Employees Motivational Factors toward Knowledge Sharing: A Systematic Review

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Abstract

Knowledge sharing between employees in positions at different levels in the organization chart is always a big challenge. It is important to study the main factors that affects employees' knowledge. A number of literature reviews that sheds the light on knowledge management (KM) was conducted, which focuse on the employee knowledge sharing motivations. However, analyzing the knowledge sharing among employees is still questioned and requires further examination. The main objective of this systematic review is to analyze the state-of-the-are KM studies that involved the factors that affect employees' intention to share their tacit knowledge. In this systematic review, we explored the tacit knowledge sharing and reviewed 115 recent papers. After filtering and reviewing we extracted many factors, then we categorize them into twelve categories: (ordered by most frequent studied), namely: trusting environment, culture, organization encouragement, rewards, Information system, intrinsic motivations, equal opportunities, job security, the community of practice, time pressure, knowledge confidence and accuracy, and years of experience. This systematic review is important to organizations which seek to share, preserve tacit knowledge and experiences, and gain competitive edge.

Keywords: Knowledge Management; Knowledge Sharing; Employee Knowledge Sharing Motivations; Employee Knowledge Sharing Demotivation.

1. Introduction

Knowledge is a critical and strategic resource where organizations need to consider to leverage and manage to meet their current and future objectives and requirements [1]–[5]. It is essential for creating value for both organizations and employees [6]–[10]. Knowledge also maintains a sustainable and competitive business environment [11]–[14]. Hence, Knowledge Management (KM) is very significant and essential to modern organizations. KM is defined as a systematically specified process of an organization to the purpose of organizing, communicating, and acquiring both explicit and tacit knowledge of employees such that other individuals in the workplace may benefit from to be more productive and effective in their work [6], [15]–[18]. KM is an ongoing and dynamic social process that shares knowledge within an organization whenever anyone need arises [19]. Numerous studies were conducted to investigate the different behavior and trends of the growth of knowledge sharing and knowledge transfer through many researches to date [5], [9], [20], [21]. However, in our research, we are focusing on the more recent and quality studies that have been conducted through well-known journals and some important books that address the best of authors' beliefs and knowledge published from 2016 through 2020 that investigates the different factors that

Doi : https://doi.org/10.54216/IJAACI.010104
Received: January 11, 2022 Accepted: May 22, 2022

influence employees towards knowledge sharing and knowledge transfer. In this paper, we investigate tacit knowledge because explicit knowledge has been sufficiently addressed in the literature and it is easier to share, store, and exchange than tacit knowledge. Also, organizations have more control over explicit knowledge (in the form of policies and processes documentation), which facilitates their sharing and utilization. On the other hand, tacit or implicit knowledge needs more efforts in order to be shared or externalized and stored. Moreover, tacit knowledge needs to apply socialization or externalization processes and they both depend on employees intention to share their knowledge they have gathered and learned from their job practices and experiences. Moreover, tacit knowledge can be lost when the employee leaves the organization without sharing it. Our research question explained as follows:

Q.1: What are the main factors that affect employees' intention to share their tacit knowledge?

Q.2: What are the major and most frequent motivational factors for tacit knowledge sharing among employees?

This study aims to conduct a systematic review where we explored and reviewed 115 papers. In the first section, we introduced knowledge aspects and how much KM is essential for both organizations and employees. Next, we do a literature review for our research interest and question. After that, we illustrate our methodology and process of filtering and reviewing the selected paper to extract the factors that influence employees' willingness towards sharing and transferring knowledge. Finally, we addressed the findings and limitations. The main results show a twelve number of factors, such as trusting environment, culture, and organization encouragement found as the major three ones.

2. Literature review

Researchers considered two related concepts that relay under KM: namely, Knowledge Transfer (KT) and Knowledge Sharing (KS). KT and KS are usually overlapped and used interchangeably in organizations. Various factors provide a conceptual framework to examine and shape the KS different behaviors that affect employees' intention towards performing the desired results. These factors are divided into three categories: organizational factors, employee factors, and technological factors. This study focuses on the employees' factors that influence individual believes and personal attitudes towards KS, such as rewards, contributions, and association among many others that shapes and empowers trustful interactions and communications through employees with each other in a workplace [22]. Different challenges were encountered by researchers like different organizational domains that have different motivations depending on the environment's knowledge richness.

On the other hand, in the literature, a large number of papers reviewed makes it challenging to follow the motivational factors and group them under specific categories. Employees may decide not to share their knowledge to keep a competitive advantage against colleagues in the same organization and to keep their importance and work dependency in some cases that becomes a negative effect and leads to their work termination [23]. Trust and confidence between employees in an organization can help employees to overcome anxiety and fear in knowledge sharing especially when they have different opinions and views [24]. In organizations, encouraging and good leadership can assist employees in being more positive for knowledge sharing and increasing performance [25]. With low trust in other members and fearsome knowledge could be unused and lost [26].

Organizations may adopt some techniques to increase knowledge sharing recognition like mentoring and reverse mentoring, where it facilitates the sharing of knowledge between two different experience levels, and build an encouraging attitude against knowledge sharing. Organizations that have reward policies and rules that promoting extra-role participation between employees, especially in mentoring newcomers, will make them feel more self-worth and valued and will encourage them to share their knowledge in a more desirable way. This should increase the trust between team members and employees within the organization. Such non-monetary rewards, including reputation or recognition, have a major effect in promoting more knowledge sharing behaviors [27]. It has been found that over depending on rewards in its different forms and other extrinsic motivation as awards, position, job title, material rewards do not generate a healthy and good enough knowledge sharing acts or performance [28]. However, some researches argued that new knowledge to be shared needs to be transferred among different groups of professional employees so that whole the organization members' memory and, once comprehend, become available to be the foundation for any future project coming afterward. When an organization plans to effectively integrate its scattered knowledge, it shapes a powerful coordination system to accomplish its tasks [29], as this

Doi : https://doi.org/10.54216/IJAACI.010104
Received: January 11, 2022 Accepted: May 22, 2022

accumulated knowledge can be used moreover to create new knowledge [30]. Authors find that structuring work is important to empower employees to gain better results and make them able to take risks to experience how work is going to be designed and carried out then finally evaluated [31]. Authors found they stressed that intrinsic motivations (IM) (i.e., altruism) have a significant effect on an individual's behavior to share knowledge on their workplace [32]. In addition, the authors found that IM is a powerful tool for sharing knowledge. IM can be defined as when someone's own experience is shared with other team members; doing so is considered inherently pleasurable, enjoyable, important, and interesting [28]. On the other hand, for better performance, employees must also be provided with different opportunities and resources to do their best. After all, enterprise performance, society's viability, and the overall result are coming from those small actions achieved by individuals. Small personal (nano actions) combined with larger organizational actions to create solid enterprise actions that yields in better performance and outcomes for the whole organization [33]. As [34] explained, the recipient of the knowledge motivation to learn also motivates the organization donors to teach, and so vice versa. Researcher analysis showed that all recipient in small and medium enterprises (SMEs) in Oman have demonstrated motivation for learning from each other. Employees of these SME's survival in the organization were derived by the fact that if more knowledge is gained, then it means better product or service will be presented to have customers' satisfaction [35].

Social relations found as a better mechanism and considered more efficient for sharing both explicit and tacit knowledge among people than other mechanisms are, such as formal control and information systems and [30], [36], [37]. However, differences between explicit and tacit knowledge can raise some differences in how to design KM systems and what other information technology options to support KM systems. Researchers proposed different IT tools (e.g., chat rooms, online forums, and blogs) in order to make sharing tacit knowledge easier. Such tools allow video conferencing, media sharing, wikis, and social networks (i.e., Web 2.0 tools). Sharing tacit knowledge through other significant mechanisms based on IT use; for instance, showing some skills in utilizing the video clips, or by generating technical support documents and sharing daily practical experience by employing IT [38]–[45]. Corporate Culture, that promotes the transfer of knowledge applications, actively contributes searching for such knowledge that can applied on current prevalent problems. When employees need to have access to any specific knowledge, companies should not only count on the simply transformed and created knowledge. Instead, awareness should be raised among the staff [46]. [47] Build a model that highlights the importance of creating a safe and healthy culture in knowledge-based organizations.

According to [47] model, cultural assessment, cultural hazards, control risk, and cultural syndromes should be considered to enable organizations to improve their performance and to manage any uncertainty and complexity, to enhance their reputation in the market and create new competitive opportunities and advantages. The study contributes that a friendly knowledge culture is so much difficult to build if it does not already exist. However, responsibility culture is defined to help employees to build trust in themselves and to let them understand their significant role and contribution in creating new knowledge as the most important in the KM process. Such a culture, let employees freely communicate with each other and to engage themselves in conversations. The author found that identifying cultural risks and hazards and knowing how to solve them using a clear plan, would help companies to better cope with the challenges instead of trying only to avoid them [47].

3. Methodology

3.1 Data sources and search strategies

To gather the elated papers, we have used Emerald, Google Scholar, IEEE, ProQuest, ScienceDirect, Springer, Taylor, and Wiley databases as a source for the review papers since it includes most of the recently published papers and well indexed. Since we are focus on motivational factors for employees on knowledge sharing as a dilemma, the search criteria included employee, motivational, and factors keyword as optional search criteria and "knowledge sharing" and "dilemma" as a mandatory criterion. Also, the popular sources (journals, conferences) includes a knowledge key word to avoid sources that are not related to the knowledge aspect. Therefore, the exact search criteria as described in Table 1.

Table 1: Keyword search

Keyword search
"Employee motivational factors" & "Knowledge"
"Employee motivational factors" & "Knowledge sharing"

Doi : https://doi.org/10.54216/IJAACI.010104
Received: January 11, 2022 Accepted: May 22, 2022

"Employee motivational factors" & " Knowledge" & “dilemma”
"Employee motivational factors" & "Knowledge sharing " & “dilemma”

Also, we have concentrated on the last four years' published papers, so we have included the papers published since 2016 to cover the latest studies in this subject. The result of the search returned 115 papers from different sources with different citations, the second step was to evaluate these papers according to the citation count and the journal or conference popularity, we have used the website http://portal.core.edu.au/jnl-ranks/ to rank the journals and http://portal.core.edu.au/conf-ranks/ to rank conferences. We have found 16 journals that are illustrated with their rank and impact factor if available as of JUN/2019 in the table below.

3.2. Inclusion/exclusion criteria

A total of 720 articles included these keywords. Among these, it was found that 189 articles were repeated, and so they were eliminated. A total of 531 papers were now remaining for the review. The way these articles are distributed with respect to the databases they are a part of is shown in Table 2. The researcher checked the inclusion and exclusion criteria for each study [12], [21], [48]–[50]. The inclusion criteria was met by 115 research articles in all; hence, the analysis was based on these studies. Figure 1 depicts the systematic review process and the total articles found at each stage.

Table 2: Total number of articles after removing the duplicates.

Database Frequency	Frequency
Emerald	125
Google Scholar	216
IEEE	76
ProQuest	57
ScienceDirect	95
Springer	79
Taylor	44
Wiley	28
Total	720

After reviewing the articles, we have eliminated the unrelated articles that do not conduct the employee motivational factors specifically or not related to any knowledge management process, so after this process, we get 115 related articles out of total 720 articles, 605 articles were not related as described in Table 3. The articles selected in this review study for a critical review should be used to complete the inclusion and exclusion criteria presented in Table 4.

Table 3: Total number of extracted articles

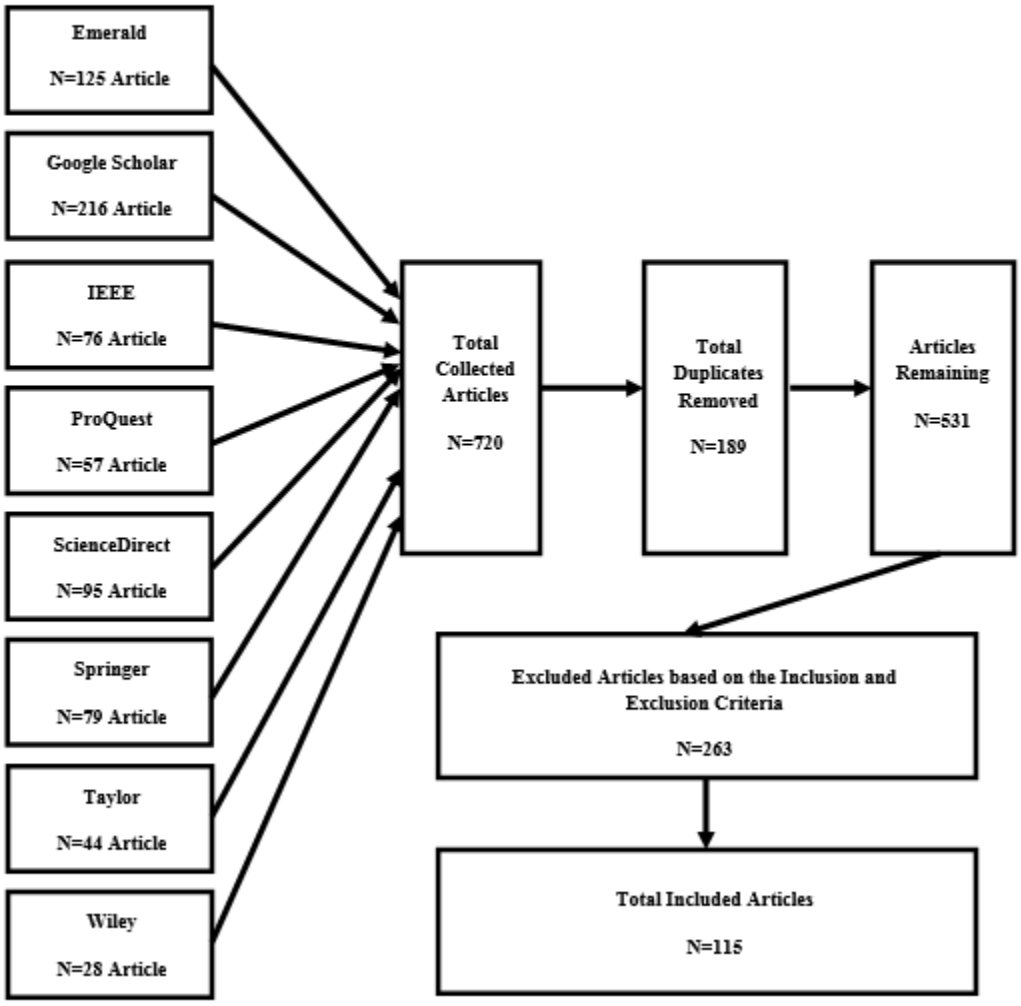
Articles	Articles count
All Articles	720
Related	115
Unrelated	605

Table 4: Inclusion and exclusion criteria.

Inclusion Criteria	Exclusion Criteria
Must involve employee motivational factors.	Articles without knowledge sharing.
Must involve knowledge sharing.	Articles with employee motivational factors but without

Doi : https://doi.org/10.54216/IJAACI.010104
Received: January 11, 2022 Accepted: May 22, 2022

	knowledge sharing.
Must be written in English language.	Articles published in languages other than English.
Must be published between 2016 and 2020.	



Figuer 1: Systematic review process.

Doi : https://doi.org/10.54216/IJAACI.010104
Received: January 11, 2022 Accepted: May 22, 2022

Table 5: Extracted articles form Journals

Journal	Rank	Recent impact factor
Journal of Knowledge Management	B	2.551
Knowledge Management Research & Practice	B	1.013
Journal of Knowledge Management	B	2.551
VINE Journal of Information and Knowledge Management Systems	B	-
The Knowledge Engineering Review	-	1.07
Journal of the Knowledge Economy	B	2.551
Asian Institute of Knowledge Management	-	-
Knowledge and Process Management	-	-
International Journal of Management, Knowledge and Learning	C	-
Journal of Innovation and Knowledge	-	-
International Journal of Knowledge-Based Development	C	-
Electronic Journal of Knowledge Management	C	-
Knowledge Management for Development Journal	-	-
Knowledge Management and E-Learning	-	-
International Journal of Knowledge Management (IJKM)	C	-
International Journal of Knowledge, Culture & Change in Organizations: Annual Review	-	-

We have found six conferences that are illustrated with their rank if available as of JUN/2019 in Table 6.

Table 6:Extracted articles form conferences

Conference	Rank
ICICKM International Conference on Intellectual Capital Knowledge Management & Organisational Learning	-
Proceedings 11th International Forum on Knowledge Asset Dynamics-Towards a New Architecture of Knowledge: Big Data, Culture and Creativity	-
DS 87-6 Proceedings of the 21st International Conference on Engineering Design (ICED 17) Vol 6: Design Information and Knowledge, Vancouver, Canada, 21-25.08. 2017	-
The European Conference on Knowledge Management	B
TAKE Theory and Applications in the Knowledge Economy Conference	-
International Conference on Knowledge Management in Organizations	-

There are some relevant books for the review topic but we could not cover them all due to the time limitation. Therefore, they are excluded from the systematic review but might include them in the future. As far as research articles are concerned, we have found 45 related papers that mentioned the motivational factors for employees that encourage the knowledge sharing among their colleagues. Then, we delved into the details to extract the factors that have been mentioned and wether their use affect the knowledge sharing and transfer. We have initially found 34 impacting factors that are: Position, not accurate knowledge, job security, Rewards (promotions), Lack of an encouraging, Culture, Intent To Learn, collaborative culture, trusting environment, equal opportunities for development, Information system, Moral and ethics intrinsic, enterprise social network (ESN) (technology), No time, Age, Years of experience, dyadic tie, perceived Competition, Cultural intelligence, Knowledge hiding, justice, Pressure to get results quickly, documentation resistance, lack of commitment, Engagement of People, Moral and

Doi : https://doi.org/10.54216/IJAACI.010104
Received: January 11, 2022 Accepted: May 22, 2022

ethics, Incentives, appreciation, Tech Clubs, Self-worth, structuring work, organizational support, social capital, enjoy, space. Then, we grouped the related factors together and form twelve main factors as the following in Table 7.

Table 7:Related factors

Factor	Main factor
Group 1	
Perceived Competition	Trusting environment
Dyadic tie	
Trusting environment	
Social capital	
No time	Time Pressure
Lack of commitment	
Documentation resistance	
Pressure to get results quickly	
Rewards (promotions)	Rewards
Group 2	
Information system	Information system
Enterprise social network system (ESN) technology	
Self-worth	Intrinsic motivations
Enjoy	
Intent To Learn	
Moral and ethics intrinsic	
Position	Job security
Job security	
Knowledge hiding	
Group 3	
Culture	Culture
Collaborative culture	
Space	Organization Encouragement
Organizational support	
Appreciation	
Incentives	
Lack of an encouraging	
Group 4	
Not accurate knowledge	Knowledge confidence and accuracy
Tech Clubs	Community of practice
Structuring work	
Cultural intelligence	
Justice	Equal opportunities
Equal opportunities	
Engagement of People	
Age	Years of experience
Years of experience	

Doi : https://doi.org/10.54216/IJAACI.010104
Received: January 11, 2022 Accepted: May 22, 2022

We studied the details about each factor and their main influences in the knowledge sharing between employees and summarize it. The summary is in the results section. These twelve factors have been treated differently in the literature. Hence, we attempt to rank each factor to find the most studied factor, which is the most important factor since there are more studies about it.

4. Results

First, we gathered the main factors and combined the different views about them, and then we statistically analyze them.

4.1 Main Factors

4.1.1 Job security

It includes the fear or trust in job sustainability; the organization has the main effect in this factor, where it should have a system that encourages trust and cooperation and reduce competition. The fear of losing current one's position in case of sharing tacit knowledge, also feeling any future job insecurity, lead to less knowledge sharing in many organization. [47] Employees fear of replacement if they share their knowledge leads to less knowledge sharing [26]. Some reasons for change resistance have some unique knowledge that is not shared about current systems and machine behavior [51]. The more opportunities employee have in their organization, the more intent to engage in knowledge sharing processes [52]. Individual capital contains training, time and work consumed to get knowledge, and valuable contents, miss-use to hide information leads to disaster situation for the organization and employees [53]. Hiding information due to fear of job security or keeping advantage leads to bad relationships between employees, unhealthy competition for the organization, knowledge gaps, and overall low performance to organization and employee [54]. Organizational support for systems of knowledge sharing minimizes the job security fear since the employee feels that he will not become obsolete after a period of time. Increasing trust in all communication between employees from all levels will decrease competition and willing to knowledge hiding between employees. The relation between employees build on integration not replacing where each employee complete his colleagues this make knowledge sharing more smooth where every question will get an answer [46].

4.1.2 Trusting environment

"Trust has been defined as positive expectations regarding the goodwill and competence of an exchange pattern" [30], [55]. Trust should be available on all organizational levels to build a more knowledge comfort environment in the organizations. Knowledge sharing is positively affected by having trust in all organization and employee levels and increase job satisfaction [52]. It has been found that trust and confidence between employees are affected by work location were employees who meet face to face have higher levels while the ones who work in different sites it decreases. (19)[56]. It was found that knowledge sharing was increased where the Dyadic tie is found and supported. On the other hand, perceived competition in some environments can demotivate knowledge sharing behaviors, since it is noted by all employees that the outstanding performance will be awarded and the knowledge is the major factor in this outstanding performance [57]. Knowledge sharing and creation can be more effective and fruitful in organizations with trust [58]. They have trust, and a good environment for knowledge transfer helps organizational innovation [59]. Knowledge hiding is a protective action against competitors from stealing creative ideas [60]. Having trust in colleagues encourages knowledge sharing [23]. Having a community of practice and social capital support knowledge transfer [61]. Trust can be a good way for protection from free riders by solidarity and open reciprocity, moreover, knowledge uncertainty risks can be reduced by trust which encourage effective knowledge sharing. [30]. In complex projects it has been found that trust is has major impact on enhancing the performance and successfulness of the project, also the willing of knowledge sharing is increased in trustful environment [62].

Social capital encourages individuals in tacit knowledge sharing, where employees have the same goals and trust each other's, So organizations should facilitate time and location for employee socialization, which will increase the social capital and knowledge sharing motivations [63]. Cooperative knowledge-sharing events and activities are positively enhanced in a trustful environment where the organization has good social capital, and such an

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Received: January 11, 2022 Accepted: May 22, 2022

atmosphere is important to create new ideas and produce desirable behavior [64]. Social capital enhances cooperation between employees to get deep understanding and more precise knowledge, and positively affect the team cooperation behaviors [30]. They have introduced two types of trust: [65]. Affect- based trust: where the baseline is the care and the concern between employees in the organization. [61] cognition-based trust: where the baseline is the reliability and competence between the employees in the organization. Social capital increases knowledge sharing wiliness and more networking in the company the mare tacit knowledge sharing. In case of a lack of trust, employees tend to share less correct or complete information leading to corruption knowledge sharing [66].

4.1.3 Organization Encouragement

This can cover some factors like working environment, organization hierarchy, and structure, training, appreciation. An organization that provides a better space it encourages better relationships between higher experienced and the less experienced employee which encourages knowledge sharing and innovation. Also, applying unbiased rules and building a trusting environment with healthy competition between organization employees will increase the knowledge interaction and collaboration [46]. Employee Work and Achievements appreciation will build a better intrinsic motivation to work better and cooperate with his colleges, which increases knowledge sharing and application. Training employees on knowledge search tools, expert mentoring, or group pairing shows the employee the official knowledge sources. Mentoring by an experienced employee will increase knowledge sharing to the new employees, so organizations can apply different techniques to support knowledge sharing and reach the desired results. [46]. Training of the employees and make them more qualified will increase employee appreciation and satisfaction. Also, incentives are an important factor for employee satisfaction and the willingness to work cooperatively [67]. Knowledge sharing provides many direct benefits like time and resource reduction for some tasks [53]

After studies, they found that less motivated employees will not share knowledge in the desired way because of a lack of trust, less effective communication [56]. If employees are not motivated and are not encouraged to share the knowledge they will most likely not share it [47]. Employees' intrinsic and extrinsic motivations play the main role in knowledge sharing behaviors [63]. Improving and updating employee knowledge and technical skills is an important factor in keeping an organization in the competition race, and this should be done by update the old knowledge and share the new ones among employees. This will reduce other costs like training and defecates due to lack of updated knowledge; the organization should support effective communication between employees and their colleges. This will make co-consultation much easier and normal [68]. It was concluded that in projected organizations will be many obstacles for knowledge sharing and elicitation between projects due to time pressure, low awareness on this area, lack of motivations, and this proportional to the organizational complexity, structure size [30]. In the reasoned action theory, it is mentioned that motivation is the main base for individual actions and behavior. And this base is divided into two large groups intrinsic and extrinsic. So it is important to take this consideration when trying to motivate organization members and employees towards knowledge sharing, as awards and satisfactions [69]. It was found that overusing extrinsic motivations as financial rewards or promotion will have a negative effect on knowledge sharing behavior between employees, so it needs to be used wisely and according to a clear system. And mutable factor should be used to motivate knowledge sharing behaviors [70]. Knowledge sharing process has many support and distracting factors such as an individual’s attitude, reputation, networking, job satisfaction [60].

To increase the Knowledge management processes effect, there should be good motivation in both employee and organization levels [71]. In financial organizations, a new theory proposes that if employee Is given more freedom and space to explore new aspects in conjunction with trust and high feeling of responsibility from the organization, this will lead to the creation of new knowledge and help to share if this is done in groups [23].

4.1.4 Years of experience

Doi : https://doi.org/10.54216/IJAACI.010104
Received: January 11, 2022 Accepted: May 22, 2022

Longer, shorter, higher, or lower experience and older or younger expertise will change the way he is motivated also make different expected behavior against knowledge sharing and creation. Young employees from knowledge friendly communities are more positive with knowledge processes and are more intent to learn. Skills like cooperation, energy, responsibility are the main symptoms of young individuals in order to make the decisions that shape their career future and desired achievements [59]. Organizational investment and wealth include employee's tacit knowledge and their intelligence level, processes, the ability of adaptation and development—several levels of development and protection of the knowledge required [72].

4.1.5 Knowledge confidence and accuracy

Knowledge efficacy and one's confidence about his knowledge affect his behavior towards sharing this knowledge since of fear of wrong knowledge or inaccuracy. If the employee is not confident about his knowledge efficacy, correctness, usefulness, preciseness, or accuracy, he will fear to share it because he may lose his reputation, position, or trust, so it leads to less knowledge sharing among employees [47]. Insufficient knowledge or information understanding will be a barrier to knowledge sharing [73]. It was concluded that employees who are assured about their experience or more confidant of their personal capability to offer Important knowledge and information it impacts both intention to share knowledge and sharing behaviors. Moreover, employees with more knowledge or expertise confident has better intention to share knowledge either voluntarily or when requested to share [74]. If an employee is not confident about his information, he will have many concerns about providing or share wrong or inaccurate information [26]. Having an entity with a conflict of Roles, unclear Roles, individuals with very low satisfaction, or individuals, Emotional exhaustion will produce less knowledge efficacy and willingness of knowledge sharing [67]. A significant barrier for knowledge correctness and sharing the correct knowledge is Knowledge corruption, which is a big obstacle in the way of innovation and effective decisions. When a corrupted knowledge is shared among organization employees will act to the wrong information like market demands, total costs, delivery period, or overrated competitor power, then the resulting decisions will be an obstacle be itself for the organization [66].

4.1.6 Rewards

Organizational rewards are considered a significant factor in encouraging employees and individuals to share knowledge in higher quality and quantity; he includes financial awards, material awards, expert power, position, status, reputation, recognition, organizational networking, and other extrinsic factors. Rewards and intensive play a major part in employees in knowledge sharing motivation and encouragement also leads to more work performance efficiency [52]. Employees can be encouraged by a rewarding system to share the knowledge that they have [75]. On the other hand, it was proposed that Physical rewards financial encourage knowledge-sharing positively between employees or participants, but the results were different and indicate that these rewards have a minor effect on participants knowledge sharing either from quantity or quality perspectives and this also contradicts with a small number of previous researches where they found the rewards provided to the participants motivate their willing to share knowledge [32]. In other research, they conclude that nonmaterial rewards such as encouraging words, individual reputation, and status, or expert power can motivate employees to share their knowledge in more quality and quantity [74].

An organizational system that includes rewards and penalties in a team organized way where the team will be awarded or penalized increase the inter-team trust and knowledge sharing quality and quantity because every member is focused in the team success and rewards or penalties, which lead to more hard work and knowledge creation and sharing [58]. The employee who participates more in Knowledge sharing their rewards better to be fostered [76]. Employees show interest in sharing knowledge because of extrinsic factors, and they drop responses such as willing to get wealthy, famous, or as knowledgeably attractive [59]. Employees show rewards promises, reputation, or organizational networking are considered as a motivation for knowledge sharing [77]. The organization that has good reward rules for incentives and awards encourages knowledge sharing [26].

Doi : https://doi.org/10.54216/IJAACI.010104
Received: January 11, 2022 Accepted: May 22, 2022

4.1.7 Community of Practices

Community of Practices (CoPs) definition can be described as "groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" [56]. [78] argued that in order to manage knowledge through using of information systems is not good enough to improve the organization's businesses. He claims that COPs can play as a new approach in companies with whom employees can socially interact to share and exchange knowledge to informally learn from each one another. [79] discussed the characteristics of COPs in three terms as follows: Mutual engagement, Joint enterprise, and Shared repertoire. On the other hand, [56] figured out that making enhancements on knowledge sharing within organization COPs is gaining more attention and importance, becoming an important tool for business initiatives. In addition, the authors believe that COPs tend to be one of the significant strategic objectives for every knowledge-based economy that sustains employees in the business they do [56]. Researchers discussed the advantages of dividing the work into sub-tasks shared with an intermediary Employee; it has been confirmed from the expert's point of view. This can help to highlight the potential roles employees could have to transfer knowledge as an intermediary. Moreover, it has been shown by the authors that the cost of sharing information with experts can be consequentially reduced when shifting the tasks to an intermediary role [75]. Furthermore, the authors showed the importance to structure knowledge within the Information Technology environment; it helps to structure the relations professionally among the employees. In addition, it helps to identify work colleagues who can possess any relevant knowledge. [46] Cultural intelligence (CI) can be defined "as people's capability to effectively deal with situations characterized by cultural diversity" [80].

Researchers found that Human resource management (HRM) in diverse cultural organizations is difficult and challenging for managers to handle employees in case of insufficient of CI upon the presence in the organizations [81]. However, when having employees with different capabilities of functioning, understanding and managing their social behavior and interactions with other employees in diverse workplace culture (i.e., high CI) is a rare, valuable and inimitable resource of employees with a high cognitive CI have enough knowledge about differences and similarities across different cultures [82]. Such s knowledge (i.e., understanding the differences and similarities across different cultures) is crucial for avoiding any misunderstanding and improving the social relations [83]. For instance, in this research, the authors show that individuals with difficulties in learning languages (i.e., low cognitive CI) have more social relationship problems when interacting with others practicing a different language [64].

4.1.8 Intrinsic motivations

[84] attained that when an individual has plentiful resources of personal, there will be a positive effect on his self-regard and self-worth. Moreover, High personal honor will have more effect that leads to a high level of goal congruence. In addition, one other study by [85] who discussed the relationship between work engagement and personal resources. Personal resources include optimism, self-efficacy, and self-esteem. High self-efficacy in employees allows them to believe more in themselves, and they accordingly tend to fulfill the organization's expectations and demands through high levels of work engagement [52]. Highlighted some of these relevant sub-factors (i.e.Positive work environment and self-worth) that have an impact on the success of knowledge sharing among individuals in the organization [52].

Researchers highlighted the importance of the theory of planned behavior (TPB) to construct a tacit knowledge sharing (TKS) research model. TPB is originating from psychology and explains the relationship between an individual's intention, attitude, and behavior. TPB theory extended from the study done by [86]. TPB poses some control over employee's behavior, such as self-efficacy that can play a significant .role in their intention of sharing knowledge. The author has shown that the employee's confidence when exercising TKS tends to increase employee's willingness towards implementation and the actual behavior of TKS [63]. Authors found that Individuals who are enjoying work would be likely more willing to apply the existing knowledge, as they are seeking for perfection that only can be achieved while interacting with each other and learning from other existing solutions [46]. Furthermore, other researchers emphasized how important it is to make the course of TKS enjoyable and fun; this will draw up a workplace environment where employees would be proud to share their TKS. These fundamental rewards, such as joy, fun, and pride, can play an important part in the role in promoting employees towards positive attitudes against TKS [63]. One more aspect that has a significant effect on the employees'

Doi : https://doi.org/10.54216/IJAACI.010104
Received: January 11, 2022 Accepted: May 22, 2022

behavior towards sharing knowledge is morals and ethics [62]. Describes Moral to be concerned in the principles of whether a behavior is right or wrong. Whereas, Ethics as those Moral principles govern someone's behavior, or holding an activity. However, sometime employees will have bad behavior when success is considered more important than any other behavior because of their educational level [62]. Furthermore, researchers derived that when employees are motivated intrinsically, then their desire to learn, engage their curiosity and explore their interests will eventually lead them to focus on sparkling novel ideas and opinions [87]. Secondly, IM promotes employees to be more creative By encouraging their persistence [87] as they are more likely to dedicate all of their attention and capabilities to the problems, they face or encounter [88]. By promoting positive affect on IM, IM will build energy for a sustaining effort and do noticeable enhancements in psychological engagement, thus it would increase amount of time spent by employees who are able and willing to work and achieve their tasks done [89].

4.1.9 Equal opportunities

Ensuring equal opportunities and justice in the positive work environment in the organization. Otherwise, the preserved unfairness of the organization and the mistrust in the system can be seen as a form of negative power that frustrates employees who may have a caution react then choose not to share their expertise and learning outcomes in feedback or feed-forward learning flow of the process [90], [91]. [24] has derived that organizations have to inspire the employees to constantly form new knowledge, new skills, and new insights. The organization's management needs to motivate all individuals by providing them equal opportunities for rewards, appraisal, and development [47].

Researchers concluded that lacking the main resources (time, staff, and systems) for the startups would have some impacts on assessing the knowledge share, use, and acquisition (organization) [92]. On the other hand, researchers figured out that engaging the population of librarians within their organizational system yields a better understanding of their intellectual assets. The results for Human Capital assets were encouraging and insightful. Moreover, the assessment of Structural Capital assets highlighted significant opportunities for improvement. Finally, results for Reputation Capital assets were noteworthy [72]. When the organization and employees use new knowledge management technologies, they become more interacted and possibly more sociable. This would enable them to engage more with colleagues and do more interactions that will eventually create good enhancements in performing the tasks [93]. Moreover, when many IT experts in India adopted the social media, the researcher's derived that cultural dimensions of individuals (e.g., lack of perceived benefits, time constraints) is also needed to be taken into consideration when using knowledge sharing in social media [93]. Employee Engagement (EE) can be defined to explain employee's positive actions and attitudes towards their organizations that will in turn reflect a positive attitude for the values of the organization [52]. One of the principles complies that all workers in a workplace need to be engaged and competent, and were promoting their "knowledge and skills" enables the organization objectives to be fulfilled and achieved. The author defined Competence as the: "ability to apply skills and knowledge to achieve the intended results" [94]. In addition, researchers found that Job Rotations can be helpful to make employees more familiar with the different branches of an organization and respective information technology systems. Performing job rotations, also let employees change their roles and work areas at different irregular intervals of time to ensure that they can gain better experience of the organization different domains of knowledge (e.g. technologies and project roles). Employees can benefit from contacting with different organization units, which in turn will build knowledge redundancies and support individuals in identifying the sources of relevant knowledge (Existence or vacuity of Source of Knowledge). Through engagement, employees can interact and make networking with different colleagues that will in turn increase stability of the team and enabling knowledge to be exchanged. Consequently, employees may be more interested in applying knowledge of other organization units, hence reducing the "Not Invented Here" Syndrome [95].

4.1.10 Time pressure

Communication using Social Media brings forth some barriers to the daily tasks of an employee who has to accomplish. Thus, this might cause employees, if they do not share knowledge or contribute any information, to save some time, effort, and other costs [26]. Researchers also highlighted other worthy of discussing is when employees put under Pressure to gain results and finish work in a short period of time, this hinders the knowledge sharing and dissemination in a startup company [92]. Additionally, researchers concluded that a facilitated working space tends

Doi : https://doi.org/10.54216/IJAACI.010104
Received: January 11, 2022 Accepted: May 22, 2022

to affect employee engagement towards sharing knowledge significantly. [96] deducted that a multi-space working environment can positively influence and promote knowledge sharing in an organization [52].

Moreover, researchers discussed the standards for knowledge retrieval to support knowledge application by, for example, explicitly saying that employees should interact with other nearby coworkers and colleagues in a specific matter of content when they encounter any problem they couldn't solve by themselves. Thus, researchers contributed that employees should ask their partners or colleagues within the team for help when they spent too much time searching for a solution [46] other barriers in knowledge sharing is observed in the early stages of startups; meanwhile, the assessment of these barriers stands out in a late phase of the knowledge management process. Therefore, a lack of resources may affect the entire process. These findings are consistently believed to occur with the general majority of startups. Resistance to documentation is one of these barriers that hinder the knowledge to be shared and stored in someone's startup [46]. Writing down documentation, designing pictures organizing content, and embedding these documents within a structured database costs both time and effort. When the cost becomes too high, then the motivation of employees declines, respectively. Employees, in addition to that, are in need to arrange and write down their documentation in a way that considers different levels of readers' prior to knowledge. This adds additional required skills that employees are in need to have. Furthermore, additional time and workload during the process of documentation [75]. If there is no standardization solution to be implemented (no documentation), employees might be less interested and reluctant to use any additional technological solutions that may limit interoperability throughout the organization. Because of that, stubborn, lazy, or proud employees are forced to consent with any introduced specific knowledge by, for example, introducing guidelines [46].

Lack of employee's commitment to be only during the present time and place prevents the assessment towards knowledge use, especially in the startup's companies [92]. Researchers derived that employees with a lower level of command showed a higher significant slope than those employees who had been working in the same organization for longer periods of time. Results of the author hypothesis concluded that employees with a lower level of command in their present workplace have greater intention to share knowledge with other individuals. However, they tend to be more committed to their current organizations when they gain a higher level of support from their work [27]. As [63] declared, employees' subjective norms and attitudes mediate the effects of the anticipated intrinsic as well as extrinsic social capital and rewards on employees' intentions and influence towards TKS. [63] indicates that subjective norms of tacit knowledge have some influence on employees, encouraging them to share tacit knowledge. Individuals who are socially influential on the firm encourage other employees to share tacit knowledge with each other for the benefit of the whole organization. It is important for employee to conform socially to others' norms and be engaged in the workplace. Such benefits are effective and can increase the employees' positive feeling towards knowledge sharing [63]. Furthermore, it was observed from many individuals their willingness to have future goals to learn new things and develop themselves [59]. A study done by [26] on knowledge sharing in Danish companies through an online survey that contains 15 questions covers individual, technological and organizational items collected 116 responses. In addition to that, different interviews have been conducted with different employee job roles and levels. Results indicated that employees who are engaged in the organization social media are using it primarily for learning, communicating and exchanging news within organization [26].

4.1.11 Information system

Researchers have been recently aiming to enhance knowledge management in an organization presenting innovation as a new parameter to improve performance and create a competitive workplace environment. Using technology has a significant impact on the success of any organization. Thus, employees are expected to be enriched with sufficient tools and resources to comply with expected and needed contribution of technology on both organization and individuals [19] highlighted different factors refers to data exchange, remote communications among others. Internet security is considered the most important. Employees' carelessness, ignorance, or disuse results in negative impacts on communication and their intention to share knowledge. Furthermore, it may reduce the organization's ability to handle or deal with any external threats. However, adopting technology and innovation can keep the organization away from any future risks [19]. IT system's inadequacy towards knowledge management should be seen as a policy imperative rather than seeing it as pure technology-driven. In addition to that, KM can also be facilitated by culture,

Doi : https://doi.org/10.54216/IJAACI.010104
Received: January 11, 2022 Accepted: May 22, 2022

technology, employee empowerment, and magenta commitment to put the system's intellectual and program assets in use [73]. Numerous companies are investing in enhancing KM by adopting technological tools for sharing explicit knowledge, then coding and storing this knowledge in KMS documentation [97]. It is important to release explicit knowledge between employees across organizations making it available for everyone, especially the newly hired employees who can refer back to KMS looking for any needed information shared from other experts. Nevertheless, observations from recent researches and studies about relying on technological tools for sharing tacit knowledge are prominent. However, individuals prefer to get assistance and feedback on knowledge through face-to-face, rather than technology-based. However, researchers observed that the absence of social communication is too obvious when KMS is applied [56]. Furthermore, operations automation is found as a feasible application for a rapid amount of knowledge sharing. If so, then developers would face fewer barriers (e.g., Lack of Time or Opportunities) to find a solution and fix their problem. As a result, IT would enable companies to provide their employees with explicit knowledge (i.e., descriptive procedures), that is, can help in solving problems in a structured way, where employees may follow these documented steps [46]. A study by [98] shown an attempt to examine outcomes and drivers of knowledge sharing through enterprise social networks (ESN) platforms in developing different contexts. The author found that several important contributions towards ESN and KM research. Moreover, findings examine actual use rather than the user intention of both professional and traditional ESN platforms in the organization. Researchers argued how social media is used to accumulate and transfer tacit knowledge [60]. Using social media raised some operational risks that can affect an organization's financial capital [99]. Firstly, loss of competency due to knowledge identification by external bodies in terms of blogs, wikis, etc., in which organization may not be the happy to share such knowledge publicly. Secondly, lack of awareness on the private usage of employees, particularly the target team with which an employee would choose to share any self-created knowledge. Finally, the numerous characteristics of social media enables copypasting or forwarding of messages, which increases the speed of the knowledge transmission, also how people are influenced through the wide dissemination of knowledge [23].

Researchers found that employees would strategically present and engage themselves in social media boards like discussion forums, blogs, and google wiki docs. People can take more time to write and share their messages thus enhance their written communication. Knowledge sharing using social media can offer many opportunities for communal presentation for individuals' knowledge and a self-presentation [100]. Social media boards and facilitates are considered as a shift for online knowledge sharing to continuous conversations of online communal knowledge. For instance, employees can engage in ongoing conversations through different activities, streamed online for various social platforms. However, the lack of training enforces a lack of usability to use social media platforms and might be complicated to use by some employees [26]. Innovation in technologies is rapidly changing, disrupting through our organization's practices and shaping the future of business work. In particular, social media platforms will affect and have impact strategies, practices, and work initiatives. More specifically, using social media for managing knowledge has the potential for improving communication and streaming business lines and processes in organizations. Social media platforms can bring many new opportunities for the management of knowledge (e.g., externalization of knowledge, knowledge sharing, collaboration, and coordination). In addition, managing networks and projects but, eventually, they are no panacea for the typical issues in KM (e.g., engagement and participation). [93].

Some researches argued that the design of knowledge networks does not replace face-to-face interactions with virtual communities. The consequence is that technology hinders sharing tacit knowledge and resulting in loss of direct people's interactions [56]. [30] discussed how relations of social ties positively resulted in knowledge integration in organization projects. Researchers suggest that integration of knowledge within the context of projects in organizations is essential in the process of engaging employees through promoting project benefits and managing social networks. Thus, project-based organizations need to be mobilized in their inner social capital to have access to their internal distributed knowledge processes. Results shown that there is a strong relation of social interaction ties as an effective aspect of their relationships [30]. Researchers argued that social technologies promote and motivate sharing, collaboration, cooperation, and collectivism. Social media nature can also increase the collaboration that will, in turn, strengthen the organization's ability to exploit activities to achieve better business goals. The emergence of social media technologies opens a new form of employee collaboration [101].

Doi : https://doi.org/10.54216/IJAACI.010104
Received: January 11, 2022 Accepted: May 22, 2022

4.1.12 Culture

[72] Defined culture, in addition to explicit knowledge and procedural knowledge, as a part of the Structural Capital (SC) parameters that forms employees' intellectual capital and knowledge. The author highlighted some improvement opportunities in SC. An online survey designed to facilitate understandings from professional librarians. The survey collected 236 responses, which constitutes a reliable amount of result. Respondents result in anticipated opportunities to be more engaged in the creation of procedural and explicit knowledge. As [51] argued, that some of the organizations' characteristics, like its culture, leadership, and routines, can hinder or facilitate knowledge transfer, as well as its exploitation and management. National culture variance may influence trust, negotiations, interactions, and cooperation among organization employees. Therefore, in the case of miscommunications and misunderstandings, it would hinder interactions between organizations [51]. Culture has many elements, such as the organization form, internal communications, the formal and informal socialization programs, trust and relationships, believed to be critical and subtle factors in developing tacit knowledge and transferring it as well. Also, sharing tacit knowledge heavily through the different types of relational networks tend to develop a strong kind of relations among many commonalities and can relatively allowing them to share their knowledge easily (for instance, through using mental models).

In contrast, employees who are considered very different, whether they differ in their social- ethnic, economic cultures or come from different backgrounds, have highly increased challenges in tacit knowledge sharing [66]. Authors found some sort of complexity between organizations because of the differences in the culture, processes, and boundaries of these organizations. This diversity and differences make individuals afraid to transfer and share the knowledge that may result in losing organization competency besides other advantages. The author suggests that finding the best balance through these factors is very important to manage what knowledge can be shared [35]. The behavior and the way of thinking of younger employees is strongly indicated by their cultural features. The author investigated the correlation between people intrinsic and extrinsic goals, the cultural characteristics and their willingness to share knowledge. Results shown a dominant need for a friendly classroom culture that would increase students' willingness to help other ones and improve their quality of lives [59]. In Universities, an implicit knowledge sharing culture is defined, where the advantages of knowledge sharing are perceived in rewarding, reputation, and networking. To transfer knowledge in universities from tacit to explicit are based on holding meetings and knowledge documenting gained by other individuals through studying or reading [60]. Some studies tried to link a bridge between knowledge sharing and generosity to have a better understanding of the concept of generosity. Examples from culture, religion, and a few others from corporations are discussed. The author explained how important it is to motivate employees to share their knowledge, rather than asking how we can make everyone contribute to developing a generous set of behaviors. This will push the movement of knowledge sharing forward that would enhance one's skills, feelings, and abilities despite the existing challenges like social distinction, lack of motivation, cultural differences and team spirit clashes, etc. Research findings encourage initiatives to increase efforts towards the knowledge sharing culture [102]. Failure in sharing knowledge is often related to culture rather than technology. Culture provides organizations a context for social communications because it determines the expectations and norms of employees' behaviors. These cultural factors shape employees' social networks and relationships that have a major impact on sharing knowledge behaviors. For instance, the author suggested that a positive cultural interaction enables individuals to build stronger communication networks where trust and feeling safe took place in sharing knowledge. Thus, focusing on the relational characteristics influence employee's intentions to share knowledge and leads organization insight the importance of shaping culture to encourage sharing knowledge [57].

4.2 Analysis

In this section, we analyze the results statistically to find the most common factors and the order of them. First, we mention each element with its related papers that discussed it, and we found the result as the following in Table 8.

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Table 8**:** The most common factors with its related papers.

Factor	Papers
Knowledge confidence and accuracy	[26], [47], [66], [67], [73], [74]

Doi : https://doi.org/10.54216/IJAACI.010104
Received: January 11, 2022 Accepted: May 22, 2022

Community of practice	[30], [31], [46], [56], [64], [75], [76]
Equal opportunities	[24], [33], [46], [47], [72], [92]–[94]
Job security	[23], [26], [46], [47], [51]–[54]
Organization Encouragement	[23], [27], [30], [46], [47], [53], [56], [63], [67]–[69], [71], [77], [92]
Time Pressure	[26], [27], [46], [52], [63], [75], [92]
Rewards	[26], [28], [32], [52], [56], [58], [59], [74]–[76], [102]
Intrinsic motivations	[26], [28], [32], [35], [46], [52], [58], [59], [62], [63]
Information system	[19], [26], [30], [46], [56], [73], [93], [98], [101]
Years of experience	[26], [59], [72]
Culture	[26], [28], [30], [35], [46], [47], [51], [52], [56], [57], [59], [64], [66], [72], [75], [102]
Trusting environment	[24]–[26], [30], [35], [47], [52], [56]–[59], [61]–[64], [66], [77]

After analyzing the paper, we ordered the factors as per the number of papers discussed it, Figure 2 shows the results: interesting results show that a trusting environment appears to be the most affecting factor also culture and organizational encouragement. In contrast, years of experience and knowledge accuracy appear to be the least studied and the least affecting. It is important to study all of these factors together to show what the factors that most influence the knowledge sharing behavior is? And how to tune it to get the best-desired results? Also, we have excluded 70 papers, as shown in Table 9.

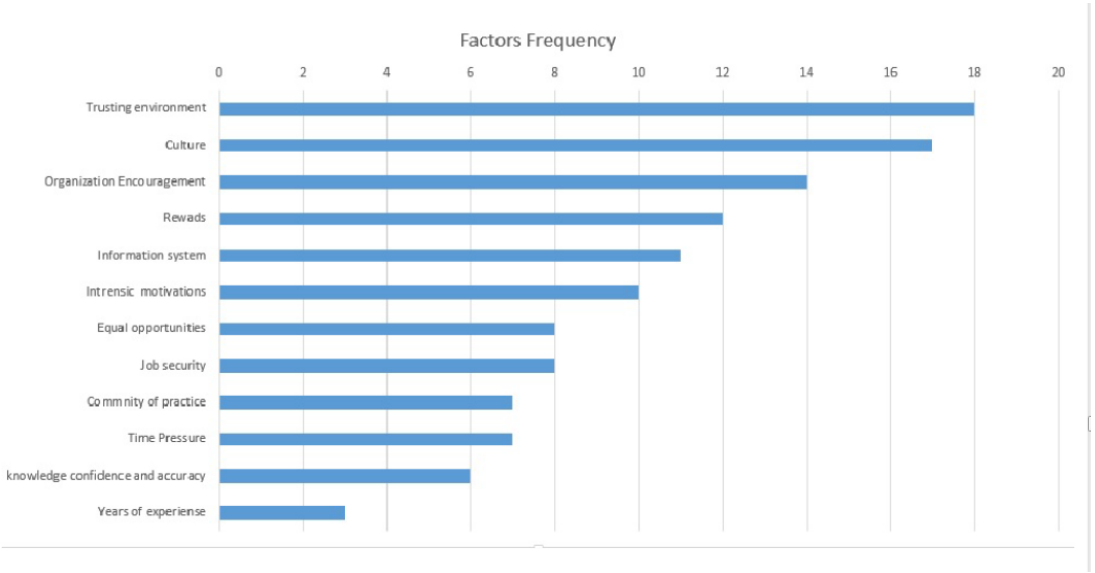

Figure 2: Factors frequency

As per the previous discussion, we can answer the research questions:
A1: There are twelve main factors.

Doi : https://doi.org/10.54216/IJAACI.010104
Received: January 11, 2022 Accepted: May 22, 2022

A2: The order of the factors is: Trusting environment, Culture, Organization encouragement, Rewards, Information system, intrinsic motivations, Equal opportunities, Job security, Community of practice, Time pressure, knowledge confidence and accuracy, and Years of experience.

Table 9: The excluded papers

Excluded Papers 1	Excluded Papers 2
[22], [89], [103]–[131]	[70], [95], [132]–[150]; [151]; [152]; [77]; [153]; [122]; [154];

6. Discussion and Conclusion

We reviewed 115 Papers and extracted 45 papers that were relevant to our research questions. Then studied the factors that affect the employee's behaviors and motivations towards knowledge sharing. We derived 34 sub-factors that are grouped under 12 main factors. We addressed the frequency of each factor in the literature to find the most and least discussed ones. This contribution can help researchers to focus on the significant factors and widen their research study to cover them all. Interestingly, the top three discussed factors are: Trusting environment, culture, and organization encouragement. They were mentioned in more than 14 papers. The least discussed factor was the years of experience, which was investigated in only three papers, and we think it needs further studies since it can affect the intention of knowledge sharing. On the other hand, more work can build upon this systematic review with regard to tacit knowledge sharing. Notably, domain-specific studies can be helpful since some domains are more knowledge-centered than the others. This research can be extended to cover a broader scope that includes the managerial factors, organizational and technological ones.

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