

# An Impact Study on the Level of Employment and Revenues Towards the Adoption of Payment Model in the Retail Industry in Guangdong, China

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## ABSTRACT

This descriptive-correlational study investigated the relationship between mobile payment adoption and its impact on employment and revenue growth in the retail sector. The study surveyed 300 retailer-respondents across Guangdong Province to assess the adoption rate of mobile payment systems, merchant satisfaction, and transaction frequency, and how these factors correlated with job creation and revenue growth. The findings revealed a significant relationship between adoption rate and job creation and revenue growth, highlighted the positive effects of mobile payment adoption on business performance. These insights provided valuable information for retailers in the region, suggesting that increasing adoption rates can lead to enhanced business outcomes, while emphasizing the importance of improving customer experience and personalized engagement strategies for long-term success.

## KEYWORDS

Mobile payment adoption; Retail; Job creation; Revenue growth; And customer retention

## 1. INTRODUCTION

### 1.1. Background of the Study

In recent years, with the popularity of Internet technology and smartphones, mobile payment emerged as a new payment method. Its simple, fast and safe features were widely recognized and quickly spread around the world. As an economically developed region in China, Guangdong Province has also benefited from the popularity of mobile payments, with consumers and retailers increasingly inclined to use this method to complete transactions conveniently. Guo Yingfeng (2019) believed that mobile payment had developed well in the era of financial technology, and mobile payment has developed rapidly in developing countries.

Mobile payment has changed consumers' purchasing behaviors and consumption patterns. According to research by Dong Jingxuan et al. (2023), mobile payment promoted the transformation of consumption from development to sharing and consumption, from material needs to spiritual needs, and from offline to online, thereby promoting consumption upgrades. The convenience of mobile payment has significantly increased consumers' shopping frequency and online consumption proportion. In addition, mobile payments also make consumers more inclined to make small and frequent purchases. Driven by the popularization of smartphones, mobile payment penetrated into all corners of urban and rural areas, and the two major mobile payment platforms, Alipay and WeChat

have already captured the majority of the market share in China, providing consumers and merchants with a convenient and efficient transaction experience.

Although the existing literature has studied the application of mobile payment in the retail industry, especially its impact on transaction convenience, consumer behavior and enterprise operational efficiency, there was still a lack of empirical research on how mobile payment affects employment growth, income improvement and customer retention in the retail industry in Guangdong Province. Therefore, this study aimed to explore the current application status of mobile payment in the retail industry in Guangdong Province and its impact on industry development and enterprise performance through quantitative analysis, so as to fill the gap in current research and provide new empirical data and theoretical support.

## **1.2. Statement of the Problem**

The main purpose of this study was to explore the impact of mobile payment in the retail industry in Guangdong Province, and then proposed a inclusion model . Specifically, the study aimed to answer the following sub-questions

(1) What is the level of mobile payment adoption among retail industry in Guangdong Province, China in terms of:

1.1 Adoption rate;

1.2 Transaction frequency; and

1.3 Merchant Satisfaction?

(2) What is the level of assessment of mobile payment adoption on employment and revenues of the retail industry in Guangdong Province in terms of:

2.1 Job creation rate;

2.2 Revenue growth rate; and

2.3 Customer retention?

(3) What is the impact of mobile payment adoption on the employment and revenues of the retail industry in Guangdong Province in terms of:

3.1 Job creation rate;

3.2 Revenue growth rate; and

3.3 Customer retention?

(4) Is there a significant relationship between mobile payment adoption and the impact of mobile payment on the level of employment and revenues of retail industry in Guangdong Province ?

(5) Based on the research results, what inclusive mobile payment adoption model can be proposed?

## **1.3. Hypotheses**

The following hypotheses in the null form will be employed:

H01: There is no significant impact of mobile payment adoption on the employment and revenues of the retail industry in Guangdong Province.

H02: There is no significant relationship between mobile payment adoption and impact of mobile payment on the level of employment and revenues of retail industry in Guangdong Province.

## **1.4. Scope and Limitations**

The study was confined to Guangdong Province, China, recognized it as a significant economic hub with a high adoption rate of mobile payments, over a crucial decade from 2013 to 2023. The study focused on the retail industry, examined retailers to understand how mobile payments influence economic activities within this sector.

The primary variables under investigation included retailer characteristics (years in business, types of products sold, and years of mobile payment usage), level of mobile adoption impacts of mobile payment systems on the retail industry.

Although this study covers a variety of indicators, it does not cover all factors that may affect the retail industry, such as international trade policies, global economic conditions, or natural disasters. This study was limited in that it focuses only on the impact of economic activities related to mobile payments and did not explore other variables that may affect economic performance, such as credit access or insurance.

## **1.5. Significance of Study**

This study had important theoretical and practical significance, especially in the retail industry in Guangdong Province, provided new insights and data support for the analysis of the impact of mobile payment on job growth, revenue growth and customer retention.

This study filled the research gap on how technology adoption affected industry development and corporate performance by analyzing the popularity of mobile payment and its impact on the retail industry. Most existing literature focuses on the impact of mobile payment at the consumer level, while this study expanded the analysis of retail enterprises, especially its contribution to job creation, revenue growth and customer retention.

This study provided key empirical analysis for retail enterprises in Guangdong Province, revealed the role of mobile payment in improving corporate operational efficiency and optimizing customer experience. By understanding how mobile payment drove job creation, increased sales and improved customer loyalty, retailers can use this to formulate more precise technology application strategies. For example, small and medium-sized retailers can rationally allocate resources and optimize payment systems based on the research results, which could achieved revenue growth and market competitiveness by improving customer satisfaction and transaction efficiency. This study not only focused on retailers, but also analyzed the convenience and popularity of mobile payment on customer experience from the perspective of consumers. By simplifying the payment process and improving transaction efficiency, mobile payment provides consumers with a better shopping experience.

By promoting the widespread application of mobile payment technology, policymakers could effectively promote the development of the retail industry, increase employment opportunities, and optimize corporate operating efficiency. At the same time, this study provided policymakers with empirical data on how the retail industry can enhance its competitiveness through technological innovation, helped them to formulate more forward-looking and supportive policies to promote sustainable economic growth in the province.

## **1.6. Definition of Terms**

The following terms are defined operationally to aid in understanding the study.

**Adoption Rate.** It refers to the proportion of retail businesses in Guangdong Province that have implemented mobile payment systems within a specified period.

**Economic Growth.** The research focuses on the adoption and integration of mobile payment technology in the retail sector, which has contributed to the improvement of economic output and financial health in Guangdong Province. This growth can be measured by various macroeconomic indicators, such as GDP growth, employment, and retail transactions.

**Job Creation Rate.** It refers to the increased employment opportunities in the retail industry in Guangdong Province due to the adoption of mobile payment systems.

**Market Competitiveness.** The ability of a retail business not only to provide products and services that meet consumers' expectations of quality and price, but also to maintain or increase market share in the face of competition. Mobile payment technology enhances the capabilities of retail businesses mainly by improving customer service and operational efficiency.

**Merchant Satisfaction.** It refers to the level of contentment among retail business owners and managers with mobile payment systems.

**Mobile Payment.** In this study, it mainly refers to small electronic transactions conducted via mobile devices. These transactions are typically used to purchase goods and services and are executed through third-party payment platforms such as Alipay and Wechat Pay. This payment simplifies the transaction process, reduces transaction costs and influences consumer behavior, enhancing the economic activity of the retail industry in Guangdong.

**Merchant Satisfaction.** It refers to the level of contentment among retail business owners and managers with mobile payment systems.

**Retail Industry.** The retail industry pertains to the collection of businesses focused on selling goods and services to consumers. The industry covers various types of retail channels, including physical stores and e-commerce platforms, meeting the diverse needs of consumers. Companies in the retail segment attract and retain customers by providing quality products, convenient shopping experiences and personalized services, and achieve sustainable business growth and profitability.

**Revenue growth rate.** It refers to the increase in financial income of retail businesses in Guangdong Province as a result of implementing mobile payment systems. This encompasses both the direct increase in sales and the overall financial performance improvement due to enhanced customer convenience and transaction efficiency.

**Transaction Frequency.** It refers to the average number of transactions processed through mobile payment systems within a retail business over a specified period. It indicates the level of customer engagement and usage of mobile payment options.

## **2. METHODS**

This study adopts a descriptive correlational research design to explore the impact of mobile payment adoption on the retail industry's macroeconomics in Guangdong Province, focusing on employment and revenue growth. Data will be gathered from urban, rural, and rural-urban fringe areas using random sampling to ensure representativeness, and respondents will include 300 retail business representatives. The study utilizes self-developed questionnaires divided into sections to assess demographic profiles, mobile payment adoption levels, and their impacts. Statistical analysis, including Pearson correlation and regression, will quantify the relationships between mobile payment adoption and economic indicators such as job creation, revenue growth, and customer retention. Hypothesis testing will determine the statistical significance of these relationships, with SPSS used for data cleaning, descriptive statistics, and reliability assessments.

Ethical considerations underpin the study, ensuring transparency, privacy, and informed consent. Confidentiality measures include anonymized data collection, encryption, and strict access control. Efforts will minimize participant inconveniences while offering insights into mobile payment trends

and impacts, benefiting both academic research and business practices. Attention is given to protecting vulnerable participants, ensuring fair recruitment, and addressing possible risks while providing incentives. Collaboration across institutions will follow established ethical standards, and the study seeks to balance academic goals with the interests and well-being of participating communities.

### 3. RESULTS

This chapter presents the results of data processing and their corresponding analyses, and the interpretation of the statistical output follows the same order as listed in the problem statement. Independent Sample T-test, Pearson Product-Moment Correlation, Regression analysis and other methods are included.

#### 3.1. Level of Mobile Payment Adoption Among the Selected Retail Enterprises

**Table 1.** Level of Mobile Payment Adoption Among the Selected Retail Enterprises in Terms of Adoption Rate

Indicators	Retailer	
	Mean	Interpre-tatio
The retail enterprise has fully integrated mobile payment systems.	3.55	HA
Most of the transactions are conducted via mobile payment.	3.57	HA
The retail enterprise promotes mobile payment options to the customers.	3.50	HA
The retail enterprise frequently asks for mobile payment options.	3.50	HA
The retail enterprise offers multiple mobile payment methods to the customers.	3.60	HA
Implementing mobile payments was a strategic priority of the business.	3.62	HA
Mobile payment options have become essential to the business operations.	3.69	HA
General Assessment	3.58	HA

Legend: 3.26 - 4.00 Strongly Agree/Highly Adopted(HA); 2.51 - 3.25 Agree / Moderately Adopted(MA); 1.76 - 2.5 Disagree /Somewhat Adopted(SA); 1.00 - 1.75 Strongly Disagree /Not Adopted (NA)

The level of Mobile Payment Adoption Among Retail Enterprises in Guangdong Province, China In Terms of Adoption Rate was Highly Adopted as shown in the general composite assessment mean of 3.58. Mobile payment options have become essential to the business operations revealed the highest composite mean which is 3.69 and interpreted as Highly Adopted. On the other hand, the retail enterprise promotes mobile payment options to the customers and frequently asks for mobile payment options got the least mean which is 3.50 and also interpreted as Highly Adopted.

It implies that mobile payment is very necessary. It is helpful and accessible for quick payment. It is economical transactions due to lower transaction fees than traditional payment methods as it will save money for consumers in the long run. In comparison, Mazer and Sweeney (2021) conducted a survey of retail businesses and found a significant increase in mobile payment adoption over recent years. The study attributes this growth to technological advancements and changing consumer preferences (Smith, 2022). Case studies of specific retailers illustrate mobile payment adoption and its influence on business performance. Davis and Green (2021) present examples of retailers who have successfully integrated mobile payments and experienced positive outcomes, such as increased sales and improved customer satisfaction (Martin & O'Connor, 2022).

**Table 2.** Level of Mobile Payment Adoption Among the Selected Retail Enterprises in Terms of Transaction Frequency

Indicators	Retailer	
	Mean	Interpre-tatio
I frequently use mobile payments for transactions.	3.70	HA
There has been a significant increase in the frequency of mobile payment transactions over the past year.	3.59	HA
I prefer using mobile payments over cash or card transactions.	3.55	HA
I consistently use mobile payments for their purchases.	3.53	HA
During peak hours, the majority of my transactions are completed using mobile payments.	3.45	HA
Promotional activities have increased the frequency of mobile payment transactions in the store.	3.58	HA
The staff handles mobile payment transactions efficiently and frequently.	3.61	HA
Mobile payments are processed more quickly and frequently than other types of transactions.	3.54	HA
I receive frequent positive feedback about the convenience of mobile payments.	3.60	HA
General Assessment	3.57	HA

Legend: 3.26 - 4.00 Strongly Agree/Highly Adopted(HA); 2.51 - 3.25 Agree / Moderately Adopted(MA); 1.76 - 2.5 Disagree /Somewhat Adopted(SA); 1.00 - 1.75 Strongly Disagree /Not Adopted (NA)

The table indicates that retailers themselves frequently use mobile payments for transactions, as shown by the mean score of 3.70, interpreted as Highly Adopted, and that they get frequent positive feedback with regard to how convenient mobile payments are, as indicated by the mean score of 3.60, interpreted as Highly Adopted. Overall, the general assessment of the retailers is that the mobile transactions are Highly Adopted, with a rating of 3.57.

The information demonstrates how frequently payments are made using mobile devices transactions in the retail industry in Guangdong Province is relatively high and has been unanimously recognized by retailers and consumers. Mobile payment has become the preferred payment method for most retail businesses and consumers, especially during promotions and peak transactions. Mobile payment brings significant convenience to both merchants and consumers. Although the performance of mobile payments is slightly inferior during peak periods, overall, it is still an important tool to promote operational efficiency in the retail industry. As mobile payment technology further develops, retailers can further improve the experience and frequency of mobile payment usage by optimizing system performance, especially processing capabilities during peak periods.

#### 4. DISCUSSIONS

This study provides an in-depth analysis of the impact of mobile payment on the retail industry in Guangdong Province. The results show that most retailers have been in business for 5 to 10 years. In industries such as clothing, accessories, and food, mobile payment has been widely used, improving transaction efficiency and improving merchant satisfaction. The adoption of mobile payments has a significant positive correlation with employment growth, income improvement and customer retention, indicating that it has become an important factor in driving economic benefits and digital transformation. Regression analysis further confirmed that adoption rate, transaction frequency and

merchant satisfaction have a significant impact on employment and income levels, especially in terms of job creation.

In addition, the study found that the popularity of mobile payments is closely linked to the operational efficiency and customer experience optimization of retail enterprises. Mobile payments play an important role in increasing customer loyalty and satisfaction by improving payment processes and shortening payment times. The research results also support the proposal of an inclusive mobile payment adoption model to help retail companies successfully achieve digital transformation and fully utilize the advantages of mobile payments by providing technical support, policy incentives and employee training.

To sum up, the impact of mobile payment on the retail industry in Guangdong Province is multi-faceted. It not only promotes the consistency of technology adoption, but also significantly promotes economic efficiency improvement, customer experience optimization and employment opportunities. This shows that mobile payments will continue to play an important role in promoting the digitalization of the retail industry and economic growth in the future.

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