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Muhammad Alshurideh ·  
Barween Hikmat Al Kurdi ·  
Ra'ed Masa'deh · Haitham M. Alzoubi ·  
Said Salloum *Editors*

# The Effect of Information Technology on Business and Marketing Intelligence Systems


 Springer

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Editors


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# Educational Supply Chain Management: A View on Professional Development Success in Malaysia



K. L. Lee , G. Nawanir , J. K. Cheng , Haitham M. Alzoubi ,  
and Muhammad Alshurideh 

**Abstract** The industrial environment is unpredictably shifting. Technology advancements and pandemics force the corporate environment to evolve even faster in order to stay competitive and thrive. As a result, in today's fast-paced business environment, supply chain management has grown in popularity. The study's major goal is to apply the concept of industrial supply chain management to educational management. The empirical study will be conducted separately and do not cover in this paper. In dynamic and uncertain business operations, the educational model is more appropriate to switch from mass production delivery to industrial experiences in building individual talent excellence. This minimizes the educator's knowledge and experiences delivery gap to the learner in the educational supply chain. From the issues, This study identifies the education attributes and how it affects professional development success. This study further investigates the moderating effect of industrial experiences on the relationship between education attributes and professional development success. Besides, this study aims to propose an educational supply chain model (EduSCM) for 21st-century professional development success in

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Malaysia higher education to gain competitive advantages. To achieve the objectives, mixed methods research design is proposed. The qualitative data collection will be collected after the completion of quantitative data analysis. The data collected from the interview use to explain, interpret, understand, and triangulate the results of quantitative analysis to produce a potent conclusion. Lastly, this study will provide a unique conceptual diagram expected to aid researchers and practitioners to create a more comprehensive understanding of the linkages between learning competencies, industrial experiences, and professional development.

**Keywords** Educational supply chain management · Professional development success · Industry experience · Malaysia

## 1 Introduction

The initial concept of logistics began in 1950 and the concept matured in 1970 (Habib & Jungthirapanich, 2008a, 2008b). The industry noticed that the logistics concept plays an essential role in the business environment and gets critical, and the logistics elements also get more comprehensive. Therefore, in 1980, the focus of the logistics concept is switched, and the supply chain management concept is initiated. Due to the power of the supply chain concept, researchers and academicians start researching the concept, and the publication was available in 1982. In 1985, the manufacturing industry realized the usefulness of the supply chain management concept in managing their operation. The manufacturer applies the supply chain management concepts as strategic and systematic coordination of business activities to reduce costs, improve customer service, enhance quality, and increase competitiveness (Tan et al., 2002). In 1990, more and more researchers started exploring the concept and the area that can be researched in the supply chain (Huan et al., 2004; Cooper, 2006).

The power of supply chain management concept and the result of research activities from academician influenced the service industry as one of the main sections in a country start to implement supply chain management concept in-service operation in 1995. After five years, in 2000, it gains incredible attention from academics and practitioners (Chan & Qi, 2003). The concept of educational supply chain management started to emerge in 2007 as it is one of the service industries and aims to produce the right talent that can meet the industry needs (Habib & Jungthirapanich, 2008a, 2008b). In 2010, the market no longer competed between the organizations but between the supply chain to gain competitiveness (Gunasekaran et al., 2008). Technology advancement is moving faster than ever in the current decades. Therefore, the digital supply chain starts to emerge in 2017, focusing on integrating the information system to increase the efficiency, reliability, and transparency of the overall supply chain (Büyüközkan & Göçer, 2018; Korpela et al., 2021). In short, the supply chain management concept becomes more and more important in the current

Product (GDP) of Malaysia. Finally, contribute to Malaysia's reputation and international standards by professional development through an educational supply chain model well-known globally.

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## References

- Akhtar, A., Akhtar, S., Bakhtawar, B., Kashif, A. A., Aziz, N., & Javeid, M. S. (2021). COVID-19 detection from CBC using machine learning techniques. *International Journal of Technology, Innovation and Management (IJTIM)*, 1(2), 65–78.
- Akour, I., Alshurideh, M., Al Kurdi, B., Al Ali, A., & Salloum, S. (2021). Using machine learning algorithms to predict people's intention to use mobile learning platforms during the COVID-19 pandemic: Machine learning approach. *JMIR Medical Education*, 7(1), 1–17. <https://doi.org/10.2196/24032>
- Al-Marouf, R., Ayoubi, K., Alhumaid, K., Aburayya, A., Alshurideh, M., Alfaisal, R., & Salloum, S. (2021a). The acceptance of social media video for knowledge acquisition, sharing and application: A comparative study among YouTube users and TikTok users' for medical purposes. *International Journal of Data and Network Science*, 5(3). <https://doi.org/10.5267/j.ijdns.2021a.6.013>
- Al-Marouf, R. S., Alshurideh, M. T., Salloum, S. A., AlHamad, A. Q. M., & Gaber, T. (2021b). Acceptance of Google Meet during the spread of Coronavirus by Arab university students. *Informatics*, 8(2), 24.
- Al Ali, A. (2021). The impact of information sharing and quality assurance on customer service at UAE banking sector. *International Journal of Technology, Innovation and Management (IJTIM)*, 1(1), 01–17. <https://doi.org/10.54489/ijtim.v1i1.10>
- Al Dmour, H., Alshurideh, M., & Shishan, F. (2014). The influence of mobile application quality and attributes on the continuance intention of mobile shopping. *Life Science Journal*, 11(10).
- Al Kurdi, B., Alshurideh, M., Nuseir, M., Aburayya, A., & Salloum, S. A. (2021). The Effects of subjective norm on the intention to use social media networks: An exploratory study using PLS-SEM and machine learning approach. In *Advances in Intelligent Systems and Computing* (Vol. 1339). [https://doi.org/10.1007/978-3-030-69717-4\\_55](https://doi.org/10.1007/978-3-030-69717-4_55)
- AlHamad, A., Alshurideh, M., Alomari, K., Kurdi, B. A., Alzoubi, H., Hamouche, S., & Al-Hawary, S. (2022). The effect of electronic human resources management on organizational health of telecommuni-cations companies in Jordan. *International Journal of Data and Network Science*, 6(2), 429–438. <https://doi.org/10.5267/j.ijdns.2021.12.011>
- Alhamad, A. Q. M., Akour, I., Alshurideh, M., Al-Hamad, A. Q., Kurdi, B. A., & Alzoubi, H. (2021). Predicting the intention to use google glass: A comparative approach using machine learning models and PLS-SEM. *International Journal of Data and Network Science*, 5(3). <https://doi.org/10.5267/j.ijdns.2021.6.002>
- Ali, N., Ahmed, A., Anum, L., Ghazal, T. M., Abbas, S., Khan, M. A., Alzoubi, H. M., & Ahmad, M. (2021). Modelling supply chain information collaboration empowered with machine learning technique. *Intelligent Automation and Soft Computing*, 30(1), 243–257. <https://doi.org/10.32604/iasc.2021.018983>
- Ali, N., M. Ghazal, T., Ahmed, A., Abbas, S., A. Khan, M., Alzoubi, H., Farooq, U., Ahmad, M., & Adnan Khan, M. (2022). Fusion-based supply chain collaboration using machine learning techniques. *Intelligent Automation & Soft Computing*, 31(3), 1671–1687. <https://doi.org/10.32604/iasc.2022.019892>