
THE ECONOMIC AND SOCIAL IMPACT OF ELECTRONIC PAYMENT ON THE DEVELOPMENT OF FINANCIAL MARKETS

Ghufran Shallal Mohammed 1

AL -Furat AL -Awsat Technical University,
Technical Institute of Dewaniya, Iraq,
Email: ghfran.mohamed.idi6@atu.edu.iq

Muaamal Hussein Jwesim 2

AL -Furat AL -Awsat Technical University,
Technical Institute of Dewaniya, Iraq, Email: dw.mol@atu.edu.iq

Naseer Faisal Najm 3

AL -Furat AL -Awsat Technical University,
Technical Institute of Dewaniya, Iraq,
Email: naseer.najm@atu.edu.iq

Abstract

Based on a global sample of nations, this study examines the connection between economic growth and electronic payment systems. The study is pertinent given the significance of payment systems in financial transactions and the fact that there isn't much research on this rapidly developing field in the literature. The notion, types, and additional attributes of electronic payment systems are first discussed in the study, which then goes on to examine macroeconomic data from various nations worldwide. It can be assumed that this is a national issue because no hard data is available to support or refute the link between electronic payment systems and economic growth.

Keywords: economic growth, electronic payment systems, financial transactions.

Introduction

Information and communication technology's (ICT) advent has caused a profound impact on people's lives and how businesses operate, respectively. ICT and digital technologies have significantly advanced economics, finance, and operational costs while also improving organizational performance (**Slozko and Pello, 2015**). Both online and offline. Nowadays, a firm has two faces, and internet business is predicted to expand in the coming years.

Since online platforms are now used by the majority of sales and marketing channels, electronic commerce is becoming essential for offline businesses as well. **Schneider, et al. (2011)** divides electronic commerce into four categories: peer-to-peer (P2P), mobile, business-to-business (B2B), as well as consumer-to-consumer (C2C). Because of the rise in demands on finances brought about by the expansion of ecommerce, an electronic payment

system has emerged and is swiftly displacing cash payments. Paying for products or services online is known as an electronic payment, or payment. It covers all financial transactions made with electronic devices, including tablets, cellphones, and PCs.

A report by Mordor Intelligence estimates that the worldwide digital payment market will grow at a compound annual growth rate (CAGR) of 13.7% from 2020 to 2025, from its 2019 valuation of USD 3885 billion to USD 8686 billion. However, **Kowsalya et al. (2017)** assert that the internet payment mechanism and that, as mobile commerce and technology continue to advance, credit and debit cards will become outdated. **Tadse et al. (2017)** also discovered that mobile users can conduct financial transactions using their phones and that digital wallets are swiftly taking the lead as the most popular method of online payment.

Finally the aim of work is study's goals are to learn more about electronic payments, explore its numerous facets, and examine pertinent economic statistics from throughout the world.

Theoretical literature

1. Definition of Payment System

A digital financial instrument backed by a bank, an intermediary, or legal tender, such as encrypted credit card information, electronic checks, or digital cash facilitates financial transactions between buyers and sellers in an online setting. This type of system is known as an electronic payment system (EPS) (**Aigbe & Akpojaro, 2014; Roy & Sinha, 2014**). The advent Deploying e-payment systems has caused the global payment system to synchronize with the prevailing trend of cashless transactions among individuals, corporations, and governmental entities.. This has resulted in a more convenient, quick, and secure method of payment processing for individuals and organizations (**Choudhry et al., 2015**), as well as a gateway to technological advancement in the global economy (**Slozko and Pelo, 2015**). Additionally, it has increased efficiency, reduced fraud, and fostered innovation (**Oladeji et al., 2014**).

According to **Aigbe and Akpojaro , (2014)**. Electronic check systems, online credit card payment systems, online cash systems, and smart card-based electronic payment systems are the four types of electronic payment systems.

2. electronic payment history

The infrastructure and technologies underlying electronic payments have changed throughout time. Its foundation is the development of a new electronic monetary system. The ancient barter system, in which exchanges of goods in kind were used to settle transactions, is the oldest example of a payment system. (**Agimo et al., 2014**). Precious metals and metallic coins then emerged as a means of exchange that led to the early 20th century adoption of currency based on the gold standard. The world thereafter witnessed the introduction of paper money, with distinct currencies in each sovereign nation or region.

With the invention of the telegraph and Morse code in the 1850s, the telephone (**Graham Bell, 1875**), and the internet in the 1990s, payment systems experienced tremendous expansion. One of the most notable instances of electronic payment dates back to 1918, when the Federal Reserve The United States Bank (US) initially used the telegraph to transfer the currency. The US Central Treasury and commercial banks were then given an alternative to

check payment when the Automated Clearing House (ACH) was established in 1972. The earliest recorded card payments date back to 1914 in Europe, when merchants and lodging establishments began to provide their patrons with credit and prepaid cards. (**Aigbe et al., 2014**).

It wasn't until the introduction of the World Wide Web and personal computers in the 1990s that card digitalization gained popularity. Currently, debit and credit cards are accepted as forms of payment for a wide range of goods and services worldwide (**Mohamad et al., 2009**). There are not many electronic financial product and service examples credit cards, electronic fund transfers, e-cash, and checks (**Ken and Will, 2002**). A current innovation in the banking system, a Unified Payments Interface (UPI) unifies many banking services and powers several bank accounts into a single mobile app from any bank that takes part. bank accounts into a single mobile app (from any bank that takes part). Another piece of contemporary financial product innovation is the electronic purse, or E-wallet. An electronic wallet, or e-wallet, is a digital representation of a physical wallet that has the ability to be used for transactions. (**Franke et al., 1999**).

Indian e-wallets like ICICI Pockets and State Bank Buddy are two examples. An amount paid A gateway, often known as a PG, is a company that acts as a middleman between a buyer and a seller to process and approve online transactions. through the use of cards, electronic wallets, banking, and other data. These days, two widely used payment channels are Pay pal and Amazon Pay. Additionally, organizations like Mastercard and Visa establish connections with banks world wide to provide debit and credit cards. cards and function as a component of the payment gateways for online transactions. Another miracle of the modern day is the cryptocurrency. It is a digital money that is exchanged using block chain technology on a decentralized peer-to-peer (P2P) network. (**Al-Laham et al., 2009**).

3. Advantages and disadvantages of electronic payments

The technological, economic, social, and regulatory view points should all be taken into consideration when evaluating an electronic payment system (**Khairun and Yasmin, 2010**). With an electronic payment system, customer care elements like accessibility and quickness become essential. Two areas of concern when utilizing an electronic payment method are user security and adequate technological understanding, Payment systems are technology-driven tools that can malfunction and go into default. The company should have a backup plan in place and shouldn't rely too heavily on technological They are vulnerable to hacker attacks and other internet incursions. An important consideration in an electronic payment system is cost. (**Dennis et al., 2014**). Establishing an electronic payments system comes at a significant cost, Electronic payments have many benefits, but they also have certain drawbacks, such are restricted use of specific currencies, problems with up keep and ownership, and ineffectual grievance processing, so hidden fees (any additional, unclear costs). **Laudon and Traver , (2007)** emphasize the benefits of electronic payment systems in comparison to conventional approaches. They support anonymity, low financial risk, integrity, compatibility, good transaction efficiency, acceptance, convenience, and mobility. According to **Magutu et al. (2011)**, there are other benefits such as catering to clients in

remote areas, reducing expenses related to security and leasing of buildings, and raising customer awareness and loyalty.

Another significant factor influencing the adoption of e-payment systems is very little transaction time or real-time transactions. Another benefit of e-payments is its capacity to serve large numbers of users at once. (**Fatonah et al., 2018**).

4. Research Methodology and Objective

Understanding the connection between electronic transactions and economic growth is the aim of the study. Therefore, the analysis has made use of the available data on a variety of electronic transaction parameters (such as the quantity of ATMs and payment cards) and GDP. Convenience sampling, which uses data from randomly chosen nations, has been applied in cases when efforts were made to include nations from a variety of geographic regions and socioeconomic classes. (**Fernandes et al., 2013**).

Thus, information from the Saudi Arabia in the Middle East Europe's United Kingdom India in the Middle East Malaysia in the Lower Middle East the Upper Middle East, the Middle East, and Canada North America, Australia, the United States, and the High Income Region In the study, the Asia Pacific region is used. study makes use of basic Regression analysis and correlation analysis methods are used, with SPSS 20.0 software. Since data availability is a concern, the time series data for the first five years (2014–2018) have been used exclusively. (**Gaynor et al., 2019**).

Determination of the assess and the most important documents regarding secured electronic payments (E-payments) in Malaysia, as well as to investigate the difficulties and repercussions in the event that the risks associated with secured payments are not met. **Mishra, (2020)**. analyzes the data study from internationally renowned statistical research firms covering mobile commerce, electronic commerce, mobile users, and Indian consumers' reactions to new technologies for e-payments. (**Ishak et al., 2020**).

electronic money transfer. In order to investigate potential viable and attainable growth pathways in this industry, This study aims to use a similar contextual analysis to comprehend and gauge Malaysia's emerging trend of safe electronic payments. (**Kabir et al., 2015**).

Additionally, one of Bank Negara Malaysia's goals in creating a stable financial system is to create an effective financial payment system. This will affect how monetary policy is implemented, as electronic payments will eventually replace cash and other forms of money. The basic payments indicators of transaction volume (unit) and per capita value (RM) reflect this in the values and volumes. (**Kalakota et al., 2000**).

5. Electronic Payment (E-Payment)

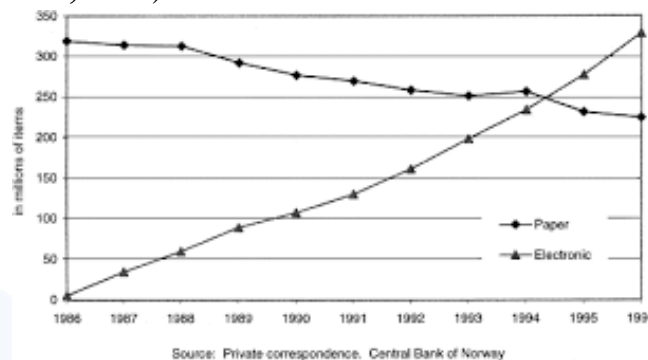
Characterized as a non-cash payment that does not require a paper check and is made electronically (**Hancock & Humphrey, 1997; Kaur & Pathak, 2015**), over the Internet (**Ogedebe and Jacob, 2012; Teoh, Chong, Lin, & Chua, 2013**), or as a financial exchange (**Kalakota and Whinston, 1997**). is referred to as an electronic payment, or E-payment. Compared to paper-based payments, electronic payments, or E-payments, provide a quicker and more economical way to transfer money (**Bank Negara, 2010, as referenced in Ishak, 2020**). Electronic payment options include credit cards, debit cards, and the ACH

(Automated Clearing House) network. And The usage of electronic payments is becoming more widespread in the fields of retail, telephony, banking, services, and IT/ITES.



(Figure 1.) E_ - Payment ecosystem

(Figure.1.) illustrates how Malaysia has transitioned to a digital society in recent years, promoting contactless payment methods. Everyone in the electronic payment (E-payment) ecosystem contributes in some way to the development of this contactless payment system. By issuing new cards, promoting card usage, and bringing improvements to contactless payment card technology, issuers support the ecosystem. (Gaynor *et al.*, 2018). In order to add value and lower prices, the acquirers expand the number of EFTPOS in the market. In 2018 Financial Stability and Payment Systems Report, both bank and non-bank on boarding was executed smoothly. The value proposition that mobile payment service providers provide to merchants and customers has been strengthened, and the value-added features have been enhanced. The promotion of a Retailers are encouraged to implement contactless payment options at their point of sale (POS) terminals by the government's cashless society project.. The retailers encourage clients to change their payment habits by promoting card use and card perks. Through corporate education, consumers gradually shift their payment habits from using cash to cards. This shift is also facilitated by the speed, convenience, and security of electronic payments, which ultimately lead to customers accepting contactless payment methods. (Hancock *et al.*, 1997).



(Figure .2.) Number of Electronic Fund Transfer at Point-of-Sale (EFTPOS) Terminals (Unit) (2017-20), Data source: Number of Electronic Fund Transfer at Point-of-Sale (EFTPOS) Terminals, (2021)

(Fig.2.) illustrate The world's business environment has seen a dynamic transformation with the advent of ICT and digital advances, with a steady shift from cash-based to electronic-based commercial transactions (**Mohamad et al., 2009**).

Electronic commerce has become an essential component of the global business climate due to the internet's rapid growth and widespread use. The cash-based payment systems were replaced by an electronic payment solution. transactions increased. According to Roy and Sinha (2014), an electronic payment is any platform that is used to pay for goods or services that are ordered online over the internet. According to **Kaur and Pathak, (2015)**.

According to **Bezhovski, (2016)**. mobile payments will eventually over take card payments. He cautions that combined with enhancing the compatibility with a wide variety of users, usage of newest technologies, and security and privacy issues, the trust consumer habits are vital to this expansion. An electronic payment system is a type of online fund transfer, according to **Peter and Babatunde, (2012)**. According to another definition, e-payment systems are electronic money transfers done in the context of electronic commerce (**Kaur and Pathak, 2015**). Furthermore, according to **Premchand and Choudhry, (2015)**. The K global payments system is gradually converting paper money and coins to electronic versions.

Additionally, **Kalakota and Whitney , (1997)**. describe electronic payment as an online financial transaction between a buyer and a seller. An electronic payment system can also be defined as a method of payment other than cash and checks that involves electronic transfer. According to **Lin and Nguyen, (2001)**. an electronic payment system comprises electronic transfers, commercial card systems, and automated clearing houses for payment purposes. E-payments are any financial transactions that are started over an electronic communication channel, according to **Shon and Swatman ,(1998)**. The global payment system is now in line with the current pattern of interactions between people, corporations, and governments thanks to the introduction of electronic payment systems (**Odi and Richard, 2013**). In the global payments system, electronic forms of payment are gradually replacing coins and paper money.

The global payment system is now in line with the current pattern of interactions between people, corporations, and governments thanks to the introduction of electronic payment systems (**Odi and Richard, 2013**). In the global payments system, electronic forms of payment are gradually replacing coins and paper money (**Premchand and Choudhry, 2015**). E-payment systems are crucial tools that businesses and individuals use to make safe, easy online payments. They also serve as a doorway for technical advancements in the global economy (**Slozko and Pello, 2015**). E-payments, according to Oladeji (2014), have developed into a significant e-commerce facilitating engine that is essential to the success of an electronic firm. According to **Premchand and Choudhry, (2015)**. the introduction of electronic payment systems has increased efficiency.

6. Cryptocurrencies, business and central bankers

Cryptocurrencies are a great tool for conducting financial transactions, but they should still be viewed as investments or speculative financial assets rather than a direct replacement for cash or other money. At least three requirements for a functional currency should be satisfied

by cryptocurrencies as of yet. In order for a currency to serve as a store of value, it must first demonstrate stability and restrict daily price changes. Second, the currency should facilitate easy comparisons between different commodities and services and act as a unit of account, fostering awareness of the worth of goods and services. (**Acemoglu *et al.*, 2015**). Because of their extreme volatility, cryptocurrencies may have difficulties with this. Finally, but just as importantly, currencies ought to function as a widely used and global medium of exchange. To some extent, virtual currencies , Although regulations governing cryptocurrencies and other crypto assets may differ between regions, they are usually regarded as lawful. Regulation is often justified by the need to safeguard investors and consumers from market manipulations, reduce the danger of cyberattacks and online fraud, and stop the funding of illegal activity through anti-money laundering programs. (**Arvidsson *et al.*, 2019**). These principles are also adhered to by EU regulation. Financial institutions are not prohibited by EU regulations from holding cryptocurrency or providing cryptocurrency-related services, but in order to do so, they must abide by a number of directives (such as AML and CRD/CRR).

Many central banks are considering releasing their own digital currencies in light of the growing popularity of cryptocurrencies and their pursuit of financial innovations. These are expected to guarantee the public's continuous access to a risk-free form of money while offering consumers and businesses a new type of central bank money and a new method of making payments (**Bank of England, 2020**). Digital currencies issued by central banks provide various prospects and are in line with the technical advancements that are paving the way for a totally digital economy. However, because they may alter the conventional routes by which a central bank exercises its influence over financial markets and the actual economy, their deployment may also pose serious risks to monetary policy conduct and financial stability. (**Blumenstock *et al.*, 2017**).

Conclusion

In actuality, electronic money is the leading edge of a new cybereconomy. This development represents the largest shift to the global economy in at least a century. It is obvious that Europe created and exported the Industrial Age.

On the other hand, the Cold War technical race between the two superpowers gave rise to the Information Age. Thus far, it has mainly been developed and exported by Americans. While it's not too late, Europe needs to make the decision to take on the challenges posed by this new economy. This report outlines some of the current alternatives that Europe has to both take up this challenge and change the structure of the developing cybereconomy by incorporating in the combination of particularly European initiatives, such as electronic copyright and privacy protection, as well as the promotion of social innovations at the grassroots level that use new technology to build a new civilization in line with European principles.

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