# CONSUMER INCLINATION TO UTILIZE QR PAYMENT SYSTEM AT HYPER MARKET

*A dissertation to the office of dean, Faculty of Management in partial fulfillment of the requirement for the Degree of Master of Business Studies (MBS)*

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## Certification of Authorship

I Biraj Shrestha, affirm that I independently created this thesis titled "Consumer Inclination to Utilize QR Payment System at Hypermarket" and no external assistance was involved in its preparation. The content is entirely my original work, and I have not plagiarized from any other sources. I have diligently acknowledged and documented each reference used in the completion of this thesis. I am fully aware of the consequences associated with plagiarism. Furthermore, I acknowledge TU's policy, which grants the university the authority to revoke any credits awarded to me if there is evidence indicating misrepresentation or misconduct in any aspect of my work.

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## Approval Sheet

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**Acknowledgements**

The research entitled "CONSUMER INCLINATION TO UTILIZE QR PAYMENT SYSTEM AT HYPER MARKET" has been prepared to fulfill the partial requirement for MBS degree of Tribhuvan University. I wish to acknowledge my deep sense of gratitude to the Faculty of Management, Tribhuvan University and Shanker Dev Campus, giving me such a wonderful opportunity to explore my abilities via this research.

I want to start by expressing my sincere gratitude to my supervisor Dr. Binita Manandhar, for her constant effort, excellent direction, and continuous encouragement all through my study. Without her supervision, this research would not have been possible. My sincere gratitude to the Head of Department of the Shanker Dev Campus, for his consistent support, encouragement as well as expert direction were crucial to finish the project efficiently and on schedule.

I'm also appreciative of the customers and staffs from Bhat Bhateni Supermarket, Big Mart, KK mart who helped me with data collection and information compilation needed for this research both directly and indirectly. Respectively, I would like to extend my sincere thanks to Shanker Dev Campus, faculty members and my family who have been standing by side in difficulties. Likewise, I owe a debt of gratitude to each and every respondent for their insightful comments, without this research study would not have been possible.

Biraj Shrestha

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## Abbreviations

ANOVA: Analysis of Variance

CIQR: Consumer Inclination to Utilize QR Payment Systems

FI: Financial Incentives

ICT: Information and Communication Technology

ISO: International Organization for Standardization

PEOU: Perceived Ease of Use

PEU: Perceived Ease of Use

QR: Quick Response

SMS: Short Message Service

SPSS: Statistical Package for the Social Sciences

TAM: Technology Acceptance Model

TR: Technological Readiness

URL: Uniform Resource Locator

Wi-Fi: Wireless Fidelity

## Abstract

This study explores the factors influencing consumers' inclination to utilize QR payment systems, particularly at hypermarkets in the Kathmandu Valley. With the rise of digital payment systems globally, QR payments have gained popularity due to their speed, convenience, and enhanced security. However, their widespread adoption is dependent on factors like consumer preferences, financial incentives, and technological readiness.

The research examines these factors by conducting surveys with consumers and market staff, focusing on demographic influences, the impact of financial incentives, and how technological infrastructure affects QR payment usage. The study also highlights the role of perceived ease of use and security concerns in shaping consumer behavior.

The findings suggest that while technological readiness plays a crucial role in promoting QR payment adoption, financial incentives do not always significantly increase consumer interest. Additionally, the ease of using QR payments is important but not a decisive factor in encouraging widespread adoption.

Based on the results, the study provides insights for hypermarkets, policymakers, and financial institutions. It suggests that improving technological accessibility and addressing consumer concerns about security and transaction fees could foster greater acceptance of QR payment systems in Nepal's hypermarket sector.

This research contributes valuable knowledge to the growing field of digital payment systems, offering strategies to promote their adoption in the retail industry and supporting Nepal's move towards a cashless economy.

# CHAPTER-I

# INTRODUCTION

## 1.1 Background of the Study

QR code payment methods are getting more and more acceptance everywhere, especially in Kathmandu Valley. Customers can use these systems to pay with their smartphones by scanning a QR code that is shown at the checkout counter.

The extensive implementation of digital payment systems has greatly revolutionized the manner in which customers worldwide engage in financial transactions. The rise of QR code payment systems in Nepal has attracted significant interest, particularly in urban regions such as the Kathmandu Valley. Hypermarkets have a significant impact on the retail industry and are frequently in the forefront of implementing cutting-edge payment systems to improve customer convenience and operational efficiency. (Sapkota, 2019)

QR code payment systems provide numerous potential benefits, including expedited transaction processing, decreased dependence on actual currency, and improved security measures. However, the effectiveness and acceptance of these systems primarily rely on customer inclination and their readiness to embrace new payment methods. (Nepal Rastra Bank, 2022)

The objective of this study is to investigate the characteristics that affect consumers' willingness to use QR payment systems, particularly at hypermarkets located in the Kathmandu Valley. This research aims to uncover the main factors that either promote or hinder the adoption of QR payment by performing a thorough analysis that includes surveys and interviews with both consumers and market staffs. The results of this study are anticipated to offer significant knowledge for hypermarket managers, policymakers, and payment service providers in order to enhance QR payment system strategies enhance user experience, and encourage wider acceptance among customers. (Mainali, 2020)

The utilization of QR code payments is influenced by a variety of factors, including consumer preferences, business acceptance, governmental regulations, and local technological advancements. It is relevant not only for academics but also for policymakers, corporations, and financial institutions. Because they want to promote digital payments and ensure that everyone in Nepal can use them, they are all interested in learning more about these variables. (Alalwan et al., 2018)

Recently, QR codes have been popular in payment systems, particularly in China, where WeChat Pay and AliPay are the most popular apps. The adoption of QR codes as a safer substitute for physical cash and payment methods have expanded after the COVID-19 outbreak. (Wang, 2017).

Quick Response (QR) codes are becoming commonplace in our day-to-day activities, acting as a link between the digital and physical world. QR codes were first developed in the mid-1990s for the purpose of tracking automotive components by Denso Wave, a Toyota company. Since then, their use has expanded outside the industrial sector to become a flexible instrument for a range of industries, including marketing, logistics, and most notably, mobile payments. This study explores the history of QR codes, following its inception, development, and broad use in a variety of industries. The study may grasp the technological developments and social changes that have shaped QR codes' importance in modern culture by knowing their historical progression. (Denso Wave Incorporated, 1994)

An agreement to introduce a mobile payment solution based on QR codes in Nepal was reached on December 11, 2018 by eSewa Fonepay Pvt. Ltd and Union Pay International Co. Ltd. Nepal’s first and biggest mobile payment network is Fonepay, a division of F1Soft International Pvt. Ltd. All seven provinces in Nepal now have access to Fonepay's extended service, which unites consumers, financial institutions, merchants, and the government on a single network. (Yeh et al., 2017)

With its "Pay Directly from your Bank Account" theme, Fonepay enables users to process all payment services via their bank's mobile banking app. With the introduction of "Scan to Pay" by Fonepay, cash and credit card payments may now be made using

your mobile banking app, resulting in a more instantaneous and secure payment experience. Fonepay is now a vital pillar supporting the government of Nepal's goal of creating Digital Nepal and a cashless society. (F1Soft International Pvt. Ltd, 2018)

In conclusion, this study examined the willingness of customers to use QR payment systems at the hyper market in the Kathmandu Valley. It is clear from a thorough analysis of customer preferences, trust factors, and technology adoption that hyper market shoppers have come to accept QR payment systems. The popularity of QR payments is mostly due to its efficiency, ease, and perceived security. Consumer decisions are still influenced by variables like awareness, education, and data securities. Resolving these issues and improving consumer knowledge can help increase the adoption of QR payment systems as more businesses embrace and promote them. The study offers significant perspectives for scholars and professionals to comprehend the details of customer conduct about QR payments inside the retail context. (Dahal et al., 2019)

### 1.2 Statement of the Problem

Certainly, the acceptance of QR payments among Nepalese people hinges on various factors, including the perceived costs associated with digital transactions. The reluctance to shift from cash to digital methods often stems from concerns about fees. Drawing a parallel with India, where the government's decision to make QR payments free proved instrumental in driving adoption, a similar approach in Nepal could potentially incentivize people to embrace this technology. By addressing the cost barrier and promoting a more cost-effective environment for QR payments, there is a likelihood of witnessing a positive shift in consumer behavior towards digital transactions in Nepal, ultimately fostering a cashless economy.

- Does Perceived Ease Use (PEU) influence the consumer inclination to utilize QR payment system?
- Do Financial Incentives (FI) influences have a close relation to consumer inclination to utilize QR payment system at hypermarket?
- Does Technological Readiness (TR) significantly impact consumer inclination to utilize QR payment system at hypermarket?

## 1.3 Objectives of the Study

The objectives of the study are as follows:

- To assess the impact of Perceived Ease Use (PEU) on Consumer Inclination to Utilize QR Payment Systems (CIQR) at hypermarkets.
- To evaluate the relationship between Financial Incentives (FI) and Consumer Inclination to Utilize QR Payment Systems (CIQR) at hypermarkets.
- To examine the significance of Technological Readiness (TR)on Consumer Inclination to Utilize QR Payment Systems(CIQR) at hypermarkets.

## 1.4 Research Hypothesis

Hypothesis 1: Perceived Ease Use (PEU) significantly influence consumer inclination to utilize the QR payment system at hypermarkets.

Hypothesis 2: Financial Incentives (FI) significantly influence consumer inclination to utilize the QR payment system at hypermarkets.

Hypothesis 3: Technological Readiness (TR) significantly impacts consumer inclination to utilize the QR payment system at hypermarkets.

## 1.5 Significance of the Study

The research on consumer inclination to utilize QR payment system at hyper market is highly relevant in the context of Nepal's developing digital economy. In light of the worldwide transition towards cashless transactions and the growing acceptance of digital payment methods, it is essential for businesses, legislators, and financial institutions to comprehend consumer preferences and behaviors when it comes to QR code-based payments. This study enhances the current body of knowledge by offering valuable information on the elements that impact consumer decision-making, their views on the ease, security, and reliability of QR payment systems, and the obstacles that may hinder their general use. The results of this study can provide valuable insights for hypermarkets, financial institutions, and regulatory agencies in formulating strategies to

encourage the adoption of QR payment systems, improve customer satisfaction, and stimulate the expansion of digital financial services in Nepal.

The independent variables, which included demographic factors, financial incentives, and technological readiness, were examined to determine their influence on the dependent variable-Consumer Inclination To Utilize QR Payment Systems(CIQR) at hypermarkets. By analyzing how these independent variables affected consumer behavior, the study provided valuable insights for hypermarkets, financial institutions, and regulatory agencies. These insights aided in formulating strategies to encourage the adoption of QR payment systems, improve customer satisfaction, and stimulate the expansion of digital financial services in Nepal.

### 1.6 Limitations of the Study

The limitations of study are as follows:

- The study is focused on consumer inclination to utilize QR payment system at hypermarket in Kathmandu valley
- The study is based on primary data.
- Kathmandu valley is taken for the study.
- Convenient sampling is used which limits generalizability due to non-random, biased selection.

# CHAPTER-II

# REVIEW OF THE LITERATURE

This chapter investigates into the significant concepts and theories relating to the utilization of QR payments by individuals, examining the reasons and methods behind their usage. The study provides a detailed outline of the research project, outlining the specific aspects intended to investigate. Participants' perceived ease of use, usefulness, attitude, awareness, and level of trust towards QR payments were assessed. The study employed both theoretical frameworks and empirical study to enhance the comprehension of the subject matter.

## 2.1 Theoretical Framework

This theoretical framework serves as a structured approach to evaluate various factors influencing the acceptance of QR payments at hyper market in Kathmandu. Utilizing this framework, the study can conduct surveys, interviews, and data collection activities to comprehensively understand the adoption dynamics in the locality. Below is a model of the theoretical framework aimed at assessing the adoption patterns of QR payments at hyper market in Kathmandu.

### History of QR Payments

The origin of QR (Quick Response) payments may be traced back to the early 1990s when Denso Wave, a subsidiary of Toyota, pioneered the development of the QR code. Initially developed for the purpose of tracking components in the automotive sector, QR codes rapidly became popular owing to their capacity to hold a substantial quantity of data in a compact form and be swiftly scanned.

The history of QR payments began in 1994 when Denso Wave, a Japanese company, invented the QR code. It was initially designed as a two-dimensional barcode to improve tracking and inventory management efficiency. This innovation allowed for faster and more accurate tracking of goods compared to traditional barcodes, making it a significant improvement in logistics and manufacturing industries at the time.

In the early 2000s, QR codes became popular in Japan, being used for various purposes beyond inventory management. They were applied in payments, ticketing, and marketing. During this period, businesses and consumers in Japan embraced the technology, recognizing its potential to simplify processes like making payments or accessing information by scanning the code with mobile devices.

By the mid-2000s, QR code payment systems had emerged as a convenient way for customers to make payments. Japanese companies pioneered this development, allowing people to use their mobile phones to scan QR codes and complete transactions. This marked a significant shift towards contactless payments, offering customers an easier and quicker method of payment.

During the 2010s, the use of QR code payments spread worldwide, especially in countries like China and India. These nations integrated QR code scanning into mobile payment apps, making transactions more efficient and accessible. Since 2015, the inclusion of QR payment capabilities in mobile wallets like Alipay, WeChat Pay, Google Pay, and Apple Pay has contributed to the global acceptance and convenience of QR code payments, making it a widely used payment method today.

**Process of QR payment**

**Customer Opens Payment App**

The customer opens their mobile payment app on their smartphone.

**Selects QR Payment Option**

Within the app, they choose the QR payment option.

**Scans Merchant's QR Code**

The customer aims their phone's camera at the QR code provided by the merchant.

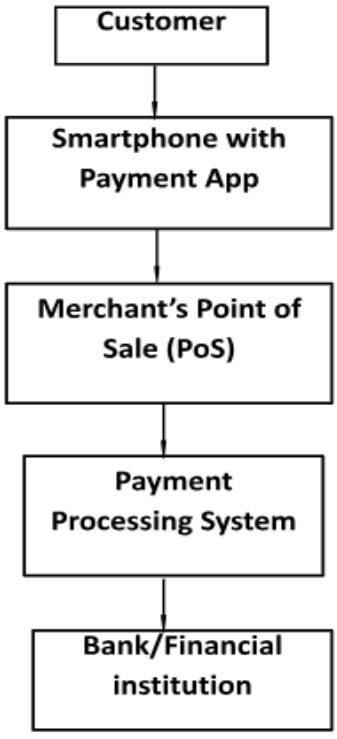



Figure 1: Process of QR payments

**Enters Payment Amount**

After scanning the QR code, the app prompts the customer to enter the payment amount. Authentication: Depending on the app and security settings, the customer may need to authenticate the transaction using a password, PIN, fingerprint, or face ID.

**Transaction Processing**

Once authenticated, the payment app processes the transaction securely.

**Transaction Confirmation**

Both the customer and the merchant receive confirmation of the successful transaction on their respective devices.

**Confirms Payment**

The customer confirms the payment details, which may include verifying the merchant's name and amount.

**Advantages of QR**

**Convenience**

QR payments offer a convenient way for consumers to make transactions without the need for physical cash or cards. This convenience is particularly beneficial in hypermarkets where large purchases are common, reducing the hassle of carrying and handling cash.

**Speed and Efficiency**

QR payments are often faster than traditional payment methods like cash or card swiping. This speed can lead to shorter checkout times, improving overall customer experience and reducing wait times during peak hours in hypermarkets.

**Security**

QR payment systems can enhance security by reducing the risk of theft or fraud associated with carrying physical cash. Additionally, advanced encryption and authentication protocols used in QR payments provide a secure transaction environment for consumers, boosting confidence in using such payment methods.

**Disadvantages of QR**

**Dependency on Technology**

QR payments rely heavily on technology, including smartphones, QR code scanners, and stable internet connections. Any technical issues or downtime in these systems can disrupt payment processes and inconvenience both consumers and businesses.

**Limited Accessibility**

Not all consumers may have access to smartphones or be familiar with QR payment methods. This limited accessibility can exclude certain demographic groups, such as elderly individuals or those with limited technological literacy, from fully utilizing QR payment systems.

**Privacy Concerns**

QR payment systems involve sharing personal and financial information electronically. This can raise privacy concerns among consumers regarding data security, potential breaches, and unauthorized access to sensitive information, leading to reluctance in adopting QR payment methods.

## 2.2 Mode of Payment

**Theory of Reasoned Action (TRA)**

Several theoretical models of technological adoption exist, including TPB, TRA, TAM, and UTAUT. The most popular models for researching technological adoption are TAM and UTAUT (Chhonker, Verma, Kar, & Grover, 2018; Slade et al., 2015).

In 1975, Azjen and Fishbein presented the TRA model. The TRA holds that people act according to their behavioral intentions, which are based on two things: their own attitudes towards the behavior and the perception of social pressure from those they want to please.

**Theory of Planned Behavior (TPB)**

As stated by Ajzen and Fishbein (1975; 1980), TPB is an advancement of TRA. Ajzen (1991) introduced a perceived behavioral control variable, which was not present in TRA, during the development of TPB. Ajzen (1991) states that behavioral intention, or the incentive component that influences behavior, is the first construct in the theory. The likelihood of engaging in a specific behavior increases when there is a greater intention to do so. According to TPB, subjective norms, individual attitudes, and perceived behavioral control all influence an individual's intentions. The Technology Acceptance Model (TPB) is used to consumers' intentions to utilize technology (Teo & Lee, 2010) as well as to health psychology concerning alcohol and tobacco use (Hagger, Lonsdale, & Chatzisarantis, 2011).

**2.3 Empirical Review**

Sivathanu (2019) examined the actual usage of digital payment systems by consumers during India's demonetization period. The objective of the study is to explore the actual usage (AU) of digital payment systems by consumers in India during the demonetization period (November 9, 2016, to December 30, 2016). It examines how behavioral intention (BI) and innovation resistance (IR) influence digital payment usage and how stickiness to cash payments moderates this relationship. Using a framework based on the Unified Theory of Acceptance and Use of Technology (UTAUT 2) and Innovation Resistance Theory. Data analysis was performed using Partial Least Squares (PLS)-Structural Equation Modeling (SEM).The research reveals that both BI and IR impact the usage of digital payment systems. Additionally, the relationship between BI and AU is moderated by the stickiness to cash payments. The study provides insights into the factors affecting digital payment usage during demonetization and highlights the significant moderating

role of cash payment stickiness. It offers valuable implications for economists, policymakers, and digital payment service providers.

Nur & Panggabean (2021) explored the adoption intentions of Generation Z regarding mobile payment in Jakarta. The objective of the study is to analyze the factors influencing the adoption of mobile payments among Generation Z. This research focuses on understanding how Generation Z interact extensively with internet technology and perceives and adopts mobile payments. The study applied Utilizing the Extended Unified Theory of Acceptance and Use of Technology (UTAUT) model. The analysis was conducted using Partial Least Square-Structural Equation Modeling (PLS-SEM) to evaluate the influence of various factors on the Behavioral Intention to use mobile payments. The study found that Performance Expectancy, Social Influences, Facilitating Conditions, Perceived Enjoyment, and Trust significantly impact Generation Z's intention to use mobile payments for online transactions. By extending the UTAUT model, the study provides valuable insights into the behavioral intentions of Generation Z towards mobile payments, highlighting the importance of specific factors such as Trust and Perceived Enjoyment in driving adoption.

Gupta, et al. (2019) conducted a study on the determinants of behavioral intention to adopt payment bank services in India. The objective of the study is to investigate the factors influencing the behavioral intention to adopt payments bank services among the under banked and unbanked populations in India. The research model incorporates UTAUT factors (performance expectancy, effort expectancy, facilitating conditions, social influence) alongside perceived credibility. The study used structured equation modeling (SEM). The findings of the study show that perceived credibility emerged as the strongest influencer. It partially mediates the effects of social influence and performance expectancy on behavioral intention. Additionally, the relationship between performance expectancy and behavioral intention is moderated by facilitating conditions and effort expectancy. The study concluded that perceived credibility is crucial for the adoption of payments banks services. Service providers should ensure secure and

efficient transactions while building customer trust. Future research should explore additional constructs and focus on actual usage behavior to further refine the model.

Shrestha, et al. (2023) studied the factors affecting QR payment adoption in supermarkets in Nepal. The objective of the study is to identify and assess the factors influencing the adoption of QR payments in supermarkets in Kathmandu, Nepal. The study focused on consumer behavior aspects such as convenience, security, ease of use, and perceived benefits of QR payment systems. The researchers employed a mixed-methods approach. This comprehensive approach enabled a thorough understanding of the adoption levels and attitudes of supermarket consumers towards QR payments. The study revealed that key factors influencing QR payment adoption included perceived convenience and time-saving benefits. The study provides valuable insights into the dynamics of QR payment adoption in real-world retail settings. It underscores the importance of addressing both technological and socio-economic barriers to foster broader acceptance of QR payment systems. These findings have implications for policymakers, businesses, and financial institutions looking to promote digital payment technologies in Nepal's retail sector.

Lamichhane (2022) explored the behavioral intentions of consumers to use QR code payments in Bagmati State, particularly in the context of the COVID-19 pandemic. The objective of the study is to explore the behavioral intentions of consumers to use QR code payments in Bagmati State during the COVID-19 pandemic. The study focuses on identifying the factors that drive or inhibit the adoption of QR code payments, considering socio-economic variables, technological infrastructure, and public health concerns. The research employs a mixed-methods approach, combining quantitative and qualitative data collection techniques. This comprehensive approach allows for a thorough analysis of the factors influencing consumer behavior towards QR code payments. The study reveals that the COVID-19 pandemic has significantly influenced consumer attitudes towards contactless payments, with many showing a preference for QR code payments due to their perceived safety and convenience. The study finds that while there is a growing interest in QR code payments, barriers such as a lack of trust in digital transactions and concerns about data security persist. The study concludes that the

COVID-19 pandemic has the potential to accelerate the adoption of QR code payments in Bagmati State, but this adoption is contingent upon addressing the existing barriers.

Wei, et al. (2009) investigated the factors affecting consumers' inclination towards using M-commerce in Malaysia. The objective of the study is to examine the factors that affect consumer intention to use mobile commerce (m-commerce) in Malaysia. Specifically, it focuses on five factors: perceived usefulness (PU), perceived ease-of-use (PEOU), social influence (SI), perceived cost, and trust. The study seeks to extend the Technology Acceptance Model (TAM). The data collected were analyzed using correlation and multiple regression analysis to determine the relationships between the examined factors and consumer intention to use m-commerce. The analysis revealed that perceived usefulness, social influence, perceived financial cost, and trust are positively associated with consumer intention to use m-commerce in Malaysia. The study concludes that for m-commerce adoption in Malaysia, companies should prioritize enhancing the system's usefulness, trustworthiness, and reducing the cost of m-commerce services. The study's originality lies in extending the TAM model by integrating additional constructs.

Abrahão et al. (2016) investigated consumers' intention to adopt mobile payment systems in Brazil The objective of this study is to evaluate the intention of adopting future mobile payment services among current Brazilian mobile phone consumers. The researcher used the Unified Theory of Acceptance and Use of Technology (UTAUT) framework to understand the influencing factors. The data was analyzed using structural equation modeling. The study revealed that 76% of the behavioral intention to adopt mobile payment services could be explained by performance expectation, effort expectation, social influence, and perceived risk, with perceived cost not being statistically significant at the 5% level. These findings provide guidance for payments market participants to develop mobile payment services that are high-performing, easy to use, secure, and socially influenced, while communication and marketing strategies should emphasize these attributes to encourage wider adoption among mobile phone users.

Commer, et al. (2018) investigated the factors affecting the behavioral intention to adopt mobile commerce. The objective of this research is to explore the relationships between

performance expectancy, effort expectancy, personal innovativeness, and behavioral intentions within the Pakistani consumer market. The researcher used the UTAUT framework. The researcher employed Structural Equation Modeling (SEM) via AMOS version 23. The study reveals that both performance expectancy and effort expectancy significantly affect behavioral intentions to adopt mobile commerce. These insights are invaluable for telecommunication companies, mobile commerce providers, and marketers, assisting them in crafting strategies to effectively engage potential consumers. The study enriches existing literature by emphasizing the previously underexplored role of personal innovativeness in mediating these relationships, offering a nuanced understanding of mobile commerce adoption.

Puriwat & Tripopsakul (2021) investigated on the adoption and continued use of contactless payments technologies during the COVID-19 pandemic in Thailand. The objective of the study is to develop and validate an Integrated Expectation-Confirmation and Health Belief Model (ECHBM) to explain the adoption and continuance intention of using contactless payment technologies during the COVID-19 pandemic in Thailand. The research utilized Structural Equation Modeling to analyze factors such as perceived usefulness, perceived susceptibility, perceived seriousness, and satisfaction. The findings highlighted that perceived usefulness, susceptibility, and seriousness significantly influenced the intention to continue using contactless technologies, with perceived susceptibility having a greater impact than satisfaction. Moreover, confirmation indirectly affected usage intention through perceived usefulness and satisfaction. The ECHBM model demonstrated a strong explanatory power, accounting for 56.8% of the variance in usage intention, offering valuable insights into promoting contactless payment systems as a protective health behavior amidst the pandemic.

Upadhyay, et al. (2022) investigated the factors affecting behavioral intention and use behavior for mobile payment services. The objective of the study is to explore the factors that influence people's intentions and behavior towards using mobile payment services during the COVID-19 pandemic. The researcher used the meta-Unified Theory of Acceptance and Use of Technology (meta-UTAUT) model. The study found that what

people expect from the service, how easy it is to use, and how serious they think COVID-19 is, positively affect their attitudes towards mobile payments. By focusing on specific factors like the seriousness of COVID-19 and self-confidence, this study provides a better understanding of how Indian consumers adopted mobile payment services during the pandemic, emphasizing the importance of relevant factors in technology adoption.

Shang Gao, et al (2018) investigated on users' continuous usage intention of QR code mobile payment services in China. The objective of this study was toinvestigate factors influencing users' continuous usage intention of QR code mobile payment services in China. The study used UTAUT as a foundation and integrating perceived risk and involvement. The study utilized structural equation modeling. The findings revealed that performance expectancy, effort expectancy, and social influence significantly impacted continuous usage, while perceived risk did not have a negative effect. The study concluded that convenience, ease of use, and social influence were more critical in driving continuous usage than perceived risks.

Prabhakar Nandru, et al (2023) researched on adoption intention of mobile QR code payment system among marginalized street vendors. This research explored factors influencing QR code mobile payment adoption among marginalized street vendors in India. The study used UTAUT model that included digital financial literacy, personal innovativeness, and perceived trust. The data were analyzed using confirmatory factor analysis and structural equation modeling. The findings showed that performance expectancy, effort expectancy, facilitating conditions, perceived trust, and digital financial literacy significantly impacted adoption intention, while social influence and personal innovativeness do not. The study concluded that policymakers should focus on promoting QR code mobile payments by highlighting their ease of use, security, and benefits, which could help improve digital financial inclusion.

Cansu Turker, et al. (2022) investigated on understanding user acceptance of QR code mobile payment systems in Turkey. The study explored user acceptance of QR code mobile payment systems (MPS) in Turkey, identifying causal relationships. The study

used Technology Acceptance Model (TAM). The research found that perceived trust is the most significant factor influencing intention to use, followed by perceived compatibility and perceived usefulness. The study concluded that the findings offer helpful insights into mobile payment system adoption and could guide future research and policy development in countries with similar characteristics.

Mohammad Ali Yousef Yamin & Omima Abdalla Abass (2024) examined consumer behavior towards adoption of QR code mobile payment systems. The study explored factors influencing consumer adoption of QR code-enabled mobile payments. The study used the integrated technology acceptance model (TAM), theory of reasoned action (TRA), and factors like transaction speed, convenience, and innovativeness. The research found that perceived usefulness, ease of use, convenience, subjective norms, and innovativeness explained consumer attitude towards adoption. The study concluded that convenience, transaction speed, and social influences are important factors, providing useful insights for policymakers and contributing new ideas to the field of information systems.

### 2.4 Research Gap

Despite the rising global popularity of QR payment systems, research into what specifically influences consumer adoption of these systems in Nepal is lacking, particularly within hypermarkets in the Kathmandu Valley. Most existing studies are concentrated in developed countries, creating a gap in understanding the unique factors that encourage or deter QR payment adoption in Nepal. There is a need for empirical research that examines the particular drivers and barriers relevant to Nepalese consumers in the context of hypermarkets.

A key area that remains underexplored is the perceived risks and trust issues associated with QR payment systems in Nepal. Understanding what influences consumer trust and the perceived risks involved is crucial for developing strategies that enhance consumer confidence and encourage broader adoption of QR payments in hypermarkets. The

current literature does not sufficiently address these factors, which are essential for creating effective strategies to mitigate risks and build trust among Nepalese consumers.

Furthermore, there is a scarcity of research on how socio-demographic factors such as age, income, education, and occupation affect the inclination to use QR payment systems in Nepal's retail sector. Investigating these variables is critical for developing targeted marketing strategies and policy recommendations that can promote QR payment adoption across diverse consumer segments within the Kathmandu Valley. By exploring how these socio-demographic factors influence adoption, stakeholders can create more effective promotional strategies tailored to the needs of different demographic groups.

Several studies have successfully applied behavioral models such as the Expectation Confirmation Model (ECM), Health Belief Model (HBM), and Unified Theory of Acceptance and Use of Technology (UTAUT) to understand payment system adoption in other countries. These models provide a theoretical framework that can be adapted to explore the factors influencing QR payment adoption in the Nepalese context. By integrating these models, researchers can identify the constructs most relevant to Nepalese consumers and develop a framework to predict and enhance the adoption of QR payments.

Lastly, the specific context of hypermarkets in the Kathmandu Valley has not been sufficiently examined in relation to QR payment adoption. Factors such as store layout, availability of QR payment options, and customer service could significantly impact the adoption of QR payments. Addressing these gaps will lead to a comprehensive understanding of the factors influencing QR payment adoption in Nepal and inform strategies to enhance their use in the retail sector. This research will ultimately contribute to the development of a robust digital payment ecosystem in Nepal, fostering economic growth and financial inclusion.

# CHAPTER-III

# RESEARCH METHODOLOGY

The study design and methods section's introduction is an essential component of academic research. A scientific investigation's research design and methodology are essential elements that direct the methodical examination intended to address research questions or test hypothesis. This section outlines the study's framework, as well as the general approach, techniques, and protocols used for data collection and analysis.

Choosing a suitable research design is essential since it has a direct impact on the reliability and validity of the study's conclusions. This chapter explains the rationale behind the chosen design and underscores its alignment with the study's objectives and the features of the phenomenon under investigation.

Additionally, the methodology section clarifies the particular methods and resources used for data collection, analysis, and interpretation. The study carefully weighs the advantages and disadvantages of each methodology, whether it uses mixed, qualitative, or quantitative approaches, against the study's goals and circumstances.

## 3.1 Research Design

A research design serves as a comprehensive blueprint directing the collection and analysis of data, facilitating the examination of associations between various factors and a central variable within a specified population. In this study, descriptive methods were employed, detailing the steps taken in research, such as participant selection, sample size determination, and data collection procedures. The investigation focused on QR code usage in Kathmandu and the factors influencing it.

The primary objective of this research is to investigate the relationships among different factors (independent variables) and a key factor (dependent variable) within a population. To ensure methodological precision, the research design is meticulously outlined, aiming to enhance the credibility and reliability of the study. This chapter provides a detailed exploration of the research approach, design, and strategy, including aspects like

population selection, sample size determination, sampling methods, and data collection techniques. It also elaborates on variables, measurement techniques, and data analysis methods.

The study has primarily relied on a primary survey, where data has been gathered through questionnaires distributed to respondents. The findings are solely based on the information provided by the sampled participants. Employing a descriptive approach, along with explanatory methods and hypothesis testing, the study has sought to explain the relationship between QR code usage intention and its feasibility in Nepal, along with the factors influencing it.

Utilizing a structured questionnaire as an efficient data collection tool, the study takes the form of a survey. The final stages of the research design involve deriving conclusions from the summarized data and making recommendations for future research endeavors.

### 3.2 Population and Sample

Selecting the right sample for a research project has been crucial. In this upcoming study, the focus has been on mobile wallet users in Kathmandu. A survey method has been used to achieve the research objectives, which have revolved around understanding how people in Kathmandu have perceived and used QR codes for mobile payments.

Since the exact population size is unknown, the study's sample size was determined using Cochran's formula (1977):

$$n_0 = \frac{Z^2 \cdot p \cdot q}{e^2}$$

Where,

$n_0$ denotes the required sample size,

p denotes the estimated proportion of the population possessing the attribute under consideration,

q is equal to 1−p,

e denotes the margin of error.

Consequently, the minimum sample size for this study is calculated to be 384.16. However, a total of 385 responses were collected from hypermarket.

**Sampling Design**

This study employed the convenience sampling method, which is a non-probability sampling technique. This sampling method resembles the approach taken by Upadhyay et al. (2022). Eligible respondents for this study were users from Kathmandu who had utilized QR payments at hyper markets in Kathmandu.

### 3.3 Nature and Source of data and instrument of data collection

The data collection procedure, a primary data collection method was utilized, employing a structured questionnaire. The questionnaire was designed to gather insights into consumer inclination towards utilizing QR payment systems at hypermarkets in Kathmandu Valley. The questionnaire included various aspects, Likert scale questions which include Perceived ease of use, Financial Incentives, and Technological Readiness (TR)and Consumer Inclination To Utilize QR Payment Systems(CIQR) at Hypermarkets. Prior to distribution, the questionnaire was piloted to ensure clarity and relevance of the questions. It was then distributed to a targeted sample of hypermarket customers in Kathmandu Valley, selected through convenience sampling. Participants were assured of privacy and confidentiality, and their voluntary participation was emphasized.

**Pilot Study**

A pilot study was conducted to validate the questionnaire and refine the data collection process for the main study. 30 individuals were selected as participants for the pilot study, representing a diverse range of hypermarket customers in Kathmandu Valley. The questionnaire was administered to these participants, and their feedback was asked regarding the clarity, relevance, and comprehensiveness of the questionnaire items. Additionally, participants were asked to provide suggestions for improvements and identify any uncertainties or issues encountered while responding to the questionnaire. Based on the feedback received, necessary revisions were made to the questionnaire to

enhance its effectiveness and ensure that it accurately captures the intended variables related to consumer inclination towards QR payment systems.

**Reliability Test**

Reliability of the research instrument has been assessed using Cronbach's alpha coefficient, a commonly used measure of internal consistency reliability. The questionnaire items related to various constructs such as perceived usefulness ease of use, trust, and intention to use QR payment systems have been analyzed using Cronbach's alpha. A high Cronbach's alpha value (>0.70) has indicated a high level of internal consistency among the items measuring the same construct. By calculating Cronbach's alpha for each construct, the reliability of the questionnaire has been evaluated, ensuring that the responses obtained from the questionnaire have been consistent and dependable. This approach has enhanced the confidence in the validity and robustness of the research findings concerning Consumer Inclination To Utilize QR Payment Systems(CIQR) at hypermarkets in Kathmandu Valley.

Using the formula for Cronbach's Alpha:

$$\alpha = \frac{N}{N-1}\left(1 - \frac{\sum \sigma^2 item}{\sigma^2 total}\right)$$

Where,

N is the number of items,
$\sigma^2$item is the variance of individual items,
$\sigma^2$total is the variance of the total scores.

**Table 1**

*Cronbach's alpha coefficient*

| S.N. | Variables | Cronbach's Alpha |
|---|---|---|
| 1 | Perceived Ease of Use (PEU) | 0.723 |
| 2 | Financial Incentives (FI) | 0.867 |
| 3 | Technological Readiness(TR) | 0.878 |
| 4 | Consumer Inclination To Utilize QR Payment Systems(CIQR) | 0.902 |

Cronbach's Alpha is a measure of reliability or internal consistency of a set of scale or test items. Table 1 shows

Perceived Ease of Use (PEU) variable has a Cronbach's Alpha of 0.723, indicating a good level of internal consistency.

Financial Incentives (FI): This variable has a Cronbach's Alpha of 0.867, showing high reliability and internal consistency.

Technological Readiness (TR): This variable has a Cronbach's Alpha of 0.878, also indicating high reliability and internal consistency.

Consumer Inclination To Utilize QR Payment Systems(CIQR): This variable has the highest Cronbach's Alpha of 0.902, indicating excellent internal consistency and reliability.

### 3.4 Analytical tools

In analyzing the data collected, several analytical tools have been employed to derive meaningful insights. Firstly, descriptive statistics such as frequencies, percentages, and measures of central tendency have been used to summarize and describe the demographic characteristics of the respondents, as well as their usage patterns and perceptions

regarding QR payment systems. This has provided a comprehensive overview of the sample population and their attitudes towards QR payments.

Secondly, inferential statistical techniques have been applied to examine the relationships between different variables and to test hypothesis formulated based on the research objectives. Techniques such as correlation analysis and regression analysis have been employed to explore the associations between consumer perceived ease of use, financial incentives, and Technological Readiness (TR) to utilize QR payment systems. These analytical tools have enabled a deeper understanding of the factors influencing consumer behavior towards QR payments in hypermarkets within Kathmandu Valley, clarifying the potential strategies for enhancing the adoption of this payment technology.

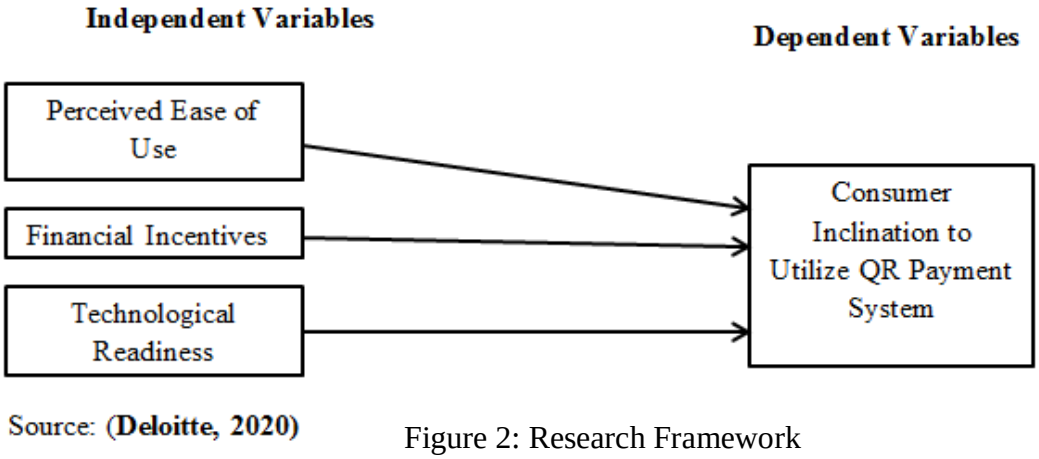
**Analysis Plan**

For the analysis plan, the collected data will undergo rigorous statistical analysis using MS-Excel and SPSS software. Initially, descriptive statistics such as frequencies, means, and standard deviations will be computed to provide an overview of the sample characteristics and key variables. Following this, correlation analysis will be conducted to examine the strength and direction of relationships between variables, such as perceived ease of use, financial incentives, and Technological Readiness (TR)with QR payment systems, perceived benefits and challenges of QR payments, and Consumer Inclination To Utilize QR Payment Systems(CIQR). This helped to identify any significant associations between these variables.

Subsequently, multiple regression analysis will be employed to assess the predictive power of various factors on consumer inclination towards utilizing QR payment systems. Variables identified as significant predictors in the correlation analysis will be entered into the regression model to determine their combined effect on consumer behavior. The regression analysis will provide insights into the relative importance of different factors in influencing consumer inclination towards QR payments. Additionally, diagnostic tests will be performed to ensure the validity and reliability of the regression model. Overall, the MS- Excel correlation and regression analyses will enable a comprehensive

understanding of the factors driving Consumer Inclination To Utilize QR Payment Systems (CIQR) at hypermarkets in Kathmandu Valley.

### 3.5 Research Framework




Source: (**Deloitte, 2020**)

Figure 2: Research Framework

In this study's research framework, several factors are examined to understand their impact on consumer behavior regarding QR payment systems at hypermarkets. The independent variables are perceived ease of use, financial incentives, and technological readiness. Perceived Ease of Use (PEU) includes simplicity, clarity, accessibility, consistency, which may influence how likely individuals are to adopt QR payments. Financial Incentives (FI)such as discounts and cashback offers are studied to see how they affect consumer choices in using QR payment systems. Technological Readiness (TR) involves whether consumers have the necessary tools, like smartphones and internet access, to easily make QR payments.

The dependent variable in focus is the Consumer Inclination To Utilize QR Payment Systems (CIQR) at hypermarkets. This variable measures consumers' willingness and preference to use QR codes for their transactions in hypermarket settings. Understanding this variable helps in predicting and influencing consumer behavior towards adopting QR payment methods. The research aims to uncover what factors, among perceived ease of use, financial incentives, and technological readiness, play significant roles in shaping consumer attitudes and behaviors towards QR payments.

The independent variables, which included perceived ease of use, financial incentives, and technological readiness, were examined to determine their influence on the dependent variable: Consumer Inclination To Utilize QR Payment Systems (CIQR) at hypermarkets.

**Perceived Ease of Use**

Perceived Ease of Use (PEU) refers to how simple and effortless consumers find the QR payment system to use. It includes how easy it is to learn, navigate, and complete transactions using QR codes. If consumers feel the system is straightforward and user-friendly, they are more likely to adopt it.

**Financial Incentives**

Financial Incentives (FI) include discounts; cash back offers, and other monetary benefits that encourage consumers to use QR payment systems. These incentives were studied to see how they motivate consumers to choose QR payments over traditional payment methods.

**Technological Readiness**

Technological Readiness (TR) involves the availability and accessibility of the necessary technology for using QR payments. This includes having a smartphone with a QR code scanner and reliable internet access. The study examined how prepared consumers are to use QR payment systems from a technological standpoint.

Overall, this research framework aims to contribute valuable insights into consumer behavior regarding QR payment systems at hypermarkets, helping businesses and policymakers tailor strategies that effectively encourage the adoption of digital payment methods in Nepal's growing digital economy.

# CHAPTER-IV

# RESULTS AND DISCUSSION

This section presented and examined the survey results, using data analysis to understand the factors affecting people's intentions. The main aim was to analyze the collected data and share the findings from the questionnaire.

## 4.1 Descriptive Statistics

### Socio-Demographic Profile of the Respondents

**Table 2**

*Socio-Demographic Profile of the Respondents*

| Demographic Variables | | Frequency | Percentage |
|---|---|---|---|
| Gender | Male | 256 | 66.49% |
| | Female | 128 | 33.25% |
| | Other | 1 | 0.26% |
| Age | 18-25 | 50 | 12.99% |
| | 26-35 | 199 | 51.69% |
| | 36-45 | 103 | 26.75% |
| | 45 and above | 33 | 8.57% |
| Monthly Earning | Below Rs 20,000 | 38 | 9.87% |
| | Rs 20,000-30,000 | 74 | 19.22% |
| | Rs 30,001-40,000 | 70 | 18.18% |
| | Rs 40,001-50,000 | 92 | 23.90% |
| | Above Rs 50,000 | 111 | 28.83% |
| Education Level | SEE or below | 2 | 0.52% |
| | 10+2 | 42 | 10.91% |
| | Bachelors | 111 | 28.83% |
| | Masters or above | 230 | 59.74% |

Table 2 shows the distribution of different demographic variables among a group of people. It indicated that out of 385 individuals, 66.49% were male, 33.25% were female, and 0.26% identified as other. The majority of the participants were between the ages of

26-35 (51.69%), followed by those aged 36-45 (26.75%), 18-25 (12.99%), and 45 and above (8.57%).

When looking at monthly earnings, the largest group earned above Rs 50,000, making up 28.83% of the total. Those earning Rs 40,001-50,000 made up 23.90%, while those earning Rs 20,000-30,000 and Rs 30,001-40,000 were close, with 19.22% and 18.18%, respectively. The smallest group, 9.87%, earned below Rs 20,000.Regarding education level, most participants had a Master's degree or higher, accounting for 59.74%. Bachelor's degree holders made up 28.83%, while 10.91% had completed 10+2, and a small 0.52% had SEE or below. In terms of profession, 32.99% were employees, 28.57% were students, 20% were self-employed, 12.99% were homemakers, and 5.45% belonged to other professions.

### 4.2 Descriptive Statistics of Perceived Ease of Use (PEU)

**Table 3**

*Descriptive Statistics of Perceived Ease of Use (PEU)*

| Code | Item | Mean | S.D |
|---|---|---|---|
| PEU1 | 1. The QR payment system is easy to understand and use. | 4.174 | 0.8437 |
| PEU2 | 2. I can quickly learn how to use the QR payment system. | 3.8104 | 0.8372 |
| PEU3 | 3. The steps to complete a transaction using QR payments are straightforward. | 3.8883 | 1.0658 |
| PEU4 | 4. Using the QR payment system does not require a lot of mental effort. | 3.187 | 0.8077 |
| PEU5 | 5. I find it easy to navigate through the QR payment application. | 4.4441 | 0.8795 |

*N=385*

Table 3 shows the descriptive statistics for how easy users found the QR payment system. It listed five items (PEU1 to PEU5) that measured different aspects of perceived ease of use, such as understanding the system, learning to use it, the simplicity of the transaction

steps, mental effort required, and ease of navigation. Each item was rated by 385 people on a scale from 1 to 5, with 1 being "strongly disagree" and 5 being "strongly agree". The numbers under "N" represented the number of people who responded, which was 385 for each item.

On average, people agreed that the system was easy to use, with average ratings above 3 for each question. The question about PEU2 had the highest average rating of 4.18, showing that most people strongly agreed. The question about PEU3 had the most varied answers, with a standard deviation of 1.044, while the question about PEU2 had the most consistent answers, with a standard deviation of 1.011.

### 4.3 Descriptive Statistics of Financial Incentives (FI)

**Table 4**

*Descriptive Statistics of Financial Incentives*

| Code | Item | Mean | S.D |
|---|---|---|---|
| FI1 | 1. If offered discount on purchases, my likelihood of using QR payment systems at hypermarkets would be influenced positively. | 3.3117 | 0.985 |
| FI2 | 2. Cash back offers moderately influence my decision to use QR payments at hypermarkets. | 3.3325 | 1.0551 |
| FI3 | 3. I would be more inclined to use QR payments if rewarded with loyalty points for each transaction. | 3.9273 | 0.7905 |
| FI4 | 4. The waiver of transaction fees significantly increases my willingness to use QR payment systems at hypermarkets | 3.9117 | 0.6865 |
| FI5 | 5. Exclusive promotions and offers available only through QR payments enhance my preference for using this payment method at hypermarkets. | 2.378 | 1.2501 |

*N=385*

Table 4 shows descriptive statistics for Financial Incentives (FI) related to QR payment usage at hypermarkets. Each item represented a different statement about financial incentives, with responses ranging from 1 (strongly disagree) to 5 (strongly agree). The numbers under "N" represented the number of people who responded, which was 385 for each item.

On average, respondents tend to agree with statements concerning Financial Incentives (FI), as evidenced by mean values exceeding 3 for each item. The items used to gather

data on Financial Incentives (FI)are organized from strongly disagree to strongly agree. The highest average agreement is found in item FI3, with a mean of 4.10, indicating a strong level of agreement among respondents. Similarly, the highest variability in responses, indicated by the standard deviation, is observed in item FI4 at 1.097, while the lowest variability is observed in item FI1 at 1.005.

### 4.4 Descriptive Statistics of Technological Readiness (TR)

**Table 5**

*Descriptive Statistics of Technological Readiness (TR)*

| Code | Item | Mean | S.D |
|---|---|---|---|
| TR1 | 1. I have the resources, necessary to use QR payment methods (e.g. smartphones, internet services, and secured applications). | 2.7818 | 1.1656 |
| TR2 | 2. I have knowledge, necessary to use QR payment methods. | 4.5429 | 0.8189 |
| TR3 | 3. I can get help from others, when I have difficulties using QR payment methods. | 3.0519 | 0.9113 |
| TR4 | 4. There are online resources to show me how to use QR payment methods. | 3.374 | 0.9923 |
| TR5 | 5. I feel confident in my ability to troubleshoot and resolve issues that may arise while using QR payment methods. | 3.0051 | 0.0719 |

*N=385*

Table 5 shows the results of a survey about how ready people were to use QR payment methods, called Technological Readiness (TR). It included five statements (TR1 to TR5), and each person rated how much they agreed with each statement on a scale from 1 to 5. The numbers under "N" represented the number of people who responded, which was 385 for each item.

On average, respondents tend to agree with statements regarding Technological Readiness, as indicated by mean values exceeding 3 for each item. The items used to collect data on facilitating conditions are ordered from strongly disagree to strongly agree. The highest average agreement is observed in item TR2, with a mean of 4.09, suggesting a strong level of agreement among respondents. Similarly, the highest

variability in responses, reflected by the standard deviation, is observed in item TR1 at 1.117, while the lowest variability is observed in item TR4 at 0.943.

### 4.5 Descriptive Statistics of Consumer Inclination To Utilize QR Payment Systems(CIQR)

**Table 6**

*Descriptive Statistics of Consumer Inclination To Utilize QR Payment Systems(CIQR)*

| Code | Item | Mean | S.D |
|---|---|---|---|
| CIQR1 | 1. I intend to increase the use of QR payment methods in future. | 3.6468 | 0.8868 |
| CIQR2 | 2. I plan to use QR payment methods when opportunities arise. | 4.0909 | 0.8807 |
| CIQR3 | 3. I would like to use QR payment methods for purchases, instead of traditional payment methods. (e.g. Cash) | 3.5766 | 0.8599 |
| CIQR4 | 4. I plan to use the QR payment methods frequently. | 4.1403 | 0.8139 |
| CIQR5 | 5. I will strongly recommend others to use QR payment methods. | 4.4442 | 0.8765 |
| *N=385* | | | |

Table 6 shows the results of a survey that measured how much consumers wanted to use QR payment systems in the future. It included five statements (CIQR1 to CIQR5), and each person rated how much they agreed with each statement on a scale from 1 to 5. The answers were given on a scale from 1 to 5, with 1 being "strongly disagree" and 5 being "strongly agree." The numbers under "N" represented the number of people who responded, which was 385 for each item.

On average, respondents tend to agree with statements regarding consumers wanted to use QR payment systems, as evidenced by mean values exceeding 3 for each item. The items used to collect data on consumers wanted to use QR payment systems are arranged from strongly disagree to strongly agree. The highest average agreement is observed in item CIQR1, with a mean of 4.06, indicating a strong level of agreement among respondents. Similarly, the highest variability in responses, reflected by the standard deviation, is observed in item CIQR1 at 1.094, while the lowest variability is observed in item CIQR4 at 1.018.

## 4.6 Analysis of relationship and significance among the variables

### Inferential Test

The aim of this section was to explain how the study's results were analyzed and how the hypotheses from the previous chapter were tested. Inferential statistics were used to make conclusions about a larger population based on the data from the samples. These methods helped determine if the differences observed between groups or variables were genuine or just happened by chance. By using sample data, inferential analysis made predictions and generalizations, creating new insights. This section specifically used two tools for analysis: correlation and regression analysis.

**a) Correlation Analysis**

Correlation analysis assessed how strong and in which direction two variables were related in a straight-line manner. This was usually done using Pearson's correlation coefficient. The formula for Pearson's correlation coefficient (r) was as follows.

$$r=\frac{n(\sum xy)-(\sum x)(\sum y)}{\sqrt{[n\sum x\text{^}2-(\sum x)\text{^}2][n\sum y^2-(\sum y)^2]}}$$

Where:

- n is the number of data points.
- x represents the values of the independent variable.
- y represents the values of the dependent variable.
- $\sum$xy is the sum of the product of the paired scores.
- $\sum$x is the sum of the x values.
- $\sum$y is the sum of the y values.
- $\sum x^2$ is the sum of the squared x values.
- $\sum y^2$ is the sum of the squared y values.

Here, X and Y are means for each independent variables, which included perceived ease of use, financial incentives, and Technological Readiness (TR)and dependent variable in

this study is the Consumer Inclination To Utilize QR Payment Systems(CIQR) at hypermarkets.

**Relationship between Perceived Ease of Use (PEU) (X) and Consumer Inclination To Utilize QR Payment Systems (CIQR) (Y)**

The results of a correlation analysis that was conducted to understand the relationship between Perceived Ease of Use (PEU) and Consumer Inclination To Utilize QR Payment Systems (CIQR). The mean values of PEU and CIQR for five different data points were calculated. The relationship between Perceived Ease of Use (PEU) (independent variable) and Consumer Inclination to Use QR Payment Systems (dependent variable) demonstrates a moderate positive correlation, with a correlation coefficient (R) of about 0.586. This suggests that as Perceived Ease of Use (PEU) increases, Consumer Inclination to Use QR Payment Systems (CIQR) also tends to rise. The coefficient of determination ($R^2$) is approximately 0.3429, indicating that around 34.29% of the variability in Consumer Inclination to Use QR Payment Systems (CIQR) is explained by Perceived Ease of Use (PEU). While PEU has a significant impact, other factors also contribute to the variation in CIQR.

*Appendix 3*

**Relationship between Financial Incentives (FI) (X) and Consumer Inclination To Utilize QR Payment Systems(CIQR) (Y)**

The relationship between Financial Incentives (FI) and Consumer Inclination To Utilize QR Payment Systems(CIQR). It provides the mean values of FI and CIQR for five different cases. The relationship between Financial Incentives (FI)(independent variable) and Consumer Inclination to Use QR Payment Systems (dependent variable) reveals a moderate negative correlation, with a correlation coefficient of approximately -0.5040. This indicates that as Financial Incentives (FI) increase, Consumer Inclination to Use QR Payment Systems (CIQR) tends to decrease. The coefficient of determination ($R^2$) is about 0.2540, suggesting that around 25.40% of the variation in CIQR is explained by FI.

While FI has a notable effect, a substantial portion (74.60%) of the variability in CIQR is attributed to other factors.

*Appendix 3*

**Relationship between Technological Readiness (TR) (X) and Consumer Inclination To Utilize QR Payment Systems(CIQR) (Y)**

The relationship between Technological Readiness (TR) and Consumer Inclination To Utilize QR Payment Systems(CIQR). It presents the mean values for TR and CIQR across five different scenarios. The relationship between Technological Readiness (TR)(independent variable) and Consumer Inclination to Use QR Payment Systems (dependent variable) exhibits a strong positive correlation, with a correlation coefficient of approximately 0.7041. This indicates that as Technological Readiness (TR) increases, Consumer Inclination to Use QR Payment Systems (CIQR) tends to rise as well. The coefficient of determination ($R^2$) is around 0.4957, meaning that about 49.57% of the variability in CIQR can be explained by TR. This highlights the significant influence of Technological Readiness, though other factors account for the remaining 50.43% of the variability in CIQR. *Appendix 3*

**Correlation Matrix of Factors Influencing Consumer Inclination to Utilize QR Payment**

**Table 7**

*Correlation Matrix of Factors Influencing QR Payment Adoption*

| | PEU | FI | TR | CIQR |
|---|---|---|---|---|
| PEU | 1 | | | |
| FI | -0.4043 | 1 | | |
| TR | 0.5847 | 0.1943 | 1 | |
| CIQR | 0.5856 | -0.5040 | 0.7040 | 1 |

The correlation matrix table 7 shows the relationships between four factors: Perceived Ease of Use (PEU), Financial Incentives (FI), Technological Readiness (TR), and

Consumer Inclination To Utilize QR Payment Systems(CIQR). The diagonal values are 1, indicating that each factor is perfectly correlated with itself. The correlations between different factors are shown off-diagonal.

Perceived Ease of Use (PEU) has a negative correlation of -0.4043 with Financial Incentives (FI). This suggests that as Perceived Ease of Use (PEU) changes and Financial Incentives (FI) tend to move in the opposite direction, though moderately.

Technological Readiness (TR) shows a positive correlation of 0.5847 with Perceived Ease of Use (PEU) and 0.7040 with Consumer Inclination To Utilize QR Payment Systems(CIQR). This indicates that as Technological Readiness (TR)improves, both Perceived Ease of Use (PEU) and Consumer Inclination To Utilize QR Payment Systems(CIQR) tend to increase together. Additionally, Technological Readiness (TR) has a weaker positive correlation (0.1943) with Financial Incentives (FI), indicating a less strong relationship between these two factors compared to the others.

Consumer Inclination To Utilize QR Payment Systems(CIQR) shows a strong positive correlation of 0.5856 with Perceived Ease of Use (PEU) and a moderate negative correlation of -0.5040 with Financial Incentives (FI). This suggests that Perceived Ease of Use (PEU) positively influences QR payment adoption, while Financial Incentives (FI)may hinder it to some extent.

In summary, this correlation table illustrates how perceived ease of use, financial incentives, and Technological Readiness (TR)interact and influence Consumer Inclination To Utilize QR Payment Systems(CIQR) in the study.

**b) Regression Analysis**

Regression analysis is a statistical method used to examine the relationship between one dependent variable and one or more independent variables. In Its main goal is to understand how different factors, like Perceived Ease of Use (PEU), Financial Incentives (FI), and Technological Readiness (TR), influence Consumer Inclination To Utilize QR Payment Systems(CIQR). By using regression, the strength and nature of these

relationships, helping to predict how changes in these independent factors might affect the dependent variable, CIQR.

Multiple Regression Model

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + ei$$

Where,

Y: Mean of Consumer Inclination To Utilize QR Payment Systems(CIQR)

X1: Mean of Perceived Ease of Use (PEU)

X2: Mean of Financial Incentives (FI)

X3: Mean of Technological Readiness (TR)

The regression statistics in the summary output provide an overview of the relationship between the independent variables (Perceived Ease of Use (PEU), Financial Incentives (FI), and Technological Readiness (TR)) and the dependent variable (Consumer Inclination To Utilize QR Payment Systems(CIQR)).

The regression Summary Table 8 statistics showed a very strong relationship between these factors and consumer inclination, with a Multiple R value of 0.9997, indicating almost perfect correlation. The R Square value of 0.99942 revealed that 99.94% of the variation in consumer inclination could be explained by the combined influence of these factors. The adjusted R Square, at 0.9977, slightly adjusted this figure for the sample size and number of variables, still indicating an excellent model fit. Additionally, the standard error was very small (0.0013), suggesting that the model's predictions were highly precise.

The ANOVA table assessed whether the overall model was statistically significant. The F-value of 571.6464, coupled with a significance F value of 0.0307, confirmed that the model was indeed statistically significant. This meant that the factors PEU, FI, and TR, taken together, had a meaningful impact on consumer inclination to adopt QR payment systems.

**Table 8**

*Multiple Regression Model for Consumer Inclination To Utilize QR Payment Systems(CIQR)*

Summary Table

Regression Statistics

| Multiple R | R Square | Adjusted R Square | Standard Error | Observations |
|---|---|---|---|---|
| 0.999708572 | 0.9994172 | 0.997668915 | 0.001339752 | 5 |

Analysis of Variance (ANOVA) for Multiple Regressions

| | Df | SS | MS | F | Significance F |
|---|---|---|---|---|---|
| Regression | 3 | 0.0031 | 0.0010 | 571.6464 | 0.0307 |
| Residual | 1 | 1.79494E-06 | 1.79E-06 | | |
| Total | 4 | 0.0031 | | | |

*ANOVA*

| | Coefficients | Standard Error | t Stat | P-value | Lower 95% | Upper 95% | Lower 95.0% | Upper 95.0% |
|---|---|---|---|---|---|---|---|---|
| Intercept | 4.5970 | 0.0620 | 74.102 | 0.0086 | 3.8087 | 5.3852 | 3.8087 | 5.3852 |
| PEU | -0.1632 | 0.0142 | -11.5 | 0.0552 | -0.3435 | 0.0171 | -0.3435 | 0.0172 |
| FI | -0.2197 | 0.0078 | -28.03 | 0.0227 | -0.3192 | -0.1200 | -0.3192 | -0.1200 |
| TR | 0.2506 | 0.0080 | 31.305 | 0.0203 | 0.1489 | 0.3522 | 0.1489 | 0.3523 |

The coefficients table showed how each factor individually affected consumer inclination. The intercept, or baseline level of consumer inclination, was 4.5970 when all other factors were zero. PEU had a negative coefficient of -0.1632, suggesting that an increase in Perceived Ease of Use (PEU) slightly decreased consumer inclination, though this effect was not very strong, as reflected by a higher P-value of 0.0552. FI had a more significant negative impact, with a coefficient of -0.2197, indicating that as Financial Incentives (FI)increased, consumer inclination tended to decrease. This finding was supported by a lower P-value of 0.0227, showing that FI had a stronger influence on consumer behavior. In contrast, TR had a positive coefficient of 0.2506, meaning that higher levels of Technological Readiness (TR)significantly increased consumer

inclination. The P-value for TR was also low, at 0.0203, confirming the statistical significance of its effect.

The P-values provided further insight into the importance of each factor. Both FI and TR were found to have a significant effect on consumer inclination, while the influence of PEU was less certain. The confidence intervals for each factor gave a range within which the true effects likely lay. For instance, the effect of TR on consumer inclination was confidently estimated to fall between 0.1489 and 0.3523, reinforcing its positive impact on consumer behavior.

### 4.7 Hypothesis Testing

Hypothesis 1: Perceived Ease of Use (PEU) significantly influences consumer inclination to utilize the QR payment system at hypermarkets.

- Outcome: Not supported (P-value for PEU = 0.055 > 0.05)

The p-value for Perceived Ease of Use (PEU) is 0.0552, which is slightly above the standard significance threshold of 0.05. This suggests that there is insufficient statistical evidence to confirm that PEU has a significant impact on consumer inclination to use the QR payment system. While the correlation coefficient shows some relationship, the statistical test indicates that the connection is not strong enough to be considered significant.

**Hypothesis 2: Financial Incentives (FI)significantly influence consumer inclination to utilize the QR payment system at hypermarkets.**

- Outcome: Supported (P-value for FI = 0.0227 < 0.05)

The p-value for Financial Incentives (FI) is 0.0227, which is below the 0.05 significance

level, providing strong statistical support for the hypothesis that Financial Incentives (FI)play a significant role in consumer adoption of QR payment systems. The negative coefficient indicates an inverse relationship, meaning that as Financial Incentives (FI)increase, consumer inclination to use QR payments decreases.

**Hypothesis 3: Technological Readiness (TR)significantly impacts consumer inclination to utilize the QR payment system at hypermarkets.**

- Outcome: Supported (P-value for TR = 0.0203 < 0.05)

The p-value for Technological Readiness (TR) is 0.020, also below the significance threshold. This indicates strong statistical evidence that Technological Readiness (TR)significantly impacts consumer inclination to adopt QR payment systems. The positive coefficient suggests that higher levels of Technological Readiness (TR)are associated with increased consumer adoption of QR payments.

### 4.8 Discussion of the Findings

The findings of the study highlight key factors influencing consumer inclination towards adopting QR payment systems in hypermarkets within the Kathmandu Valley. The analysis revealed that Technological Readiness (TR) is a significant factor that positively affects the adoption of QR payments. Consumers who are more technologically equipped and comfortable with digital tools are more likely to use QR payments, indicating that improving access to necessary technology can encourage greater adoption.

Another important finding was related to Perceived Ease of Use (PEU). While it showed some correlation with consumer inclination, it was not found to be statistically significant. This suggests that although consumers may find QR systems easy to use, other factors such as technological familiarity and trust may play a larger role in determining whether they will adopt QR payments.

The study also revealed a noteworthy outcome regarding Financial Incentives (FI). As anticipated, Financial Incentives (FI), such as discounts and cashback offers, significantly boosted consumer inclination to use QR payments. The findings suggested that an increase in Financial Incentives (FI) enhances the likelihood of adoption, as consumers are drawn to the monetary benefits, potentially prioritizing these rewards over factors like convenience, security, or technological accessibility.

In conclusion, the study suggests that improving Technological Readiness (TR) and addressing concerns related to security and convenience may be more effective strategies also relying on Financial Incentives (FI) to increase QR payment adoption in hypermarkets. These findings can help policymakers and businesses focus on strengthening the technological infrastructure to encourage a cashless payment system.

# CHAPTER-V

# SUMMARY AND CONCLUSION

## 5.1 Summary

The study explored the increasing acceptance of QR code payment systems, particularly in hypermarkets within the Kathmandu Valley. It highlighted how QR payments, by allowing customers to pay through their smartphones by scanning a code, had simplified financial transactions and reduced reliance on cash. QR payments provided benefits such as faster transactions, improved security, and enhanced convenience for consumers. However, the success of these systems largely depended on the willingness of consumers to adopt the technology.

The study aimed to understand what influenced consumer behavior toward QR payments, identifying factors like perceived ease of use, financial incentives, and technological readiness. By conducting surveys, the study pinpointed what encouraged or discouraged customers from using these systems in Kathmandu hypermarkets. It also offered valuable insights for businesses, policymakers, and financial institutions looking to promote QR payment methods effectively.

One of the major challenges identified was consumer hesitation to shift from traditional cash payments to digital methods due to concerns such as transaction fees. This issue was also observed in India, where removing fees for QR payments significantly boosted adoption. The study suggested that similar measures in Nepal could encourage a shift toward a more cashless economy.

Overall, the study emphasized that Technological Readiness (TR) and Financial Incentives (FI) were key factor influencing the adoption of QR payment systems. Consumers needed access to smartphones, the internet, and an understanding of how to use these systems. Efforts to improve consumer knowledge and address security concerns could further enhance QR payment adoption, contributing to a more efficient and secure payment ecosystem.

## 5.2 Conclusion

This study explored the impact of Perceived Ease of Use (PEU), Financial Incentives (FI), and Technological Readiness (TR) on consumer inclination to use QR payment systems. The analysis found that while there is some correlation between PEU and consumer inclination, this relationship is not statistically significant. However, Financial Incentives (FI) were found to have a significant positive impact, suggesting that as Financial Incentives (FI) increase, consumer inclination to use QR payments also increases. Technological Readiness also showed a strong positive impact, indicating that better Technological Readiness (TR) significantly enhances consumer inclination to adopt QR payment systems.

The findings suggest that Perceived Ease of Use (PEU) is not a decisive factor in consumer adoption of QR payment systems. Despite its moderate correlation, the statistical evidence does not support a strong influence of ease of use on consumer behavior. This implies that simply making QR payments easier to use may not be sufficient to drive widespread adoption.

Financial Incentives (FI) were found to have a positive impact on consumer inclination. This expected result suggests that increasing Financial Incentives often leads to higher adoption rates, as consumers appear to value the financial rewards offered, potentially even more than aspects like convenience and security.

On the other hand, Technological Readiness (TR) emerged as a crucial factor in encouraging QR payment adoption. The strong positive relationship indicates that when consumers have better access to technology and feel more confident using it, they are more likely to adopt QR payments. This highlights the importance of technological infrastructure and readiness in promoting the use of digital payment systems.

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**Appendix 1**

## QR Payment System Questionnaire

Dear Respondents,

This study entitled "Consumer Inclination to Use QR Payment System at Hyper Market" is a Graduate Research Project as a partial fulfillment of the requirement for the Masters in Business Studies (MBS) at Shankar Dev Campus, Tribhuvan University. The major objective of the study is to evaluate Consumer Inclination to Use QR Payment System at Hyper Market.

The researcher would like to make a humble request to you to spare 4-5 minutes of your time to fill up the questionnaire with honesty. Your authentic responses will have an impact on the result of the study. Your information will be kept confidential and will solely be used for the purpose of the study. So, you are suggested to fill the questionnaire with your own conscience as you fill right. In case of any queries or feedback, please feel free to contact the researcher in the address below!

Thank you for your valuable time.

Sincerely,

Biraj Shrestha
biraj2073@gmail.com
MBS Research Scholar
Shankar Dev Campus, Tribhuvan University

## A. Demographic Questions

1. Gender:

*Mark only one*

□ Male □ Female □ Others

2. Age:

*Mark only one*

□ 18-25 □ 26-35 □ 36 - 45 □ 46 and above

3. Education:

*Mark only one*

□ SEE/SLC or below □ Intermediate □ Bachelors □ Masters and above

4. Occupation:

*Mark only one*

□ Student □ Employee □ Self Employed □ Home Maker □ Other

5. Income

*Mark only one*

□ Below 20,000 □ Rs 20,000 – 30,000 □ Rs 30,001 – 40,000

□ Rs 40,001 – 50,000 □ Above 50,000

6. During purchase, have you ever used QR code Payment?

*Mark only one*

□ Yes □ No

7. If yes, which of the following mode of QR do you use often?

*Check all that apply*

□ Mobile Banking (e.g. Fonepay, Global Smart, nBank, eNMB)

□ Esewa □ Khalti □ IMEPay

□ ConnectIPS □ Others

8. How often do you use QR code payment?

*Mark only one*

| Very frequently | Frequently | Occasionally | Rarely |
|---|---|---|---|
| | | | |

9. What is your main purpose of using QR?

*Check all that apply*

□ Utilities Bill Payment □ Fund Transfer □ Entertainment

□ Online Shopping Payment □ Others

**B. Likert Scale Questions**

***Please indicate the best reflects your opinion, with "Strongly Disagree" representing the lowest level of agreement and "Strongly Agree" representing the highest level of agreement.***

**Perceived Ease of Use (PEU)**

| Statement | Strongly Disagree (1) | Disagree (2) | Neutral (3) | Agree (4) | Strongly Agree (5) |
|---|---|---|---|---|---|
| 1. The QR payment system is easy to understand and use. | | | | | |
| 2. I can quickly learn how to use the QR payment system. | | | | | |
| 3. The steps to complete a transaction using QR payments are straightforward. | | | | | |
| 4. Using the QR payment system does not require a lot of mental effort. | | | | | |
| 5. I find it easy to navigate through the QR payment application. | | | | | |

**Financial Incentives (FI)**

| Statement | Strongly Disagree (1) | Disagree (2) | Neutral (3) | Agree (4) | Strongly Agree (5) |
|---|---|---|---|---|---|
| 1. If offered discount on purchases, my likelihood of using QR payment systems at hypermarkets would be influenced | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| positively. | | | | | |
| 2. Cash back offers moderately influence my decision to use QR payments at hypermarkets. | | | | | |
| 3. I would be more inclined to use QR payments if rewarded with loyalty points for each transaction. | | | | | |
| 4. The waiver of transaction fees significantly increases my willingness to use QR payment systems at hypermarkets. | | | | | |
| 5. Exclusive promotions and offers available only through QR payments enhance my preference for using this payment method at hypermarkets. | | | | | |

**Technological Readiness (TR)**

| Statement | Strongly Disagree (1) | Disagree (2) | Neutral (3) | Agree (4) | Strongly Agree (5) |
|---|---|---|---|---|---|
| 1. I have the resources, necessary to use QR payment methods (e.g. smartphones, internet services, and secured applications). | | | | | |
| 2. I have knowledge, necessary to use QR payment methods. | | | | | |
| 3. I can get help from others, when I have | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| difficulties using QR payment methods. | | | | | |
| 4. There are online resources to show me how to use QR payment methods. | | | | | |
| 5. I feel confident in my ability to troubleshoot and resolve issues that may arise while using QR payment methods. | | | | | |

**Consumer Inclination To Utilize QR Payment Systems(CIQR)**

| Statement | Strongly Disagree (1) | Disagree (2) | Neutral (3) | Agree (4) | Strongly Agree (5) |
|---|---|---|---|---|---|
| 1. I intend to increase the use of QR payment methods in future. | | | | | |
| 2. I plan to use QR payment methods when opportunities arise. | | | | | |
| 3. I would like to use QR payment methods for purchases, instead of traditional payment methods. (e.g. Cash) | | | | | |
| 4. I plan to use the QR payment methods frequently | | | | | |
| 5. I will strongly recommend others to use QR payment methods. | | | | | |

**Appendix 2**

Descriptive Stastistics of Perceived Ease of Use (PEU)

| Code | Item | N | Min | Max | Mean | S.D |
|---|---|---|---|---|---|---|
| PEU1 | 1. The QR payment system is easy to understand and use. | 385 | 1 | 5 | 4.174 | 0.8437 |
| PEU2 | 2. I can quickly learn how to use the QR payment system. | 385 | 1 | 5 | 3.8104 | 0.8372 |
| PEU3 | 3. The steps to complete a transaction using QR payments are straightforward. | 385 | 1 | 5 | 3.8883 | 1.0658 |
| PEU4 | 4. Using the QR payment system does not require a lot of mental effort. | 385 | 1 | 5 | 3.187 | 0.8077 |
| PEU5 | 5. I find it easy to navigate through the QR payment application. | 385 | 1 | 5 | 4.4441 | 0.8795 |

Descriptive Stastistics of Financial Incentives (FI)

| Code | Item | N | Min | Max | Mean | S.D |
|---|---|---|---|---|---|---|
| FI1 | 1. If offered discount on purchases, my likelihood of using QR payment systems at hypermarkets would be influenced positively. | 385 | 1 | 5 | 3.3117 | 0.985 |
| FI2 | 2. Cash back offers moderately influence my decision to use QR payments at hypermarkets. | 385 | 1 | 5 | 3.3325 | 1.0551 |
| FI3 | 3. I would be more inclined to use QR payments if rewarded with loyalty points for each transaction. | 385 | 1 | 5 | 3.9273 | 0.7905 |
| FI4 | 4. The waiver of transaction fees significantly increases my willingness to use QR payment systems at hypermarkets | 385 | 1 | 5 | 3.9117 | 0.6865 |
| FI5 | 5. Exclusive promotions and offers available only through QR payments enhance my preference for using this payment method at hypermarkets. | 385 | 1 | 5 | 2.378 | 1.2501 |

Descriptive Stastistics of Technological Readiness (TR)

| Code | Item | N | Min | Max | Mean | S.D |
|---|---|---|---|---|---|---|
| TR1 | 1. I have the resources, necessary to use QR payment methods (e.g. smartphones, internet services, and secured applications). | 385 | 1 | 5 | 2.7818 | 1.1656 |
| TR2 | 2. I have knowledge, necessary to use QR payment methods. | 385 | 1 | 5 | 4.5429 | 0.8189 |
| TR3 | 3. I can get help from others, when I have difficulties using QR payment methods. | 385 | 1 | 5 | 3.0519 | 0.9113 |
| TR4 | 4. There are online resources to show me how to use QR payment methods. | 385 | 1 | 5 | 3.374 | 0.9923 |

| | | | | | | |
|---|---|---|---|---|---|---|
| TR5 | 5. I feel confident in my ability to troubleshoot and resolve issues that may arise while using QR payment methods. | 385 | 1 | 5 | 3.0051 | 0.0719 |

Descriptive Stastistics of Consumer Inclination to Utilize QR Payment Systems (CIQR)

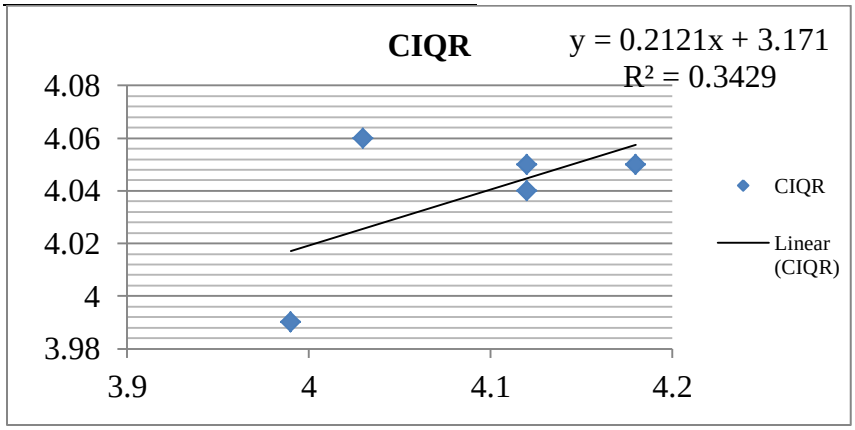
| Code | Item | N | Min | Max | Mean | S.D |
|---|---|---|---|---|---|---|
| CIQR1 | 1. I intend to increase the use of QR payment methods in future. | 385 | 1 | 5 | 3.6468 | 0.8868 |
| CIQR2 | 2. I plan to use QR payment methods when opportunities arise. | 385 | 1 | 5 | 4.0909 | 0.8807 |
| CIQR3 | 3. I would like to use QR payment methods for purchases, instead of traditional payment methods. (e.g. Cash) | 385 | 1 | 5 | 3.5766 | 0.8599 |
| CIQR4 | 4. I plan to use the QR payment methods frequently. | 385 | 1 | 5 | 4.1403 | 0.8139 |
| CIQR5 | 5. I will strongly recommend others to use QR payment methods. | 385 | 1 | 5 | 4.4442 | 0.8765 |

**Appendix 3**

**Correlation Analysis**

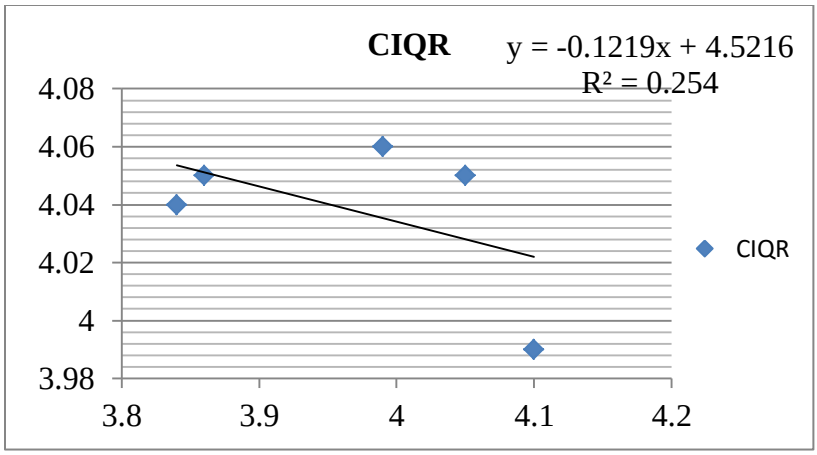
| PEU | CIQR |
|---|---|
| 4.03 | 4.06 |
| 4.18 | 4.05 |
| 3.99 | 3.99 |
| 4.12 | 4.05 |
| 4.12 | 4.04 |

| R | $R^2$ | Correlation |
|---|---|---|
| 0.58558 | 0.3429 | 0.585605219 |



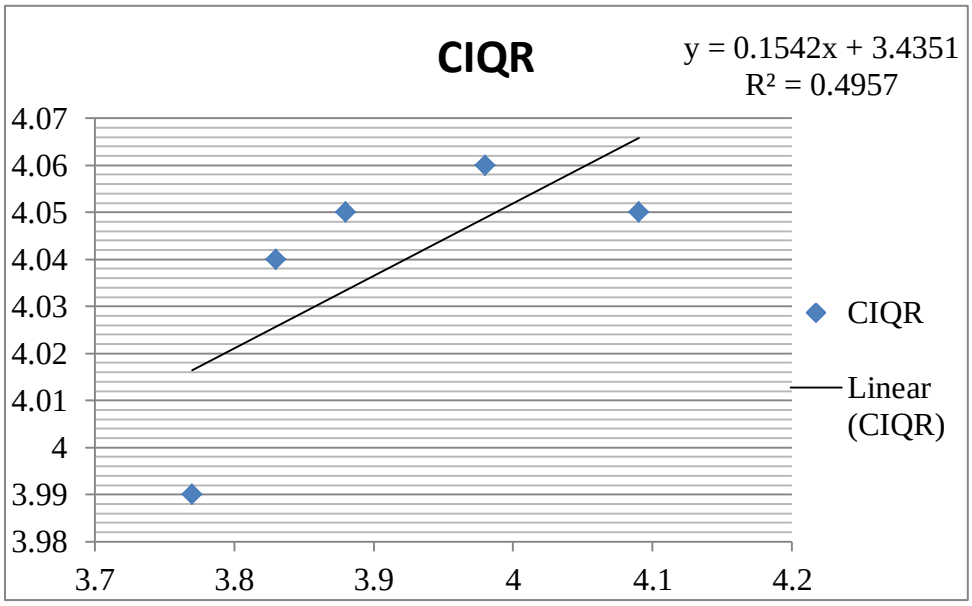

| FI | CIQR |
|---|---|
| 3.99 | 4.06 |
| 4.05 | 4.05 |
| 4.1 | 3.99 |
| 3.86 | 4.05 |
| 3.84 | 4.04 |

| R | $R^2$ | Correlation |
|---|---|---|
| 0.50398 | 0.254 | -0.504007253 |




| TR | CIQR |
|---|---|
| 3.98 | 4.06 |
| 4.09 | 4.05 |
| 3.77 | 3.99 |
| 3.88 | 4.05 |
| 3.83 | 4.04 |

| R | $R^2$ | Correlation |
|---|---|---|
| 0.70406 | 0.4957 | 0.704031875 |




**Correlation Matrix of Factors Influencing Consumer Inclination to Utilize QR Payment**

| PEU | FI | TR | CIQR |
|---|---|---|---|
| 4.03 | 3.99 | 3.98 | 4.06 |

| | | | |
|---|---|---|---|
| 4.18 | 4.05 | 4.09 | 4.05 |
| 3.99 | 4.1 | 3.77 | 3.99 |
| 4.12 | 3.86 | 3.88 | 4.05 |
| 4.12 | 3.84 | 3.83 | 4.04 |

| | PEU | FI | TR | CIQR |
|---|---|---|---|---|
| PEU | 1 | | | |
| FI | -0.4043 | 1 | | |
| TR | 0.58467 | 0.194306821 | 1 | |
| CIQR | 0.58561 | -0.504007253 | 0.70403 | 1 |

**Appendix 4**

**Multiple Regression Model for Consumer Inclination to Utilize QR Payment Systems**

Summary Table

Regression Statistics

| Multiple R | R Square | Adjusted R Square | Standard Error | Observations |
|---|---|---|---|---|
| 0.999708572 | 0.9994172 | 0.997668915 | 0.001339752 | 5 |

Analysis of Variance (ANOVA) for Multiple Regressions

| | Df | SS | MS | F | Significance F |
|---|---|---|---|---|---|
| Regression | 3 | 0.0031 | 0.0010 | 571.6464 | 0.0307 |
| Residual | 1 | 1.79494E-06 | 1.79E-06 | | |
| Total | 4 | 0.0031 | | | |

*ANOVA*

| | Coefficients | Standard Error | t Stat | P-value | Lower 95% | Upper 95% | Lower 95.0% | Upper 95.0% |
|---|---|---|---|---|---|---|---|---|
| Intercept | 4.5970 | 0.0620 | 74.102 | 0.0086 | 3.8087 | 5.3852 | 3.8087 | 5.3852 |
| PEU | -0.1632 | 0.0142 | -11.5 | 0.0552 | -0.3435 | 0.0171 | -0.3435 | 0.0172 |
| FI | -0.2197 | 0.0078 | -28.03 | 0.0227 | -0.3192 | -0.1200 | -0.3192 | -0.1200 |
| TR | 0.2506 | 0.0080 | 31.305 | 0.0203 | 0.1489 | 0.3522 | 0.1489 | 0.3523 |

# CONSUMER INCLINATION TO UTILIZE QR PAYMENT SYST...

**By: Biraj Shrestha**

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Abstract This study explores the factors influencing consumers' inclination to utilize QR payment systems, particularly at hypermarkets in the Kathmandu Valley. With the rise of digital payment systems globally, QR payments have gained popularity due to their speed, convenience, and enhanced security. However, their widespread adoption is dependent on factors like consumer preferences, financial incentives, and technological readiness. The research examines these factors by conducting surveys with consumers and market staff, focusing on demographic influences, the impact of financial incentives, and how technological infrastructure affects QR payment usage. The study also highlights the role of perceived ease of use and security concerns in shaping consumer behavior. The findings suggest that while technological readiness plays a crucial role in promoting QR payment adoption, financial incentives do not always significantly increase consumer interest. Additionally, the ease of using QR payments is important but not a decisive factor in encouraging widespread adoption. Based on the results, the study provides insights for hypermarkets, policymakers, and financial institutions. It suggests that improving technological accessibility and addressing consumer concerns about security and transaction fees could foster greater acceptance of QR payment systems in Nepal's hypermarket sector. This research contributes valuable knowledge to the growing field of digital payment systems, offering strategies to promote their adoption in the retail industry and supporting Nepal's move towards a cashless economy. CHAPTER-I INTRODUCTION 1.1 Background of the Study QR code payment methods are getting more and more acceptance everywhere, especially in Kathmandu Valley. Customers can use these systems to pay with their smartphones by scanning a QR code that is shown at the checkout counter. The extensive implementation of digital payment systems has greatly revolutionized the manner in which customers worldwide engage in financial transactions. The rise of QR code payment systems in Nepal has attracted significant interest, particularly in urban regions such as the Kathmandu Valley. Hypermarkets have a significant impact on the retail industry and are frequently in the forefront of implementing cutting-edge payment systems to improve customer convenience and operational efficiency. (Sapkota, 2019) QR code payment systems provide numerous potential benefits, including expedited transaction processing, decreased dependence on actual currency, and improved security measures. However, the effectiveness and acceptance of these systems primarily rely on customer inclination and their readiness to embrace new payment methods. (Nepal Rastra Bank, 2022) The objective of this study is to investigate the characteristics that affect consumers' willingness to use QR payment systems, particularly at hypermarkets located in the Kathmandu Valley. This research aims to uncover the main factors that either promote or hinder the adoption of QR payment by performing a thorough analysis that includes