

Supply Chain and Quality Services in Among Jordanian public Hospitals: A Preliminary Review

$\mathbf{B}\mathbf{y}$

Amer Zaid Alqudah

Technology and Supply Chain Excellence Institute (TESCE), School of Technology Management & Logistics, University Utara Malaysia, Sintok, Kedah, Malaysia E.mail: Alqudahamer99@yahoo.com

Hussein Mohammed Esmail Abualrejal

Technology and Supply Chain Excellence Institute (TESCE), School of Technology Management & Logistics, University Utara Malaysia, Sintok, Kedah, Malaysia E.mail: abualrejal@uum.edu.my

Ezanee Mohamed Elias

Technology and Supply Chain Excellence Institute (TESCE), School of Technology Management & Logistics, University Utara Malaysia, Sintok, Kedah, Malaysia

Abstract

The expansion of phenomena of globalization and the emergence of in light of recent developments and development are the most significant changes confronting organizations today. Of course, organizations were forced to innovate to keep up with the ever-evolving nature of shift schedules and the interplay between these factors, as well as to hire and retain the appropriately skilled workers necessary to adapt to the ever-shifting nature of the business. Several articles have focused on the importance of quality management (QM) and the supply chain (SC) as two of the most significant changes currently confronting businesses. They're not just methods or procedures; they're philosophies of management. For that reason, the purpose of this study is to provide a foundation for future empirical studies by reviewing studies that have already been conducted on this philosophy overload. Considering the rise in TQM implementation in government and the healthcare industry, The critical need to enhance healthcare delivery systems worldwide will also be investigated. The overarching research goal is to develop a more all-encompassing and practical model for managing the connection between the supply chain and the health-related significance of hospital service quality. The study's findings have real-world implications for patients and healthcare providers alike, as they illuminate the fundamentals of the connection between SC and hospital service quality within Jordan's public healthcare facilities, ultimately helping to mould a healthier and more prosperous future for Jordan.

Keywords: Supply Chain, Quality Services, public Hospital, Jordan.

Introduction

The appearance of a newly discovered Coronavirus infection has had an impact on public health systems all around the world. The coronavirus has caused harm to the supply chains that are normally responsible for keeping health organizations stocked [1]. This has ramifications for the medical business, including the manufacturing of drugs and breathing apparatus, among other things. Many companies have made quality management a fundamental pillar of their operations because it enables them to boost consumer knowledge of the value of

Published/ publié in Res Militaris (resmilitaris.net), vol.13, n°2, January Issue 2023



the products and services they purchase and improves performance in an environment that is fast-paced and highly competitive [2]. To a large extent, quality assurance is predicated on satisfied customers, and interactions with consumers in a similar capacity have proven essential to the improvement of service quality [3]. It is imperative that both the public sector and the private sector acknowledge the significance of the supply chain as well as the supply chain management information system. This component of the information system measures, processes, and distributes information that is beneficial to management. It is necessary to put into action. Patients in today's healthcare system are strongly encouraged to be more active participants in their own treatment and care. On the other hand, the quality of care that is delivered is highly variable and regularly altered. There is a dearth of knowledge regarding the ways in which people's perceptions of the quality of medical care influence clinical procedures [5]. Due to the authoritarian and competitive climate in which international markets function, it is essential for businesses to have a strategy for improving the quality of something that focuses on the systems and services in order for them to expand effectively in international markets [6]. In general, the implementation of TQM leads to an improvement in service quality, which in turn leads to an increase in patient (or customer) satisfaction, which is widely acknowledged as one of the most essential measures for measuring the quality of service provided by healthcare systems [7]. In addition, Kisuma et al. (2013) demonstrated that the significance of providing positive examples of customers in order to strengthen the relationship rises in proportion to the precision of the evaluation of the quality of the service provided. Because healthcare providers provide reliable information (feedback) that reflects the performance of healthcare facilities, evaluating the quality of healthcare provided by healthcare providers is critical for establishing the efficacy of these vital sectors. [8]

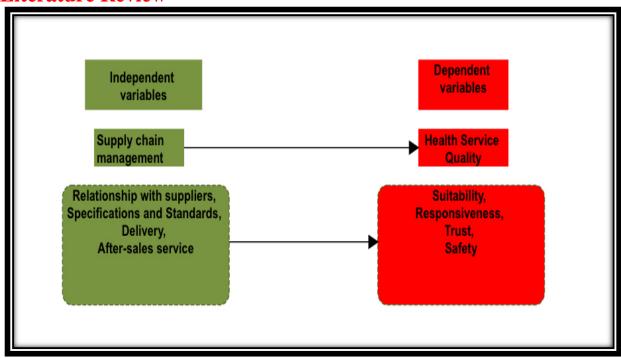
To ensure the health and well-being of patients at a price that is affordable is at the core of the objective of the healthcare business, which is a public service mission. Therefore, having a supply chain that is adaptable can be helpful in doing this [9]. According to Chowdhury and colleagues (2017), the primary goal of the supply chain in service firms is to lower the costs linked to delivering clients high-quality services. This is the primary objective of the supply chain. [10] This study attempts to review the concerns surrounding the "supply chain and quality of service" as it significantly affects health among government hospitals in Jordan in an effort to take the first step toward suggesting that an academically enhanced model boosts the quality of healthcare service. The overall goal of this study is to suggest that an academically enhanced model boosts the quality of healthcare service. In Jordan, it is still necessary to make use of models in order to understand how the supply chain is utilized and how it impacts healthcare services.

Business Model

The study's goal is to establish a connection between the dimensions of supply chain management (relationship with suppliers, specifications and standards, delivery, and after-sales service) and the dimensions of health service quality (suitability, responsiveness, trust, and safety) in Jordan's public hospitals. The study's central focus is on the correlation between these two groups of factors(theDependentVariables)

Research Business Model (Prepared by Researcher)

Literature Review



In this article, the author covers some of the previous studies that have investigated the association between hospital SCM and the quality of medical care service provided in public hospitals in Jordan. These studies were conducted in the past. As a consequence of this, the author of the paper proposes multiple ideas that are associated with SC, quality management, and the standard of care that is offered by healthcare practitioners. In this section, we will talk about theory as well as previous research. In this article, we'll discuss the evolution of supply chain management and related topics.

A HealthCare Quality service

Quality management (QM) is one of the key foundations of contemporary management philosophy. It emphasizes a continual emphasis on learning from customer feedback in order to adapt and improve [11], which is one of the primary goals of quality management. According to the definition provided by the American Society for Quality (ASQ), "quality management" is "a collaborative approach to business the result of management and staff working together," with the ultimate goal of "fostering a culture of continuous improvement in both quality and productivity through collaborative teams." [12] In order to change and have an effect on the number of cases of sickness, deaths, disabilities, and malnutrition, prerequisites must be satisfied, and correct performance must be supplied in a cost-effective, risk-free, and sociallyacceptable manner The World Health Organization (WHO) defines high-quality medical care as having [13] characteristics. The importance of keeping an eye on quality concerns and keeping hospital administrators informed of potential issues so that they can be addressed has been emphasized by a number of studies that looked at how difficult it is to determine whether or not a patient is satisfied with the care they received in a hospital [14]. Conformity with predetermined standards that have been articulated by the professional medical community is the conventional definition of quality medical care. Good medical care is the standard of medical practitioners and nursing as it is practiced and taught by medical leaders during a specific era of a country's social, cultural, and economic development [15]. This term refers to the standard of medical practitioners and nursing as it is practiced and taught by medical leaders.

RES MILITARIS REVUE EUROPEENNE D ETUDES EUROPEAN JOURNAL OF MILITARY STUDIES

Social Science Journal

B Supply Chain

Various researchers and thinkers on the supply chain have treated the problem from a variety of theoretical angles, and the theoretical frameworks convey the ideas, ideologies, and conceptions that these researchers and thinkers have developed (Abualrejal et al., 2021) [16]. According to the definition provided by the Supply Chain Management Council, supply chain (SC) refers to "the sequence of actions required to convey raw materials from a source to an end user." In addition, in order to establish a smooth supply chain, which starts with sourcing raw materials and ends with shipping finished goods, requires close coordination between all suppliers and service providers involved. [17]. Corporations employ a wide variety of methods for maintaining functional supply chains. Some supply chains were able to weather the initial stages of the Corona pandemic thanks to the stockpiles of inventory and extra capacity they had built up. Some people relied on idle factories to produce goods, while others used idle factories to produce other commodities (Abualrejal et al., 2021) [18]. SC built a natural evolution of creative value activities, beginning with the addition of inputs and continuing all the way through to the delivery of the finished product [19]. According to Burns et al. (2021). the supply chain (SC) consists of all of the businesses, locations, departments, and tasks that are involved in the production and delivery of a good or service, beginning with the primary source of the raw materials and ending with the final consumer. [20].

C The Relationship between Supply Chain and medical Services Quality.

According to Ben Daya et al (2020).'s review of the IoT's potential benefits for supply chain management, the supply chain (SC) is one of the application areas with substantial potential to reap the benefits of IoT. This review of the literature helped them make recommendations for future studies on people who could benefit from the cutting-edge developments in SC technology. [21]. Value chain practices and quality management were analyzed, as was the effect of information exchange and leadership on the performance of SMEs by Zhou and Li (2020). This study uncovered several significant new insights as a result [22]. It starts with examining how the rate of innovation and the success of a company's market share affect communication throughout the supply chain, quality control, and the amount of money invested by suppliers. Second, a company's location, which could be anywhere from a coastal metropolis to a provincial capital in the interior, can significantly impact its supply chain procedures and results. Third, the competitive environment may affect supplier-specific investment projects by small and medium-sized firms. Fourth, the company's stage of development has no bearing on the decisions SMEs make regarding supply chain information exchange, quality management, and supplier investment (i.e., presentation, growth, or maturity). SCM dimensions (supplier connection, compatibility, specifications and standards, delivery, and after-sale service) were found to affect three aspects of healthcare quality (response, confidence, and security) in private hospitals in Jordan (Al-Saa'da et al., 2013) [23]. From our purchasing department. The research also aspires to explain the differences in SCM and medical service quality that can be traced back to specific demographics. Their study revealed that the four supply chain management factors impact the morality of health care (supplier relationship, specifications and standards, delivery, and after-sale service). In contrast, the results demonstrate that supply chain management and the quality of health services are unaffected by a person's gender, level of education, age, or experience group. Abu-kharmeh assessed the quality of medical facilities in Jordan (2012). Five criteria were used to determine quality: specificity, dependability, responsiveness, confidence, and empathy. Based on the findings, the standard of care patients received in Jordanian hospitals was pretty average. Except for the response and assurance variables, which were both high, the quality dimensions of the service were also moderate [24]. Regarding changes in supply chain management [25], De Vries and Huijsman (2011) investigated whether or not the industrial sector and healthcare services share commonalities.



 Table 1 provides research carried out on supply chain and quality of health service

#	Author/s	Independent Variable IV	Mediating Variable	Moderating Variable	Dependent Variable DV	Methodology	Findings
1	Iyengar etAl., 2020	Coronavirus Pandemic					Shortages of medical and personal protective equipment hindered efforts to contain the COVID-19 outbreak during the coronavirus pandemic, illustrating the vulnerability of the healthcare supply chain. This raises the stakes of the virus spreading further and causes concern among medical personnel. The failures seen during the COVID-19 outbreak, especially with PPE and ventilators, draw attention to the need to finance healthcare IT, procurement methods, and effective delivery systems. [24]
	Gentle, and	Arrive, 2020 SCM		Health care Service Quality	Qualitative analysis and questionnaire	students at a si	representative of ngle public Italian s research employs a design [25].
	3	JAN, DE VRIES		health service s	an exploratory, qualitative approach	Chain Manage industry, and the primary areas to result, it is con- interdisciplinar	ne literature on Supply ment in the healthcare then we outline five for future study. As a

interdisciplinary research on Supply chain management issues in health

services is required alongside studies with a mono-disciplinary focus.

4	Xianghui Peng	SCM		a quality		The findings validate the usefulness of the proposed structure. The results highlight SCM's significance as a central organizational construct that has a direct, positive impact on organizational outcomes. This study also established that SCM acts as a go-between for leadership and knowledge, analysis, and measurement systems, all of which impact organizational outcomes.
5	Agyabeng- Mensahet al., 2020	Green Supply Chain	TQM		Qualitative analysis	According to the results, OP and BP are greatly enhanced when GSCPs are combined with JIT and TQM. Value creation for OP and BP is most incredible when GSCPs and TQM work together rather than when GSCPs and JIT do [26].
6	Gutama Getele	SCM		healthcare service quality	. questionnaire used in this study	There is a significant and robust relationship between every one of the variables. Our research indicates that the combination of healthcare product delivery timeliness, product specification, supplier quality, and After-Sale services in Ethiopia's private health sectors is correlated with healthcare quality.

7	Mahmoud Bakkar Abdel Tawab	Total Quality Management	SCM	descriptive- analytical method	There is a wealth of positive research on TQM in the public domain, covering every facet of the methodology (administrative support, customer-centricity, continuous improvement, employee education and development, and so on). Distribution System Information (the company, customer recovery, customer relations, information flow) Logistics from the outside in (private sector industries)
8	Raghavendra and Nijaguna	SCM	Service Quality		Demonstrates that there is a correlation between how a restaurant manages its supply chain and the quality of its service. Insights into the implications of our findings for active managers are also provided. Our findings suggest that supply chain managers should take into account the highlighted practices when making strategic decisions about the level of supply chain integration across all five
9	(Abualrejal et al., 2021)	Management of the Supply Chain		pertormance	dimensions of service quality. There is a significant positive relationship between practicing outside-in capabilities and practicing for inside-out capabilities this. If outside-in capabilities practicing level is increased the level of practicing inside-out capabilities will increase [29].

Methodology

This study employed a literature review approach; it was predicated on the supply chain and the quality of healthcare services; and it anticipated that future empirical studies would delve into the specifics of the connections that exist between the supply chain and the quality of healthcare services. In order to create a new academically enhanced approach that is both comprehensive and realistic for controlling service quality, this study will examine the' supply chain' and healthcare service quality among Government hospitals in Jordan. The goal of this research is to establish a more comprehensive and realistic strategy for managing service quality, grounded in the latest academic insights. This research employs an exploratory approach to examine the effects of the supply chain on service quality. In light of the possibility that the conclusions cannot be drawn from the electronic sources, additional investigation is warranted.

RES MILITARIS REVUE EUROPEENNE D ETUDES EUROPEAN JOURNAL OF MILITARY STUDIES

Social Science Journal

Discussion

Supply chains consist of many different types of facilities, including warehouses, factories, operations centers, and distribution hubs (Abualrejal, 2022). Logistics encompasses everything from initial conceptualization and budgeting to final product delivery and customer service. [26]. El-Shoghari and Abdallah (2016) argue that SCM will affect service quality by allowing institutions to track service quality, optimize the use of existing resources, and recruit additional resources to meet demand. This is an organizational perspective on how SCM will have an effect on service quality. [27]. Ali et al. conducted research to investigate the efficiency of quality management systems implemented in Jordanian hospitals (2012). The public Jordan Hospital and Medical Center in Amman and the private King Abdullah University Hospital in Irbid were both subjected to in-depth research. Jordan is home to both public (Jordan Hospital and Medical Center) and private (King Abdullah University Hospital) healthcare facilities. [28]. In particular, the findings demonstrated that there was a substantial correlation between the performance of the hospital in Jordan and each of the eight quality management principles. Following the completion of a literature review, an examination of supply chain integration options will take place. In addition, it is required to compile a summary of the findings of the studies that were included and to place those findings in the context of any potential future research. This book contributes to the body of knowledge on healthcare management and supply chain management since it provides an overview of various important fields of research. The researcher's understanding of the complexities involved in healthcare supply chain management is beneficial to both researchers and administrators.

Conclusion

Total Quality Management (TQM) is a strategy that is implemented by businesses in order to guarantee consistently high levels of customer satisfaction. Total Quality Management, sometimes known as TQM, is a system of management that provides businesses with a competitive advantage. Because performance is nothing more than knowing the client's requirements and converting them into requirements that meet the client's requirements, Total Quality Management (TQM) was defined as a change in the organization's structure that also involves focusing the organization's efforts on the continuous improvement of all operations and systems, as well as, most importantly, the various stages of work. TQM was defined as such because performance is nothing more than knowing the client's requirements and converting them into requirements that meet the client's requirements. Additionally, healthcare SCM is a dynamic model that takes into account production and provider resources, in addition to the availability of services and goods for patients and providers, which is considered to be an inherently difficult operation, as it requires a continuous flow of commodities', information, orders, as well as financial transactions between phases. In spite of the fact that SCM takes into consideration a phased operation, the COVID-19 pandemic caused extensive damage to the majority of the chain for a number of reasons. This resulted in a lack of several personal protective devices and medical services on the medical frontlines due to insufficient data quality. The influence that a disruption in the flow of services and medical items from patients' factories as well as doctors has on day-to-day living, with far-reaching implications.

References

Sohrabi, C., Alsafi, Z., O'neill, N., Khan, M., Kerwan, A., Al-Jabir, A., & Agha, R. (2020). World Health Organization declares global emergency: A review of the 2019 novel coronavirus (COVID-19). International journal of surgery, 76, 71-76. https://doi.org/10.1016/j.ijsu.2020.02.034

RES MILITARIS REVUE EUROPEENNE D ETUDES EUROPEAN JOURNAL OF MILITARY STUDIES

Social Science Journal

- Al-Maamari, Q. A. (2020). The effect of Total Quality Management (TQM) practices on individual readiness for change with in yemeni oil units. Test Engineering and Management, 83, 13640-13661. ISSN: 0193-4120 Page No. 13640 13661
- Chowdhury, A. H. M., Alam, M. Z., & Habib, M. M. (2017). Supply chain management practices in services industry: An empirical investigation on some selected services sector of Bangladesh. International Journal of Supply Chain Management, 6(3), 152-162.
- Tao, D., LeRouge, C., Smith, K. J., & De Leo, G. (2017). Defining information quality into health websites: a conceptual framework of health website information quality for educated young adults. JMIR human factors, 4(4), e6455. DOI: 10.2196/humanfactors.6455
- Debattista, J., Auer, S., & Lange, C. (2016). Luzzu—a methodology and framework for linked data quality assessment. Journal of Data and Information Quality (JDIQ), 8(1), 1-32. https://doi.org/10.1145/2992786
- Nguyen, T. L. H., & Nagase, K. (2019). The influence of total quality management on customer satisfaction. International journal of healthcare management, 12(4), 277-285.Cho, W. H., Lee, H., Kim, C., Lee, S., & Choi, K. S. (2004). The Impact of Visit Frequency on The Relationship Between Service Quality and Outpatient Satisfaction: A South Korean Study. Health Services Research, 39(1), 13-34. https://doi.org/10.1080/20479700.2019.1647378
- Srivastava, S., Garg, D., & Agarwal, A. (2021). A step towards responsive healthcare supply chain management: an overview. Advances in Manufacturing and Industrial Engineering, 431-443.
- Mandal, S., & Saravanan, D. (2019). Exploring the influence of strategic orientations on tourism supply chain agility and resilience: an empirical investigation. Tourism Planning & Development, 16(6),612-636.https://doi.org/10.1080/21568316.2018.1561506
- Pfaff, H., Hammer, A., Ballester, M., Schubin, K., Swora, M., & Sunol, R. (2021). Social determinants of the impact of hospital management boards on quality management: a study of 109 European hospitals using a parsonian approach. BMC health services research, 21(1), 1-7. https://doi.org/10.1186/s12913-020-06053-0
- Abbas, J. (2020). Impact of total quality management on corporate sustainability through the mediating effect of knowledge management. Journal of Cleaner Production, 244, 118806. Hamed, O. (2020). "Quality of Health Services Provided to Patients in Government Hospitals, Applying to Locality and Medani Al-Kubra, Gezira State Sudan (2020)." The World Journal of Economics and Business: 9 (2): 318-332.
- Parand, A., Dopson, S., Renz, A., & Vincent, C. (2014). The role of hospital managers in quality and patient safety: a systematic review. BMJ open, 4(9),e005055.http://dx.doi.org/10.1136/bmjopen-2014-005055
- McGlynn, E. A. (2020). Measuring and improving quality in the US: where are we today? The Journal of the American Board of Family Medicine, 33(Supplement), S28-S35. DOI: https://doi.org/10.3122/jabfm.2020.S1.190398
- Mathur, B., Gupta, S., Meena, M. L., & Dangayach, G. S. (2018). Healthcare supply chain management: literature review and some issues. Journal of Advances in Management Research. ISSN: 0972-7981
- Abdel-Basset, M., Manogaran, G., & Mohamed, M. (2018). Internet of Things (IoT) and its impact on supply chain: A framework for building smart, secure and efficient systems. Future Generation Computer Systems, 86(9), 614-628.
- Abdel-Basset, M., Manogaran, G., & Mohamed, M. (2018). Internet of Things (IoT) and its impact on supply chain: A framework for building smart, secure and efficient systems. Future Generation Computer Systems, 86(9), 614-628.
- Ali, A. A., Abualrejal, H. M. E., Mohamed Udin, Z. B., Shtawi, H. O., & Alqudah, A. Z. (2021, June). The Role of Supply Chain Integration on Project Management Success in

RES MILITARIS REVUE EUROPEANE DE ETUDES EUROPEAN [OURNAL OF MILITARY STUDIES

Social Science Journal

- Jordanian Engineering Companies. In International Conference on Emerging Technologies and Intelligent Systems (pp. 646-657). Springer, Cham.
- Ben-Daya, M., Hassini, E., Bahroun, Z., & Banimfreg, B. H. (2020). The role of internet of things in food supply chain quality management: A review. Quality management journal, 28(1), 17-40.Zhou, H., Shou, Y., Zhai, X., Li, L., Wood, C., & Wu, X. (2014).
 Supply Chain Practice and Information Quality: A Supply Chain Strategy Study. International Journal of Production Economics, 147, 624-633. https://doi.org/10.1080/10686967.2020.1838978
- Al-Saa'da, R. J., Taleb, Y. K. A., Al Abdallat, M. E., Al-Mahasneh, R. A. A., Nimer, N. A., & Al-Weshah, G. A. (2013). Supply chain management and its effect on health care service quality: quantitative evidence from Jordanian private hospitals. Journal of Management and Strategy, 4(2), 42. URL: http://dx.doi.org/10.5430/jms.v4n2p42
- Abu al-Rejal, H. M., Mohamed Udin, Z., & Yusoff, R. Z. (2018). The role of supply chain management toward performance of manufacturing companies in Yemen. International Journal of Supply Chain Management (IJSCM), 7(6), 92-99
- Al-Saa'da, R. J., Taleb, Y. K. A., Al Abdallat, M. E., Al-Mahasneh, R. A. A., Nimer, N. A., & Al-Weshah, G. A. (2013). Supply chain management and its effect on health care service quality: quantitative evidence from Jordanian private hospitals. Journal of Management and Strategy, 4(2), 42. URL: http://dx.doi.org/10.5430/jms.v4n2p42
- De Vries, J., & Huijsman, R. (2011). Supply chain management in health services: an overview. Supply chain management: An international journal. ISSN: 1359-8546
- Iyengar, K., Mabrouk, A., Jain, V. K., Venkatesan, A., & Vaishya, R. (2020). Learning opportunities from COVID-19 and future effects on health care system. Diabetes & Metabolic Syndrome: Clinical Research & Reviews, 14(5), 943-946.Getele, G.K., Li, T., & Arrive, J.T. (2020). The Role of Supply Chain Management in Healthcare Service Quality. IEEE Engineering Management Review, 48, 145-155. https://doi.org/10.1016/j.dsx.2020.06.036
- Agyabeng-Mensah, Y., Ahenkorah, E., Afum, E., Agyemang, A. N., Agnikpe, C., & Rogers, F. (2020). Examining the influence of internal green supply chain practices, green human resource management and supply chain environmental cooperation on firm performance. Supply Chain Management: An International Journal.
- Al-Saa'da, R. J., Taleb, Y. K. A., Al Abdallat, M. E., Al-Mahasneh, R. A. A., Nimer, N. A., & Al-Weshah, G. A. (2013). Supply chain management and its effect on health care service quality: quantitative evidence from Jordanian private hospitals. Journal of Management and Strategy, 4(2), 42. URL: http://dx.doi.org/10.5430/jms.v4n2p42
- el Shoghari, R., & Abdallah, K. (2016). The impact of supply chain management on customer service (a case study of Lebanon). Management, 6(2), 46-54. DOI: 10.5923/j.mm.20160602.03
- Agyabeng-Mensah, Y., Afum, E., Agnikpe, C., Cai, J., Ahenkorah, E., & Dacosta, E. (2020). Exploring the mediating influences of total quality management and just in time between green supply chain practices and performance. Journal of Manufacturing Technology Management. https://www.emerald.com/insight/1741-038X.htm
- Ali, J. And Kumar, S. (2011), "Information and Communication Technologies (ICT) And Farmers' Decision-Making Across the Agricultural Supply Chain", International Journal of Information Management, Vol. 31 No. 2, Pp. 149-159. https://doi.org/10.1016/j.ijinfomgt.2010.07.008
- Alqudah, A., Abualrejal, H. M., & Elias, E. (2022). Hospital Supply Chain Management and Quality of Services Within Hospitals: A Preliminary Review. In International Conference of Reliable Information and Communication Technology (pp. 775-784). Springer, Cham.
- Ali, A. A. A., Udin, Z. B. M., & Abualrejal, H. M. E. (2023). The Impact of Artificial



Intelligence and Supply Chain Resilience on the Companies Supply Chains Performance: The Moderating Role of Supply Chain Dynamism. In International Conference on Information Systems and Intelligent Applications (pp. 17-28). Springer, Cham.

.