management hierarchies", *International Journal of Management and Innovation*, Vol. 3 No. 1, p. 1.

Vigolo, V., Bonfanti, A., Magliocca, P. and Kirakosyan, K. (2016), "Corporate culture and firm performance: a service-oriented perspective", *International Journal of Managerial and Financial Accounting*, Vol. 8 No. 2, pp. 109-123.

Vopalecky´, A. and Durda, L. (2017), "Principles of workplace democracy: cases from the Czech Republic*", International Journal of Entrepreneurial Knowledge*, Vol. 5 No. 1, pp. 62-76, doi: 10.37335/ijek. v5i1.54.

Walden, J., Jung, E.H. and Westerman, C.Y.K. (2017), "Employee communication, job engagement, and organisational commitment: a study of members of the millennial generation", *Journal of Public Relations Research*, Vol. 29 No. 2-3, pp. 73-89.

Wang, S. and Noe, R.A. (2010), "Knowledge sharing: a review and directions for future research", *Human Resource Management Review*, Vol. 20 No. 2, pp. 115-131.

Watson, A.W., Taheri, B., Glasgow, S. and O'Gorman, K.D. (2018), "Branded restaurants employees' personal motivation, flow and commitment: the role of age, gender and length of service", *International*

Journal of Contemporary Hospitality Management, Vol. 30 No. 3, pp. 1845-1862, doi: 10.1108/IJCHM-02-2017-0075.

Weber, B. and Weber, C. (2007), "Corporate venture capital as a means of radical innovation: relational fit, social capital, and knowledge transfer", *Journal of Engineering and Technology Management*, Vol. 24 Nos 1/2, pp. 11-35, doi: 10.1016/j.jengtecman.2007.01.002.

Weber, W.G., Unterrainer, C. and Hoge, T. (2020), "Psychological research on organisational democracy: a meta-analysis of individual, organisational, and societal outcomes", *Applied Psychology*, Vol. 69 No. 3, pp. 1009-1071, doi: 10.1111/apps.12205.

Weber, W.G., Unterrainer, C. and Schmid, B.E. (2009), "The influence of organisational democracy on employees' socio-moral climate and prosocial behavioural orientations", *Journal of Organizational Behavior*, Vol. 30 No. 8, pp. 1127-1149, doi: 10.1002/job.615.

Wegge, J., Jeppesen, H.J., Weber, W.G., Pearce, C.L., Silva, S.A., Pundt, A., Jonsson, T., Wolf, S., Wassenaar, C.L. and Unterrainer, C. (2011), *Promoting Work Motivation in Organisations', Journal of Personnel Psychology*, Hogrefe Publishing.

Weick, K.E. and Putnam, T. (2006), "Organising for mindfulness: eastern wisdom and western knowledge", *Journal of Management Inquiry*, Vol. 15 No. 3, pp. 275-287.

Wendling, M., Oliveira, M. and Carlos Gastaud Maçada, A. (2013), "Knowledge sharing barriers in global teams", *Journal of Systems and Information Technology*, Vol. 15 No. 3, pp. 239-253, doi: 10.1108/JSIT-09-2012-0054.

Wickramasinghe, V. and Widyaratne, R. (2012), "Effects of interpersonal trust, team leader support, rewards, and knowledge sharing mechanisms on knowledge sharing in project teams", *VINE*, Vol. 42 No. 2, pp. 214-236, doi: 10.1108/03055721211227255.

Widén-Wulff, G. and Ginman, M. (2004), "Explaining knowledge sharing in organisations through the dimensions of social capital", *Journal of Information Science*, Vol. 30 No. 5, pp. 448-458, doi: 10.1177/0165551504046997.

Willem, A. and Buelens, M. (2009), "Knowledge sharing in inter-unit cooperative episodes: the impact of organisational structure dimensions", *International Journal of Information Management*, Vol. 29 No. 2, pp. 151-160, doi: 10.1016/j.ijinfomgt.2008.06.004.

Wolf, E. (2020), "The economic impact of food tourism, world food travel", available at https://worldfoodtravel.org/news-the-economic-impact-of-food-tourism/.

Yazdani, N. (2010), "Organisational democracy and organisation structure link: role of strategic leadership & environmental uncertainty", *IBA Business Review*, Vol. 5 No. 2.

Zahra, S. A., Neubaum, D. O., and Larrañeta, B. (2007). Knowledge sharing and technological capabilities: The moderating role of family involvement. *Journal of Business research*, 60(10), 1070-1079. doi:10.1016/j. jbusres.2006.12.014.

Zehir, C. and Erdogan, E. (2011), "The association between organisational silence and ethical leadership through employee performance", *Procedia - Social and Behavioral Sciences*, Vol. 24, pp. 1389-1404.

Zellweger, T.M. and Astrachan, J.H. (2008), "On the emotional value of owning a firm", *Family Business Review*, Vol. 21 No. 4, pp. 347-363.

Zellweger, T.M., Kellermanns, F.W., Chrisman, J.J. and Chua, J.H. (2012), "Family control and family firm valuation by family CEOs: the importance of intentions for transgenerational control", *Organization Science*, Vol. 23 No. 3, pp. 851-868.

Zhai, Z. and Zhang, M. (2016), "Review on the intergenerational succession of tacit knowledge in family business", 高千穂論叢, Vol. 51 No. 1, pp. 49-66.

Zhang, Q. and Fung, H.G. (2006), "China's social capital and financial performance of private enterprises", *Journal of Small Business and Enterprise Development*, Vol. 13 No. 2, pp. 198-207.

Zhang, Z. (2018), "Organisational culture and knowledge sharing: design of incentives and business processes", *Business Process Management Journal*, Vol. 24 No. 2, pp. 384-399, doi: 10.1108/ BPMJ-08-2015-0119.

Zhang, Z.J. and Jasimuddin, S.M. (2012), "Knowledge market in organisations: incentive alignment and IT support", *Industrial Management & Data Systems*, Vol. 112 No. 7.

Zhao, H.H., Seibert, S.E., Taylor, M.S., Lee, C. and Lam, W. (2016), "Not even the past: the joint influence of former leader and new leader during leader succession in the midst of organisational change", *Journal of Applied Psychology*, Vol. 101 No. 12, p. 1730.

Zheng, W., Yang, B. and McLean, G.N. (2010), "Linking organisational culture, structure, strategy, and organisational effectiveness: Mediating role of knowledge management", *Journal of Business Research*, Vol. 63 No. 7, pp. 763-771.

Zheng, W., Yang, B. and McLean, G.N. (2010), "Linking organisational culture, structure, strategy, and organisational effectiveness: mediating role of knowledge management", *Journal of Business Research*, Vol. 63 No. 7, pp. 763-771, doi: 10.1016/j.jbusres.2009.06.005.

Zhu, Z., Yuan Xie, H. and Chen, J. (2004), "Measuring intellectual capital: a new model and empirical study", *Journal of Intellectual Capital*, Vol. 5 No. 1, pp. 195-212, doi: 10.1108/14691930410513003.

Zuur, A.F., Ieno, E.N. and Elphick, C.S. (2010), "A protocol for data exploration to avoid common statistical problems", *Methods in Ecology and Evolution*, Vol. 1 No. 1, pp. 3-14.

Appendix

Table 7.1 Questionnaire

Questionnaire items	Key references
OD01: People in our team decide on most of what they do on their own.	
OD02: In our workplace, information and power are spread out rather than concentrated in one place.	
OD03: If I want, I can connect to a higher-ranked manager directly without going through a middleman.	
OD04: If the management of our company received a "blow to the head", the company will continue to operate.	
OD05: All the people in our company have access to the information they need for independent decision-making.	
OD05: All the people in our company have access to information about the financial results of the company.	Holtzhausen, 2002;
OD07: All the people in our company have access to information about the strategy of the company.	Hamel, 2006;
OD08: People in our company understand information about our company (about strategy, about the results of the procedures, etc.) and can deal with them.	Hamel and Breen, 2008;
OD09: The operation of our company is transparent to our customers.	
OD10: The Mission of our company (why does it exist) is for people in our company to be really attractive.	Yazdani, 2010;
OD11: Defined vision (what we want to achieve in your company) gives our company direction.	
OD12: The defined purposes are settled for every section in our company, and employees know them.	Viggiani, 2011;
OD13: In our company, there is a sense of belonging to the company that people with their high level of energy are decided to work together.	Fenton, 2012;
OD14: The emphasis on unity is in balance with the company focusing on the own identity of every person in our company.	Peterson, 2012;
OD15: People in our company are willing to work even beyond the scope of their duties.	Hamel and Zanini, 2018
OD16: People in our company are coming up with ideas by themselves and are willing to implement them.	
OD17: Dialogue and listening are the most important part of employee communication	
OD18: Our company actively creates opportunities for open communication of all the people.	
OD19: Through open communication, most of the people in our company can actively listen to others with the goal of reaching an agreement.	
OD20: Our company is actively creating opportunities for dialogue with customers, suppliers and others.	
OD21: People in our company can come up with any ideas (suggestion, idea, problem, solution, disapproval), and others will listen to them.	
KS1: People in my organization frequently share existing reports and official documents with members of my organization.	Wang and Wang, 2012; Blass-Franken, Rutten and Martin, 2016; Eidizadeh, Saleh Zadeh and Esfahani, 2017; Fullwood and Rowley, 2017)
KS2: People in my organization frequently share reports and official documents that they prepare by themselves with members of my organization.	
KS3: People in my organization are frequently encouraged by knowledge-sharing mechanisms.	
KS4: People in my organization frequently share knowledge of know-where or know-whom with others.	
KS5: People in my organization frequently share knowledge based on their expertise.	

Table 7.2 Mean, SD, skewness, kurtosis, factor loading and Cronbach's alpha

Factors/ items	Mean	SD	Skewness	Kurtosis	Factor Loading	Cronbach Alpha
Organisational Democracy (OD)						**.837**
Decentralization						**.736**
OD1:	3.59	1.23	-.092	-.754	.48	
OD2:	3.02	1.18	-.208	-.725	.42	
OD3:	3.44	1.35	-.121	-.880	.64	
OD4:	3.55	1.29	-.078	-.843	.74	
Transparency						**.689**
OD5:	3.34	1.35	-.014	-.783	.44	
OD5:	3.10	1.29	-.040	-.928	.84	
OD7:	3.59	1.20	-.223	-.644	.77	
OD8:	3.07	1.24	-.143	-.771	.84	
OD9:	3.02	1.29	-.055	-.682	.70	
Vision and meaning						**.742**
OD10:	3.59	1.26	-.447	-.946	.76	
OD11:	3.55	1.31	-.499	-.689	.86	
OD12:	3.24	1.35	-.225	-1.05	.60	
Involvement and participation						**.713**
OD13:	3.22	1.23	-.445	-.568	.77	
OD14:	3.53	1.15	-.006	-.541	.75	
OD15:	3.26	1.25	-.353	-.634	.55	
OD16:	3.34	1.26	-.357	-.420	.70	
OD17:	3.10	1.30	-.167	-.600	.76	
Communication						**.651**
OD18:	3.53	1.18	-.305	-.549	.66	
OD19:	3.22	1.16	-.276	-.681	.67	
OD20:	3.02	1.20	-.299	-.425	.60	
OD21:	3.35	1.22	-.018	-.532	.86	
Knowledge Sharing (KS)						**.858**
KS1:	3.39	1.23	-.256	-.425	.89	
KS2:	3.26	1.25	-.415	-.549	.75	
KS3:	3.26	1.15	-.451	-.524	.82	
KS4:	3.02	1.30	-.312	-.538	.78	
KS5:	2.99	1.20	-.355	-.612	.85	

Table 7.3 First-order factor analysis - SC

Items	Components						
	T	SLC	NT	IE	O&E	6	7
Q1	**0.813**	0.062	-0.321	-0.121	0.078	0.042	0.055
Q2	**0.863**	0.076	0.124	-0.078	0.402	0.031	0.074
Q3	**0.720**	0.014	0.094	-0.261	0.052	0.012	-0.024
Q4	0.323	0.076	0.061	0.050	0.038	0.217	-0.041
Q5	0.358	**0.888**	-0.002	0.220	0.040	0.299	0.094
Q6	-0.003	**0.838**	0.154	-0.041	0.057	0.019	0.087
Q7	0.079	**0.762**	0.047	-0.041	-0.139	-0.084	0.047
Q8	0.087	0.054	-0.475	**0.783**	0.029	-0.094	0.15
Q9	0.014	-0.124	-0.328	**0.749**	0.412	0.095	0.19
Q10	-0.173	-0.109	0.031	-0.326	0.133	0.071	-0.087
Q11	-0.025	-0.247	-0.087	**0.790**	0.070	-0.054	-0.87
Q12	-0.092	0.220	**0.655**	0.031	-0.023	-0.54	-0.021
Q13	0.254	0.077	**0.822**	-0.034	0.163	0.065	0.045
Q14	0.395	0.165	-0.034	0.260	0.104	0.25	0.032
Q15	-0.327	0.200	**0.904**	0.502	-0.002	0.24	0.051
Q16	-0.010	-0.173	-0.031	-0.286	**0.838**	-0.71	0.041
Q17	0.087	0.152	0.038	0.294	**0.833**	0.089	-0.078
Q18	-0.066	-0.232	0.192	-0.414	-0.200	0.01	0.049
Q19	0.158	0.184	0.302	-0.032	-0.180	0.32	-0.92
Q20	0.163	0.395	0.163	0.034	**0.917**	0.25	-0.39

Table 7.4 First-order factor analysis – KM

Items	KM
Q21	**0.814**
Q22	**0.715**
Q23	0.090
Q24	**0.752**
Q25	**0.781**
Q26	**0.795**
Q27	**0.740**
Q28	**0.822**
Q29	**0.788**
Q30	0.028

Chi - Square = 89.41,   df = 64,   P-value = 0.04647,   RMSEA = 0.045
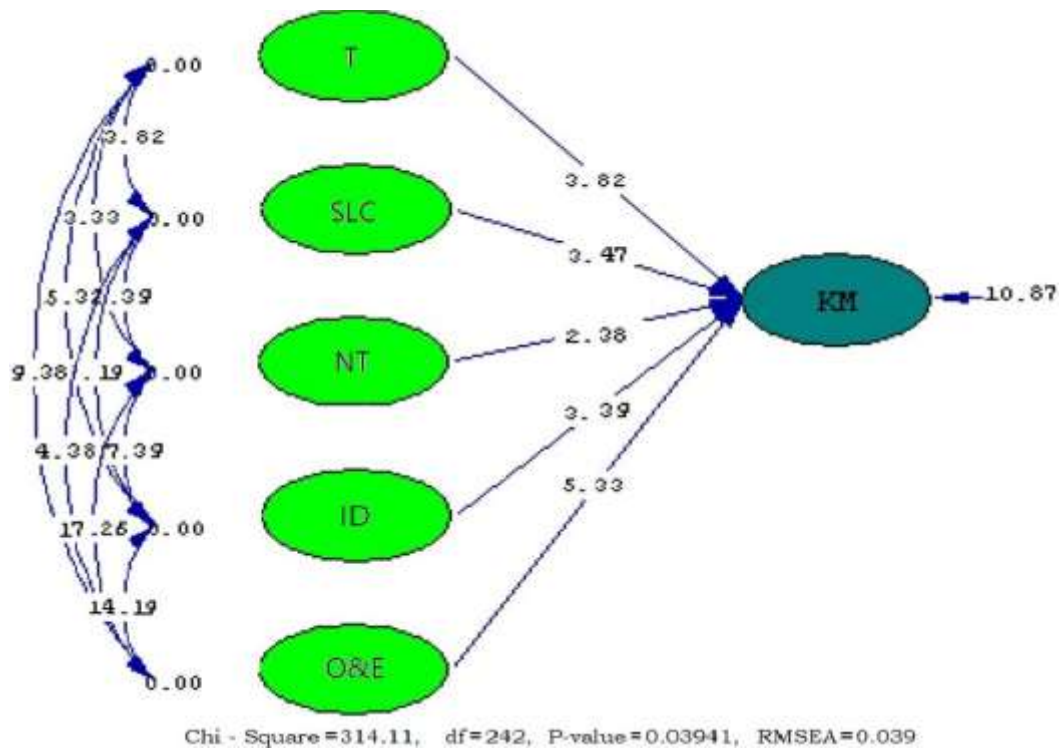
Figure 7.1 T-value model- H

Chi - Square = 314.11,   df = 242,   P-value = 0.03941,   RMSEA = 0.039
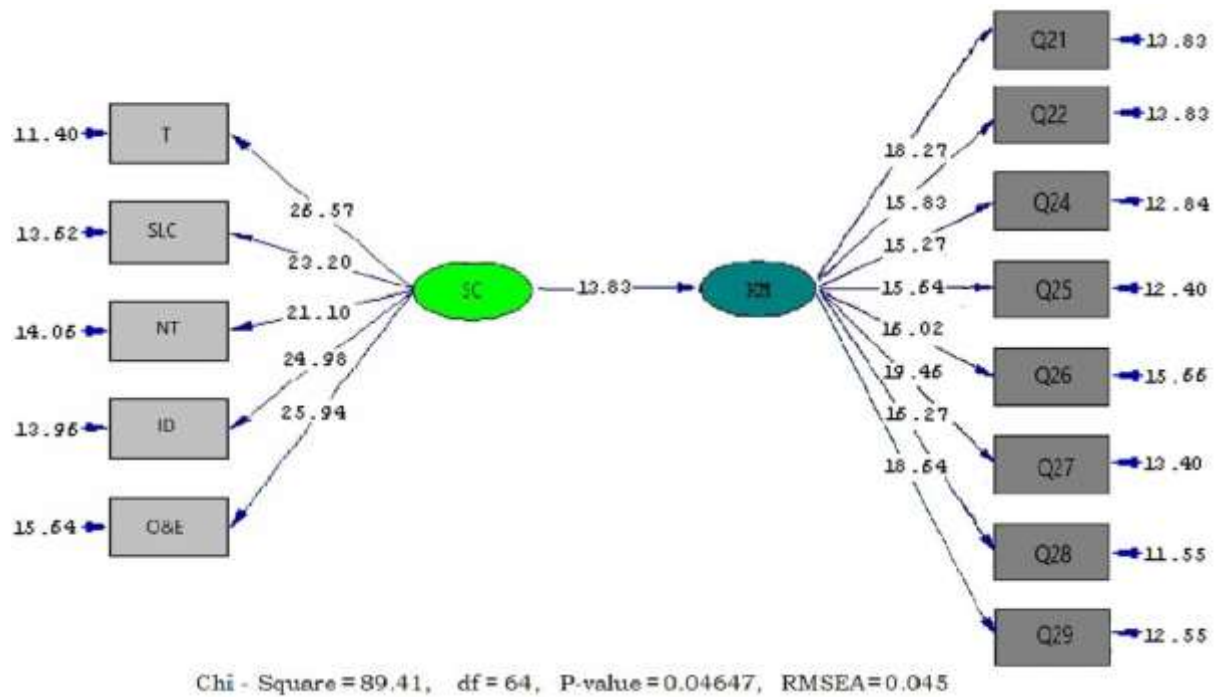
Figure 7.2 T-value model- H1-H5