

The Effect of Electronic Payments on Customer Satisfaction (Case Study of the Al-Watani Islamic Bank Iraq)

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Introduction

The advent of electronic commerce in the 1990's provided it represents a unique approach to training in business related to trade for the consumer, and a while ago, e-commerce arose and transformed greatly due to modern outputs that are beneficial to customers and owners of companies around the world. For information, some institutions operate in the same approach. So, e-commerce has a good future and benefits all institutions and companies.¹ Electronic payment technology has continued to develop in recent years due to the expansion of banking services and electronic marketing. This is why electronic payments gained great attention during the past two years for their effective role in modern electronic commerce. According to a report prepared by Statista Fintech,² there are many electronic payment methods used, such as bank cards including credit cards, debit cards, prepaid cards, websites, mobile banking, and bank transfer.³

Lie importance electronic payments, as they contribute to improving customer experience and providing them with comfort and security through speed and effectiveness.⁴ Convenience and ease, electronic payments allow customers to pay online and using smartphones instead of relying on paper cash, making the process more convenient and easy.⁵ Security and protection, are one of the most important aspects of preference for electronic payments, as modern technologies protect from fraud and cyber penetration.⁶ Tracking and documentation, customers can easily track all payments and financial transfers, which provides them with a high level of transparency and documentation in financial operations.⁷ The integrated experience, the use of electronic payments contributes to improving the overall customer

¹ Dennis Abrazhevich, "Electronic Payment Systems: A User-Centered Perspective and Interaction Design" (Technische Universiteit Eindhoven, 2004), 1, <https://doi.org/10.6100/IR575913>.

² Md Arif Hassan et al., "A Review on Electronic Payments Security," *Symmetry* 12, no. 8 (2020): 1344, <https://doi.org/10.3390/sym12081344>.

³ Ameena Abdulrahman Alhammad and Muhammad Usman Tariq, "The Impact of Quality E-Payment System on Customer Satisfaction," *Journal of Critical Reviews* 7, no. 1 (2020): 5438, <https://dspace.adu.ac.ae/handle/1/5122>.

⁴ M. Afsharpour and M. Pahlevani, "Review and Prioritization of Payment Tools and Equipment of E-Banking Using Analytical Hierarchy Process (AHP)," in *Seventh National Conference and the First International Conference of Commerce and Economy* (Tehran: Iranian E-Commerce Scientific Association, 2013), 80, <http://ieca.ir/en/page/post17326091203>.

⁵ Abrazhevich, "Electronic Payment Systems: A User-Centered Perspective and Interaction Design," 4.

⁶ Md Arif Hassan and Zarina Shukur, "A Secure Multi Factor User Authentication Framework for Electronic Payment System," in *3rd International Cyber Resilience Conference (CRC)* (Langkawi Island: IEEE, 2021), 1, <https://doi.org/10.1109/CRC50527.2021.9392564>.

⁷ Sudarno and Bambang Eka Purnama, "Analysis Tracking Online Payment System," *International Journal of Scientific & Technology Research* 1, no. 10 (2012): 55, <https://www.ijstr.org/paper-references.php?ref=IJSTR-1112-5492>.

experience, as they can complete their transactions easily from anywhere and at any time.⁸ International transfers, electronic payments enable customers to make international transfers easily and effectively, facilitating cross-border financial transactions, and saving them time and costs.⁹ In short, electronic payments contribute to improving customer satisfaction because of the ease, convenience and security they provide, which enhances trust and loyalty to the companies and institutions that provide these services.

Despite the contributions and benefits offered by electronic payments, the Iraqi banking sector suffers from a lack of interest in developing technologies, especially electronic payments, and not applying them in Iraqi banks.¹⁰ Of restrictions some of the are regulatory, others are related to the banking sector, and others are related to legislative aspects. And political aspects, The security and economic environment in which it operates nor it tends to expand banking activities, with the desire to reduce the amount of openness to risks, so some banks are limited to openness to cash credit, offset by weakness in actual electronic transactions, which is what connects Iraq financially with the world. Offset by weak banking awareness for this we find that base client Iraqi banks are still limited, and the volume of cash outside the banking system is still very large.¹¹ The problem of the study was and to be the Iraqi banking sector is in a changing banking environment, which requires it to keep abreast of developments in the system. The electronic payment system will be the future system for all forms of payments in all institutions. But this system faces challenges, some of which are the customers' lack of understanding of the system and the benefits it can bring to them, and to development of the banking environment that still works in traditional ways in Iraqi banks. Likewise, the lack of appropriate infrastructure and weak data and information, in addition to the weak cultural levels of the staff working in Iraqi banks.¹²

⁸ A. Koponen, "E-Commerce, Electronic Payments," in *International Conference* (Istanbul: Koc Universitesi, 2006), 1, http://home.ku.edu.tr/~daksen/mgis410/materials/E-Commerce_Electronic_Payments.pdf.

⁹ Cynthia Merrit, "Mobile Money Transfer Services: The Next Phase in the Evolution of Person-to-Person Payments," *Journal of Payments Strategy & Systems* 5, no. 2 (2011): 143, <https://www.henrystewartpublications.com/jpss/v5>.

¹⁰ Reyam Khalil Khudair and Ibtisam Ali Hussein, "The Role of Financial Technology in Achieving Customer Satisfaction: A Field Study in a Sample of Iraqi Banks," *Millenium Journal of Economic and Administrative Sciences* 3, no. 1 (2022): 1, <https://doi.org/10.47340/mjeas.v3i1.2.2022>.

¹¹ Faril Mushraf Eidan, "The Banking Sector in Iraq After 2003 Between the Problems of Reality and Reform Efforts," *World Economics and Finance Bulletin* 13, no. 1 (2022): 59, <https://scholarexpress.net/index.php/wefb/article/view/1250>.

¹² Mustafa M. Ibrahim and Abdul Ameer A. Shayaa, "Challenges Faced by the Iraqi Electronic Payments System (Applied Study at the Central Bank of Iraq)," *AL-Qadisiyah: Journal For Administrative and Economic Sciences* 16, no. 3 (2015): 237, https://iraqjournals.com/article_107371_0.html.

Schiff analysis of systems literature payments mail they grow in developing countries, however, it is limited in Arab countries, and more importantly, it is rare in Iraq in particular.¹³ Moreover, because of the decline and fluctuation that occurs to customers in the relationship with Iraqi banks that deal with them.¹⁴ The weakness of the Iraqi banking sector in adopting technologies (electronic payments) in its operations and the limited customer base of Iraqi banks, requires formulating the problem of this research with the following main question, what is the impact of electronic payments on customer satisfaction ?

Electronic payment has a significant impact on improving customer satisfaction, increasing profitability and sustainability in Nigeria according to the study of Fenuga and Oladejo.¹⁵ The study of Rajesh, et. al., addressed trust as one of the determinants of electronic payments to ensure safety from intruders and customer satisfaction in Chennai, India.¹⁶ The study of electronic payments addressed the great importance of customer satisfaction by providing convenience, ease of use, security, benefit, and reliability significantly to users in Batangas Province - Philippines.¹⁷ Study banking services have a major role in improving the quality of service and strengthening the banking sector in Lebanon. Due to electronic payments, there is an increase in the level of customer satisfaction, increased productivity, and a decrease in the cost of banking operations and settlement faster and in large quantities.¹⁸ The study of Mohagheghnia, et. al., demonstrated that the perceived importance of the main factors of electronic payments in Iranian banks was related to security, trust, perceived advantage, speed

¹³ Mohamed Y. Mohamed Al-Sabaawi, Ali Abdulfattah Alshaher, and M. A. Alsalem, "User Trends of Electronic Payment Systems Adoption in Developing Countries: An Empirical Analysis," *Journal of Science and Technology Policy Management* 14, no. 2 (2023): 246, <https://doi.org/10.1108/JSTPM-11-2020-0162>.

¹⁴ Abdullah Sameer Alaameri and Kadhim Ahmed Jawad, "The Role of Operations Decisions in Achieving Customer Satisfaction - An Analytical Study in a Sample of Iraqi Banks," *Turkish Online Journal of Qualitative Inquiry* 12, no. 8 (2021): 1411, <https://www.tojqi.net/index.php/journal/article/view/5298>.

¹⁵ O. J. Fenuga and Oladejo Rasaq Kolade, "The Effect of Electronic Payment on Customer Service Delivery in Nigerian Banks," *International Journal of Economic Development Research and Investment* 1, no. 1 (2010): 227, https://www.icidr.org/ijedri_vol1no1_content.php.

¹⁶ G. Rajesh et al., "A Study on Adoption of Electronic Payment System and Its Impact on Customer Satisfaction in Chennai City," *Annals of Forest Research* 65, no. 1 (2022): 1606, <https://www.e-afr.org/article/view/1606.html>.

¹⁷ Jean Marielle A. Lopez, "Customer Satisfaction and Preference on Electronic Payments (E-Payments) Among the Employees of the Provincial Government of Batangas," *Asia Pacific Journal of Academic Research in Business Administration* 7, no. 2 (2021): 17, <http://apjarba.apjmr.com/wp-content/uploads/2021/09/3-APJARBA-2021-021.pdf>.

¹⁸ Amith Kumar Reddy and Megharaja B., "Impact of E-Banking on Customer Satisfaction," *PalArch's Journal of Archaeology of Egypt / Egyptology* 18, no. 8 (2021): 4220, <https://archives.palarch.nl/index.php/jae/article/view/9660/>.

of processing, perceived risks, ease of use, focus on customer needs, and satisfaction, response to objections, and privacy.¹⁹ A study of banking services represented in electronic payments in the city of Gondar in Ethiopia addressed the role of improving customer satisfaction by reducing the frequency of the bank hall for banking services, reducing the waiting time for customers, and allowing customers to control the movements of their accounts.²⁰ And study that electronic payments at Stanbic Bank Uganda have an impact on customer satisfaction through the ability to handle volume, greatly enhanced payments, significantly reduced time per invoice processing, increased efficiency and accuracy, and decreased payment concerns.²¹ Despite the lack of studies on customer preferences for alternatives that dealt with the impact of electronic payments on customer satisfaction, the study of Rouibah came with evidence from Kuwait for electronic payments represented by debit and credit cards, shop and ship service, payment using prepaid PetroNet, and paying the telephone bill have importance in gaining customer satisfaction.²²

And based on what previous studies dealt with the impact of electronic payments on customer satisfaction by presenting multiple types of services in different countries, but they did not deal with any study of the case of banks in Iraq, and this study is considered an addition to the previous literature to deal with the case of Iraq. For the case of Islamic banks in Iraq because it is one of the leading banks in keeping pace with developments to enhance its competitive position in relation to other banks and the size of its customer base is large and to participate in all activities of financial inclusion through our follow-up as researchers and thus represents a launch for other banks in Iraq to pay attention to improving customer satisfaction and opening horizons for future studies to deal with traditional banks to show the awareness of customers and their response to the developments of financial technology represented by the payment service via the Internet to cover the seriousness of the banking sector in

¹⁹ Mohammad Javad Mohagheghnia et al., "Empirical Study of the Key Factors Affecting Customers' Satisfaction of Electronic Payment Systems (ATM and POS) in the Bank's Member of Network Acceleration and Rating Factors with the AHP Model," *Asian Journal of Research in Marketing* 3, no. 6 (2014): 53, http://research.shahed.ac.ir/WSR/SiteData/PaperFiles/106165_11795568490.pdf.

²⁰ Worku G., Tilahun A., and Tafa M. A., "The Impact of Electronic Banking on Customers' Satisfaction in Ethiopian Banking Industry (The Case of Customers of Dashen and Wogagen Banks in Gondar City)," *Journal of Business & Financial Affairs* 5, no. 2 (2016): 1, <https://doi.org/10.4172/2167-0234.1000174>.

²¹ Sazir Nsubuga Mayanja, "Impact of E-Bills Payment on Customer Satisfaction in Uganda: Stanbic Bank Uganda Limited as the Case Study," *Science Journal of Business and Management* 8, no. 3 (2020): 112, <https://doi.org/10.11648/j.sjbm.20200803.12>.

²² Kamel Rouibah, "Electronic Payment Systems Use and Satisfaction in an Arabic Country: Evidence from Kuwait," *Issues in Information Systems* 16, no. 2 (2015): 149, https://doi.org/10.48009/2_iis_2015_149-160.

general to keep up and satisfy its customers, and accordingly the main objectives of the study can be represented to indicate the dimensions of electronic payments and security requirements for the electronic payment system and the impact of electronic payments on customer satisfaction and crystallize from objectives research search questions, what are the dimensions of electronic payments, what are the security requirements for the electronic payment system, and what is the impact of electronic payments on customer satisfaction.

Methodology

The descriptive analytical approach was used, and the research method was followed quantitative study to explore the relationship and impact of electronic payments on customer satisfaction in the Iraqi banking sector most studies academy a deductive approach to achieve a result strong for the hypothesis that It was completed checked.²³ The random probability sampling technique was used due to the size of the study population to collect data, where the respondents were contacted via e-mail through the data collection tool (questionnaire) prepared electronically through Google Form, The questionnaire consists of three parts, personal data; electronic payments (the independent variable), and customer satisfaction (the dependent variable). As for the population of the study, it consisted of workers in the Al-Watani Islamic Bank of Iraq, for the period (May-June 2023), the number of respondents' responses was an average of (61) answers, which were analyzed through the SPSS V.23 statistical program and several methods and tools, Alpha Coefficient Krupnag for the stability and validity of the study questions, the five-point Likert scale, descriptive analysis (tools for measuring central tendency, statistical dispersion), the simple linear regression coefficient to show the influence of the variables, and the quantitative analysis (Pearson Correlation Coefficient) to show the correlation between the variables.^{24 25 26 27}

²³ William M. Trochim et al., "Practical Challenges of Systems Thinking and Modeling in Public Health," *American Journal of Public Health* 96, no. 3 (2006): 538, <https://doi.org/10.2105/AJPH.2005.066001>.

²⁴ Alhammadi and Tariq, "The Impact of Quality E-Payment System on Customer Satisfaction," 5441.

²⁵ Fenuga and Kolade, "The Effect of Electronic Payment on Customer Service Delivery in Nigerian Banks," 230.

²⁶ Ogochukwu Augustine Isimoya, Sunday Stephen Ajemunigbohun, and Mustapha Tosin Balogun, "Customers' Satisfaction of Electronic Payment Systems in the Purchase of Insurance Products in Nigeria," *Management and Marketing Journal* 16, no. 2 (2018): 180, https://econpapers.repec.org/article/aiomanmar/v_3axvi_3ay_3a2018_3ai_3a2_3ap_3a180-191.htm.

²⁷ Devid Frastiawan Amir Sup et al., "Pengaruh Persepsi Dan Religiusitas Terhadap Kebiasaan Bersedekah Mahasiswi," *Iqtishoduna* 19, no. 1 (2023): 8, <https://doi.org/10.18860/iq.v1i1.17820>.

Results and Discussion

Dimensions Payments Electronic

Ease of use, is defined as the use of the system does not require effort, and this means that the applications used such as mobile phones can use payments easier and faster without trying to learn them, and in general in the use of the behavioural application it is said that the perceived ease of use is closely related to the level of intelligence because the knowledge of who supports users execute the application.²⁸ When reviewing previous studies, the studies show that the technology response described through intelligence can change the perceived ease of use, as in paying the phone bill, that is, the electronic wallet, which is the technology that helps users to create transactions via the internet only via smartphones, and the wallet is used to store money digitally in the form of balances which can be used for routine transactions in addition to the advantage of mobility because it has the incentive to use technology and this evidence that proves support for user portrayal ease of use so there is a relationship between mobility and perceived ease of use and thus has an impact on perceived ease of use.²⁹ And from the necessary preservation of level trust about technology from okay benefit of them.³⁰ Management considers risks of privacy a task to develop a level specific from confidence and consequently, increased satisfaction among customers during presentation services paying off email, either (the design) also is an item essential in investigation service to push electronic reliable to keep on services customers golden.³¹

Usage perceiver, perceived use represents a person's or organization's belief in a system capable of facilitating their work.³² It can be defined as the degree to which a person believes that the use of technology can improve the job performance of that

²⁸ Seungjae Shin and Won-jun Lee, "The Effects of Technology Readiness and Technology Acceptance on Nfc Mobile Payment Services in Korea," *Journal of Applied Business Research (JABR)* 30, no. 6 (2014): 1615, <https://doi.org/10.19030/jabr.v30i6.8873>.

²⁹ Norfaridatul Akmaliah Othman et al., "The Perceived Ease of Use in Mobile Payment Support by Responsiveness, Smartness, and Mobility," *Journal of Theoretical and Applied Information Technology* 100, no. 11 (2022): 3696, <http://www.jatit.org/volumes/Vol100No11/18Vol100No11.pdf>.

³⁰ Femmy Effendy, Ratih Hurriyati, and Heny Hendrayati, "Perceived Usefulness, Perceived Ease of Use, and Social Influence: Intention to Use e-Wallet," in *Proceedings of the 5th Global Conference on Business, Management and Entrepreneurship (GCBME 2020)* (Dordrecht: Atlantis Press, 2021), 311, <https://doi.org/10.2991/aebmr.k.210831.060>.

³¹ Hotlan Siagian et al., "The Effect of Perceived Security, Perceived Ease of Use, and Perceived Usefulness on Consumer Behavioral Intention Through Trust in Digital Payment Platform," *International Journal of Data and Network Science* 6, no. 3 (2022): 861–74, <https://doi.org/10.5267/j.ijdns.2022.2.010>.

³² Kwek Choon Ling et al., "Perceived Risk, Perceived Technology, Online Trust for the Online Purchase Intention in Malaysia," *International Journal of Business and Management* 6, no. 6 (2011): 167, <https://doi.org/10.5539/ijbm.v6n6p167>.

person and refers to the consumer's perception of the outcome of the experience, that is if the individual believes that the information provided in the electronic wallet is useful, then he uses it on the contrary if the individual assumes that the media is less useful because it is used.³³ According to the study of the perceived benefit affects positively and significantly on the intention to use.³⁴ The approval technique certainly, plays a benefit plasmodium role vitally in performance boost career she has an impact big on intention adoption, as for concrete benefit she has a impact big on approval service paying off mail and the intention behaviourism.³⁵

Usage actual, considered as destinations consideration the user towards innovation and its applications component essential to take the decision what if he was the user uses technology mother no and also awareness the user for him role basic in the use actual to serve paying off mail the components main that help in to improve use services paying off mail he availability internet and effectiveness and privacy excellent and rules safety.³⁶

Customer satisfaction, satisfaction for customers can be defined as an evaluation of the general performance of the customer towards providing products or services, meaning that it involves a strong positive effect between customer loyalty from different categories of products and services.³⁷ Need the organization to strengthen satisfaction among customers from okay development sustainability in the market so, from the important extremely identifying needs of clients, and must meet these amazing needs at same the time from okay retention with clients, need organizations to approval strategies to meet your requirements customers and submit services sustainable maybe that help in retention with previous clients and they can attract client new ones also, in this age technological I became famous services banking e in all around the world. Make development techniques easy on everyone access to services banking via internet and services e-banking hate look on effectiveness system

³³ Eko Sandy and Carunia Mulya Firdausy, "Pengaruh Perceived Usefulness, Perceived Ease of Use, Dan Trust Terhadap Minat Konsumen Dalam Penggunaan Ulang Go-Pay Di Kota Jakarta," *Jurnal Manajemen Bisnis Dan Kewirausahaan* 5, no. 1 (2021): 22, <https://doi.org/10.24912/jmbk.v5i1.10275>.

³⁴ Debi Eka Putri et al., "Analysis of the Effect of Perceived Ease of Use, Perceived Usefulness, Trust, and Cashback Promotion on Intention to Use E-Wallet," *International Journal of Economics, Business, and Management Research* 6, no. 11 (2022): 63, <https://doi.org/10.51505/IJEBMR.2022.61105>.

³⁵ Achmad Nizar Hidayanto et al., "Examining the Relationship of Payment System Characteristics and Behavioural Intention in E-Payment Adoption: A Case of Indonesia," *International Journal of Business Information Systems* 19, no. 1 (2015): 58, <https://doi.org/10.1504/IJBIS.2015.069065>.

³⁶ Helen Allen, "Innovations in Retail Payments: E-Payments," *Bank of England Quarterly Bulletin* Winter (2003): 3, <https://ssrn.com/abstract=706832>.

³⁷ Salina Rasli et al., "The Effect of E-Business Website Quality on Customer Satisfaction," *Selangor Business Review* 3, no. 1 (2018): 37, <https://sbr.journals.unisel.edu.my/ojs/index.php/sbr/article/view/15>.

electronic payments where keep many from organizations on the systems traditional and mail in both ways and be active to promote productivity.³⁸

Requirements for the Wish System Electronic Payments

The online transaction system (electronic payments) is a technology that relies on the internet to process cash transactions that are accepted day after day, and electronic payments are an electronic means of payment exchange that enables the customer to pay a merchant or service provider via the internet.³⁹ And in recent years many studies have contributed to multiple protection issues in the field of electronic payments where customers need to feel protected regarding their personal privacy concerns.⁴⁰ To be road paying off acceptable domain-wide in all around the world, he should that tracking systems paying off e protocol safety effective he should guarantee safer high above for transactions via the internet.⁴¹ It was completed to set two protocols participants they guarantee transactions commerce e secure and include protocols layer socket delivery the wish (SSL) as for the transactions that contain secure systems (SET, SSL).⁴²

The Effect of Electronic Payments on Customer Satisfaction

The electronic payment system is a strategic information system and is considered one of the main components of the economy and development, especially in developing countries, and helps extensively in enhancing capacities and providing financial services. It has a role in the economy that resembles the flow of funds to various economic companies, represents a form of financial exchange that takes place between a buyer and seller and electronic communication facilitates this financial exchange.⁴³ Electronic payment systems can be divided into three broad groups, traditional cash transactions, digital money, and credit debt repayment. Payment systems have many requirements, such as security, acceptability, convenience, cost, control, traceability, and cryptographic control. Electronic payment services use information and techniques connection, with what in encryption and network

³⁸ Isimoya, Ajemunigbohun, and Balogun, "Customers' Satisfaction of Electronic Payment Systems in the Purchase of Insurance Products in Nigeria," 183.

³⁹ Daeheon Choi, Chune Young Chung, and Jason Young, "Sustainable Online Shopping Logistics for Customer Satisfaction and Repeat Purchasing Behavior: Evidence from China," *Sustainability* 11, no. 20 (2019): 5626, <https://doi.org/10.3390/su11205626>.

⁴⁰ Hassan et al., "A Review on Electronic Payments Security," 1347.

⁴¹ Koponen, "E-Commerce, Electronic Payments," 4.

⁴² Yeonouk Chu et al., "Review of Offline Payment Function of CBDC Considering Security Requirements," *Applied Sciences* 12, no. 9 (2022): 4488, <https://doi.org/10.3390/app12094488>.

⁴³ Donald O'Mahony, Michael Pierce, and Mitesh Tewari, "Electronic Payment Systems," *The EDP Audit, Control, and Security Newsletter* 25, no. 11 (1998): 18, <https://doi.org/10.1201/1079/43233.25.11.19980501/30170.7>.

connection on after. Payments authorized e he to push the money opposite commodity in commerce e, and to push the money from during hardware e, especially internet.⁴⁴

As for customer satisfaction attract larger saucepan from an interest in literature marketing, when it impacts important manners customers and intentions purchase, and represents a refund an act passionate or cognitive with a focus specific (anticipation, the product, an experience consumption) when time specific (after consumption, after the choice, on basis an experience).⁴⁵ And to show the impact of electronic payments on customer satisfaction, where electronic payments represent a set of regulations that allow the customer to transfer money from one account in a bank to another account and a set of roles represented by the payer and the recipient and the bank serves the customer by issuing credit to the customer, provided that customer satisfaction is classified as reliable to achieve the goal of impact, for example, the quality of the expected payments system, being the basis for expressing customers' expectations for electronic services provided by banks or institutions, i.e. (backfeed) and it is through the formation of customer requests in three levels (layers) because the realization (expectation) of each layer. The quality based on the satisfaction of previous customers achieves the satisfaction of new customers, and accordingly it includes the basic layers of quality, which is the minimum level of service that causes customer dissatisfaction, quality efficiency, which is not ignoring the necessities that cause customer dissatisfaction, and motivational quality, which represents the features that you ignore and therefore do not satisfy customers. But when achieved by the manufacturer he causes satisfaction customers tangible.⁴⁶ In conclusion, and to achieve the main objective, this paper will show the extent of the impact of electronic payments on customer satisfaction. In the case of the Iraqi banking sector, some studies dealt with this effect on commercial banks, but this study is considered the first study that will deal with the aspect of Iraqi Islamic banks, as far as the researchers know, which is as a scientific addition to the literature on it, the study gap (spatial gap) represents

⁴⁴ Sumanjeet, "Emergence of Payment Systems in the Age of Electronic Commerce: The State of Art," in *First Asian Himalayas International Conference on Internet* (Kathmundu: IEEE Xplore, 2009), 3, <https://doi.org/10.1109/AHICI.2009.5340318>.

⁴⁵ Edward U. Bond and Ross L. Fink, "Customer Satisfaction and the Marketing-Quality Interface," *Journal of Business & Industrial Marketing* 18, no. 3 (2003): 204, <https://doi.org/10.1108/08858620310471304>.

⁴⁶ Bashir Ahmad Fida et al., "Impact of Service Quality on Customer Loyalty and Customer Satisfaction in Islamic Banks in the Sultanate of Oman," *SAGE Open* 10, no. 2 (2020): 3, <https://doi.org/10.1177/2158244020919517>.

the Iraqi banking sector / Islamic banks. Based on what the previous studies dealt with, the research hypothesis will be as follows:^{47 48}

H0: There is no statistically significant correlation and effect between electronic payments and customer satisfaction under study at a significant level of 0.01

H1: There is a statistically significant correlation and effect between electronic payments and customer satisfaction under study at a significant level of 0.01

Statistical Results Related to Describing the Characteristics of the Study Sample

It is noted in Table 1 that the percentage of 55.7% of the study population are males, while the percentage of females is lower by 44.3%, and the percentage of 42.6% holders of a bachelor's degree is lower, while it is lower by 9.8% of those who hold a high school diploma, and the percentage is 39.3%. The percentage of years of experience among the study population is from 5-10 years, while it decreases by 8.2% less than 5 years, and 29.5% for the age of the study population from 31-35, while it decreases by 9.8% for the age of members of the study population more than 40, and ratio 52.5% of the job level as an employee, while it decreased by 18.0% as a department manager.

Table 1. Distribution of the Study Sample According to Demographic Variables

Variable	Class	Repetition	Percentage %
Gender	Male	34	55.7
	Female	27	44.3
Academic Achievement	Prep	6	9.8
	Bachelor's	26	42.6
	Diploma	12	19.7
	Master's	17	27.9
Years of Experience	Less than 5	5	8.2
	5-10	24	39.3
	10-20	23	37.7
	More than 20	9	14.8
Age	20-25	7	11.5
	26-30	14	23.0
	31-35	18	29.5
	36-40	16	26.2
	More than 40	6	9.8

⁴⁷ Lopez, "Customer Satisfaction and Preference on Electronic Payments (E-Payments) Among the Employees of the Provincial Government of Batangas," 20.

⁴⁸ Fatemeh Soleimani Roozbahani, Sanaz Nikghadam Hojjati, and Reihaneh Azad, "The Role of E-Payment Tools and E-Banking in Customer Satisfaction Case Study: Pasargad Bank E-Payment Company," *International Journal of Advanced Networking and Applications* 7, no. 2 (2015): 2640, <https://www.ijana.in/v7-2.php>.

Career Level	Employee	32	52.5
	Division	18	29.5
	Manager		
	Director of the Department	11	18.0
Total		61	100.0

Source: Processed Data

Table 2. Shows Periods Circles the Arithmetic of the Five Point Likert Scale

Relative Mean	Resolution for the Mean
Less than 1.80	Vehemently Opposed
1.80 - 2.60	Opposed
2.60 - 3.40	Neutral
3.40 - 4.20	Agree
4.20 - 5.00	Strongly Agree

Source: Processed Data

Table 3. The Results of the Statistical Description of the Independent Variable (Electronic Payments)

Paragraphs	N	Mean	Std. Deviation	Approval Level
The bank provides electronic payments continuously	61	3.7705	1.05504	Agree
The perceived benefit of electronic payments encourages the request for service electronically	61	4.2623	0.92919	Strongly Agree
The bank provides many types of electronic payments	61	4.0000	1.01653	Agree
Bank employees understand customers' needs and seek to fulfil them	61	4.0656	1.07810	Agree
The quality of electronic payments offered by the bank is appropriate	61	3.9672	1.16858	Agree
The use of electronic payments is easy	61	3.8689	1.14710	Agree
The use of electronic payments helps customers complete all tasks	61	4.0000	1.09545	Agree
The use of electronic payments via the internet in the completion of financial transactions saves time	61	4.2951	0.71518	Strongly Agree
Electronic payment service is obtained without delay	61	4.0984	0.99507	Agree

Customers feel safe when dealing with the bank electronically	61	4.1639	0.75675	Agree
The use of electronic payments provides a permanent connection between the customer and the bank	61	4.0656	0.94638	Agree
Electronic payment service provides high protection for customer information	61	4.1639	0.93417	Agree
Electronic payments are safe for completing banking transactions for customers	61	4.1967	0.77071	Agree
The bank deals with customer information confidentially when using electronic payments	61	4.1148	1.00164	Agree
Valid N (listwise)	61			

Source: Processed Data

Based on the results of the descriptive analysis of the independent variable (Electronic Payments), and the use of measures of central tendency and statistical dispersion show that the use of electronic payments via the internet in the completion of financial transactions saves time same highest arithmetic average 4.2951 and standard deviation 0.71518. Therefore, electronic payments should be developed due to their multiple importance, in addition to the importance of the time element, which is the basis of our daily lives in light of the rapid global developments.

Table 4. The Results of the Statistical Description of the Dependent Variable (Customer Satisfaction)

Paragraphs	N	Mean	Std. Deviation	Approval Level
The bank is keen to follow up on the opinions of its customers about the services it provides and takes into account their suggestions	61	4.0984	1.01168	Agree
The bank is keen to build customers' trust and ensure their loyalty by protecting their account information	61	4.1639	0.91616	Agree
The electronic payment service in the bank helps to attract new customers	61	4.0820	0.95385	Agree
When providing its services, the bank's management is keen to use the latest electronic methods	61	4.1967	0.74877	Agree
The bank has clear perceptions and information on the degree of customer satisfaction	61	4.0820	0.95385	Agree

The bank works to gain the appropriate degree of customer satisfaction by providing high-quality services at an appropriate price	61	4.2295	0.64274	Strongly Agree
The bank targets the scale of retaining existing customers and gaining new customers by finding services that meet the material and moral needs of customers	61	4.1148	0.77671	Agree
Valid N (listwise)	61			

Source: Processed Data

And based on the results of the descriptive analysis of the dependent variable (Customer Satisfaction), and the use of measures of central tendency and statistical dispersion show that the bank works to gain the appropriate degree of customer satisfaction by providing high-quality services at an appropriate price with the highest arithmetic mean 4.2295 and standard deviation 0.64274. So, the basis for gaining customer satisfaction is through the bank's practice of providing advanced services at an appropriate price. The customer wants to benefit from the services, which leads to an increase in the bank's customer base.

Test the Study Hypotheses

H0: There is no statistically significant correlation and effect between electronic payments and customer satisfaction under study at a significant level of 0.01

H1: There is a statistically significant correlation and effect between electronic payments and customer satisfaction under study at a significant level of 0.01

Table 5. Reliability Statistics

Cronbach's Alpha	N of Items
0.741	21

Source: Processed Data

We can see from the information received above that the coefficient of stability Cronbach's Alpha all of them had a good degree of reliability (stability) for all variables and they were all above the conditional level of 0.60 according to Sekaran and Bougie,⁴⁹ and the overall stability of the resolution was 0.741%, which is a high percentage of stability.

⁴⁹ Uma Sekaran and Roger Bougie, *Research Methods For Business: A Skill Building Approach*, 7th ed. (New Jersey: John Willey & Sons, Inc, 2003), 348.

Table 6. Correlations

		Electronic Payments	Customers Satisfaction
Electronic Payments	Pearson Correlation	1	0.553**
	Sig. (2-tailed)		0.00
	N	61	61
Customers Satisfaction	Pearson Correlation	0.553**	1
	Sig. (2-tailed)	0.00	
	N	61	61

** Correlation is significant at the 0.01 level (2-tailed)

Source: Processed Data

A correlation is considered weak if the correlation coefficient is from 0.01-0.49 and it can be considered average if the value of the correlation coefficient ranges between 0.50-0.69, if the correlation coefficient is between 0.70-0.99, the relationship is seen as strong the correlation between the two variables and +1 represents a perfect connection. Through a coefficient table Cronbach's Alpha the items in the questionnaire are internally honest and consistent. Because the overall stability of the resolution is 0.741%, or more than 0.60%, according to Sekaran and Bougie.⁵⁰ It was found from the correlation analysis table that the correlation between the independent variable (Electronic Payments) and the dependent variable (Customer Satisfaction) is a positive direct relationship. Complete being level +1 and significant of 0.00, and the correlation of the dependent variable (Customer Satisfaction) and the independent variable (Electronic Payments) is a medium positive direct relationship for being at the level 0.55% and significant of 0.00, that is, the greater the independent variable, the dependent variable increases. So we reject the null hypothesis H0 and accept the alternative hypothesis H1 because the existence of the correlation between the two variables is direct (positive) and the level of significance 0.00 is less than the level of significance of the alternative hypothesis 0.01.

⁵⁰ Ibid.

Table 7. Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Electronic Payments ^b	0	Enter

a. Dependent variable: Customer Satisfaction

b. All requested variables entered

Source: Processed Data

Table 8. Model Summary

Model	R	R Square	Adjusted R Square	Std. the Error in the Estimate
1	0.553a	0.306	0.295	2.51491

a. Predictors: (Constant), Electronic Payments

Source: Processed Data

We reject the null hypothesis H0 and we accept the alternative hypothesis H1 based on the outputs of simple linear regression and a table Model Summary, where she acted R 0.55, that is, there is a direct correlation between the dependent and independent variables, the variance for the joint prediction of the independent variable (Electronic Payments) effect by (0.306) R Square on the dependent variable (Customers Satisfaction).

Table 9. ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	164.772	1	164.772	26.052	0.00b
Residual	373.163	59	6.325		
Total	537.934	60			

a. Dependent Variable: Customer Satisfaction

b. Predictors: (Constant), Electronic Payments

Source: Processed Data

The table shows that the analysis of variance supports the value of F (26.052) as a statistic because sig 0.00 is less than 0.01, so the relationship model is linear and of good quality, and the results can be relied on. Therefore, we reject hypothesis H0 and accept the alternative hypothesis H1.

Table 10. Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(constant)	13,014	3,142		4,142	0.00
Electronic Payments	0.280	0.055	0.553	5,104	0.00

a. Dependent Variable: Customer Satisfaction

Source: Processed Data

The table shows that the relationship between the Pearson Correlation Coefficient and the simple linear regression means that each number in the independent variable affects the dependent by an amount of 13.014 and sig 0.00, that is, statistically significant at a significant level because it is less than the significance level of the hypothesis 0.01, and (t) calculated is 5.104 Therefore, the null hypothesis H0 is rejected and the alternative hypothesis H1 is accepted.

Conclusion

Due to the presence of multiple restrictions for the application of electronic payments, some of which are regulatory, while others are related to the banking sector, and the most important challenge is the element of safety that limits the expansion of its activities, and the weakness of data and information resulting from the lack of infrastructure and the low cultural level of cadres working in Iraqi banks, and the decline and fluctuation that happens to customers in the relationship with the Iraqi banks that deal with them, the researchers formulated conclusions based on the results of the study based on the opinions of the respondents, as it was shown that the perceived benefit of electronic payments encourages the request for service electronically, and thus one of the limitations associated with the banking sector has been addressed and the element of safety is available in the completion of transactions and works. The bank aims to provide electronic payments on an ongoing basis, which means a high cultural level of the cadres working in the bank, and there is keenness on the part of the bank's management to adopt the latest modern electronic methods, of high quality and at an appropriate price, and most importantly in enhancing customer confidence with the bank, the bank's attempt to protect their account information in order to address the problem The study represented by the fluctuation and regression that occurs in the relationship of customers with the banks they deal with. It was noted by the two researchers that the ages 31-35 are the most responsive in the bank, which indicates the desire to keep pace with technological developments and know the ease of use and benefit when it comes to electronic payment since most

of the respondents are holders of a bachelor's degree on even though their years of experience ranged from 5-10 years, finally, the research concluded that there is a positive correlation and a significant effect between electronic payments and customer satisfaction in the National Islamic Bank of Iraq, as it provides convenience, ease of use, and security for customers when using it. There are suggested recommendations to improve customer satisfaction by investing in modern protection technology such as fingerprint recognition, two-factor authentication, and advanced encryption to maintain the confidentiality and security of transactions. The process of registration and use of electronic banking services should be easy and simple. Provide rewards and incentives to customers who use electronic payment, such as discounts. Purchases or purchasing points must carry out promotional campaigns to raise awareness of the benefits and safety of electronic payment and how to use it effectively.

References

- Abrazhevich, Dennis. "Electronic Payment Systems: A User-Centered Perspective and Interaction Design." Technische Universiteit Eindhoven, 2004. <https://doi.org/10.6100/IR575913>.
- Afsharpour, M., and M. Pahlevani. "Review and Prioritization of Payment Tools and Equipment of E-Banking Using Analytical Hierarchy Process (AHP)." In *Seventh National Conference and the First International Conference of Commerce and Economy*, 80–105. Tehran: Iranian E-Commerce Scientific Association, 2013. <http://ieca.ir/en/page/post17326091203>.
- Al-Sabaawi, Mohamed Y. Mohamed, Ali Abdulfattah Alshaher, and M. A. Alsalem. "User Trends of Electronic Payment Systems Adoption in Developing Countries: An Empirical Analysis." *Journal of Science and Technology Policy Management* 14, no. 2 (2023): 246–70. <https://doi.org/10.1108/JSTPM-11-2020-0162>.
- Alaameri, Abdullah Sameer, and Kadhim Ahmed Jawad. "The Role of Operations Decisions in Achieving Customer Satisfaction - An Analytical Study in a Sample of Iraqi Banks." *Turkish Online Journal of Qualitative Inquiry* 12, no. 8 (2021): 4411–44. <https://www.tojqi.net/index.php/journal/article/view/5298>.
- Alhammad, Ameena Abdulrahman, and Muhammad Usman Tariq. "The Impact of Quality E-Payment System on Customer Satisfaction." *Journal of Critical Reviews* 7, no. 1 (2020): 5438–47. <https://dSPACE.adu.ac.ae/handle/1/5122>.
- Allen, Helen. "Innovations in Retail Payments: E-Payments." *Bank of England Quarterly Bulletin* Winter (2003): 1–11. <https://ssrn.com/abstract=706832>.
- Bond, Edward U., and Ross L. Fink. "Customer Satisfaction and the Marketing-Quality Interface." *Journal of Business & Industrial Marketing* 18, no. 3 (2003): 204–18.

- <https://doi.org/10.1108/08858620310471304>.
- Choi, Daeheon, Chune Young Chung, and Jason Young. "Sustainable Online Shopping Logistics for Customer Satisfaction and Repeat Purchasing Behavior: Evidence from China." *Sustainability* 11, no. 20 (2019): 5626–41. <https://doi.org/10.3390/su11205626>.
- Chu, Yeonouk, Jaeho Lee, Sungjoong Kim, Hyunjoong Kim, Yongtae Yoon, and Hyeyoung Chung. "Review of Offline Payment Function of CBDC Considering Security Requirements." *Applied Sciences* 12, no. 9 (2022): 4488–4505. <https://doi.org/10.3390/app12094488>.
- Effendy, Femmy, Ratih Hurriyati, and Heny Hendrayati. "Perceived Usefulness, Perceived Ease of Use, and Social Influence: Intention to Use e-Wallet." In *Proceedings of the 5th Global Conference on Business, Management and Entrepreneurship (GCBME 2020)*, 311–15. Dordrecht: Atlantis Press, 2021. <https://doi.org/10.2991/aebmr.k.210831.060>.
- Eidan, Faril Mushraf. "The Banking Sector in Iraq After 2003 Between the Problems of Reality and Reform Efforts." *World Economics and Finance Bulletin* 13, no. 1 (2022): 59–70. <https://scholarexpress.net/index.php/wefb/article/view/1250>.
- Fenuga, O. J., and Oladejo Rasaq Kolade. "The Effect of Electronic Payment on Customer Service Delivery in Nigerian Banks." *International Journal of Economic Development Research and Investment* 1, no. 1 (2010): 227–39. https://www.icidr.org/ijedri_vol1no1_content.php.
- Fida, Bashir Ahmad, Umar Ahmed, Yousuf Al-Balushi, and Dharmendra Singh. "Impact of Service Quality on Customer Loyalty and Customer Satisfaction in Islamic Banks in the Sultanate of Oman." *SAGE Open* 10, no. 2 (2020): 1–10. <https://doi.org/10.1177/2158244020919517>.
- G., Worku, Tilahun A., and Tafa M. A. "The Impact of Electronic Banking on Customers' Satisfaction in Ethiopian Banking Industry (The Case of Customers of Dashen and Wogagen Banks in Gondar City)." *Journal of Business & Financial Affairs* 5, no. 2 (2016): 1–18. <https://doi.org/10.4172/2167-0234.1000174>.
- Hassan, Md Arif, and Zarina Shukur. "A Secure Multi Factor User Authentication Framework for Electronic Payment System." In *3rd International Cyber Resilience Conference (CRC)*, 1–6. Langkawi Island: IEEE, 2021. <https://doi.org/10.1109/CRC50527.2021.9392564>.
- Hassan, Md Arif, Zarina Shukur, Mohammad Kamrul Hasan, and Ahmed Salih Al-Khaleefa. "A Review on Electronic Payments Security." *Symmetry* 12, no. 8 (2020): 1344–68. <https://doi.org/10.3390/sym12081344>.
- Hidayanto, Achmad Nizar, Luqman Syauqi Hidayat, Puspa Indahati Sandhyaduhita,

- and Putu Wuri Handayani. "Examining the Relationship of Payment System Characteristics and Behavioural Intention in E-Payment Adoption: A Case of Indonesia." *International Journal of Business Information Systems* 19, no. 1 (2015): 58–86. <https://doi.org/10.1504/IJBIS.2015.069065>.
- Ibrahim, Mustafa M., and Abdul Ameer A. Shayaa. "Challenges Faced by the Iraqi Electronic Payments System (Applied Study at the Central Bank of Iraq)." *AL-Qadisiyah: Journal For Administrative and Economic Sciences* 16, no. 3 (2015): 237–50. https://iraqjournals.com/article_107371_0.html.
- Isimoya, Ogochukwu Augustine, Sunday Stephen Ajemunigbohun, and Mustapha Tosin Balogun. "Customers' Satisfaction of Electronic Payment Systems in the Purchase of Insurance Products in Nigeria." *Management and Marketing Journal* 16, no. 2 (2018): 180–91. https://econpapers.repec.org/article/aiomanmar/v_3axvi_3ay_3a2018_3ai_3a2_3ap_3a180-191.htm.
- Khudair, Reyam Khalil, and Ibtisam Ali Hussein. "The Role of Financial Technology in Achieving Customer Satisfaction: A Field Study in a Sample of Iraqi Banks." *Millenium Journal of Economic and Administrative Sciences* 3, no. 1 (2022): 1–16. <https://doi.org/10.47340/mjeas.v3i1.2.2022>.
- Koponen, A. "E-Commerce, Electronic Payments." In *International Conference*, 1–6. Istanbul: Koc Universitesi, 2006. http://home.ku.edu.tr/~daksen/mgis410/materials/E-Commerce_Electronic_Payments.pdf.
- Ling, Kwek Choon, Dazmin bin Daud, Tan Hoi Piew, Kay Hooi Keoy, and Padzil Hassan. "Perceived Risk, Perceived Technology, Online Trust for the Online Purchase Intention in Malaysia." *International Journal of Business and Management* 6, no. 6 (2011): 167–82. <https://doi.org/10.5539/ijbm.v6n6p167>.
- Lopez, Jean Marielle A. "Customer Satisfaction and Preference on Electronic Payments (E-Payments) Among the Employees of the Provincial Government of Batangas." *Asia Pacific Journal of Academic Research in Business Administration* 7, no. 2 (2021): 17–25. <http://apjarba.apjmr.com/wp-content/uploads/2021/09/3-APJARBA-2021-021.pdf>.
- Mayanja, Sazir Nsubuga. "Impact of E-Bills Payment on Customer Satisfaction in Uganda: Stanbic Bank Uganda Limited as the Case Study." *Science Journal of Business and Management* 8, no. 3 (2020): 112–18. <https://doi.org/10.11648/j.sjbm.20200803.12>.
- Merrit, Cynthia. "Mobile Money Transfer Services: The Next Phase in the Evolution of Person-to-Person Payments." *Journal of Payments Strategy & Systems* 5, no. 2

- (2011): 143–60. <https://www.henrystewartpublications.com/jpss/v5>.
- Mohagheghnia, Mohammad Javad, Mahsa Qorbani, Meysam Bagheri, and Mohsen Azimi. "Empirical Study of the Key Factors Affecting Customers' Satisfaction of Electronic Payment Systems (ATM and POS) in the Bank's Member of Network Acceleration and Rating Factors with the AHP Model." *Asian Journal of Research in Marketing* 3, no. 6 (2014): 53–71. http://research.shahed.ac.ir/WSR/SiteData/PaperFiles/106165_11795568490.pdf.
- O'Mahony, Donald, Michael Pierce, and Mitesh Tewari. "Electronic Payment Systems." *The EDP Audit, Control, and Security Newsletter* 25, no. 11 (1998): 18–19. <https://doi.org/10.1201/1079/43233.25.11.19980501/30170.7>.
- Othman, Norfaridatul Akmaliah, Doni Purnama Alamsyah, Chyntia Ika Ratnapuri, and Dian Kurnianingrum. "The Perceived Ease of Use in Mobile Payment Support by Responsiveness, Smartness, and Mobility." *Journal of Theoretical and Applied Information Technology* 100, no. 11 (2022): 3696–3706. <http://www.jatit.org/volumes/Vol100No11/18Vol100No11.pdf>.
- Putri, Debi Eka, Onita Sari Sinaga, Acai Sudirman, Fedianty Augustinah, and Edy Dharma. "Analysis of the Effect of Perceived Ease of Use, Perceived Usefulness, Trust, and Cashback Promotion on Intention to Use E-Wallet." *International Journal of Economics, Business, and Management Research* 6, no. 11 (2022): 63–75. <https://doi.org/10.51505/IJEBMR.2022.61105>.
- Rajesh, G., R. H. Abdul Hajeer, S. Anitha, and A. Kamaruniza. "A Study on Adoption of Electronic Payment System and Its Impact on Customer Satisfaction in Chennai City." *Annals of Forest Research* 65, no. 1 (2022): 1606–16. <https://www.e-afr.org/article/view/1606.html>.
- Rasli, Salina, Nurhidayah Khairi, Hemkkumar Ayathuray, and Muhammad Syafiq Sudirman. "The Effect of E-Business Website Quality on Customer Satisfaction." *Selangor Business Review* 3, no. 1 (2018): 37–45. <https://sbr.journals.unisel.edu.my/ojs/index.php/sbr/article/view/15>.
- Reddy, Amith Kumar, and Megharaja B. "Impact of E-Banking on Customer Satisfaction." *PalArch's Journal of Archaeology of Egypt / Egyptology* 18, no. 8 (2021): 4220–31. <https://archives.palarch.nl/index.php/jae/article/view/9660/>.
- Roobahani, Fatemeh Soleimani, Sanaz Nikghadam Hojjati, and Reihaneh Azad. "The Role of E-Payment Tools and E-Banking in Customer Satisfaction Case Study: Pasargad Bank E-Payment Company." *International Journal of Advanced Networking and Applications* 7, no. 2 (2015): 2640–49. <https://www.ijana.in/v7-2.php>.
- Rouibah, Kamel. "Electronic Payment Systems Use and Satisfaction in an Arabic

- Country: Evidence from Kuwait." *Issues in Information Systems* 16, no. 2 (2015): 149–60. https://doi.org/10.48009/2_iis_2015_149-160.
- Sandy, Eko, and Carunia Mulya Firdausy. "Pengaruh Perceived Usefulness, Perceived Ease of Use, Dan Trust Terhadap Minat Konsumen Dalam Penggunaan Ulang Go-Pay Di Kota Jakarta." *Jurnal Manajemen Bisnis Dan Kewirausahaan* 5, no. 1 (2021): 22–27. <https://doi.org/10.24912/jmbk.v5i1.10275>.
- Sekaran, Uma, and Roger Bougie. *Research Methods For Business: A Skill Building Approach*. 7th ed. New Jersey: John Willey & Sons, Inc, 2003.
- Shin, Seungjae, and Won-jun Lee. "The Effects of Technology Readiness and Technology Acceptance on Nfc Mobile Payment Services in Korea." *Journal of Applied Business Research (JABR)* 30, no. 6 (2014): 1615–26. <https://doi.org/10.19030/jabr.v30i6.8873>.
- Siagian, Hotlan, Zeplin Jiwa Husada Tarigan, Sautma Ronni Basana, and Ribut Basuki. "The Effect of Perceived Security, Perceived Ease of Use, and Perceived Usefulness on Consumer Behavioral Intention Through Trust in Digital Payment Platform." *International Journal of Data and Network Science* 6, no. 3 (2022): 861–74. <https://doi.org/10.5267/j.ijdns.2022.2.010>.
- Sudarno, and Bambang Eka Purnama. "Analysis Tracking Online Payment System." *International Journal of Scientific & Technology Research* 1, no. 10 (2012): 55–60. <https://www.ijstr.org/paper-references.php?ref=IJSTR-1112-5492>.
- Sumanjeet. "Emergence of Payment Systems in the Age of Electronic Commerce: The State of Art." In *First Asian Himalayas International Conference on Internet*, 1–18. Kathmandu: IEEE Xplore, 2009. <https://doi.org/10.1109/AHICI.2009.5340318>.
- Sup, Devid Frastiawan Amir, Namira Muthia Rosalina, Setiawan Bin Lahuri, Andini Rachmawati, and Muhammad Abdul Aziz. "Pengaruh Persepsi Dan Religiusitas Terhadap Kebiasaan Bersedekah Mahasiswi." *Iqtishoduna* 19, no. 1 (2023): 1–19. <https://doi.org/10.18860/iq.v1i1.17820>.
- Trochim, William M., Derek A. Cabrera, Bobby Milstein, Richard S. Gallagher, and Scott J. Leischow. "Practical Challenges of Systems Thinking and Modeling in Public Health." *American Journal of Public Health* 96, no. 3 (2006): 538–546. <https://doi.org/10.2105/AJPH.2005.066001>.