



E-Trust in E-Commerce: A Systematic Literature Review

Abdul Yusuf^{1,2*}, Vanessa Gaffar¹, Ratih Hurriyati¹, Lili Adi Wibowo¹

¹Post Graduate School, Universitas Pendidikan Indonesia, Bandung, Indonesia

²Faculty of Economics, Universitas Singaperbangsa Karawang, Karawang, Indonesia

Corresponding author's email: abdulyusuf@upi.edu

ABSTRACT

The abstract must be short, interesting, simple, and easy to understand without trust is a key principle in building long-term successful relationships in the e-commerce context. With no physical interaction between buyers and sellers, how websites can gain the trust of buyers and fulfil promises made has become a central issue in fostering customer confidence. It became important to gain an in-depth understanding of the concept of e-trust or online trust. A systematic literature review was conducted with the aim of identifying the terminology of e-trust/online trust and its size in the context of e-commerce and its derivatives. After going through several stages, 18 articles were obtained that match the criteria with a publication range from 2010-2020. E-trust/online trust is dominantly defined as the main key to customer confidence to conduct online transactions with various sizes emphasizing risk and security.

Keywords: *E-Trust; Online Trust; E-Commerce; Systematic Literature Review*

1. INTRODUCTION

Business has entered the digital era where people are unstoppable from using technology in commerce. Digitization has brought the market into a new terminology. Therefore, the exchange process is now faster, more efficient, and more practical with fewer obstacles. On the other hand, in the industrial revolution 4.0, the internet has touched the whole world. Not surprisingly, the internet is a milestone in the establishment of the digitalization era that brings business aspects into the online world. Finance is one of the business elements that are affected by this revolution. Financial Technology (FinTech) is one of the interesting parts of the financial movement in this digitalization era. FinTech is suspected to be a strong reason why financial inclusion in Indonesia is increasing. FinTech is also felt to have a significant increase in users.

The COVID-19 pandemic has affected the acceleration of the use of mobile payments, which is one type of fintech that is considered the right way out in suppressing the spread of the Covid-19 virus. However, the increasing number of users does not necessarily reduce the issue of fraud in the use of mobile payments so that there are still parties who are not suspicious/worried and even reluctant to use mobile payments because of concerns about the security of their

personal data and funds. Trust is one of the main issues in the fintech trend in 2021, which is considered by 31% of autonomous finance users in transactions (vilmate.com).

Trust is important in creating sustainable use and business continuity. Trust is not only a short-term problem but also a significant long-term barrier to increasing the potential of a customer-oriented business [1]. Furthermore, although the Internet is revolutionizing business formats in the context of providing products or services to customers, marketing research examining the acceptance of this technology is limited [2]. Especially in the discussion that emphasizes trust in the context of transactions using mobile payments.

Based on some of the literature reviews above, it is clear that reviews of e-trust in e-commerce are still rarely carried out. The trust that was developed in the online trust concept was then modified into an e-trust concept with the aim that the terminology is appropriate to the context. shape it still needs to be developed and adjusted in line with the development of today's world.

2. METHOD

Systematic literature review (SLR) has clear objectives, questions, approaches on how to search for

studies, set criteria and produce qualitative research. SLR has 6 stages in the methodology needed in writing [3], the following stages in SLR:

- a. Determine the research question
- b. Designing research plans
- c. Data collection
- d. Assessment of study quality
- e. Designing data analysis
- f. Designing data synthesis

2.1. Research Question

Table 1 PICo

P	I	Co
Population or Problem Specific research about e-trust in e-commerce	Interest <i>e-trust</i>	Context <i>e-trust in e-commerce</i>

2.3. Data Collection Techniques

The data collection technique in this research is to use Systematic Literature Review, which is the process of collecting data by studying various academic information

In this research plan, there are two questions that will be the focus of SLR activities, namely:

- a. What is the definition of E-trust in the context of e-commerce?
- b. What are the measures of e-trust in the context of e-commerce?

2.2. Designing Research Planning

In order to focus on the results of research screening, the PICo approach is used. Here is Table 1 showing the PICo framework:

to obtain information related to the concept or theory that has been determined. In this case the concepts and theories in question are related to e-trust. Figure 1 showing the process in data collection techniques.

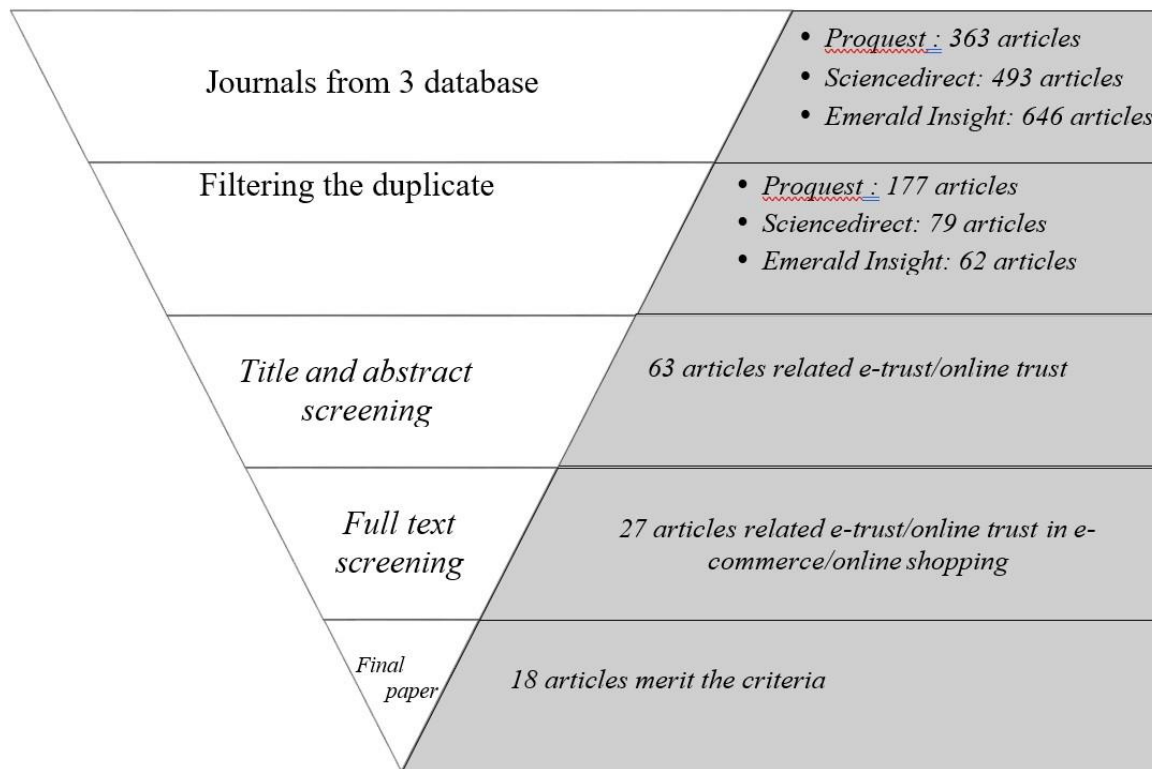


Figure 1 Data Collection Techniques

2.4. Develop Search String Search

Before doing a search string, the step that must be done is to determine the keywords accompanied by the word equation (Synonym). Keywords (keywords) are

used to help the search string process when entering the specified database. In this search string process use the words AND/OR/NOT. Table 2 shows the Search String used in this research:

Table 2 Search String

No	Construct	Keywords	Codes	Strings
1	Definition	definition of, terminology	“Definition of” OR “terminology”	
2	Enablers	Enablers, measure	“enablers” OR “measure”	
3	Trust	e-trust, online trust	“e-trust” OR “online trust”	
5	e-commerce	e-commerce, online shopping	“e-commerce” OR “online shopping”	
SEARCH STRING		“Definition of” OR “terminology” AND “enablers” OR “measure” AND “e-trust” OR “online trust” AND “e-commerce” OR “online shopping”		

Next, the researcher extracted data using template analysis as a thematic way of analysing qualitative data. Researchers used a basic data extraction template to obtain specific data from the journal.

3. RESULT AND DISCUSSION

According to search string and data collection techniques used to determine the final paper, Table 3 below shows the result of the research:

Table 3 Full Details of the Included Studies

Author	Method(s)	Highlight of Trust Definition	Trust Enablers	Journal Name	Field of Study Performing
Angeliki Vosa,b, Catherine Marinagic , Panagiotis Trivellasc, Niclas Eberhagen, Christos Skourlasd*, Georgios Giannakopouloula [4]	Explanatory	boost buyer’s confidence	Cheaper brand, special offers, information on the package, consumer magazine	Social and Behavioural science	Online shopping
Yongrok Choi * and Do Quynh M [5]	Quantitative approach	Willing to spend money on online shopping	Risk free shopping, seller qualification, genuine product, trust-badge certification	Sustainability	e-commerce
Suk-Joo Lee, Cheolhwi Ahn, Kelly Minjung Song and Hyunchul Ahn [6]	Quantitative	a human to computer-interface relationship	Perceived quality, structural assurance, experience, interpersonal level, intrapersonal level	Sustainability	e-commerce
Moushayyadah Emamdin, Jugindar Singh Kartar Singh, Benjamin Chan Yin Fah [7]	Quantitative	a multi-faceted construct in online transactions	Cognitive, emotional, behavioural dimensions	Global Business and Management Research	Online shopping
Neda Yousefia and Amir Ashkan Nasiripour [8]	Quantitative	Reliance on quality or attribute	Integrity, ability/competence, benevolence	Management Science Letters	e-banking
Ziaullah Muhammad, Feng Yi, Akhter Shumaila Naz, Khan Muhammad Fahad [9]	Quantitative	A willingness to rely on	Ability, reliability, intentionality, integrity	Journal of Competitiveness	Online retailing
Martin Hesseler, Gerhard Hartmann, and Stefan Karsch [10]	Mix Method	perceptions and responses that result from the use or anticipated use of a product, system or service	Benevolent, of integrity, capable	Lecture Notes in Computer Science	Mobile commerce apps
Sarhan, Nael M Al-turk, Aisha	Qualitative	accumulated customers' experience	Belief, reliability of brands, previous	Journal of Management Information	e-commerce

Author	Method(s)	Highlight of Trust Definition	Trust Enablers	Journal Name	Field of Study Performing
Albakjaji, Mohamad [11] Gregory B. Murphy, Neil Tocher [12]	quantitative	around the globe Reduce information asymmetry	interaction and experience Communication, association, security, function	and Decision Sciences Journal of High Technology Management Research	e-commerce
Ardion Beldad, Menno de Jong, Michaël Steehouder [13]	Literature review	precondition for people's adoption of electronic services	Personality based, socio-psychological, sociological, socio-cultural, technical	Computers in Human Behaviour	e-commerce, e-government, e-health
Kirsten Martin [14]	Quantitative	salient form of risk online, respecting privacy	Ability benevolence, integrity	Journal of Business Research	e-commerce
Marina Efremidou, Athanassios Mihiotis* and Giannis T. Tsoufas [15] Majid Mohammad Shafiee and Negin Ahghar Bazargan [16]	Quantitative quantitative	parameter in online transactions allows customers to choose an online store	Initial trust, ongoing trust A set of safe beliefs	Interdisciplinary journal of contemporary research in business Journal of Theoretical and Applied Electronic Commerce Research	e-banking Online shopping
Syed Shah Alam1 and Norjaya Mohd Yasin [17]	Quantitative	the ability of the brand to perform its stated function	Web site characteristics, user characteristics and other factors that include online medium and variables	Journal of Theoretical and Applied Electronic Commerce Research	Online air ticket
Lilik N. Yuliati, Hasdevi A. Dradjat and Megawati Simanjuntak [18] Subhro Sarkara , Sumedha Chauhanb, Arpita Kharea [19]	Quantitative Quantitative	boosting the level of adoption among online customers prerequisite to its adoption and usage	Honest information, trusted ride, trust in providing information interface design, communication and network speed, and physical constraints	Cogent Business & Management International Journal of Information Management	Online bike m-commerce
Jason Lim Chiu and Nelson C. Bool, Candy Lim Chiu [20]	Quantitative	central determinant of relationships, an individual perceives the other party	diffusion of trust, infrastructure quality, perceived costs, privacy and security	Asia Pacific Journal of Innovation and Entrepreneurship	Online banking
Elissar Toufaily, Nizar Souiden, Riadh Ladhari [21]	Quantitative	key ingredient for the success of business transactions	Credibility, benevolence	Journal of Retailing and Consumer Services	Retail website

Based on the review of the article above, the distribution of the publication of articles related to e-trust

in the e-commerce context varies which shows on Table 4 below:

Table 4 Year and Number of Studies

Year	Number of studies
2010	2
2011	1
2013	2
2104	3
2015	1
2017	1
2018	4
2020	4

4. CONCLUSION

E-trust was measured through a three-item scale. These items were adapted from the work of Kim et al. (2009). The items generated an alpha value of “(1) I believe that Internet shopping is a secure activity., (2) E-commerce sites are trustworthy, (3) e-commerce webs give the impression that they will keep commitments., (4) I have high level trust level in e-commerce activities and webs”[22].

E-trust mediates the relationship between e-Marketing orientation (EMO) and strategic business performance (SBP) [23] the result showed that e-trust had a positive and significant relationship with e-satisfaction and e-loyalty and e-trust mediated the relationship between website quality and e-loyalty [24] Also, this result indicates that e-trust is a mediator between e-satisfaction and e-loyalty. The estimated squared multiple correlations of these endogenous variables is $R^2 \frac{1}{4} 0.42$ for e-satisfaction, $R^2 \frac{1}{4} 0.63$ for e-trust, and $R^2 \frac{1}{4} 0.45$ for e-loyalty, showing that more than half of the variations of the endogenous variable can be well explained through the proposed model in this study[25] E-trust has effect to increase customer satisfaction and customer loyalty through electronic banking services [26].

In a developing world, one of the digital trends that must be followed is regarding online commerce because Internet technology supports organizations and individuals to interact around the world. The more companies that are involved in online commerce it is possible to expand services beyond the usual physical meetings. E-consumers also appear to be more satisfied with the possibility to interact and transact with organizations without time and space constraints. Research conducted by Kristof Stouthuysen of Vlerick Business School and KU Leuven, Belgium in 2020, reveals the perspectives offered in the article "Building trust in online relationships." In this study, Kristof makes an update that the creation of online trust is very important to support e-commerce in transacting and inter-organizational relationships. However, e-business relationships also have risks, such as, quality, technology and performance uncertainty, administrative complexity,

impunity, and lack of personalization. Therefore, it depends not only on the perceived benefits they bring but also on the trust of online consumers. In the e-commerce literature, online trust is usually conceptualized as a mediator between a chosen antecedent and its consequences, such as willingness to buy [27].

Heli Halikainen and Tommi Laukkanen from the University of Eastern Finland, Business School discuss national culture and consumer confidence in e-commerce in their research. In this study, Halikainen and Laukkanen hypothesized the direct effect of the national cultural dimension on the disposition to believe, and the disposition to trust the belief dimension. In testing 616 online store customers in China and Finland, we found that national culture only explained 23% of the variance in general dispositions to trust, and that dispositions to trust were highly significant predictors of online store trust. Furthermore, the study also found that the mediating role of dispositions for trust between national cultures and beliefs is highly dependent on the individual cultural dimensions studied [28].

In addition to the dimension of national culture, the perspective of trust in e-commerce shopping is also influenced by the dimension of religious belief. Mohammed Bashir Ribadu in the journal Integrated Approaches Towards Sharia Compliance E-commerce Trust, Sharia compliance believes in conventional e-commerce systems between loyal Muslims, this and causes a reluctance to abstain from taking part in e-commerce transactions. This study reveals a solution to this problem, namely by creating a framework for SCE-C Trust which is entrusted with e-commerce consisting of cooperation with sharia, collaboration, site quality, and guaranteeing parties if moderated positively by consumer trust tendencies and religious commitments. will ensure the trustworthiness of SCE-C [29].

A common problem that often occurs is about the high risk of online purchases. Several studies have shown that consumers perceive a higher risk online compared to conventional means. This risk stems from the buyer's lack of confidence in the responsibilities of online vendors. security measures that must be taken to reduce such risks are security linked to controls, authentication systems, and alternative payments. When customers have control over their personal information, they feel more secure and confident, because they conclude that security and privacy measures have been taken. In addition, companies that use authentication and authorization systems can protect their information assets from access (eg cracking). Thus the buyer's sensitive information (i.e. credit card, id, password) ensures and hence the trust the customer trusts the number [30].

Hwang and Kim of DePaul University conducted a study with results demonstrating the effects of excitement and anxiety on the relationship between perceived Web quality and e-trust, based on IS, marketing, and

psychology literature. Research on important issues of e-trust to practitioners, such as website designers, and researchers. The increase in customer loyalty supported by the perceived quality of the Web only with service content is related not to e-trust, but also to the company's short-term, as well as long-term, performance. Stream theory, social contract theory, social cognitive theory, resource allocation theory, and belief theory are well integrated in the model.

E-trust was measured through a three-item scale. The items generated an alpha value of "(1) I believe that Internet shopping is a secure activity, (2) E-commerce sites are trustworthy, (3) e-commerce webs give the impression that they will keep commitments (4) I have high level trust level in e-commerce activities and webs"[22].

E-trust mediates the relationship between e-Marketing orientation (EMO) and strategic business performance (SBP) [23] the result showed that e-trust had a positive and significant relationship with e-satisfaction and e-loyalty and e-trust mediated the relationship between website quality and e-loyalty [24] Also, this result indicates that e-trust is a mediator between e-satisfaction and e-loyalty. The estimated squared multiple correlations of these endogenous variables is $R^2 \frac{1}{4} 0.42$ for e-satisfaction, $R^2 \frac{1}{4} 0.63$ for e-trust, and $R^2 \frac{1}{4} 0.45$ for e-loyalty, showing that more than half of the variations of the endogenous variable can be well explained through the proposed model in this study [25] E-trust has effect to increase customer satisfaction and customer loyalty through electronic banking services [26].

ACKNOWLEDGMENT

Writer would like to express gratitude for Research Department in Unsika and appreciation for reviewer on this paper.

REFERENCES

- [1] D. Gefen, "E-commerce: The role of familiarity and trust," *Omega*, vol. 28, no. 6, pp. 725–737, 2000, doi: 10.1016/S0305-0483(00)00021-9.
- [2] C. R. Plouffe, M. Vandenbosch, and J. Hulland, "Intermediating technologies and multi-group adoption: A comparison of consumer and merchant adoption intentions toward a new electronic payment system," *Journal of Product Innovation Management*, vol. 18, no. 2, pp. 65–81, 2001, doi: 10.1111/1540-5885.1820065.
- [3] C. Cronin, "Doing your literature review: traditional and systematic techniques," *Evaluation & Research in Education*, vol. 24, no. 3, pp. 219–221, 2011, doi: 10.1080/09500790.2011.581509.
- [4] A. Vos, C. Marinagi, P. Trivellas, N. Eberhagen, C. Skourlas, and G. Giannakopoulos, "Risk Reduction Strategies in Online Shopping: E-trust Perspective," *Procedia - Social and Behavioral Sciences*, vol. 147, pp. 418–423, 2014, doi: 10.1016/j.sbspro.2014.07.122.
- [5] Y. Choi and D. Q. Mai, "The sustainable role of the e-trust in the B2C e-commerce of Vietnam," *Sustainability (Switzerland)*, vol. 10, no. 1, 2018, doi: 10.3390/su10010291.
- [6] S. J. Lee, C. Ahn, K. M. Song, and H. Ahn, "Trust and distrust in e-commerce," *Sustainability (Switzerland)*, vol. 10, no. 4, 2018, doi: 10.3390/su10041015.
- [7] M. Emamdin, J. S. K. Singh, and B. Chan Yin Fah, "Role of E-trust, E-loyalty, and E-satisfaction on Online Buying Behaviour among Millennials in Kuala Lumpur, Malaysia.," *Global Business & Management Research*, vol. 12, no. 3, pp. 1–16, 2020.
- [8] N. Yousefi and A. A. Nasiripour, "A proposed model of e-trust for electronic banking," *Management Science Letters*, vol. 5, pp. 1029–1040, 2015, doi: 10.5267/j.msl.2015.8.008.
- [9] M. Ziaullah, Y. Feng, S. N. Akhter, and M. F. Khan, "An Empirical Study on Exploring Relationship among Information Quality, E-satisfaction, E-trust and Young Generation's Commitment to Chinese Online Retailing," *Journal of Competitiveness*, vol. 6, no. 4, pp. 3–18, 2014, doi: 10.7441/joc.2014.04.01.
- [10] M. Hesseler, G. Hartmann, and S. Karsch, "Influence of trust assurances in mobile commerce applications on the formation of online trust," *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, vol. 8030 LNCS, pp. 90–99, 2013, doi: 10.1007/978-3-642-39345-7_10.
- [11] N. M. Sarhan, A. Al-turk, and M. Albakjaji, "The role of institutional mechanisms in creating online trust: cross culture investigation," *Journal of Management Information and Decision Sciences*, vol. 23, no. 4, pp. 317–323, 2020.
- [12] G. B. Murphy and N. Tocher, "Gender differences in the effectiveness of online trust building information cues: An empirical examination," *Journal of High Technology Management Research*, vol. 22, no. 1, pp. 26–35, 2011, doi: 10.1016/j.hitech.2011.03.004.
- [13] A. Beldad, M. De Jong, and M. Steehouder, "How shall i trust the faceless and the intangible? A literature review on the antecedents of online trust," *Computers in Human Behavior*, vol. 26, no. 5, pp. 857–869, 2010, doi: 10.1016/j.chb.2010.03.013.

- [14] K. Martin, "The penalty for privacy violations: How privacy violations impact trust online," *Journal of Business Research*, vol. 82, no. August 2017, pp. 103–116, 2018, doi: 10.1016/j.jbusres.2017.08.034.
- [15] M. Efremidou, A. Mihiotis, and G. T. Tsoufias, "Trust of e-banking services: evidence from Greece." pp. 461–485, 2014.
- [16] M. M. Shafiee and N. A. Bazargan, "Behavioral customer loyalty in online shopping: The role of e-service quality and e-recovery," *Journal of Theoretical and Applied Electronic Commerce Research*, vol. 13, no. 1, pp. 26–38, 2018, doi: 10.4067/S0718-18762018000100103.
- [17] S. S. Alam and N. M. Yasin, "What factors influence online brand trust: Evidence from online tickets buyers in Malaysia," *Journal of Theoretical and Applied Electronic Commerce Research*, vol. 5, no. 3, pp. 78–89, 2010, doi: 10.4067/S0718-18762010000300008.
- [18] L. N. Yuliati, H. A. Dradjat, and M. Simanjuntak, "Online bike: Role of perceived technology, perceived risk, and institution-based trust on service usage via online trust," *Cogent Business and Management*, vol. 7, no. 1, pp. 1–20, 2020, doi: 10.1080/23311975.2020.1798067.
- [19] S. Sarkar, S. Chauhan, and A. Khare, "A meta-analysis of antecedents and consequences of trust in mobile commerce," *International Journal of Information Management*, vol. 50, no. August 2019, pp. 286–301, 2020, doi: 10.1016/j.ijinfomgt.2019.08.008.
- [20] J. L. Chiu, N. C. Bool, and C. L. Chiu, "Challenges and factors influencing initial trust and behavioral intention to use mobile banking services in the Philippines," *Asia Pacific Journal of Innovation and Entrepreneurship*, vol. 11, no. 2, pp. 246–278, 2017, doi: 10.1108/apjie-08-2017-029.
- [21] E. Toufaily, N. Souiden, and R. Ladhari, "Consumer trust toward retail websites: Comparison between pure click and click-and-brick retailers," *Journal of Retailing and Consumer Services*, vol. 20, no. 6, pp. 538–548, 2013, doi: 10.1016/j.jretconser.2013.05.001.
- [22] M. K. Anser, M. I. Tabash, A. A. Nassani, A. M. Aldakhil, and Z. Yousaf, "Toward the e-loyalty of digital library users: investigating the role of e-service quality and e-trust in digital economy," *Library Hi Tech*, vol. ahead-of-p, no. ahead-of-print, 2021, doi: 10.1108/lht-07-2020-0165.
- [23] Z. Yousaf, N. Sahar, A. Majid, and A. Rafiq, "The effects of e-marketing orientation on strategic business performance," *World Journal of Entrepreneurship, Management and Sustainable Development*, vol. 14, no. 3, pp. 309–320, 2018, doi: 10.1108/wjemdsd-12-2017-0109.
- [24] H. N. K. Giao, B. N. Vuong, and T. N. Quan, "The influence of website quality on consumer's e-loyalty through the mediating role of e-trust and e-satisfaction: An evidence from online shopping in Vietnam," *Uncertain Supply Chain Management*, vol. 8, no. 2, pp. 351–370, 2020, doi: 10.5267/j.uscm.2019.11.004.
- [25] S. Chou, C. W. Chen, and J. Y. Lin, "Female online shoppers: Examining the mediating roles of e-satisfaction and e-trust on e-loyalty development," *Internet Research*, vol. 25, no. 4, pp. 542–561, 2015, doi: 10.1108/IntR-01-2014-0006.
- [26] S. Ali Mousaveian, H. Ebrahimpour, M. Hasanzadeh, and N. Mousaveian, "the Role of E-Value, E-Trust, E-Commitment and E-Satisfaction on Customers E-Loyalty with Emphasis on Internet Banking," / *International Journal of Management Research & Review*, vol. 6, no. 521, pp. 2249–7196, 2016.
- [27] K. Stouthuysen, I. Teunis, E. Reusen, and H. Slabbinck, "Initial trust and intentions to buy: The effect of vendor-specific guarantees, customer reviews and the role of online shopping experience☆," *Electronic Commerce Research and Applications*, vol. 27, pp. 23–38, 2018, doi: 10.1016/j.elerap.2017.11.002.
- [28] H. Hallikainen and T. Laukkanen, "National culture and consumer trust in e-commerce," *International Journal of Information Management*, vol. 38, no. 1, pp. 97–106, 2018, doi: 10.1016/j.ijinfomgt.2017.07.002.
- [29] M. B. Ribadu and W. N. Wan, "An integrated approach towards Sharia compliance E-commerce trust," *Applied Computing and Informatics*, vol. 15, no. 1, pp. 1–6, 2019, doi: 10.1016/j.aci.2017.09.002.
- [30] A. Vos *et al.*, "Article information:," 2014.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

