Impact of organisational practices on knowledge sharing: an empirical study

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Abstract: The primary motive behind this study is to enhance understanding of the relationship between organisational practices and knowledge sharing among employees. A quantitative approach is used to examine the relationship between organisational practices and knowledge sharing among the employees in an organisation. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were used to assess the impact of organisational practices on knowledge sharing by selecting an appropriate conceptual model that fits the study premise and results in better findings. The outcome of this research clarifies that organisational practices, such as collaboration, learning cultures, and management support, significantly impact knowledge sharing among employees at the workplace. This study can improve an organisation’s understanding of the internal culture enhancement in regard to organisational practices, collaboration, management support, and learning cultures, affect knowledge sharing among employees. Moreover, this study can help an organisation create effective strategies to develop knowledge sharing mechanisms in their organisations.

Keywords: knowledge sharing; organisational practices; collaboration; management support; learning culture.


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1 Introduction

In this era of globalisation and advanced technology, it is imperative for organisations to continuously innovate to stay ahead of competitors. Organisations are finding exponential need and demand for the support of knowledge sharing among employees that can help them achieve sustainable competitive advantages and market continuance. In order to enhance overall knowledge sharing mechanisms and to effectively manage shared knowledge, there should be a clear and precise understanding of the factors related to the organisational practices influencing the knowledge sharing culture in an organisation.

Individuals in an organisation are likely to share their knowledge when such behaviour is associated with certain tangible and intangible benefits. This can be captured by the social exchange theory that argues that individuals or groups endeavour to interact for mutually expected rewards (Yang et al., 2008). The benefits can be in the form of financial rewards provided by the organisation, for instance, an increase in salary, bonuses, promotions, and job security (He and Wei, 2009). Management support also plays a key role in facilitating knowledge sharing behaviour among individuals in an organisation. Employees are more likely to share knowledge with each other if they perceive that the benefits of doing so outweigh any cost (Bock et al., 2005).

In the United Arab Emirates (UAE), the government is taking various steps through national programs to create awareness about the strategic significance of knowledge sharing. The impetus behind this is that the UAE is moving from an oil-based economy towards a knowledge-based one where numerous projects in the country are now initiated by foreign technology firms. Moreover, these projects call for different types of knowledge and skills compared to those in use at UAE organisations (Boumarafi and Jabnoun, 2008; Aswad et al., 2011; Muhammad Siddique, 2012).

The significance of knowledge sharing cannot be denied as it plays an important role in the social and economic development of any country today. In the context of the UAE, various research studies emphasising the importance of knowledge sharing and its effects on performance and related factors of the organisation have been conducted.
However, the relationship between organisational practices and knowledge sharing has not yet been studied. This study aims to fill this gap by examining the impact of organisational practices on knowledge sharing in the UAE setting.

Organisations have started to make an intense effort to understand and improve knowledge-sharing practices in their organisations, as they believe this essential to sustain competitiveness and business success. Thus, this study focuses on an investigation of the impact of organisational practices on the adequate amount of knowledge sharing among employees in an organisation in the UAE context. The key organisational practices in this study include: collaboration, management support, and learning cultures. These factors are taken into consideration in the context of social exchange theory, which states that management support and collaboration among employees play significant roles in influencing employee knowledge sharing behaviour.

2 Literature review

2.1 Knowledge sharing overview

An organisation’s competitive advantage depends on successful knowledge-sharing practices and learning. Knowledge sharing can be defined as the exchange of knowledge among employees, groups, and departments (Crossan et al., 1999; Ipe, 2003). Various researchers have defined knowledge sharing from different perspectives. For example, some are of the view that knowledge sharing is a process through which the provider of the knowledge makes sure that the knowledge is available to others in the organisation (Ipe, 2003; Mooradian et al., 2006; Szulanski, 1996). Furthermore, knowledge sharing in an organisation depends entirely on the knowledge sharing behaviour of the knowledge provider (Szulanski, 1996). One could argue that knowledge sharing is either a solicited or voluntary action (Teng and Song, 2011).

The relationship between knowledge sharing and organisational practices has also been widely investigated. In this regard, Anantatmula and Kanungo (2006) highlighted three key organisational practices, namely, teamwork, knowledge sharing incentives, and continuous learning, as the most significant in facilitating knowledge sharing in an organisation. Such practices are found to have an impact on employees’ inclination towards knowledge sharing. Moreover, Aulawi et al. (2009) further investigated the relationship between enablers of knowledge sharing and employee knowledge sharing behaviour. Their findings identified some enablers of knowledge sharing including teamwork, knowledge based-incentives, and the availability of learning opportunities in the organisation. Such antecedents of knowledge sharing develop the subjective norms and attitudes of employees towards knowledge sharing. Other studies conducted in the context of knowledge sharing and organisational practices also elaborated on the critical success factors of knowledge sharing, validating that such organisational practices are considered as the most significant enablers of knowledge sharing (Bixler, 2002; Alazmi and Zairi, 2003; Kant and Singh, 2008).

When knowledge-sharing practices are widely implemented in an organisation, intensive knowledge sharing among individuals and teams facilitates the organisation’s ability to effectively capitalise on resources related to knowledge in the organisation (Cabrera and Cabrera, 2005; Damodaran and Olphert, 2000; Davenport and Prusak,
This behaviour may bring about many positive outcomes in the form of learning and innovation (Park et al., 2004). However, effective management of knowledge in the organisation may be a big challenge. It is necessary to identify and implement the procedures and practices that encourage employee knowledge sharing behaviour. More recently, Muhammad Siddique (2012) conducted a baseline study to investigate the knowledge sharing initiatives in the UAE. Abdallah et al. (2012) studied the impact of knowledge sharing on the innovative capabilities of the firms in the UAE. Similarly, Suliman and Al-Hosani (2014) examined the relationship between knowledge sharing practices and the job satisfaction of employees in the UAE. Such research shows that there have been many studies conducted on knowledge sharing in the UAE context.

Knowledge sharing is considered one of the most crucial tools for the enhancement of an organisational learning culture (Jennex et al., 2008). Knowledge-driven economies have acknowledged that organisations use knowledge as a strategic resource created to maintain a sustainable and competitive advantage. Researchers around the world have constantly shown how knowledge sharing can successfully address the challenges of the current digital age (Argote, 2012; Girard, 2009).

Social exchange theory is an important perspective for examining the relationship between interpersonal relations and knowledge sharing among employees in an organisation. In the context of interpersonal relationships among employees, valuable information may be shared in various information activities. This theory is based on a code of trust and reciprocity upon which interpersonal relationships among employees rely.

Blau (1964) was probably the first one to use this theory. He argued that people expect financial or social benefits when exchanging knowledge and other resources in their organisation. The social exchange theory is based on the assumption that employee social behaviour is a process of exchange. Therefore, individuals in an organisation focus on enhancing their benefits, and when a person receives benefits from another individual, he or she has an obligation to reciprocate (Chang et al., 2015). According to the social exchange theory (SET), the exchange of intangible resources is associated with intangible benefits, such as respect, friendship, love, honour, and information, which motivate employees to exchange resources with each other (Cropanzano and Mitchell, 2005; Liao, 2008).

Liao (2008) examined the process of knowledge sharing from the research and development viewpoint of social exchange. Her findings revealed that employees’ confidence in managers’ expertise and knowledge affected the employees’ knowledge sharing behaviour. Collaboration among employees and management support can also be associated with SET; per Cabrera et al. (2006), employees tend to exchange knowledge when they perceive that they have the support of their supervisor in sharing the knowledge with others in the organisation. Reagans and McEvily (2003) suggested that when it came to knowledge exchange among employees in an organisation, network ties and social cohesion facilitated the knowledge exchange. Similarly, Wasko and Faraj (2005) investigated the effect of the relationship between individual motivation and social capital on knowledge sharing among individuals in electronic network practices. Table 1 presents the studies that examine the relationship between SET and knowledge sharing.
Table 1  Relationship between social exchange theory and knowledge sharing

<table>
<thead>
<tr>
<th>Authors</th>
<th>Research findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reagans and McEvily (2003)</td>
<td>Network ties and social cohesion ease knowledge sharing</td>
</tr>
<tr>
<td>Wasko and Faraj (2005)</td>
<td>The relationship between individual motivation and social capital has an impact on knowledge sharing</td>
</tr>
<tr>
<td>Cabrera et al. (2006)</td>
<td>Knowledge exchange is enhanced through the support of superiors</td>
</tr>
<tr>
<td>Liao (2008)</td>
<td>Managerial rewards facilitate knowledge sharing among employees</td>
</tr>
</tbody>
</table>

According to the above research, the SET emphasises the exchange of intangible resources when associated with intangible benefits in the organisation. Organisational factors, like collaboration, management support, and learning cultures, can be associated with SET, which governs the knowledge sharing behaviour of employees.

2.2 Organisational practices

Organisational practices play a significant role in governing the attitudes and behaviours of employees around achieving a specific goal. When knowledge sharing is integrated into the practices of the organisation, it then improves the performance of employees by influencing their communication practices, work norms, and philosophical perspectives (Chmielecki, 2013). Employee attitudes and behaviours towards knowledge sharing in an organisation affect their knowledge sharing practices. Therefore, organisations can improve the attitudes of employees towards knowledge sharing through effective organisational practices, which in turn can be helpful in ensuring the efficient flow of knowledge among the organisational members (Hiriyappa, 2009). From a constructivist perspective, certain practices in an organisation play a vital role building/re-building the identity of an organisation (Davenport et al., 1998). The culture of an organisation, which is generally reflected in its practices, also plays an important role in its effective knowledge sharing. A positive and flexible knowledge-intensive culture encourages and supports knowledge-sharing practices. It also facilitates social integration among its members, helps the organisation survive in a competitive business environment, and facilitates the integration of different subgroup cultures inside the organisational environment. Thus, an appropriate organisational culture is the prerequisite for creation and dissemination of knowledge (Klubeck et al., 2010). Moreover, Leistner (2010) is of the view that the culture of an organisation when integrated into its practices, builds the concept of social interaction among employees and establishes rules of “what is right and what is wrong” in the organisation.

The culture of an organisation also plays a significant role in shaping knowledge-intensive practices. In this regard, Wei et al. (2008) studied the impact of the national culture on the knowledge sharing motivation of individuals in virtual teams using a conceptual framework. According to their research, the cognitive process of knowledge sharing is influenced by various factors such as:

- norms of knowledge sharing
- attitudes towards knowledge sharing
• intentions to share knowledge with others in the organisation
• commitment of the individuals towards knowledge sharing and associated factors.

However, sometimes culture, as well as organisational practices, can hinder the flow of knowledge in an organisation, thereby, preventing knowledge sharing. Diverse cultures at different levels of different groups, such as the intra-organisational, trans-organisational, and supra-organisational levels, might exist simultaneously, resulting in cultural complexity (Rai, 2011). Therefore, a pertinent culture must be established to encourage individuals in the organisation to share their vast knowledge with others in the organisation as well as with business partners (Lingeberziņš, 2013).

Ryan et al. (2010) identified certain organisational practices that affect the knowledge sharing mechanism across various national cultures. In their hypothetical framework, they identified strategic, technological, and decision-making practices as key to organisational practices that can facilitate knowledge sharing. They believed that collaborative tools and practices of data quality management in an organisation fostered knowledge sharing in the organisation.

In addition to organisational culture, many other organisational practices have been identified that tend to affect the process of knowledge sharing in an organisation. Moreover, Dalkir (2005) explained that for the effective implementation of knowledge sharing practices, some effective organisational practices are needed that facilitate knowledge creation, storage, sharing, and retention to cultivate a knowledge sharing culture. Moreover, Sanchez and Heene (1997) suggested that organisations should recognise that knowledge is an asset and a competitive advantage. They indicated that as such, it needs a map or guidelines to make sure the organisation knows where the knowledge exists and how it can be found and utilised in an effective manner. In this regard, there is need of some organisational practices that will help in finding and utilising the knowledge in an organisation. Soliman and Spooner (2000) explained that sometimes the existing organisational practices and culture does not support the knowledge sharing activities in an organisation; therefore, there is strong need of some effective organisational practices that can be utilised in the best possible ways to facilitate knowledge sharing practices and knowledge sharing in the organisation.

This study focuses on three important organisational practices that facilitate knowledge sharing:
• collaboration
• learning culture
• management support.

**Collaboration**

Collaboration among employees or staff members at a workplace plays an important role in improving knowledge sharing in multicultural organisations (Kerzner, 2013). The function of collaborative tools is to support the organisation’s social capital that improves knowledge sharing. Collaboration, when institutionalised, develops the social interaction among employees, which produces trust and reciprocity in the organisational environment (Magnier-Watanabe and Senoo, 2010).

Collaboration has gained significant importance in an organisation because of the diffusion of knowledge and competitive capability needed in the business environment as
well as in the networked economy. Jap (1999) believes that the ability of an organisation to effectively collaborate can become a source of continuous improvement and sustainable competitive advantage.

Collaboration among employees results in various outcomes in the form of organisational learning from the sharing of information and knowledge among the individuals in the organisation (Lane and Lubatkin, 1998; Lusch et al., 2010). As such, it enables the organisation to increase its knowledge repository as well as its knowledge-based resources.

The notion of SET requires that for the development of successful knowledge sharing in the organisation, collaboration and social interaction among employees must be ensured. This is because collaboration and social interaction establish mutual trust among employees, which is the ultimate facilitator of knowledge sharing.

The significance of collaboration as an important dimension of organisational practices can be seen in the notion that collaboration within a workplace helps build a relationship of mutual trust among employees at various organisational levels. Collaboration mainly refers to the idea that employees resolve work related issues through discussion and seek to support and motivate each other (Switzer, 2008). Hence, on the basis of the above discussion, it can be hypothesised that:

\[ H1: \text{Collaboration has a significant relationship with knowledge sharing.} \]

Collaboration also has a positive influence on the attitudes of individuals in an organisation. When individuals develop a high level of mutual trust with their colleagues, then, as a result, they become willing to collaborate with each other and contribute towards the fulfilment of organisational goals and objectives (Wee and Chua, 2013). Therefore, it is important to take into consideration the following five elements of collaboration:

- Individual Autonomy – the responsibility, opportunity, and freedom of an individual in the organisation to exercise initiative.
- Structure – the creation of expectations around authority relationships, objectives, and performance (Rai, 2011).
- Identity – the identification of the organisation by its members as a whole rather than by an individual or particular field of professional expertise.
- Reward System – the organisational reward system that includes promotions and salary based on performance (Frémaux et al., 2010).
- Risk Tolerance – the employee encouragement to be risk-takers, aggressive, and innovative.

**Learning culture**

Learning culture is important aspects related to organisational practices, as they promote the scope for the suitable amount of learning. Sinha (2008) explained that an organisation’s learning orientation refers to the extent to which the organisation encourages its team members to learning that eventually leads to a positive organisational culture. Learning is very crucial for an organisation as it motivates employees to maintain an efficient workflow. It also helps them implement innovative ideas for the better development of their work as well as the organisation (Sinha, 2008).
The importance of organisational learning can be assessed from the research findings of Yeo (2005), which showed that learning promoted the performance of the organisation and facilitated the ability to sustain a competitive advantage in an uncertain and turbulent environment. Therefore, such organisational practices, which integrate and support learning, facilitate knowledge creation and sharing in the organisation, and lead to organisational innovation (Kontoghiorghes et al., 2005; Nonaka et al., 2008). Organisational learning entails the relationship of mental, spiritual, and physical energies of individuals. The outcomes of organisational learning result in the creation of new knowledge as well as the individual development of mental and emotional behaviours (Gallagher et al., 2007). Organisational learning positively influences intellectual abilities and behaviours as well as social interactions among individuals and others in the organisation (Gallagher et al., 2007; Nonaka et al., 2008). Therefore, an organisational learning culture enhances the abilities of its individuals in terms of their behaviours and interactions associated with knowledge creation and knowledge sharing.

Furthermore, the importance of the learning culture as an organisational practice can be justified by the research findings of various authors. Many studies have revealed that a culture that promotes organisational learning as an organisational practice enhances its financial performance and develops favourable attitudes of employees towards their work, thereby improving their individual performance (Ellinger et al., 2002; Egan et al., 2004; Kontoghiorghes et al., 2005). However, development of such a culture, which promotes learning, requires a significant amount of effort as well as the time needed to produce favourable outcomes in the organisation. Recent studies have also revealed that organisational learning affects the attitudes of employees towards organisational commitment as well as job satisfaction (Egan et al., 2004; Wang, 2007).

Organisational learning practices help in the establishment of a facilitating environment that encourages individual learning as well as knowledge sharing among individuals at various levels in the organisation (Marsick and Watkins, 2003; Kontoghiorghes et al., 2005).

Nonaka et al. (2008) explained that social interaction in an organisation promotes the creation of new knowledge as a result of cognitive intelligence. Moreover, Yang et al. (2004) further explained the notion of the organisational learning practices by stating that learning is the result of the social interaction and collaboration of the individuals, and not the outcome of a single individual. Knowledge sharing, on the other hand, can be described as the behaviours of the individuals in an organisation that entail the exchange of experiences and knowledge of the workplace. The knowledge in an organisation is comprised of explicit and tacit knowledge, which is shared among organisational members (Ryu et al., 2003; van den Hooff and De Ridder, 2004). Knowledge sharing in an organisation starts at the individual level, and then it is promoted to the group, team, and other levels of the organisational hierarchy (Ipe, 2003). Marsick and Watkins (2003) explained that knowledge sharing can be spread across the organisation when the shared vision of the organisation is aligned with the skills and capabilities of the individuals.

Thus, it is evident from the previous and extant literature that there exists a significant relationship between organisational learning practices and knowledge sharing among employees within an organisation (Wuestewald, 2016). Organisations sometimes also facilitate a learning culture process by encouraging the sharing of knowledge among its members. Therefore, it can be hypothesised that:

\[ H2: \text{Learning culture has a significant relationship with knowledge sharing.} \]
Organisational practices that promote learning and development also facilitate continuous learning and enhance organisational performance (Little, 2012). The organisations usually evaluate their performance through the physical environment of the workspace and the prevailing knowledge sharing practices. Learning promotes such an environment in an organisation and creates collective and continuous improvement in the acquisition of new skills, knowledge, and application of knowledge to achieve various organisational goals (Werth and Werth, 2011).

Management support

For the successful implementation of knowledge sharing practices, the support of management is crucial. Management support can be enabled through effective leadership. Connelly and Kelloway (2003) explained that organisational knowledge is influenced by management support to a great extent. Various studies have also emphasised the importance of management support as an effective organisational practice, which promotes knowledge sharing among employees at various levels in the organisation (Lin, 2007). Moreover, Mary MacNeil’s (2004) view is that if the support of management is visible in ensuring the creation of a knowledge-sharing climate, then employees are more likely to share their knowledge with others in the organisation. In order to ensure and maintain effective knowledge sharing, it is important that management encourages the attitudes and intentions of employees to share their knowledge with others in the organisation (Lin and Lee, 2004).

Leadership also plays a key role in promoting knowledge sharing among individuals in an organisation. The role model concept can facilitate knowledge sharing without any coercive influence of the leader in the organisation. If the role of the leader is effective and supportive, then knowledge management workers tend to believe that their organisation is supportive of employee and business objectives (Davenport and Prusak, 1998). Many scholars have argued that leaders play crucial roles in knowledge sharing within an organisational culture (Capó-Vicedo et al., 2011). Leaders can play a vital role in providing continuous support of initiating and sustaining efforts in knowledge sharing practices (Yew Wong and Aspinwall, 2005). Many successful knowledge management practices reveal that managers are responsible for encouraging employees to carry out such practices (Chan and Chao, 2008). The commitment of upper management is important to facilitate and promote the establishment of a supportive environment to carry out knowledge sharing activities (Daghfous and Kah, 2006). Thereby, management support generates a prodigious impact on knowledge sharing in the organisation resulting in the desired outcomes. As an increasing number of managers put in the effort to establish a supportive culture and organisational practices, employees become increasingly willing to support others in sharing their interpretation, perceptions, and attitudes in the workplace, which reveal how employees feel and react. Many organisations tend to adopt certain practices in order to keep knowledge sharing alive by creating an alignment and fit between organisational practices and employees (Byrne and Power, 2014). The support of senior executives is critical for the success of motivational stories that promote knowledge sharing in an organisation (Girard and Girard, 2009). Based on the above literature, it can be hypothesised that:

\[ H3: \text{Management Support has a significant relationship with knowledge sharing} \]

The study investigates how different organisational practices impact knowledge sharing, namely,
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• How does collaboration affect knowledge sharing in an organisation?
• How does management support affect knowledge sharing in an organisation?
• To what extent does a learning culture affect knowledge sharing in an organisation?

3 Methodology

This study adopts a quantitative study approach through a pilot study of distributing the survey to 300 candidates from technology service companies. A generalised questionnaire containing 14 items related to knowledge sharing and organisational practices was prepared. The questionnaire was distributed via email and social media along with a cover letter explaining the objective of the study. After the distribution, there were only 100 valid responses after incomplete responses were eliminated from the analysis.

The questionnaire was distributed randomly to 300 employees working in multiple private technology organisations in the UAE. However, a total of 100 responses were only 84 valid and reliable surveys applications which were used in the statistical analysis. The questionnaires were randomly distributed to employees across all levels in the organisations to obtain indicative responses and avoid bias. Technology organisations were targeted due to their ability to show how different factors impact knowledge sharing more clearly than other organisations (Argote et al., 2000).

The questionnaire was divided into five parts; the first part covered demographic questions such as gender, age, and region or origin. Part A included four general questions about how organisations treat knowledge sharing internally. Part B included three questions about how collaboration may impact knowledge sharing in the organisation. Part C included three questions about how management support may impact knowledge sharing in the organisation. Finally, Part D included three questions about how learning and development may impact knowledge sharing in the organisation.

The questionnaire items were measured using a five-point Likert-type scale. The reliability of the research instrument was tested by examining the Cronbach alpha coefficient, which showed a value of 0.805, above the accepted 0.7 level of reliability. This value, according to the reliability index by Babbie (1993), was high. Due to the generalised nature of the questionnaire, the method of principal component analysis (PCA) was used to identify and organise items into different constructs of organisational practices and knowledge sharing. Confirmatory factor analysis (CFA) was used to validate the relationship between constructs.

For analysis using structural equation modelling (SEM), a model is said to be acceptable, or the fit appropriate between the model and the data, when the index shows:

• CMIN/df with a value between 1 and 5
• CFI index and TLI approaching 1.00
• the RMSEA index is 0.08 or less.
4 Data analysis and results

4.1 Respondents’ profile

As illustrated in Table 2, 62% of the sample was male and 22% female. Regarding ages of respondents, 43% of the sample was 25 to 34 years old, 42% was 35 to 44 years old, 13% was 45 to 54 years old, and those between 18 and 24 and 55 and over were 1%, respectively. In terms of educational background, 1% of the respondents never went to high school, 4% attended high school, 6% received a high school diploma, 49% completed a Bachelor degree, the largest percentage in the sample, and 40% received a Master degree or above. The last demographic question about the region where the respondent hailed from showed that 1% of the respondents were from Africa, Australia, and America, respectively; 6% from Europe, 5% from South Asia, and 86%, the highest percentage, from the middle east.

Table 2  Respondent profiles for valid responses ($n = 84$)

<table>
<thead>
<tr>
<th>General information</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>62</td>
<td>74</td>
</tr>
<tr>
<td>Female</td>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–24 years old</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>25–34 years old</td>
<td>36</td>
<td>43</td>
</tr>
<tr>
<td>35–44 years old</td>
<td>35</td>
<td>42</td>
</tr>
<tr>
<td>45–54 years old</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>55 or older</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary School or below</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>High School</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Diploma</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Bachelor</td>
<td>41</td>
<td>49</td>
</tr>
<tr>
<td>Master or above</td>
<td>34</td>
<td>40</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Australia</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>South Asia</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Middle east</td>
<td>72</td>
<td>86</td>
</tr>
<tr>
<td>America</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Europe</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

4.2 Exploratory factor analysis

Several conditions must be examined prior to testing whether the items are suitable in order to run the analysis. These tests include Bartlett’s test of sphericity and the Kaiser-Meyer-Olkin test (KMO), as shown in Table 3.
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Table 3  KMO test and Bartlett’s test

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin measure of sampling adequacy</th>
<th>0.680</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett’s test of sphericity</td>
<td>Approx. Chi-square 592</td>
</tr>
<tr>
<td>df</td>
<td>91</td>
</tr>
<tr>
<td>Sig</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Bartlett’s test of sphericity showed a significant value indicating \( p < 0.05 \). Thus, it showed that the correlation between items was sufficient to run the factor analysis. In the KMO test, the value was 0.680 and the KMO was greater than the acceptable 0.50. This showed that these items were suitable for the factor analysis to be performed and no problem of serious multicollinearity in the data. After Bartlett’s test of sphericity and the KMO were performed, the rotating matrix component shown in Table 4 was used to test the validity of each construct. The table sorts the items that measure the constructs. The four constructs identified were: Learning Culture, Management Support, Collaboration, and Knowledge Sharing.

Table 4  Rotating component matrix for testing the construct validity

<table>
<thead>
<tr>
<th>Items</th>
<th>Learning culture</th>
<th>Management support</th>
<th>Knowledge sharing</th>
<th>Collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>0.897</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2</td>
<td>0.889</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3</td>
<td></td>
<td>0.851</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q4</td>
<td></td>
<td></td>
<td>0.885</td>
<td></td>
</tr>
<tr>
<td>Q5</td>
<td></td>
<td></td>
<td>0.861</td>
<td></td>
</tr>
<tr>
<td>Q6</td>
<td></td>
<td></td>
<td>0.853</td>
<td></td>
</tr>
<tr>
<td>Q7</td>
<td></td>
<td></td>
<td></td>
<td>0.878</td>
</tr>
<tr>
<td>Q8</td>
<td></td>
<td></td>
<td></td>
<td>0.850</td>
</tr>
<tr>
<td>Q9</td>
<td></td>
<td></td>
<td></td>
<td>0.759</td>
</tr>
<tr>
<td>Q10</td>
<td></td>
<td></td>
<td></td>
<td>0.662</td>
</tr>
<tr>
<td>Q11</td>
<td></td>
<td></td>
<td></td>
<td>0.570</td>
</tr>
<tr>
<td>Q12</td>
<td></td>
<td></td>
<td></td>
<td>0.846</td>
</tr>
<tr>
<td>Q13</td>
<td></td>
<td></td>
<td></td>
<td>0.826</td>
</tr>
<tr>
<td>Q14</td>
<td></td>
<td></td>
<td></td>
<td>0.658</td>
</tr>
</tbody>
</table>

4.3 Confirmatory factor analysis

Analysis of the corresponding structural model with the survey data was conducted using CFA. CFA was utilised to verify the basic factors that were produced by PCA and validate their relationships. Before using the SEM, several specifications had to be tested for the distribution of normality, multicollinearity, and the scales of measurement.

Reliability testing

The degree of consistency of a measure is referred to as its reliability. The reliability coefficient, Cronbach’s \( \alpha \) (Cronbach, 1951), is generally used to test the reliability of a
scale. \( \alpha \) values of 0.70 or greater are deemed of good scale reliability (O’Leary-Kelly and Vokurka, 1998). This reliability test was, therefore, applied to the data collected from the surveys. As can be seen from the results of Table 5, Cronbach’s \( \alpha \) for the four latent variables of the suggested model range from 0.723 to 0.873. These results suggest that the theoretical constructs exhibit good psychometric properties.

### Table 5  Results of the reliability test

<table>
<thead>
<tr>
<th>Factors</th>
<th>No. of Items</th>
<th>Cronbach’s alpha (( \alpha ))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge sharing</td>
<td>5</td>
<td>0.842</td>
</tr>
<tr>
<td>Learning culture</td>
<td>3</td>
<td>0.873</td>
</tr>
<tr>
<td>Management support</td>
<td>3</td>
<td>0.723</td>
</tr>
<tr>
<td>Collaboration</td>
<td>3</td>
<td>0.730</td>
</tr>
</tbody>
</table>

**Convergent validity**

Convergent validity can be evaluated by the use of the Bentler-Bonett’s normed fit index (NFI). This index provides the degree to which the different approaches that measure a construct generate the same results (Ahire et al., 1996). According to a generally accepted principle, the NFI values of 0.80 or above are considered as a satisfactory fit index (Hu and Bentler, 1999). Table 5 shows that the values of NFI were greater than 0.80, and, therefore, signified a strong convergent validity of constructs.

**Discriminant validity**

Discriminant validity is the degree to which different latent constructs and their indicators can be distinguished from the other constructs and their indicators (Bagozzi et al., 1991). For calculating the discriminant validity, we can make a comparison of the Cronbach alpha of a latent construct to its mean correlations with other latent model variables. If the alpha value of a latent construct is adequately higher than the mean of its correlations with other variables, then this signals discriminant validity (Ghiselli et al., 2001). Table 6 shows that the difference between Cronbach’s alpha value for every latent scale and the mean correlation of latent scales with the other scales was sufficiently high. Thus, providing the evidence needed that the scales did not correlate with other conceptually distinct constructs.

### Table 6  Scale validity analysis

<table>
<thead>
<tr>
<th>Factors</th>
<th>Convergent validity (NFI)</th>
<th>Discriminant validity (( \alpha – ) Average correlation between scales)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge sharing</td>
<td>0.847</td>
<td>0.669</td>
</tr>
<tr>
<td>Learning culture</td>
<td>1.000</td>
<td>0.700</td>
</tr>
<tr>
<td>Management support</td>
<td>1.000</td>
<td>0.550</td>
</tr>
<tr>
<td>Collaboration</td>
<td>1.000</td>
<td>0.557</td>
</tr>
</tbody>
</table>
Impact of organisational practices on knowledge sharing

Structural model analysis

AMOS 20 software was used to develop a First-Order CFA Model and to survey the impact of three exogenous factors on knowledge sharing. The proposed structural model is shown in Figure 1. The path coefficients connecting the items to the factors in Figure 1 represent the factor loadings and may also be interpreted as standardised regression coefficients.

Before analysing the loading and correlation relations, the model fit was assessed by a chi-square test ($\chi^2$/dof), comparative fit index (CFI), and the root mean square error of approximation (RMSEA), which showed that all goodness-of-fit statistics were in the acceptable range as seen in Table 7 (further details can be found in: Sila and Ebrahimpour, 2005; Jung and Wang, 2006; Fotopoulos and Psomas, 2010).

Table 7  Model fitness indices

<table>
<thead>
<tr>
<th>Fit index</th>
<th>Suggested values</th>
<th>Observed values</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2$/dof</td>
<td>≤3.00</td>
<td>1.73</td>
</tr>
<tr>
<td>CFI</td>
<td>≥0.90</td>
<td>0.902</td>
</tr>
<tr>
<td>RMSEA</td>
<td>≤0.10</td>
<td>0.094</td>
</tr>
</tbody>
</table>

Moreover, all indicators showed a successful $p$-value as all $p$-values were <0.05, indicating that the three hypothesised paths were significant, as shown in Table 8.

Table 8  Statistical significance of path coefficients for the structural model

<table>
<thead>
<tr>
<th>Path</th>
<th>Estimate</th>
<th>$p$-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 Collaboration $\rightarrow$ Knowledge sharing</td>
<td>0.17</td>
<td>0.031</td>
<td>Supported*</td>
</tr>
<tr>
<td>H2 Learning culture $\rightarrow$ Knowledge sharing</td>
<td>0.44</td>
<td>0.016</td>
<td>Supported*</td>
</tr>
<tr>
<td>H3 Management support $\rightarrow$ Knowledge sharing</td>
<td>0.28</td>
<td>0.018</td>
<td>Supported*</td>
</tr>
</tbody>
</table>

* $p$-value < 0.05

The standardised coefficients of these paths are shown in Figure 1. The loadings among the three exogenous factors are also depicted in Figure 1. This shows that all three factors were correlated, however, learning culture showed a higher value than the other two factors, indicating that learning culture was the most significant factor impacting knowledge sharing; management support ranked second highest as an impact factor on knowledge sharing; and, finally, collaboration had the least impact on knowledge sharing. In regard to correlations and the inter-relation among factors, learning culture and management support had the strongest inter-relation as the correlation value was the highest, followed by the inter-relation between management support and collaboration, and the weakest inter-relation between learning culture and collaboration.
5 Discussion

The purpose of this study was to investigate the impact of organisational practices on knowledge sharing in an organisation. In this regard, three organisational practices, namely, collaboration, management support, and a learning culture, were considered to assess their impact on knowledge sharing in organisations. The results indicate high reliability and validity, indicating confidence with the empirical framework concluded from the literature review, and not simply based only on observation. The instrument also shows strong reliability, as the Cronbach alpha value for each construct was near 0.723. The CFA, the Bartlett’s test, and the KMO test were conducted to measure whether the data were suitable for further analysis, and the results were positive with a KMO value of 0.680 and significance at $p < 0.05$, indicating good adequacy. Varimax was run to produce the rotating component matrix table. The test showed four factors identified in the conceptual framework. As indicated by Chan and Chao (2008), many successful knowledge-sharing practices reveal that managers are responsible for encouraging employees to carry out knowledge sharing processes. The final test was the structural model and multiple fit indices used before the SEM, where the Chi-Square ($\chi^2$) = 122.69 and the $p$-value = 0.000; these values indicate some accepted statistics for goodness of fit. The CFI was 0.902, which indicated acceptable model fit. Finally, the absolute fit index RMSEA, which was 0.094, indicated that the model was accepted because the value was smaller than 0.10. The smaller values indicate better model fit and the value of 0.10 or less is indicative of acceptable model fit. Based on previous positive results, it was sufficient to run the SEM test for CFA. The result of the CFA showed that the three proposed paths had a significant relationship.
These results can be further explained in light of the SET, which states that successful knowledge sharing requires an exchange of intangible resources in the form of internal trust and rewards. For successful knowledge sharing practices in the organisation, management should make an effort to establish social capital and develop mutual trust among employees. Moreover, management should associate rewards and other benefits with knowledge sharing in the organisation to foster knowledge sharing behaviour. Therefore, in order to facilitate knowledge sharing, management should support employees in sharing their knowledge by offering rewards and incentives for exhibiting such knowledge sharing behaviour.

In order to promote knowledge sharing in the organisation, collaboration is an organisational practice that should be used effectively. Thus, the organisation should employ collaborative tools in order to enhance coordination and collaboration among employees so they share their knowledge in the organisation. Social capital is also of primary value when it comes to knowledge sharing through collaboration. Furthermore, organisational practices should be implemented that foster a learning culture through the integration of knowledge sharing processes as this factor has the greatest impact on knowledge sharing. This implies that managers should focus more on building a learning culture within the organisation to ensure the establishment of an effective knowledge sharing environment while also creating and maintaining a climate of trust and organisational practices, like collaboration. Management support and the learning culture should be implemented so that these facilitate the exchange of positive social and financial outcomes among individuals, which will ultimately increase the likelihood of knowledge sharing in the organisation (Lambe et al., 2001).

6 Conclusion

The empirical findings of this study indicate that organisational practices, like collaboration, management support, and a learning culture, tend to facilitate knowledge sharing among the employees. It can be concluded that if collaborative practices are widely implemented in an organisation, these can increase social interaction among employees, which can then generate the urge to share knowledge. Similarly, if management supports employees in sharing knowledge, then knowledge sharing can be increased to a significant level. Managers and leaders can encourage employees through recognition and financial benefits to sharing their knowledge with others. Moreover, the role of a learning culture is also significant in promoting knowledge sharing. Organisations can promote a learning culture that encourages employees to share what they know and have experienced within the organisation. The study conclusion is that organisational practices tend to foster such knowledge sharing in the organisation.

In terms of limitations, this study received only 83 valid responses. However, for factor analysis, the sample size should be 300 or greater to obtain more reliable results (Comfrey and Lee, 1992; Hair et al., 2009). Hence, a larger number of responses would probably result in more accurate findings, and in future, this limitation can be taken into consideration by increasing the size of the sample. Moreover, in the future, other organisational practices in the form of technology or strategic decisions can be incorporated to investigate their relationships with knowledge sharing in the organisation. Finally, this research focused on the study of organisational practices in general, further research can be conducted in the context of specific organisations to see if such findings
differ. Moreover, in future research, a similar study could be conducted in organisations in different sectors such as private companies, government, and semi-governmental agencies to investigate the relationship between different organisational practices and knowledge sharing.

References


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Impact of organisational practices on knowledge sharing


Appendix 1: Questionnaire

Organisational culture and knowledge management survey

The objective of this Survey is to understand the relation between organisation culture and knowledge sharing.

1. **What is your gender?**
   - 1. Female
   - 2. Male

2. **What is your age?**
   - 1. 18 to 24
   - 2. 25 to 34
   - 3. 35 to 44
   - 4. 45 to 54
   - 5. 55 or older

3. **What is the highest level of education you have completed?**
   - 1. Primary School or Below
   - 2. High School
   - 3. Diploma
   - 4. Bachelor
   - 5. Master or Above
4. **What is your region of origin?**
   - 1. Africa
   - 2. Australia
   - 3. South Asia
   - 4. Middle East
   - 5. South America
   - 6. North America
   - 7. Europe
   - Other (please specify)

**PART-A:** This part contains general questions about the understanding of Knowledge Sharing in the organisation.

5. **Knowledge Sharing can be seen as a strength by organisational staff?**
   - 5. Strongly Agree
   - 4. Agree
   - 3. Don’t Know
   - 2. Disagree
   - 1. Strongly Disagree

6. **Knowledge Sharing is monitored and recorded positively in the performance appraisal of the organisational staff?**
   - 5. Strongly Agree
   - 4. Agree
   - 3. Don’t Know
   - 2. Disagree
   - 1. Strongly Disagree

7. **Knowledge Sharing practice is described clearly in organisational processes?**
   - 5. Strongly Agree
   - 4. Agree
   - 3. Don’t Know
   - 2. Disagree
   - 1. Strongly Disagree
8. **Inter-organisational Competition creates a barrier for knowledge sharing?**
   - 5. Strongly Agree
   - 4. Agree
   - 3. Don’t Know
   - 2. Disagree
   - 1. Strongly Disagree

9. **All staff understand what is knowledge sharing?**
   - 5. Strongly Agree
   - 4. Agree
   - 3. Don’t Know
   - 2. Disagree
   - 1. Strongly Disagree

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**PART-B: This part contains questions about how the Collaboration may impact the knowledge sharing in the organisation.**

10. **Organisational Collaboration enhances the Knowledge sharing?**
    - 5. Strongly Agree
    - 4. Agree
    - 3. Don’t Know
    - 2. Disagree
    - 1. Strongly Disagree

11. **Staff individualism could create a barrier for knowledge sharing?**
    - 5. Strongly Agree
    - 4. Agree
    - 3. Don’t Know
    - 2. Disagree
    - 1. Strongly Disagree

12. **Interpersonal relationships improves the Knowledge sharing amongst the organisational staff?**
    - 5. Strongly Agree
    - 4. Agree
    - 3. Don’t Know
    - 2. Disagree
    - 1. Strongly Disagree
PART-C: This part contains questions about how the Management Support may impact the knowledge sharing in the organisation.

13. Organisational policy puts the knowledge sharing as one of its main objectives?
- 5. Strongly Agree
- 4. Agree
- 3. Don’t Know
- 2. Disagree
- 1. Strongly Disagree

14. Negative behaviour towards Knowledge sharing is always discouraged in our organisation?
- 5. Strongly Agree
- 4. Agree
- 3. Don’t Know
- 2. Disagree
- 1. Strongly Disagree

15. Knowledge sharing amongst the organisational staff gets management follow-up by regular review meetings and workshops?
- 5. Strongly Agree
- 4. Agree
- 3. Don’t Know
- 2. Disagree
- 1. Strongly Disagree

PART-D: This part contains the questions about how the Learning and Development may impact the knowledge sharing in the organisation.

16. Organisation always provides training to improve the knowledge sharing practices for all staff members?
- 5. Strongly Agree
- 4. Agree
- 3. Don’t Know
- 2. Disagree
- 1. Strongly Disagree
17. Organisational staff is keen to learn and develop the knowledge management within the organisation?

- 5. Strongly Agree
- 4. Agree
- 3. Don’t Know
- 2. Disagree
- 1. Strongly Disagree

18. The feedback mechanism is in place and seen as an opportunity to learn and develop the knowledge sharing practices?

- 5. Strongly Agree
- 4. Agree
- 3. Don’t Know
- 2. Disagree
- 1. Strongly Disagree