

Economic Growth with Cashless Transaction with Special Reference to Five European Countries

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Abstract:

The advancement of information technology has facilitated innovation in electronic payment where goods and services are traded without the use of physical cash. A cashless payment eliminates the usage of money as a medium of exchange for goods and services by allowing electronic transfer payments or non-electronic payment via cheques. Adopting cashless payment has numerous advantages. Unlike traditional cash transaction, cashless payments discourage robbery and other cash related crimes (Armey et al. 2014). When people opt for other alternative modes of payment, they tend to hold less physical cash when they shop. Thus, it eliminates the incentive for robbers to commit cash related crimes. As for vendors, the ease of transaction through various payment modes will increase their revenue, improve operational efficiency and lower operating cost (Alliance 2003). Cashless payments were also regarded as hygienic for food vendors (Paul and Friday 2012). This study examines the effect of adopting cashless payment in five European Union (EU) countries, namely, Austria, Belgium, France, Germany, and Portugal, for the period of 2000-2012.

The adoption of one type of cashless payment will affect another type of cashless payment in the short run. The impact of adopting cashless payment on economic growth can only be significantly observed in the long run. Hence, any policy that promotes cashless payment will not affect the economy immediately.

Introduction:

Electronic card payments will have a meaningful impact on the world economy. According to Moody's Analytics published by Visa Inc.,¹ greater usage of electronic card payment products added \$983 billion in real U.S. dollars to the GDP of 56 countries they studied from 2008 to 2012. Card payment has raised consumption by an average of 0.7% across the 56 countries. The real global GDP grew by an average of 1.8% during that time period (Zandi et al. 2013). At present, the electronic payment have substantially replaced payment by cheques but it has not led to a cashless society (Liao and Handa 2010).

The EU had recently established the Single Euro Payment Area (SEPA) that integrated all Euro electronic payment systems. SEPA eliminates technical, legal, and geographic barriers for electronic payments and allows domestic and cross-border euro payment. The European Payment Council, a self-regulatory body, had also developed a SEPA payment scheme for credit transfer and direct debit (European Central Bank 2014). The implementation of SEPA enables all forms of electronic payments possible in the Euro area. The economic opportunities of SEPA can be analysed by examining how cashless payment facilitates economic activities and produce positive gross domestic product (GDP) growth in the Euro area.

Cashless payment:

A cashless transaction refers to an economic setting whereby goods and services are transacted without cash (Paul and Friday 2012), either through electronic transfer or cheque payment. The effect of cashless payment on an economy can be analysed by the Diffusion of Innovation Theory (DOI). The concept was first introduced by Roger in 1962 where he explained how innovation is diffused to members of a social system over time (Rogers, 1995). According to DOI, the adoption of a new idea or innovations is caused by interaction between individuals through interpersonal networks. In this context, diffusion is the spread of cashless payment where consumers seek improved and convenient transaction, while businesses seek new profit opportunities. The diffusion of cashless payment will result in the adoption of cashless transactions within the society or community, subject to the types of innovation adopters² and innovation-decision process.³ Since the consequences of diffusion in cashless payment depend on how quickly the society is willing to adopt cashless payment through different stages of innovation processes, the consequences of the adoption of cashless payment differs in different society.

Earlier study by Fox (1986) stated that during the 1960 and 1970's, the adoption of electronic fund transfer would serve as a substitute for cheques and cash as the primary mode of payment in the United State. Today, the use of electronic payment has continued to increase due to its convenience, safety and swift mode of payment. Oyewole et al. (2013) discovered that adopting electronic payment will positively affect economic growth and trade in Nigeria. Hasan et al. (2012) examined the fundamental relationship between the adoption of electronic retail payment and overall economic growth across 27 European countries from the period 1995–2009. They discovered that migration to an effective electronic retail payment would stimulate the overall economic growth, consumption, and trade. However, the impact of credit and debit card payment, fund transfers and cheques payment on the economy are relatively low.

Zandi et al. (2013) studied whether the long-term shift to credit and debit cards stimulates economic growth of 56 countries worldwide. They discovered that electronic card payments can increase efficiency and boost consumption of the economy. Moreover, the adoption of electronic transaction is essential for transparency, accountability and reduction of cash related fraud, the fundamental elements of economic growth and development (Mieseigha and Ogbodo 2013).

Electronic payments will replace cheque payments extensively but cash-based payment will persist to a substantial extent (Liao and Handa 2010). Although technological advancement has enabled improvement and innovation in electronic payment system (Oyewole et al. 2013), from the basic ATM card transaction to online credit transfer, direct debit, card payments and cheques, security related issues, non-IT savvy users and phishing emails are some of the shortcomings of the adoption of cashless payments. The loss of money and the compromise of private information weaken the confidence of consumers to make payment electronically. Park (2012) studies more than 70 countries around the world, from the less developed Bangladesh to the developed United States for the period 2002–2004. They found that corruption in the banking sector could distort economic growth because the allocation of fund for private investment will be biased. Consequently, private investment will take its toll on economic growth.

Moreover, Ezuwore- Obodoekwe et al. (2014) discovered that as Nigerians moved from a cash-base to a cashless society, its Central Bank would lose its autonomy on monetary policy. When the central banks lose its ability to control money supply, the increase in the velocity of money will produce an exponential increase in prices, causing the economy to experience inflation (Al-laham and Al-tarawneh 2009).

There is no conclusive evidence on how the adoption of cashless payment might affect an economy. Cashless payment might have a positive impact on economic activities (Hasan et al. 2012; Oyewole et al. 2013; Zandi et al. 2013) but it also provide an opportunity for corruption (Park 2012), caused bankruptcy among youth (Noordin et al. 2012) and reduced policy control of the monetary system (Al-laham and Al-tarawneh 2009; Ezuwore-Obodoekwe et al. 2014).

The motivation of this paper is to study the economic opportunities of SEPA in facilitating economic activities in the Euro area. This study examines the impact of adoption of various cashless payments, namely, card, telegraphic transfers, electronic money and cheques on Austria, Belgium, France, Germany and Portugal in two folds. Firstly, this study examines within and between effects of adopting cashless payments on the selected EU's economy. Secondly, this study determines the short and long run causality of each cashless payment modes on EU's economy.

In the next section of this paper, a review on cashless transactions is presented, to be followed by a discussion on methodology and findings. Finally, some discussion and concluding remarks are presented.

All series are panel data for Austria, Belgium, France, Germany, and Portugal. The RGDP is the real gross domestic product, TT is the total value of telegraphic transfer, CP is the total value of card payment transaction, EM is the total value of purchases done through electronic money, and Cheque is the total value of cheques issued for the purchase of goods and services. Since all variable are stationary after first differencing, the next test to be conducted is the Kao (1999) and Pedroni (1999) cointegration tests. Both tests are carried out to determine the cointegration relationship between the adoption of cashless payment and economic growth. Based on Kao's cointegration test, the critical value of t-statistics of -1.4545 rejects the null hypothesis of no cointegration at 10 % level of significance. By rejecting the null

hypothesis, the test statistics indicates that there is cointegration relationship between cashless payments and economic growth in Austria, Belgium, France, Germany, and Portugal.

Conclusion:

This paper limits the study of the adoption of cashless payment to card payment, cheques, telegraphic transfer, and electronic money on five EU countries. It is true that trust drives online lending but not electronic payments. The vast development of cashless payment is fueled by the evolution in information technology and innovation in mobile devices. In the near future, technology such as radio frequency identification (RFID) and near field communication (NFC) will dominate the innovation in cashless payment. In 2014, Lollapalooza has launched Lolla Cashless, a cashless payment system through a wristband. The wristband is embedded with a RFID chip and consumer can purchase food and beverages by tapping the wristband on a technology-enabled pad. In addition, Apple has also rolled out a new technology called "Apple Pay" in 2014. The Apple Pay is compatible with iPhone 6 and iPhone six Plus, and it is equipped with NFC and Touch ID sensor.

The transformation of the current payment method to a total cashless one may not be possible in the near future, but continuous innovation in technologically aided payment system will certainly expand the society's accessibility to cashless payment. Although the adoption of one type of cashless payment will affect another type of cashless payment in the short run, the consequences of adopting cashless payment on economic growth can only be significantly observed in the long run. Hence, any policy that promotes cashless payment will not affect the economy immediately.

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