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The impact of knowledge sharing quality on e-supply chain management: The mediating role of e-trust

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A B S T R A C T

This study has tried to investigate the impact of knowledge sharing quality on E-supply chain management, with the mediating effect of E-trust. To attain the research purposes, a quantitative approach of research was applied. The needed data was collected from a sample consisting of 281 managers of Fast-Moving Consumer Goods (FMCG) companies in Jordan. A questionnaire was utilized to collect the data. Appropriate statistical analyses were conducted such as scale reliability and validity by using IBM SPSS 21 software. Structural model and hypothesis testing using AMOS software were then utilized. The results have shown that knowledge sharing quality with its main dimensions (usefulness, timeliness, accuracy, and relevance) has positive significant impacts on E-supply chain management. Besides that, E-trust has revealed a significant mediating impact between the studied independent and dependent factors. Other complementary future studies related to the practices of E-supply chain management practices, quality of knowledge sharing, and E-trust in other Jordanian organizations were also proposed.

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1. Introduction

Knowledge is regarded as the most strategic and significant organizational resource that contributes to gaining a competitive advantage associated with a superior performance outcome for the organization (Santhosh & Lawrence, 2023). Although the aim of the competitive advantage is connected more with the private sectors, this can be also extended into the public organization through serving the public as its ultimate goal. Knowledge management in fact helps different types of business organizations improve their service delivery activities (Deng et al., 2023). Thus, they realized the importance of knowledge management that has been given much attention in terms of policies and strategies formulating to develop service delivery (Wang & One, 2010). One of the most important aspects and activities of knowledge management is knowledge sharing quality. Many businesses believe that knowledge sharing quality is more beneficial than knowledge hoarding. Knowledge is a core and central resource of the service organizations since the effective knowledge shared among individuals is a significant challenge factor for management to provide excellent services (Martins et al., 2019).

Relevant literature of knowledge sharing quality has addressed this concept and identified it as a deliberate action which makes knowledge reusable by others through knowledge transfer (Zheng, 2017; Masada et al., 2015). Knowledge sharing is defined as a process in which people exchange different types of knowledge, either explicitly or tacitly, to create new knowledge (King, 2011). It is regarded as a human action and a critical issue for the organizations. Knowledge sharing occurs when individuals are motivated to assist others and develop new skills. Within an organizational context, the greatest value of knowledge can be created by knowledge sharing quality because it assists organizational strategic activities in enhancing positive outcomes such as value creation (Weave et al., 2014).

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According to the literature, E-supply chain management practices require knowledge sharing quality to increase business change and competitiveness, as well as cost reduction (Rasheed et al., 2010). For a long time, evidence with empirical results has indicated a need for intimate relationships of supply chain partners with suppliers, producers, and customers. Furthermore, a systematic approach to E-supply chain has been recently developed to increase the global competition of organizations that are mandated to engage in new approaches to knowledge management and knowledge sharing quality (Philosophies et al., 2022). The development of E-supply chain management and operations in business, while carrying out different functions, encourages the E-supply chain management practices to be integrated within its main aspects, including the upstream and downstream (Jabber et al., 2011). The arguments for external integration of customers or suppliers are subjective, as are the relationships of E-trust and commitment with suppliers. This integration enables the internal and external integration of the companies through data systems and processing in order to develop the major capabilities of E-supply chain management activities with different stakeholders (Barber et al., 2017).

Knowledge sharing is applied in both internal and external integration of the E-supply chain management. The value of knowledge sharing quality within the E-supply chain management is defined through the facts associated with the possible outcomes and benefits that can be achieved that outweigh the involved costs (Small & Sage, 2005) which include investment in the information systems by the suppliers and customers while maintaining quality of the shared knowledge. Furthermore, management costs reduction of important coordination, and communication dramatically consider the quality of knowledge sharing to reduce costs (Farooq, 2020). Knowledge might be of less value unless it can be shared, and the importance of knowledge sharing generally depends on the quality of the shared knowledge. Literature in this aspect has emphasised knowledge sharing behaviour rather than quality. Thus, proposals for future research directions call for further focus on knowledge sharing quality since quality has become a key concern of the matured community (Alzoubi, 2018). The dimensions of this variable include usefulness, timeliness, accuracy, and relevance (Demarking et al., 2013). Knowledge management, through the emphasis of quality knowledge, becomes an effective institutional tool for investing its intellectual capital, by making access to the knowledge generated easy and feasible (AL-Faouri et al., 2019).

Current study aims to provide and address a more detailed explanation and overview of E-supply chain management activities (upstream, downstream, and operations) in terms of knowledge sharing quality, the benefits and aspects of this issue in E-supply chain management while taking the mediating effect of E-trust into consideration. As a result, this study aims to address the impact of knowledge sharing quality on setting E-supply chain management practices while incorporating a new important factor of E-trust.

2. Literature Review & Hypotheses Development

The knowledge shared within the E-supply chain management is diverse, including logistics, business, strategies, tactics, and so on. Inventory-related knowledge encompasses many different types of knowledge, sales information, and forecasting, orders, and production data (Ahmad & Karim, 2019). The degree to which appropriate decisions are made in E-supply chain management determines the quality of knowledge shared. Various new E-supply chain management activities incorporating electronic activities have occurred as a result of emerging technological developments. The studies that addressed the E-supply chain management linked with business or customers aspect stimulate modern scholarly works and intends to expand the limited relevant works of this topic (Taghipour et al., 2021). For example, E-trust has been widely extended among those studies with frameworks that focus on many different issues with key features (Taddeo, 2009). The findings showed a possibility of this factor to reduce the risks of forecasting or decision making. Sharing sales data may eliminate blow-ups of the orders and represent real customer demands, with a decrease of the losses that may be caused by production shortage or low innovative products (Oberholzer-Gee & Strumpf, 2007).

E-supply chain management calls for providing infrastructure with main elements of E-supply chain management while considering the electronic activities to make the forecast acts more independent (Stadtler, 2015). By knowledge sharing quality, a debate indicates this would enhance better predictions which would in turn lead to improving the performance and competitiveness of the E-supply chain management (Li & Lin, 2006). Building E-trust with customers, suppliers and other parties throughout the e-supply chain encourages the businesses to be part of knowledge sharing quality to have a quick determination in the E-supply chain management and hold a better quality of the services (Johnson & Whang, 2002). In the lenses of business operations, E-trust requires more rooting with real true practices that replace the uncertainty in the suppliers or customers with a reality to develop a relationship among E-supply chain management activities (Fritz & Canavari, 2008).

Regardless of the development in information technology infrastructure, the existing E-trust remains required in order to encourage the components of the E-supply chain management to conduct E-businesses transactions with a base for collaboration (AL-Faouri et al., 2011). Today's companies have long-term business to business B2B relations with other companies to achieve excellence in the performance which is bonded by E-trust (Sharifnia et al., 2009). Similarly, the direct business association among the companies consider advanced forms of collaboration. This matter exists since management usually makes their decisions based on their available knowledge and its quality based on the real experiences and their preferences for a relation (Dominic et al., 2013). Generally, the criteria that are used for assessment differ among organizations. Thus, the most important factor for business relations is creating E-trust for a collaboration and help E-supply chain management partners remain committed to the company (Nowicka, 2018). From given discussions on E-trust in general,

with E-supply chain management in particular, E-trust in dealing with E-supply chain management remains involved with many different parties.

A gap in marrying E-trust with E-supply chain management still exists. In other words, there is lack of research attempting to examine how E-trust as considered in modern business perspectives is integrated into E-supply chain management (Ab Aziz et al., 2011). At this stage, management decisions involved in E-supply chain management systems have a traditional perspective rather than a developed one. As stated in the literature, the findings confirmed that the important elements in business relations are to create a "smart trust" to indicate that the businesses capacity to create this element needs a smart analysis to establish trusted business activities with important partners (Sahay, 2003). The research proposals that intend to examine E-supply chain management and E-trust model are created to decide if the trustful feature of the E-supply chain has led to favourable business outcomes. For that purpose, an elaboration of reliable knowledge that is considered in the field of IT and business perspectives determining the E-trust facet of the business operations has been presented.

The E-trust presence in the E-supply chain management area has many benefits and advantages since E-trust is linked with low transaction cost taking place between the buyers and the suppliers. The presence of E-supply chain management investments in specialized facilities and equipment, while adapting advanced production process, enable an eased presence of E-trust (Mora-Monger et al., 2019), and a good level of E-trust facets within the channel relations that also lead to high outcomes of the buyer and suppliers' satisfaction (Danes Hvar Kikiki & Gardena, 2019). E-trust, as a significant factor in the business world, also leads to great knowledge sharing in the key parties e.g., buyer and supplier in the E-supply chain management aspects. Thus, this would bring out a major reason behind the business success across the business fields (Abdera & Krishnan, 2022). The mechanisms of E-supply chain management coordinate the performance of the business that mainly focuses on the discussions related to this topic. The suggested framework of E-supply chain management and E-trust relates to knowledge sharing quality (AL-Faouri et al., 2019).

The characteristics of knowledge quality are crucial for all organizations as they assess whether knowledge serves purposely in a certain context like data analysis. So, the organizations determine the quality of a given data. There are several important characteristics of knowledge sharing quality which organizations should be aware of (Demarking et al., 2013). Accuracy, for example, indicates if the data is correct in all the details. Relevance also implies if the firms really need this data, while usefulness refers to the benefit that the firms gain from the data. Timeliness indicates how up to date the data is, and if it can be used in a real-time report (Koon et al., 2011). The characteristic of accuracy is important for the quality of knowledge sharing as inaccurate data may cause some problems and lead to consequences. Thus, relevance, as a matter of knowledge sharing quality characteristic, allows the companies to avoid gathering irrelevant data and wasting time as well (Wang & One, 2010). Knowledge timeliness, on other hand, is an important characteristic of knowledge sharing quality because the knowledge that isn't timely, may lead the managers to make inaccurate decisions. In turn, the organizations' time, money, and reputation might be damaged. In today's business environment, knowledge sharing quality characteristics ensures that the business can get the most valued knowledge (Masada et al., 2015). This would precisely provide quality of knowledge and sharing it would propose required solutions and improve the accuracy, timeliness, relevance, and usefulness of the knowledge. Accordingly, the research would formulate the following hypothesis:

H_1: *Knowledge sharing quality dimensions (usefulness, timeliness, accuracy, and relevance) have significant impacts on the E-supply chain management*.

The process of upstream includes outsourcing the different raw materials to elaborate the production and operation costs to create the products punctually. The raw materials are significantly important for the different practices of the E-supply chain management as any raw materials shortage might lead to low inventory level and wide market fluctuation (Grozny & Turkman, 2009). In general, the affordable raw material might give and provide a competitive edge for the companies that concentrate on the upstream of E-supply chain management which would ensure the quality of the final products and maintain proper track inventory levels while minimizing the shortage of the raw materials, thus improving the end-customers satisfaction (Scrannel et al., 2009). On the other hand, the downstream component of the downstream of the E-supply chain management involves the movement of the final products from the business to the customers.

The operations in this aspect include delivery, distribution, and order fulfilment. Today's companies have a growing focus on the downstream of E-supply chain management in order to develop the positive experience of their customers to gain a competitive advantage (Samba & Quiroz, 2020). A Timely delivery of the finished products to the customers is an important objective of the downstream process. The operations, as the backbone of the supply chain processes, ensure that the employees remain consistent with their work. Companies' managers monitor their day-to-day operations to keep the different E-supply chain management operations on track. In addition, companies are currently adopting the lean strategy approach, and all processes should be consistent to evaluate and determine the efficient parts of the operations (Kumar & Gangly, 2021). E-supply chain management operations monitor the equipment that can ensure efficiency or guarantee when to decrease the workforces to make essential improvement in both the operations and systems (Zhu et al., 2020).

Sharing different forms of knowledge encourages the businesses to gain knowledge through experiences that are accumulated over time and align with the business. Thus, it is considered a form of organization management to share and extract the

implicit knowledge from the key stakeholders, and it is more challenging to convey the knowledge to others by the available means (Cilicia et al., 2019). Personal wisdom, experience, insight, and intuition are examples of this. As an essential aspect to improve the E-supply chain management, knowledge sharing quality would also support the strategies of the business with the unified knowledge that the base platforms can manage, organize, and store the organisations information to ensure the E-supply chain management operations gain the required critical knowledge which would benefit the long run businesses (Mara & Edwards, 2012). Quality development of knowledge sharing throughout the E-supply chain management practices develops the productivity of the workforces as well enhances the quality of the provided products and delivered services (Shih et al., 2012). The relevance of shared knowledge can broadly add valuable features to the major practices of E-supply chain management as the current age of digitalization and IT revolution lead to a better understanding of the suppliers, customers, and management with better data, market trend, and performance measures (Cervellon & Werner felt, 2012). Accordingly, the researcher would formulate the following hypotheses:

H_2: *Knowledge sharing quality dimensions - usefulness, timeliness, accuracy, and relevance- have significant impacts on the downstream of E-supply chain management.*

H_3: *Knowledge sharing quality dimensions - usefulness, timeliness, accuracy, and relevance- have significant impacts on the upstream of E-supply chain management.*

H_4: *Knowledge sharing quality dimensions - usefulness, timeliness, accuracy, and relevance- have significant impacts on the operations of E-supply chain management.*

H_5: *E-trust moderates the significant impact of knowledge sharing quality on E-supply chain management.*

3. Methodology

The current study is concerned with using a quantitative method associated with the positivist approach to test the research hypotheses. The study collected data from the target sample of E-supply chain managers from Fast-Moving Consumer Goods (FMCG) companies in Jordan using a survey questionnaire. The suggested research model and hypotheses were tested by using the statistical procedures of AMOS. Therefore, the current study has aimed to investigate the impact of knowledge sharing quality through dimensions stated in Figure1 on the E-supply chain management with a mediating role of E-trust. The study would also apply a cross-sectional method to reach the study objectives. In this research, the major features of data collection from a large number of the respondents was done through the quantitative approach through using the research tool of survey questionnaire, while considering the random sampling technique performed on the target sample.

In this study, relevant statistical analyses were utilized such as demographic analysis, data normality and measurements; reliability using IBM SPSS. It is also assessed by structural equation modelling SEM using AMOS. The validity and the measurement model is checked with the moderation analysis using this program. The hypotheses were tested, and the findings have been addressed and discussed in the next section. The study model and instrument were developed based on previous relevant research work that discussed the studied constructs (e.g., Taghipour et al., 2021; Abdera & Krishnan, 2022; Fritz & Canavari, 2008). Fig. 1 shows the suggested research conceptual model and constructs. The relevant literature was reviewed and the applied measures in studies were adopted for knowledge sharing quality (e.g., Sarkheyli et al., 2013; Ismail & Yusof, 2010) due to the large citations of these studies and the most common dimensions of this concept. Meanwhile, the E-supply chain management measures were adapted from Alzoubi (2018) which addressed several factors of this variable.

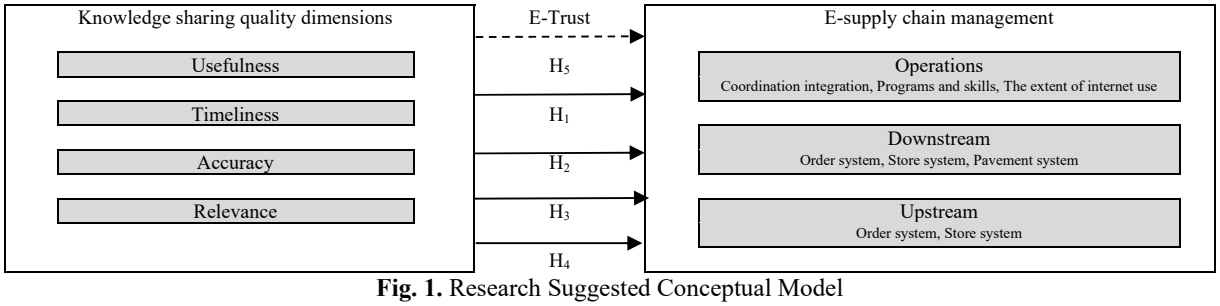

Fig. 1. Research Suggested Conceptual Model

After pilot testing and receiving feedback from experts in the research topic, the study questionnaire was edited and distributed via online questionnaire style, with some modifications including rewording some items, deleting others, and adding new ones that mostly represent the study issue. Furthermore, the questionnaire was written in Arabic for the convenience of the sample and to avoid difficulties in understanding the items, to make the participants familiar with the statements and study objectives. The questionnaire was also divided into different sections, including demographics data e.g., gender, age, education level, and a section about study measurements that measured through a five-Likert scale that is ranked from 1 strongly disagree to 5 strongly agree.

4. Analysis

The study was aware of the common method variance that was important in this study to ensure no issue of lack of the common method bias, thus a procedural control was conducted using middle and senior levels of management with great levels of related experience and knowledge. The study used a back translation process to ensure clear item comprehension as well as assurance that sample participation would be kept confidential by adopting several questionnaire statements adopted and adapted from previous scholarly works to guarantee measures validity and quality. Another important issue in this context is the non-response bias, which can be assessed in two ways: first, by comparing early and late responses (Sedgwick, 2014). In general, the first group's responses were compared to the second group's responses, and a t-test for each construct was performed; the results revealed no significant difference, implying no response bias exists. Second, to ensure that there is no significant difference between participants and non-participants, the demographics of the groups were compared. As a result, the findings indicated that non-response bias was a problem in this study.

4.1 Construct Reliability & Validity

After collecting the data, the measures have been subjected to a process of purification that was performed to assess the measures dimensionality, reliability, and validity. A psychometric property of the study variables (E-trust, E-supply chain management, and knowledge sharing quality) were assessed through an approach of confirmatory factor model at AMOS. Once the study was not large enough (281), this method adopted the single confirmatory factor analysis to fit the constraint with a ratio of the sample size into the respective parameter estimate (Bentley and Cho, 1988). The fitness of the model was evaluated using measures of GFI, CFI, and NFI. The measures were assessed based on error variance of each item, with the modification index as well the residual covariation (Jöreskog & Sorbet, 1993). The procedures of construct reliability were also checked by using a procedure suggested by Cornell and Larker (1981) and include evaluating the parameter estimates and the associated t-value and the average variance extracted AVE for all study variables.

Furthermore, the constructs' reliability was assessed using Cronbach alpha, and the results revealed that all constructs had values greater than 0.70. An important type of validity known as discriminant validity was also evaluated through a process that begins with calculating the shared variance between pairs of constructs and ensuring that it is less than the AVE for the individual variable (Cornell and Larker, 1981). This procedure was carried out in the case of AVE divided by the samples shared variance. The constructed pairs are then evaluated using a procedure proposed by Baozi and Phillips (1982) through a series of confirmatory factor models using AMOS. The model is run, and the coefficient and 2 difference test is applied to see if the value of 2 is significantly lower than in the unconstrained model. Overall, the measurement model suggested that the scales used were reliable and valid in the study context. The constructs analysis results are provided in the respective tables, which include mean, standard deviation, construct reliability, and fitness indices.

4.2 Structural Model Testing

The results report the hypothesis testing through the SEM approach that was analysed with AMOS applied to simultaneously examine the relations proposed in the study model H1 through H4. The model fit indices of GFI, CFI and NFI have ranged between 0.90 and 0.95, and the hypothesized relative ability of the constructs (knowledge sharing quality) to interpret the variation in E-supply chain management, as explained by value of R^2 that was 45.2%. The results for each hypothesis suggest a positive relationship between knowledge sharing quality and E-supply chain management. Hence, the hypotheses H1- H4 are supported. An in-depth analysis of the path coefficients that is associated with t-value and p-value suggests that knowledge sharing quality dimensions had a high impact on E-supply chain management. This implies that the company's competency and ability to maximize usage and integration of the technological resource mainly depend on the ability to exploit the key resources with full consideration of the knowledge sharing quality impact on the E-supply chain management. The following tables present the main descriptive and analytical results of the studied constructs and the tested hypotheses.

Table 1
Summary Statistics of Knowledge Sharing Quality Dimensions

Knowledge sharing quality (Cronbach= 0.77)	Mean	SD	Cronbach α	χ2	do	GFI	CFI	NFI
Usefulness	3.56	0.49	0.71					
Timeliness	3.75	0.56	0.74	2.891	4	0.90	0.92	0.91
Accuracy	3.84	0.63	0.80					
Relevance	3.19	0.60	0.72					

Table 2
Summary Statistics of E-supply Chain Management Dimensions

e-supply chain management (Cronbach= 0.86)	Mean	SD	Cronbach α	χ2	do	GFI	CFI	NFI
Upstream	3.77	0.65	0.87					
Downstream	3.84	0.53	0.81	2.763	3	0.91	0.93	0.91
Operations	3.54	0.76	0.82					

Table 3
Results of the Hypothesized Model

Hypothesis	F	R	Dimension	Beta	T	Sig.	Result
H_1 knowledge sharing quality dimensions-usefulness, timeliness, accuracy, and relevance-→*e-supply chain management*)	72.529	.716	usefulness	.296	2.819	0.000	Supported
			timeliness	.195	2.532		
			accuracy	.214	2.252		
			relevance	.518	6.205		
H_2 (knowledge sharing quality dimensions-usefulness, timeliness, accuracy, and relevance-→*downstream*)	74.764	.865	usefulness	.150	2.453	0.000	Supported
			timeliness	.024	3.214		
			accuracy	.168	2.684		
			relevance	.583	11.439		
H_3 (knowledge sharing quality dimensions-usefulness, timeliness, accuracy, and relevance-→*upstream*)	90.740	.882	usefulness	.026	2.116	0.001	Supported
			timeliness	.230	3.691		
			accuracy	.282	4.787		
			relevance	.464	9.670		
H_4 (knowledge sharing quality dimensions-usefulness, timeliness, accuracy, and relevance-→*operations*)	87.403	.781	usefulness	.093	2.096	0.000	Supported
			timeliness	.037	2.042		
			accuracy	.184	2.362		
			relevance	.583	9.181		

This study examined E-trust as a mediator to predict its moderation role between knowledge sharing quality and E-supply chain management. The results given in the table below exhibit that E-trust has positively and significantly mediated the relations amongst dimensions of knowledge sharing quality and E-supply chain management (P=<0.05). Moreover, a moderation role of the E-trust on the relations between knowledge sharing quality and E-supply chain management exists, and they mostly confirmed this role over the respective path.

Table 5
Results of Testing Hypothesis 5

Hypothesis	Beta	t-test	Sig.	Result
H_5: Knowledge sharing quality * e-trust → e-supply chain management	0.132	2.119	0.000	Supported

5. Discussion & Implications

The current study sought to investigate the impact of knowledge sharing quality in E-supply chain management via the mediating role of E-trust. The findings revealed a significant positive impact that supported the hypothesized model across all paths of interest in this study. Furthermore, the study's findings support the literature, which confirms the growing importance of knowledge management practices and sharing about major activities and operations with internal and external stakeholders for better business outcomes.

In E-supply chain management, the downstream indicates a post-manufacturing link with the distribution channels of the products to the final customer. It is also related to demanding that the managers are responsible for coordinating and managing the related activities (Nowicka, 2018). Through the obtained results and with the rise of electronic businesses, the amount of goods that need to be stored and processed has increased exponentially. To meet this demand, the companies have turned to knowledge sharing quality practices with suppliers and customers. The study explored the role of this issue in E-supply chain management for the researched companies in Jordan through considering E-trust in this relationship (Farooq, 2020). In E-business, E-trust with shared knowledge reflects the reliability of this knowledge to make appropriate decisions. As a process of receiving, storing, and dispatching goods, the E-supply chain management component has been more aware of the critical issues in the E-supply chain practices as it ensures that the products are delivered to customers in a timely and efficient manner. E-supply chain management includes several major tasks, including managing the inventory, picking, and shipping through electronic means since the traditional supply chain management practices can be time consuming and labour intensive (Santhosh & Lawrence, 2023).

Till today, companies do not value issues of knowledge sharing and the quality of providing information to key stakeholders as this creates resistance to the idea and challenges to the enterprise innovation. Furthermore, the findings of this study confirmed the companies' goals to value and promote knowledge sharing quality in order to achieve greater competitiveness and innovation. Companies with more knowledge sharing quality within the knowledge management process are more competitive than others (Shih et al., 2012). The concept of knowledge sharing quality as an important aspect of business operations stems from the fact that knowledge generates insights, which significantly enables companies to promote insight-driven decision-making, which promotes further growth. The enhancement of E-trust issues as a fundamental component of E-supply chain management has become a priority in the digital business world and a critical aspect of the global economy. As a result, the development of E-business and global commerce necessitates the establishment of a suitable E-trust business environment (Taddeo, 2009). The originality of the current research lies in the development of insightful perspectives about knowledge sharing quality with the assistance of the grounded theory, which allows for the identification of existing

heterogeneous measures of knowledge sharing quality because its definition contains basic elements that synthesize sets of elements into a single concept. This definition proposed concept is also based on the inputs-output process and structure, demonstrating a dual nature of the definition with both shared knowledge, and the ways in which it is shared that are important for the outcomes. As a result, and for a better understanding of what makes knowledge sharing quality more valuable and beneficial, it is necessary to examine not only the nature or number of reports or messages sent, but also the knowledge sharing quality that is being examined. As a result, the study proposed measures based on previous research on the subject.

5.1 Theoretical Contribution

In this research, a conceptual framework for future quantitative work about knowledge sharing quality was presented. The existing concepts were conceptualized in order to gain a further grasp of what knowledge sharing quality is, and how it can be measured. A developed research framework can be also examined and applied beyond the organizational practices as well as operations management within online marketing and knowledge systems. Therefore, the study outcomes suggested guidelines of measuring the knowledge sharing quality as well its integration into the present theoretical frameworks. Analysing the factors of E-supply chain management in this study requires other complementary research work, so a wide view on the analysis is suggested.

5.2 Practical Contribution

From a practical standpoint, the results and insights provided a further understanding of the dimensions of the knowledge sharing quality issue that can provide a critical aspect and point to effectively manage and improve business outcomes of knowledge sharing quality. The study, on the other hand, suggested that companies should be more aware of aspects of knowledge sharing quality that aim for quantitative outcomes, such as increasing the number of reports made and feedback on received messages. Such a measure might also encourage knowledge sharing for the sake of knowledge sharing quality practice, as well as investigating the effective factors influencing E-supply chain management for the main operations of the organizations in order to improve their performance. The research draws attention to the facts that the development of E-supply chain management currently requires focusing on knowledge sharing quality and E-trust in order to reach the intended results and benefits.

6. Conclusion & Future Research

In the current research study, the significance of knowledge sharing quality triggers the studies to address the quality of knowledge sharing and integration within the key activities E-supply chain management practices that have been enlarged in the international business. The topic of knowledge sharing quality brings out significant benefits and advantages to the researched sector such as inventory efficient management, costs reduction, increased visibility, reduction of the uncertainty, and elimination of the negative consequences and effects which improve the resources usage.

The study of the impact of knowledge sharing quality on E-supply chain management and the mediating role of E-trust contribute to enhancing the productivity, business efficiency, quality of the provided services and then strengthening the economic outcomes and benefits. At an early stage, the issues of detection and quick response to reduce cycle times from orders to delivery process enable the companies to achieve a better trace in the market and expand their E-business networks that can also optimize the capacity usage.

The barriers of knowledge sharing quality and E-supply chain management practices should be also considered. As the results show, the companies are required to establish the best practices of E-supply chain management activities with advanced technology to share quality of knowledge within their E-supply chains to increase the competitive edge and survive in today's intensive global market. This can be considered in the future studies which can be used to develop a scale in a particular setting, and check what businesses, managers and organization practices conditions influence the knowledge sharing quality. It would also find out whether a positive mediation relation with E-trust or other proposed factors exist.

References

Ab Aziz, N., Ahmad, R., & Dominic, P. D. D. (2011, September). Preliminary study collaboration method through trust values for e-supply chain integrator: A-case study of Malaysian construction industry. In *2011 National Postgraduate Conference* (pp. 1-5). IEEE.

Abdera, M., & Krishnan, K. (2022). Examining the impact of E-supply chain on service quality and customer satisfaction: a case study. *International Journal of Quality and Service Sciences*, *14*(2), 274-290.

Ahmad, F., & Karim, M. (2019). Impacts of knowledge sharing: a review and directions for future research. *Journal of Workplace Learning*. Vol. 31 Issue: 3, pp.207-230.

AL-Faouri, A., AL Faouri, R., Al-Faouri, E., & Al-Qatawneh, M. (2019). The Effect of Knowledge Management Maturity on Managerial Flexibility: An Empirical Study in Telecommunications Companies in Jordan. *International Journal of Knowledge and Learning (IJKL), 13*(3), 214-231.

AL-Faouri, A., Dasgupta, S., and AL-Kasasbeh, M., (2011). Investigating the Relationship between Knowledge Sharing Strategies and Organizational Excellence Pillars. *Communications of the IBIMA*, Volume 2011 Number (2011), Article ID 923859, DOI: 10.5171/2012/923859, (ISSN:1943-7765).

Alzoubi, H. M. (2018). The role of intelligent information system in e-supply chain management performance. *Intelligent Information System Supply Chain*, *7*(2), 363-370.

Baozi, R. P., & Phillips, L. W. (1982). Representing and testing organizational theories: A holistic construal. *Administrative science quarterly*, *27*(3), 459-489.

Barber, K. D., Garza-Reyes, J. A., Kumar, V., & Abdi, M. R. (2017). The effect of supply chain management practices on supply chain and manufacturing firms' performance. *Journal of Manufacturing Technology Management*, *28*(5), 577-609.

Bentley, P.M., & Cho, C.P. (1988). "Practical issues in structural modelling", in Scott Long, J. (Ed.), *Common Problems/Proper Solutions: Avoiding Error in Quantitative Research*, Sage, Newbury Park, CA, pp. 161-192.

Cervellon, M. C., & Werner felt, A. S. (2012). Knowledge sharing among green fashion communities online: Lessons for the sustainable supply chain. *Journal of fashion marketing and management: An international journal*, *16*(2), 176-192.

Cilicia, C., Craze, A., No, C., & Struss, F. (2019). Information sharing in supply chains: a review of risks and opportunities using the systematic literature network analysis (SLNA). *Supply chain management: an international journal*, *24*(1), 5-21.

Danes Hvar Kikiki, M., & Gardena, V. B. (2019). Information systems for supply chain management: a systematic literature analysis. *International Journal of Production Research*, *57*(15-16), 5318-5339.

Demarking, I., Deeds, D. L., & Demarking, S. (2013). Exploring the role of network characteristics, knowledge quality, and inertia on the evolution of scientific networks. *Journal of Management*, *39*(6), 1462-1489.

Deng, H., Duane, S. X., & Widow, S. (2023). Digital technology driven knowledge sharing for job performance. *Journal of Knowledge Management*, *27*(2), 404-425.

Dominic, P. D. D., Ahmad, R., & Ab. Aziz, N. (2013). Trust-based partner identification method for e-supply chain (B2B) integrator–a case study of Malaysian construction industry. *International Journal of Logistics Systems and Management*, *14*(1), 93-109.

Farooq, R. (2020). A conceptual model of knowledge sharing. *International Journal of Innovation Science*, *10*(2), 238-260.

Cornell, C., & Larker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics.

Fritz, M., & Canavari, M. (2008). Management of perceived e-business risks in food-supply networks: e-trust as prerequisite for supply-chain system innovation. *Agribusiness: An International Journal*, *24*(3), 355-368.

Grozny, A., & Turkman, P. (2009). Upstream supply chain management in e-government: The case of Slovenia. *Government Information Quarterly*, *26*(3), 459-467.

Ismail, M. B., & Yusof, Z. M. (2010). The impact of individual factors on knowledge sharing quality. *Journal of Organizational knowledge management*, *13*(1), 1-12.

Jabber, A. B. L. D. S., Ivana, A. B. N., & Jabber, C. J. C. (2011). Measuring supply chain management practices. *Measuring Business Excellence*, *15*(2), 18-31.

Johnson, M. E., & Whang, S. (2002). E-business and supply chain management: an overview and framework. *Production and Operations management*, *11*(4), 413-423.

Jöreskog, K. G., & Sorbet, D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Scientific software international.

King, W. R. (2011). Knowledge sharing. In *Encyclopaedia of Knowledge Management, Second Edition* (pp. 914-923). IGI Global.

Kumar, N., & Gangly, K. K. (2021). External diffusion of B2B e-procurement and firm financial performance: Role of information transparency and supply chain coordination. *Journal of Enterprise Information Management*, *34*(4), 1037-1060.

Koon You, D., Vonderembse, M. A., & Ragu-Nathan, T. S. (2011). Knowledge quality: antecedents and consequence in project teams. *Journal of Knowledge Management*, *15*(2), 329-343.

Li, S., & Lin, B. (2006). Accessing information sharing and information quality in supply chain management. *Decision support systems*, *42*(3), 1641-1656.

Mara, M., How, W., & Edwards, J. S. (2012). Supply chain knowledge management: A literature review. *Expert systems with applications*, *39*(5), 6103-6110.

Masada, R. E., Gharaibeh, E., Tahini, A., Obeisant, D., & Yousef, B. (2015, September). Knowledge sharing capability: A literature review. In *Conference Proceedings (COES&RJ-CP2-5), ISBN (E)* (pp. 978-969).

Martins, V. W. B., Repass, I. S., Angolan, R., Quashes, O. L. G., & Leal Filo, W. (2019). Knowledge management in the context of sustainability: Literature review and opportunities for future research. *Journal of cleaner production*, *229*, 489-500.

Mora-Monger, C., Quesada, G., Gonzalez, M. E., & Davis, J. M. (2019). Trust, power and supply chain integration in Web-enabled supply chains. *Supply Chain Management: An International Journal*, *24*(4), 524-539.

Nowicka, K. (2018). Trust in digital supply chain management. *Logistics and Transport*, *39*.

Oberholzer-Gee, F., & Strumpf, K. (2007). The effect of file sharing on record sales: An empirical analysis. *Journal of political economy*, *115*(1), 1-42.

Philosophies, M., Achaean, P., & Nava, M. (2022). The mediating role of blockchain technology in improvement of knowledge sharing for supply chain management. *Management Decision*, *60*(3), 784-805.

Rasheed, C. A. A., Zaeem, A., & Halim, Z. (2010). Effect of information and knowledge sharing on supply chain performance: a survey based approach. *Journal of Operations and Supply Chain Management*, *3*(2), 61-77.

Sahay, B. S. (2003). Understanding trust in supply chain relationships. *Industrial Management & Data Systems*, *103*(8), 553-563.

Santhosh, S. S., & Lawrence, L. N. (2023). Understanding the implementations and limitations in knowledge management and knowledge sharing using a systematic literature review. *Current Psychology*, 1-16.

Sarkheyli, A., Alias, R. A., Ithnin, N., & Esfahani, M. D. (2013). Dimensions of knowledge sharing quality: An empirical investigation. *Journal of Resources Innovation and Information Systems*, *3*, 9-18.

Scrannel, T. V., Vickery, S. K., & Drogue, C. L. (2000). Upstream supply chain management and competitive performance in the automotive supply industry. *Journal of Business Logistics*, *21*(1), 23.

Sedgwick, P. (2014). Non-response bias versus response bias. *Bum*, *348*.

Sharifnia, M., Cranmer, A., & Doroodchi, M. (2009). Development of trust model for e-supply chain management applications. In *European and Mediterranean Conference on Information's System (EMCIS2009), Crowne Plaza Hotel, Izmir*.

Shih, S. C., Hsu, S. H., Zhu, Z., & Balasubramanian, S. K. (2012). Knowledge sharing—A key role in the downstream supply chain. *Information & management*, *49*(2), 70-80.

Small, C. T., & Sage, A. P. (2005). Knowledge management and knowledge sharing: A review. *Information Knowledge systems management*, *5*(3), 153-169.

Stadtler, H. (2015). Supply chain management: An overview. *Supply chain management and advanced planning: Concepts, models, software, and case studies*, 3-28.

Taddeo, M. (2009). Defining trust and e-trust: from old theories to new problems. *International journal of technology and human interaction (IJTHI)*, *5*(2), 23-35.

Taghipour, A., Murat, S., & Huang, P. (2021). E-supply chain management: A review. *International Journal of e-Education, e-Business, e-Management and e-Learning*, *11*(2), 51-61.

Samba, S. F., & Quiroz, M. M. (2020). Blockchain in the operations and supply chain management: Benefits, challenges and future research opportunities. *International Journal of Information Management*, *52*, 102064.

Wang, S., & One, R. A. (2010). Knowledge sharing: A review and directions for future research. *Human resource management review*, *20*(2), 115-131.

Weave, S., Grace, D., Dent, R., & R. Brown, J. (2014). Value creation through knowledge management in franchising: a multi-level conceptual framework. *Journal of Services Marketing*, *28*(2), 97-104.

Zheng, T. (2017). A literature review on knowledge sharing. *Open Journal of Social Sciences, 5*(3), 51-58.

Zhu, G., Chou, M. C., & Tsai, C. W. (2020). Lessons learned from the COVID-19 pandemic exposing the shortcomings of current supply chain operations: A long-term prescriptive offering. *Sustainability*, *12*(14), 5858.