

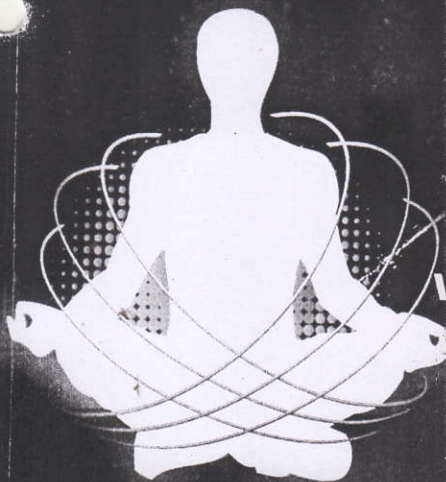
# SOHAM

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**IMPACT OF DIGITAL FINANCE ON THE POWER SECTOR IN GUJARAT****NEHA K. PATEL**

Research Scholar, HNGU

**DR. J.K.PATEL**Research Guide

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**ABSRTACT**

This paper examines the impact of digital finance on the power sector in Gujarat. The Indian power sector is one of the most diversified in the world. India is the fifth largest power producing in the world. Gujarat is situated in western zone in India. It is the 6<sup>th</sup> largest state in terms of areas and 9<sup>th</sup> most population state. Gujarat is the one of the prosperous and efficiency state in India. Power means energy and energy is the primary need of all human beings and it is important to the building block of economic development. In Gujarat the significant growth in power sector are increased in past years. Two billion individuals and 200 million businesses in emerging economies today lack access to savings and credit, and even those with access can pay dearly for a limited range of products. Rapidly spreading digital technologies now offer an opportunity to provide financial services at much lower cost, and therefore profitably, boosting financial inclusion and enabling large productivity gains across the economy. While the benefits of digital finance—financial services delivered via mobile phones, the internet or cards—have been widely noted, in this paper we seek to quantify just how large the economic impact could be.

Businesses and government leaders will need to make a concerted effort to secure these potential benefits. Three building blocks are required: widespread mobile and digital infrastructure, a dynamic business environment for financial services, and digital finance products that meet the needs of individuals and small businesses in ways that are superior to the informal financial tools they use today. Broadening access to finance through digital means can unlock productivity and investment, reduce poverty, empower women, and help build stronger institutions with less corruption—all while providing a profitable, sustainable business opportunity for financial service providers. The benefits for individuals, businesses, and governments can transform the economic prospects of emerging economies.

**Key words** : power system, Digital finance, Gujarat power system, Digital payment system.

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**What is digital finance**

Digital finance as financial services delivered over digital infrastructure—including mobile and internet—with low use of cash and traditional bank branches. Mobile phones, computers, or cards used over point-of-sale (POS) devices connect individuals and businesses to a digitized national payments infrastructure, enabling seamless transactions across all parties.

Digital finance and financial inclusion have several benefits to financial services users, digital finance providers, governments and the economy. Since 2010, the G-20 and the World Bank have led the initiative for increased financial inclusion in developing countries to help reduce poverty levels in developing and emerging economies (Peterson K Ozili, 2018) 1 . Access to digital technologies allows a wider range of financial services such as online banking, mobile banking etc. The technology has spread internet banking, mobile banking, e-wallets, mobile wallets, and credit and debit cards. It provides several benefits like convenience, easy financial transactions etc. to the customer. However, the threat of cyber-attacks is the red alert which coincides with the evolution of the economy. It seems that while people are getting comfortable with cashless payments, some kind

of negative perceptions like security problems, poor network coverage, and lack of merchant willingness, high transactional costs, lack of users' knowledge on technology etc. are holding back many from adopting the new system. Digital financial services can be more convenient and affordable than traditional banking services, enabling low-income and poor people in developing countries to save and borrow in the formal financial system, earn a financial return. It is vital to the public as it boosts security for their cash and it's more convenient compared to keeping money at home traveling with the money. However, the provision of digital finance involves the participation of different players such as banks/financial institutions, mobile network operators, financial technology providers, regulators, agents, chains of retailers and clients. It can eliminate such transaction costs and provide affordable, convenient and secure banking services to poor individuals in developing countries. According to the theory of product life cycle, every business enters four steps consist of introduction, growth, maturity and decline. One of the strategies to strengthen maturity stage is through innovation. Innovation in the financial service business is known as digital finance. At this era, innovation in technology is one of the key success factors for business to strengthen the maturity life of product life cycle, included financial as well as power industry. Digital technologies are everywhere, affecting the way we live, work, travel and play. Digitalisation is helping improve the safety, productivity, accessibility and sustainability of energy systems around the world. But it is also raising new security and privacy risks, while disrupting markets, businesses and workers.

## 1. POWER SECTOR IN GUJARAT

Gujarat has recorded significant economic growth over the last years. In India Gujarat is the leader in per capita consumption of electricity. The energy sector is primarily divided into oil, gas and power. The power sector includes generation, transmission and distribution of power. A major contribution of oil and gas in areas of exploration, production, pipeline networks and city gas distribution. GEB focused mostly on rural electrification, providing new connections and maintenance activities. The energy units required by 2020 would be nearly two & half times the existing generation. Gujarat will need to secure its fuel requirement as most of it is imported. Gujarat Urja Vikas Nigam Limited is a holding company in the energy sector. Gujarat Urja Vikas Nigam Ltd. is an electrical services umbrella company in the state of Gujarat. The company was created by the Gujarat Electricity Board (GEB) as its wholly owned subsidiary in the context of liberalization and as a part of efforts towards restructuring of the power sector with an aim of improving efficiency in management and delivery of services to consumers. On 1 April 2005 they have become subsidiary companies of GUVNL as per the provisions of the Companies Act, 1956. The GUVNL is engaged in the business of bulk purchase and sale of electricity, supervision, coordination and facilitation of the activities of its six subsidiary companies. GSEL is engaged in the business of generation of electricity. The GETCO is engaged in the business of transmission of electricity. The UGVCL, MGVCL, PGVCL, DGVCL are engaged in the business of distribution of electricity in the business of distribution of electricity in the Northern, Central, Western and Southern areas of Gujarat respectively.

## Objectives

In this paper, the researcher intends to identify the impact of digital finance in bringing about power sector. Digital finance includes Internet banking, Mobile banking, Mobile Wallets (apps), Credit card and debit card. Financial inclusion factors taken for the study are Convenience, Adaptability, affordability, Security, User-friendly, Low Service charge, Accurate timing, Online Monthly

statement, Quick financial decision making, Easy interbank account facility, Internet Connectivity, and Usability.

## Research Methodology

A well-structured questionnaire was carefully prepared for the collection of primary data. Multiple choices and Likert scale questions were carefully framed to study the impact of digital finance in financial inclusion.. Data were entered into the Statistical Package of Social Sciences (SPSS) ver. 20.0 for analysis. The statistical techniques used for analyzing the data are One way ANOVA and Reliability test. One way ANOVA is similar to test, but it is used when you have two or more groups and you wish to compare the mean scores on the continuous variables.

## Hypothesis

H0: There is no relationship between security & affordability of digital finance in power sector in Gujarat.

H1: There is relationship between security & affordability of digital finance in power sector in Gujarat.

H0: There is no relationship between internet banking of digital finance in power sector in Gujarat.

H1: There is relationship between internet banking of digital finance in power sector in Gujarat.

## Analysis and Findings

The aim of this analysis is to identify the impact of digital finance (Internet Banking, Mobile Banking, Mobile wallets (Apps), Credit card and Debit card) on financial inclusion. One way analysis is used to identify the impact of digital finance on financial inclusion.

Table 1: One way ANOVA for significant difference among digital finance and financial inclusion.

Financial inclusion	Internet banking	Mobile banking	Mobile wallets	Credit card	Debit card	F value	P value
Convenience	3.37a (1.165)	3..24ab (1.091)	4.05b (1.105)	4.00b (.849)	3.94b (1.056)	2.655	0.37
Adaptability	3.37 (1.165)	3.35 (9.31)	3.95 (1.50)	4.00 (.843)	4.06 (1.507)	2.348	0.60
Affordability	3.47 (1.219)	3.59 (.939)	4.05 (.923)	4.00 (.849)	3.94 (1025)	1.289	.280
Security	3.37a (1.165)	3.47ab (1.007)	4.05ab (1.050)	4.12ab (.766)	3.94b (1.026)	2.384	.057
User friendly	3.42a (1.170)	3.41a (1.121)	4.20ab (.894)	4.00ab (1.104)	3.94b (1.056)	2.418	.054
Low service charge	3.36a (1.165)	3.29a (1.160)	4.15ab (1.040)	4.00ab (.849)	4.06b (1.046)	2.639	.039
Accurate	3.07a	3.35ab	4.15ab	3.00b	4.21b	2.652	0.38

timing	(1.165)	(1.169)	(1.130)	(.829)	(.863)		
Online monthly statement	3.58 (1.071)	3.41 (1.121)	4.05 (1.050)	3.96 (.824)	3.94 (1032)	1.408	.237
Quick financial decision making	3.58a (1.219)	3.35ab (1.057)	4.20ab (768)	4.00ab (.849)	3.94ab (1.058)	2.407	.055
Easy inter bank account facility	3.47a (1.219)	3.35ab (.931)	4.25ab (.786)	4.00b (.856)	3.94b (1056)	2.871	0.27
internet	3.47	3.35	4.05	4.00	3.94	1.599	1.81

## Conclusion

This article provides a discussion on Digital finance and its impact on power sector in Gujarat. Digital Finance plays a vital role in the day to day activities of the people. The findings of the study found that Usability, Convenience, Accurate timing, and easy interbank account facility has positive impacts on Mobile banking. Low service charge and accurate timing has significant impacts on mobile wallets (apps) even Low service charge has positively impacted on the credit card. Hence the study concludes that the digital finance (Internet banking, mobile banking, mobile wallets (apps) credit card and debit card has a significant impact on power sector in Gujarat. This paper concludes that hypothesis of affordability is not accepted but hypothesis of mobile banking is accepted.

Though digital finance has many negative on an issue like affordability, security, adaptability etc. Every human being intends to avail the facility of digital finance in their lives. The impact of digital finance on the power sector in Gujarat is very useful and easy. Day to day use of digital payment in power sector are useful to accuracy and affordability of services. Digital finance as used in power sector in Gujarat are very helpful to the customers.

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