Lecture Notes in Networks and Systems 485

Bahaaeddin Alareeni Allam Hamdan *Editors*

Impact of Artificial Intelligence, and the Fourth Industrial Revolution on Business Success

Proceedings of The International Conference on Business and Technology (ICBT 2021)



Lecture Notes in Networks and Systems

Volume 485

Series Editor

Janusz Kacprzyk, Systems Research Institute, Polish Academy of Sciences, Warsaw, Poland

Advisory Editors

Fernando Gomide, Department of Computer Engineering and Automation—DCA, School of Electrical and Computer Engineering—FEEC, University of Campinas—UNICAMP, São Paulo, Brazil

Okyay Kaynak, Department of Electrical and Electronic Engineering, Bogazici University, Istanbul, Turkey

Derong Liu, Department of Electrical and Computer Engineering, University of Illinois at Chicago, Chicago, USA

Institute of Automation, Chinese Academy of Sciences, Beijing, China

Witold Pedrycz, Department of Electrical and Computer Engineering, University of Alberta, Alberta, Canada

Systems Research Institute, Polish Academy of Sciences, Warsaw, Poland

Marios M. Polycarpou, Department of Electrical and Computer Engineering, KIOS Research Center for Intelligent Systems and Networks, University of Cyprus, Nicosia, Cyprus

Imre J. Rudas, Óbuda University, Budapest, Hungary

Jun Wang, Department of Computer Science, City University of Hong Kong, Kowloon, Hong Kong

The series "Lecture Notes in Networks and Systems" publishes the latest developments in Networks and Systems—quickly, informally and with high quality. Original research reported in proceedings and post-proceedings represents the core of LNNS.

Volumes published in LNNS embrace all aspects and subfields of, as well as new challenges in, Networks and Systems.

The series contains proceedings and edited volumes in systems and networks, spanning the areas of Cyber-Physical Systems, Autonomous Systems, Sensor Networks, Control Systems, Energy Systems, Automotive Systems, Biological Systems, Vehicular Networking and Connected Vehicles, Aerospace Systems, Automation, Manufacturing, Smart Grids, Nonlinear Systems, Power Systems, Robotics, Social Systems, Economic Systems and other. Of particular value to both the contributors and the readership are the short publication timeframe and the world-wide distribution and exposure which enable both a wide and rapid dissemination of research output.

The series covers the theory, applications, and perspectives on the state of the art and future developments relevant to systems and networks, decision making, control, complex processes and related areas, as embedded in the fields of interdisciplinary and applied sciences, engineering, computer science, physics, economics, social, and life sciences, as well as the paradigms and methodologies behind them.

Indexed by SCOPUS, INSPEC, WTI Frankfurt eG, zbMATH, SCImago.

All books published in the series are submitted for consideration in Web of Science.

For proposals from Asia please contact Aninda Bose (aninda.bose@springer.com).

More information about this series at https://link.springer.com/bookseries/15179

Bahaaeddin Alareeni · Allam Hamdan Editors

Impact of Artificial Intelligence, and the Fourth Industrial Revolution on Business Success

Proceedings of The International Conference on Business and Technology (ICBT 2021)



Editors
Bahaaeddin Alareeni
Middle East Technical University,
Northern Cyprus Campus, KKTC,
via Mersin 10, Kalkanlı, Güzelyurt, Turkey

Allam Hamdan College of Business of Finance Ahlia University Manama, Bahrain

ISSN 2367-3370 ISSN 2367-3389 (electronic) Lecture Notes in Networks and Systems ISBN 978-3-031-08092-0 ISBN 978-3-031-08093-7 (eBook) https://doi.org/10.1007/978-3-031-08093-7

© The Editor(s) (if applicable) and The Author(s), under exclusive license to Springer Nature Switzerland AG 2023

This work is subject to copyright. All rights are solely and exclusively licensed by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors, and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Switzerland AG The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

xiv Contents

The Proclivity of Green Communication for Logistics Industry: A Framework	699
Tengku Nurul Aishah Tengku Aziz, Shahirah Sharifuddin, and S. Sarifah Radiah Shariff	0,7,7
The Impact of Logistics Services on Customer Satisfaction in Embracing Transaction Disruption Mohd Fathi Abu Yaziz, Muhammad Ashlyzan Razik, Mohd Ikhwan Aziz, Hasannuddiin Hassan, Dzulkifli Mukhtar, and Aidanazima Abashah	715
A Review of Supply and Demand Digital Talents in Malaysia	721
The Role of Logistic Performance on Foreign Direct Investment-Growth Link: Evidence from Asian Countries Nurnaddia Nordin, Nurhaiza Nordin, Nur Ilyana Amiiraa Nordin, and Nur Faiz Nordin	739
Role of Supply Chain Collaboration and Organizational Agility on Promoting Relational Rents: A Literature Review	759
Trust Reputation in Blockchain Environment: A Review Normi Sham Awang Abu Bakar, Norbik Bashah Idris, Norzariyah Yahya, Madihah Sheikh Abd Aziz, Nabilah Daud, and Amina Abdinasir Ahmed Moallim	773
Tourism, Hospitality and Health Care Services: the Role of Technology	
Re-interpreting 'Luxury Hospitality' Through Experienscape, Customer Satisfaction, and Customer Well-being Maheen Iqbal Awan, Amjad Shamim, and Muhammad Shoaib Saleem	783
Taxonomic Manifestations of the Concept "Man" in Digital Communication Natalia Teslenko, Olga Nezhyva, Victoria Ivashchenko, and Tetiana Harbuza	805
Economic and Commercial Value Comparison Between Syariah Compliant and Muslim Friendly Approach in Hotel Industry Suhaila Abdul Kadir, Azizah Musa, Adi Aizat Yajid, Mohd Nazri Zakaria, and Noormariana Mohd Din	821

The Impact of Logistics Services on Customer Satisfaction in Embracing Transaction Disruption



Mohd Fathi Abu Yaziz, Muhammad Ashlyzan Razik, Mohd Ikhwan Aziz, Hasannuddiin Hassan, Dzulkifli Mukhtar, and Aidanazima Abashah

Abstract Every transaction in the emerging industry is disrupted in the digital era. Humans have no desire to live in a world where transactions are not disrupted. A day without shopping could be difficult, inconvenient, and even impossible. Many things in the internet shopping marketplace play important roles in the enjoyment stage. As a result, this research focuses on how logistics services may affect online shoppers' transaction enjoyment stage. The purpose of this article is to determine the primary logistics service parameters that influence online shopper satisfaction with transaction disruption. A total of 341 people who have done online shopping transactions answered the online questionnaire through a google form. The data was analyzed using Pearson correlation and multiple regression. The findings of this study will aid online retailers in identifying methods to improve their services, particularly in terms of logistics, which will ultimately improve customer happiness.

Keywords Logistics · Customer satisfaction · Transaction · Disruption

M. F. A. Yaziz (⊠) · M. A. Razik · M. I. Aziz · H. Hassan · D. Mukhtar Universiti Malaysia Kelantan, 16100 Pengkalan Chepa, Kelantan, Malaysia e-mail: fathi.ay@umk.edu.my

M. A. Razik

e-mail: ashlyzan@umk.edu.my

M. I. Aziz

e-mail: ikhwan.a@umk.edu.my

H. Hassan

e-mail: hasann@umk.edu.my

D. Mukhtar

e-mail: dzulkifli@umk.edu.my

A. Abashah

Universiti Malaysia Perlis, Jalan Kangar-Alor Setar, 01000 Kangar, Perlis, Malaysia e-mail: aidanazima@unimap.edu.my

© The Author(s), under exclusive license to Springer Nature Switzerland AG 2023 B. Alareeni and A. Hamdan (eds.), *Impact of Artificial Intelligence, and the Fourth Industrial Revolution on Business Success*, Lecture Notes in Networks and Systems 485, https://doi.org/10.1007/978-3-031-08093-7_47

716 M. F. A. Yaziz et al.

1 Introduction

This research focuses on residents of Pengkalan Chepa, Kelantan. In this virtual age, e-commerce, or internet trade, may be quite popular. The Internet can be used to easily buy and sell services or things. For many of us, E-commerce has become an essential platform for carrying out day-to-day chores such as online payment and buying. Humans can no longer imagine a world without E-commerce. A world without E-commerce could be difficult, inconvenient, and impossible to imagine. E-commerce may not necessarily represent our opulent lifestyle, but it has become a necessity for many of us. Online shopping has been the standard in recent years, and people are flocking to it because of its numerous advantages. From the standpoint of the customer, online shopping offers low and obvious costs, a broad range of items and services, and a far more convenient purchase option that eliminates the need to wait in long lines at the cashier's counter. The most significant issue with purchasing for products on the internet is that there is no guarantee that the product will be of high quality. The difficulty in finding the proper length when purchasing clothing and footwear on the internet continues to be a significant drawback. This is one of the issues that pleasure e-shoppers. It will be difficult, inconvenient, and impossible to do business without E-commerce. There are numerous elements in the online purchasing market that play important roles in ensuring that online shoppers have a good time. One of them is logistics services, which may have an impact on the level of pride that online buyers have. In this scenario, the logistics provider is a critical component in ensuring that customers are confidence in their decision to purchase items via the internet.

2 Literature Review

The delivery service is linked to the provider's capacity and aptitude to offer items to customers depending on the specified lead time. It is crucial since it will bring enjoyment and loyalty to the patron. As a result, effective planning and the correct methodology are required to ensure that the desired products are added on time (Guo et al. 2012). The effectiveness of merchandise coordination in meeting customer demand is one of the most important variables in the E-commerce environment. The success of an e-commerce business is dependent on the provider's ability to deliver the goods regardless of the customer's location. As a result, it's critical to ensure that the required products arrive in the patron's region without delay due to a transportation provider's inefficiency.

Reverse Logistics is a method for businesses to become more ecologically friendly by recycling, reusing, and reducing the number of materials they consume. It can be regarded of as the reverse distribution of materials among channel members when viewed narrowly. The reduction of materials in the forward system such that fewer materials flow back, reuse of materials is possible, and recycling is enabled is a

more comprehensive view of Reverse Logistics (Quesada 2003). In an e-commerce environment, reverse logistics mostly refers to returns or exchanges, or the entity transfer process in which downstream customers return goods that don't meet the order's requirements to upstream suppliers. When things purchased online turn out to be of poor quality or unsatisfactory in other ways, they will be returned to suppliers or manufacturers following the terms of their return or exchange policies with merchants. The logistics flow, information flow, capital flow, and all or portion of the business flow should all be included in the reverse logistics flow. Because most domestic merchants are now unaware of reverse logistics, the issue of returns or exchange is always one of the most significant conflicts between merchants and customers. As a result, in e-commerce, the development of reverse logistics is critical (Wang and Evans 2015).

When it comes to internet buying, each customer has their own set of expectations. Obviously, customers are satisfied when their perceived likelihood exceeds their perceived expectation. They will be unhappy, on the other hand, if what they received falls short of their expectations. Product quality has a two-way effect, with good product quality improving the online retailer's reputation while also increasing the likelihood of customer retention. Additionally, when customers are satisfied with the service or product provided, they will serve as a marketing to attract new customers. As a result, the retailer's profitability will improve (Saadah and Ying 2020). With rising consumer expectations for product quality, the product pleasant manipulation in the online purchasing marketplace has gotten a lot more attention from the government regulatory agency, the internet shopping platform, and the seller in recent years. Several product quality control methods have been implemented within the online buying platform, which is at the heart of this business environment, to spare you from making bad decisions due to data asymmetry and the resultant market failure, and to help you make money in the end (Rossi et al. 2013).

Customer service in online purchasing is defined by how quickly an online retailer responds to a customer's request. Customer service entails more than just answering customers' concerns and delivering relevant information; it also entails an awareness of their specific needs. Customer service is divided into three stages, according to Saadah and Ying (2020). These stages include before, during, and after the transaction. As a result, excellent customer service is required to retain a long-term relationship with customers and remain competitive.

Service recovery is triggered by a service failure that is encountered with the help of the service or product provider. In every agency, service failure is unavoidable, especially in a digital transaction. The one-of-a-kind customer will have specific needs and desires. As a result, an online company should take appropriate steps to reclaim dissatisfied customers to comfort them, resolve their problems, and win their loyalty. In fact, to avoid consumer litigation and negative word-of-mouth, a good service recovery strategy must be in place to address any potential concerns. Environmental components, customer elements, dating elements, and organizational factors are all things that an online retailer must keep in mind (Liu et al. 2015).

718 M. F. A. Yaziz et al.

3 Methodology

A research design is simply a study plan that outlines the procedures that researchers must follow to achieve their research objectives or test the hypotheses that they have developed for their investigations. As a result, certain previous studies are still used as references and guidance in this research. This study will concentrate solely on the survey method, in which data is collected via a structured questionnaire that employs a quantitative research strategy to obtain more information. The study used a quantitative approach to discover the logistical issues that online customers Pengkalan Chepa encounter. A questionnaire will be used by the researchers to collect quantitative data that will allow the study to obtain reliable and accurate results.

Data collection is known as the process of gathering and measuring data, information and any variables of interest that established and standardized in a manner that enables the collector to answer or test hypothesis and to evaluate the outcomes of the collection. In this study, both primary and secondary data were collected for the purpose of completing this research.

This chapter discusses about the techniques and methods that will be used in the study of the level satisfaction of e-shoppers toward logistics service to Pengkalan Chepa citizens. These technique and method are tools to achieve the goals and objectives of the study. Research design, population, sample size, sampling technique, research technique, and data analysis technique will be introduced in this chapter.

4 Analysis

This chapter starts with a preliminary analysis and a demographic profile of the respondents. In the scale measurement analysis part, descriptive analysis for items and variables was used, as well as a reliability analysis to guarantee that the sample was trustworthy. In addition, all the responses will be analysed. Descriptive statistics, reliability analysis, and pearson correlation are also included. The research data was analysed with the use of an application called IBM SPSS 25. After you've gathered all your data, you'll need to run IBM SPSS Statistics 25 to analyse it. The purpose of a reliability analysis is to determine whether a questionnaire is valid. It also carried out tests to assess the data's consistency and trustworthiness. Reliability analysis is a test that uses the Cronbach Alpha coefficient to estimate the method of internal consistency and to find item consistency. The higher the score, the more trustworthy the created scale is, implying that the items have a higher degree of intercorrelation. In the literature, the dependability of each factor's variable and a coefficient more than or equal to 0.70 were regarded acceptable and a good construct of reliability. This type of test is used by researchers to obtain a non-biased result.

The relationship between the Independent and Dependent Variables. The r-value for the relationship between delivery service and E-shopper satisfaction was 0.701, with a p-value of 0.000 (P0.01). The r-value for the relationship between reverse

logistics and E-shopper satisfaction is 0.763, with a p-value of 0.000 (P0.01). The r-value of the product quality correlation is 0.726, with a p-value of 0.000 (P0.01). The r-value for the relationship between customer service and E-shopper satisfaction was 0.652, with a p-value of 0.000 (P0.01). The r-value of the service recovery correlation is 0.745, with a p-value of 0.000 (P0.01). Therefore, it suggested that the value of the result is substantial (Alkhatib et al. 2015) and that the independent variable and dependent variable have a strong link.

5 Discussion

The primary goal of this research is to determine the impact of logistics on e-shopper satisfaction. Because the scope of the study was limited to Pengkalan Chepa citizens, future researchers are encouraged to broaden the scope of the research study to increase the generalizability of the findings of the association between logistical service and E-shopper satisfaction. The sample size should be increased so that the research can be conducted uniformly across Malaysia. The researcher can do in-depth research in other Malaysian states to evaluate a larger number of respondents. It will increase the number of respondents and broaden the perspective on the elements that influence logistics service satisfaction among E-shoppers.

Finally, the goal of this research is to gain a better knowledge of how logistics service affects E-shopper happiness. The research's objectives have been met. In addition, the researcher made some recommendations for future research. The findings of this study could benefit society because they can be used as a guide for future researchers who want to perform more research in this field. E-commerce businesses should create a loyalty programme that is unique to their clients. E-commerce companies are exceeding expectations. Customers may also enjoy a fun and cool approach of shopping on the internet. Finally, it can be stated that Malaysia's E-commerce business has a bright future. It merely wants a new way to capture oneself on the internet. Finally, the goal of this research is to gain a better knowledge of how logistics service affects E-shopper happiness. The research's objectives have been met. In addition, the researcher made some recommendations for future research. The findings of this study could benefit society because they can be used as a guide for future researchers who want to perform more research in this field. E-commerce businesses should create a loyalty programme that is unique to their clients. E-commerce companies are exceeding expectations. Customers may also enjoy a fun and cool approach of shopping on the internet. Finally, it can be stated that Malaysia's E-commerce business has a bright future. It merely wants a new way to capture oneself on the internet.

The authors would also like to thank Universiti Malaysia Kelantan for assisting and guiding them through the UMK-Fund research grant, which enabled them to deliver this research paper thanks to the grant that was given to the main author.

720 M. F. A. Yaziz et al.

References

Alkhatib, S.F., Darlington, R., Nguyen, T.T.: Logistics Service Providers (LSPs) evaluation and selection: literature review and framework development. Strateg. Outsourc. Int. J. 8(1), 102–134 (2015). https://doi.org/10.1108/SO-12-2014-0028

- Guo, X., Ling, K.C., Liu, M.: Evaluating factors influencing consumer satisfaction towards online shopping in China. Asian Soc. Sci. 8(13) (2012). https://doi.org/10.5539/ass.v8n13p40
- Liu, H., Huang, Q., Wei, S., Huang, L.: The impacts of IT capability on internet-enabled supply and demand process integration, and firm performance in manufacturing and services. Int. J. Logist. Manag. 26(1), 172–194 (2015). https://doi.org/10.1108/IJLM-11-2013-0132
- Quesada, I.F.: The concept of reverse logistics. A review of literature. In: Annual Conference Nord Resolutions Logistics (NOFOMA 2003), June 2003 (2003)
- Rossi, S., Colicchia, C., Cozzolino, A., Christopher, M.: The logistics service providers in ecoefficiency innovation: an empirical study. Supply Chain Manag. Int. J. 18(6), 583–603 (2013). https://doi.org/10.1108/SCM-02-2012-0053
- Saadah, A., Ying, T.Y.: The impact of online retail service quality on customer satisfaction. J. Technol. Manag. Technopreneursh. 8 (2020)
- Wang, Y., Rodrigues, V.S., Evans, L.: The use of ICT in road freight transport for CO2 reduction an exploratory study of UK's grocery retail industry. Int. J. Logist. Manag. **26**(1), 2–29 (2015). https://doi.org/10.1108/IJLM-02-2013-0021