Evolution of Customer Service Protocols with the Enhancement of the Technology

ISBN 978-1-943295-22-7

Santanu Purohit
Arvind Kumar Jain
University of Petroleum and Energy Studies
(purohits13@gmail.com)
(akjain@ddn.upes.ac.in)
Sujoita Purohit
ETPL
(sujoitaroy@gamil.com)

The enhancement of technology has completely transformed people's lifestyles and behaviours. At the same time, much innovation has been seen in customer engagement and satisfaction aspects in general retail and has influenced customers' buying behaviour. This is true for the Petro retail as well. Technology enhancement, particularly in ICT, has enabled the industry to develop a robust backend infrastructure for efficient operation. IoT, AI, and predictive analytics tools play a significant role in building up customer-facing initiatives, leading to the design of service protocols for the enhanced customer buying experience, including raising the level of safety at fuel stations.

Keywords: Consumer Experience, Indian Fuel Retail, Petro Retail, Technology in Petro Retail

1. Introduction

India is anticipated to be among the energy markets with the fastest rate of growth. It also emerged as the third-largest global passenger vehicle market for the period of 2014–21 (HIS Global Insight, Team Analysis). India ranked third in energy consumption in 2019 (Global Energy Statistical Yearbook 2019, Enerdata). This is after China and the USA. As a result, there is now more attention on the Indian petro retail industry. The main fuels for consumer cars, petrol and diesel, are sold at fuel stations run by Oil Marketing Companies (OMC) in India or by their franchisees. A petrol pump, often known as a fuel station, supplies the fuel and oils that customers' cars need.

In India, fuel was made available as a commodity both during and throughout the early post-independence periods. Government-regulated prices combined with state-run oil corporations' dominant market share rendered fuel a commodity with little regard for the demands and necessities of the consumer. However, a substantial shift in the market structure has occurred regarding the shift from tangible physical goods to intangible services due to the evolution of customer needs brought about by technological advancement and exposure. This shift is evident globally in the growth of the service industries. Concurrently, the global petroleum retail sector has transitioned from a commodities market to a service-based one; this also holds true in the Indian context. (Keerthika and Suresh, 2019)

The previous two decades have seen a substantial transformation in global retail due to technological advancements. In the retail industry, shifts in customer expectations, behaviours, and other areas are evident, and customer service has also experienced substantial transformations. The 2017 edition of HCM Sales, Marketing & Alliance Excellence Essentials. Technology and the digital sphere have significantly influenced how consumers make decisions. Furthermore, according to Moran et al. (2014), social media is essential for marketing since it builds a company's brand and fosters longer-lasting consumer interactions. Businesses are using social media more and more these days to establish more direct and personalised connections with their clientele. Additionally, it is becoming more common for service companies to share consumer data in order to analyse client purchasing patterns and develop and provide fast, customised services (Bigelow,2019).

Customers' needs, preferences, and lifestyles have generally changed as a result of technological advancements and changing consumer behaviour, and this evolution is still ongoing. While Petro-retail has benefited greatly from technological innovation in recent years, ordinary retail has employed VR and other technologies to serve the typical consumer better. Customers' expectations in the petroleum industry appear to differ significantly from those in the broader retail sector. (Purohit and Jain, 2020).

The modern client has evolved as a result of rapid technical improvements and increased exposure to digitalisation. In general, customer expectations, experiences, and habits have evolved, and development is still ongoing. The retail industry has seen a significant shift in consumer purchasing behaviour as a result of technological advancements. Customers in retail and petro-retail share certain characteristics. The way that customers behave toward petroleum commerce is also changing. AI, big data, cloud, mobile, and other upstream technology adoption is comparatively advanced. But in the downstream Indian environment, the same is not very significant, particularly when it comes to customer identification and recognition, expectations for the product/service mix, etc. Petro-retail has not yet reached the level of general retail, despite the rapid advancement of technology in that sector that has led to improved service to client expectations. A robust adoption and deployment of technology is necessary in order to close the gap. However, the current state of technology in the Indian petroleum retail sector does not coincide with what is intended (Purohit and Jain 2020). Additionally, IoT is mostly being used in the upstream sector of the oil and gas industry for remote monitoring, planning and carrying out predictive and

preventative maintenance, guaranteeing safety parameters, etc. There is a dearth of studies on the use of IoT in the downstream industry, particularly in handling and storage facilities and refineries.

Research on the application of IoT in safety and customer services in Petro-retail is essentially nonexistent worldwide. IoT penetration in Indian Petro-retail is minimal, particularly when considering customer service, even though it is essential for improving service and optimising profits. The growing importance of technology in consumers' lives means that IoT adoption is necessary to improve customer services and raise service quality, both of which can lead to increased safety and security and revenue maximisation (Purohit and Jain 2020). The retail landscape has evolved in recent years due to technology, and this trend is set to continue.

Customer studies that demonstrate the frequency with which digital gadgets are integrated into the shopping experience demonstrate this. With the advent of social media, smartphone notifications, and full-price transparency, the retail sector has grown even more reliant on technology and social dynamics. A shop that anticipates and adapts in this new world will provide customers joy by focusing on a seamless digital experience. It became more evident when COVID-19 prompted a global lockdown, forcing every industry and corporation to search for innovative technologies to facilitate ease of doing business and ensure survival. (Ochani and Associates, 2020)

The coronavirus Covid-19 has significantly impacted 210 countries and territories worldwide. Major countries like the United States, Germany, Italy, India, Spain, France, Turkey, and the United Kingdom have reported a higher number of cases, and Covid-19-related challenges have affected numerous sectors. Since the coronavirus covered whole regions, the governments were forced to make difficult choices, such as imposing a nationwide lockdown, in order to stop the virus from spreading. Social separation becomes required due to coronavirus infection. All industries, including but not limited to schools, colleges, theatres, malls, picnic areas, restaurant hotels, transportation, railroads, seaports, airports, industries, manufacturing businesses fall slowdown, etc., came to a complete stop when the lockdown was implemented. The life cycle schedule was put on hold, which had a significant effect on the economy (Gujrati and Uygun, 2020).

Due to logistical limitations, COVID-19 has negatively impacted the lean agile process of operational excellence (Jack 2020). Covid-19 also influenced the manufacturing sector, leading to decreased demand and a disruption in supply chain operations. However, coronavirus also gives industries a chance to rethink and remodel, including vital development and redesign at the operational sites to stay relevant and flexible in the face of changing times (Srivastava and Srivastava, 2020). Operations and logistics maintain a segment of the sector. Micro-SMEs are collaborating to take advantage of the opportunity presented by the crisis for improved worker economics, business operations, and a variety of strategic plans for long-term company viability. Despite this, micro-SMEs cannot adapt to changes necessary for the viability of their businesses, such as those involving compensation, resource management and allocation, and remote work from home. Similar complexity is encountered on a global scale. Micro-SMEs are becoming more and more concerned with the sustainability of their businesses and are taking proactive steps to ensure that they are prepared to identify crucial positions, crisis management strategies, and decision-making during the COVID-19 outbreak (Kasim et al., 2020).

Research indicated that, when looking at possibilities and problems, the service industries might change to become green business industries. Because they can preserve a clean and sustainable environment, companies implementing modern technology, green services, and goods are considered sustainable (Aithal and Preethi, 2016). COVID-19 has also had a major negative influence on India's education system. Numerous opportunities have also been generated despite the many obstacles it has brought about. By implementing new digital technologies, the Indian government and various education stakeholders attempted to investigate the potential of Open and Distance Learning (ODL) to address the COVID-19 crisis. Such a technology-based platform will be beneficial for the education system in the event that COVID-19-like circumstances arise in the future (Jena,2020). While COVID-19 caused a global crisis, digital technology solutions like robotics, IoT, AI, and big data have arisen to combat the pandemic in a variety of sectors, including healthcare, SMEs, and the service industry (Sengar, 2020).

As per the analysis of industry experts, the integration of automated technologies and software pertaining to worker safety is expected to enhance production capacities and product quality in manufacturing facilities in the post-pandemic era, thereby gaining the trust of employees and consumers. Government authorities and research communities anticipate that one of the mandatory measures in the future will be the availability of sanitiser and hygiene products at the workplace and the necessity of using technology safely (Srivastava and Srivastava, 2020).

It is evident that COVID-19 has had an impact on every sector of the economy, including industry, logistics, education, and services. Petro-Retail is included in this as well. In selling petrol, there is a potential for the spread of infectious viruses in close proximity to individuals dispensing items, handling cash and payments, processing card payments through EDCs (Electronic Data Capture Machines), and customers contacting the machines to input PINs. Thus, maintaining a fuel station's commitment to health and safety and providing a clean, safe, and secure environment for customers to purchase from is essential for raising customer satisfaction and trust levels. It is possible for technology to have a big impact on creating a safe environment in the retail petroleum sector. In order to provide a safe, secure, and hygienic environment in the Indian Petro retail sector both today and in the aftermath of COVID-19, our study attempted to investigate potential technological interventions, particularly with regard to processing payment transactions.

2. Methodology

A thematic literature review was conducted to get insights into Petro Retail Service to identify its dimensions and

measurements. To the best of the researcher's ability and available published literature, EBSCO and Google Scholar databases were searched to identify the full-text articles in English. This resulted in the identification of 133 articles under five themes . The articles were refereed for findings and discussions of the study.

Sr no	Themes	No of the Article Reviewed
1	Service Quality drivers in service management and wrt Petro retail	22
2	Service Quality Dimensions	23
3	Linkage of Customer Satisfaction and Organization's Profitability	16
4	Technology impact on service management & Petro retail	72
	Total Article reviewed (including common across the themes)	**133**

3. Findings & Discussion

By 2023, forecasts indicate that India will account for 2.2% of the global market for digital payments. Indian-made innovations in digital payment infrastructure, including as Unified Payments Interface (UPI), mobile wallets, and Bharat QR, have made sure that small retailers, tea vendors, and even hawkers are covered up till last-mile connectivity. India's big population and demography are the main reasons for the country's rapid growth in the transformation of digital payments (Bhalla, 2020).

In addition to digital payment, contactless payment is a further measure to ensure payment safety and hygienic practices. Smart cards, debit cards, and credit cards are examples of contactless payment systems. Other devices that support contactless payment in a secure way include smartphones and other handheld devices that use near-field communication (NFC) or radio-frequency identification (RFID). Examples of mobile applications that support NFC include Samsung Pay, Apple Pay, and Google Pay. Contactless payments are made in close physical proximity as opposed to mobile payments, which rely on wide-area WiFi or cellular networks and do not require it (Bhalla, 2020).

There are several advantages to contactless payments for both consumers and businesses. Among the many advantages are (i) speed, as contactless payments can be made twice as quickly as those made with traditional cards. Transactions are finished more quickly, turnover is likely to increase, and fewer lines are expected to form as a result of less handling and processing of cash. (ii) Secure - If physical cards are lost or stolen, the account can be blocked, and the appropriate bank can reject or change fraudulent payments after learning about them. Because contactless payment just requires the user to tap their card into the scanner, there is a perceived increased risk of fraud or theft. Nonetheless, since unique numbers are used for transactions that don't correspond to card numbers, built-in safeguards guarantee that the information and numbers associated with the card cannot be deciphered if intercepted. The fact that the same transaction is being repeated is not accidental. Additionally, by setting a low limit, the consumer is shielded from larger, unauthorised purchases. (iii) Effortless – Contactless payments are now more than just card payments. NFC technology in contactless scanners can be interacted with by smartphones and linked accessories like watches or rings. (IV) Overall Customer Experience: Merchants see higher throughput and a decrease in abandoned sales as a result of quick, easy transactions, an effective payment procedure, and a more secure payment process. Additionally, because there are no restrictions on the quantity of cash the consumer can carry, the average transaction value rises. For the most part, contactless transactions don't need verification; if the transaction is more over a certain amount or the customer requests it, a receipt for authorisation will be printed. A consumer spends less time at the point of sale when they use the contactless payment method (v). Delivering contactless choices to customers not only improves the customer experience but also allows the merchant to differentiate themselves from competitors by delivering value-added services and building their brand. This can lead to improved revenues and brand positioning. Paragon ID (2020).

There is a chance that an unauthorised transaction could proceed without authentication because contactless card transactions do not require a security code. Simultaneously, with the rise in online transactions during the epidemic, there have been an increasing number of instances of online financial fraud. A group of cybersecurity specialists convened to discuss the dangers of contactless payments and devise a plan to protect consumers from these types of scams during the pandemic. To safeguard the payment information of their clients, retailers, vendors, and providers of payment solutions should consider implementing Data Security Standards (Chakrabarty, 2020).

In spite of the fact that contactless transactions have become popular, understanding the underlying technology is crucial to determining whether or not they may be expanded into other businesses. In the payment industry, two forms of contactless payments are typically used (i) Contactless Cards: Generate a different code for every transaction to increase security during the payment process. The implementation of a Cardholder Verification Limit (CVM), a transactional limit, has replaced the PIN or signature required for contactless payments in order to adequately safeguard the user's account. (ii) E-wallets: Users can make payments securely, conveniently, and easily with the help of electronic wallets. Many mobile wallets are available on the market, including Venmo, Apple Pay, Mastercard, Google Pay, and others.Using tokenisation, mobile wallets provide one of the safest ways to make payments. Any sensitive information, including credit card numbers and other details, is vulnerable to fraud and schemes where a value or token is used in its place. Adoption of this technology may contribute to a larger revolution in digital financial services that will, among other things, (i) adopt a collaborative approach between FinTech companies and traditional banks, (ii) increase digital innovation through open banking, and (iii) improve customer experience and personalisation (Digipay Guru, 2020).

Thus, the contactless payment procedure affects customer service and the whole shopping experience for customers. (i) Contactless payment technology saves time with its "tap and go" features. This type of payment, which is arguably the easiest to use out of all of them, lets users make purchases right away without having to wait to enter a PIN to prove they are the authorised cardholder. (ii) It provides exceptional customer service - Contactless payment technology adds an extra degree of customer service in addition to time savings. Consumers can now pay without making contact in addition to using cash, credit, or debit cards. Customers are more likely to return if they are aware that the establishment allows frictionless payments.(iii) Security doesn't simply go - EDC purposefully introduced this new payment option even though it lacks any kind of inside authentication, unlike a chip reader or magnetic stripe. It is safer than before. (iv) The use of contactless payment technologies will result in more people walking. Technology that allows contactless payments will enable company in addition to word-of-mouth promotion. Payments will also be processed more quickly because clients won't have to wait to give cashback after inserting their pins or waiting for signatures. It's important to remember that, despite the many benefits of contactless payment technology, cloud-based services are not infallible from technical difficulties because they are really just machines (ID TECH Products, 2020).

The payments ecosystem is now disrupted by the digital revolution. By offering real benefits to both customers and retailers, contactless payment innovation has completely changed the payment landscape. A better customer experience centred on convenience and usability can be achieved by integrating contactless capability with conventional payment cards. Additionally, by encouraging contactless payment, retailers may cut down on time and increase the speed of their digital transactions, thereby increasing operational efficiency. To assure success, the infrastructure used to process contactless payments is also certified and compliant with the most recent security requirements. (Webinar, May 2018: Using Contactless Payments to Create New Growth Prospects in Latin America)

Although contactless payment was becoming more and more popular prior to the epidemic, consumers are now more willing than ever to accept any solutions that comply with social distancing advice. The NFC app-based contactless payment methods that are widely used worldwide are Google Pay, Apple Pay, Samsung Pay, Pay Pal, Venmo, Zelle, Cash App, and Facebook Messenger. (Bond, 2020).

As India enters the Unlock era, digital payments have increased dramatically in that country. The industry participants applaud the Reserve Bank of India's announcement of multiple measures aimed at augmenting the digital payments domain in India. These endeavours are anticipated to foster innovation and technology, hence enhancing system efficiency and fortifying the acceptance infrastructure. Although contactless, cashless, and faceless transactions are increasingly the preferred option for both customers and retailers, this trend began before COVID-19 and is currently picking up speed (Sharma, 2020). Customers can use contactless payments, as the name suggests, to make purchases at payment terminals without having to swipe a debit or credit card or enter a PIN. Beginning on January 1, 2021, the Reserve Bank of India will increase the contactless payment limit from ₹2,000 to ₹5,000, making it simpler to swiftly make transactions at merchant locations by touching debit and credit cards. Nonetheless, consumers have the option to completely block contactless payments or customise their limitations up to ₹5,000 (Jain, 2020). It is anticipated that the Reserve Bank of India's move to increase the limit on contactless payments without a PIN will level the playing field in favour of cards (Shetty, 2020).

Prior to the catastrophic health and economic effects of the COVID-19 pandemic, contactless payments were a commonly accepted form of payment. Due to its ability to enable businesses to assure safety in the face of the coronavirus pandemic, contactless payments have emerged as a vital solution for customers who are concerned about hygiene. This includes embracing the new norm of social distance. About 30% of respondents to a study conducted in mid-March 2020 said they had begun using contactless payments after the pandemic started, and 70% of those users said they planned to keep using them after COVID-19.According to the report, (i) 58% of Americans now prefer using contactless payment methods over those used before the outbreak. (ii) MasterCard recorded a 40% increase in contactless payments in the first quarter of 2020–21; (iii) 60% of VISA users who reside outside of the US have used "tap-to-pay"; (iv) a significant portion of MasterCard users (79%) worldwide have used contactless payments during the COVID-19 pandemic; (v) The increase of contactless payments worldwide from January to March 2020 is estimated to be +40% "year over year" (Digipay. Guru, 2020). The American banking industry has also been influenced by the quick adoption of contactless payments. Enhanced EMV card issuance was implemented by several major US financial institutions, including Bank of America, Citibank, Wells Fargo, U.S. Bank, and Capital One. Additionally, Visa predicted that by the end of 2020, there will be more than 300 million contactless cards in use. The pandemic caused a rise in contactless payments in Germany. Furthermore, e-wallet purchases in China exceeded cash purchases by 23%, indicating the country with the highest adoption rate. The COVID-19 pandemic's negative impacts on businesses can now be mitigated with the use of contactless payments. The same seems to be implied by the. To lower the danger of transmission, the WHO advises using contactless payments (McKinsy & Company, 2020).

Majors in the oil and gas industry have also embraced contactless payments. Shell, Chevron, and Exxon Mobile are a few oil firms that offer pay-by-phone applications. Through their apps, Exxon and Shell are also compatible with Apple Pay. Although there aren't many payment alternatives offered by Chevron, the company has stated in App Store Chevron forum conversations that Apple Pay would be available soon (Dwight Silverman, 2020). The European oil firm Shell has introduced "The Shell app" with mobile payment, allowing customers to pay with just one simple step. This eliminates the need to carry several cards and minimises the number of prompts to enter at the convenience shop and gas pump. Customers can take advantage of the following benefits using the app: (i) Speed: participating Shell stations offer faster turnaround times with much fewer reminders; (ii) Convenience: Eliminate the need to carry several cards (iii) Value: Users of the Shell App with mobile payments can accrue extra Fuel Rewards points. (Shell United States).

In response to customer demand for mobile payment options that allow users to "point and pay" using their smartphones, ExxonMobil continues to innovate at gas stations by introducing a contactless payment option to its stable of products on the forecourt. This new two-in-one contactless payment solution uses QR codes and Near Field Communication (NFC) technology. Most recently, the business developed contactless payment solutions with Amazon's "Alexa Pay for Gas" program (Convenience Store News, 20.10.2020).

Phoenix Petroleum, Philippines, is the first retailer in the Asian context to offer four different e-payment options, including contactless payments. One hundred petrol stations in Phoenix now accept payments through QR code scanning using Alipay, GCash, GrabPay, and WeChat Pay. This action is a result of its tighter safety procedures implemented throughout its companies to aid in the pandemic's containment. (Petrol Plaza, 2020).

NFC is a contactless payment method that Bharat Petroleum Corporation Limited developed specifically for the Indian market. In addition to the contactless payment choices now offered in India, this convenient 'tap and go' feature lets customers maintain the privacy of their financial information while also ensuring their health and safety because it never leaves their grasp (BPCL Blog, 2020). The contactless RuPay debit card was introduced by state-run banks State Bank of India and Indian Oil to enable safe and practical contactless payments utilising "Tap and Pay" technology. Keeping the protection of both citizens and their customers in mind, it is now the duty of every sector to contribute to public safety. (TV Business Desk in India, 2021).

One of the most reliable methods for companies and businesses to function under the new normal standards that will emerge from the COVID-19 scenario is through digital payment. We may witness a surge in the use of contactless payments in the days ahead. Additionally, this could lead to quick advancements in contactless technology, which could inspire FinTech businesses and startups to significantly upend the financial industry (Digipay. Guru, 2020).

4. Conclusions

The predominant form of payment utilised by businesses, retailers, and other establishments at the moment is cash. Because handling currency puts one in close proximity and jeopardises safety in a COVID-19 circumstance, the actual transfer of cash raises the risk of infectious infection. Digitised payments have reduced the amount of cash handled and demonstrated how to advance contactless payment technology to a fully touchless payment method with improved security and safety features. To improve the use of contactless payment at stores and establishments, the government, the Reserve Bank of India, and the Indian central bank have all taken action while keeping an eye on efficiency and sanitation. Globally, contactless payment usage has increased significantly, and foreign oil and gas companies have adopted the technology in one way or another. In the context of Indian petro-retail, the adoption appears to be minimal, though. As a result, there seems to be a distinct gap in the acceptance and application of contactless payment, which might improve safety and hygienic standards at gas stations and lessen the effects of COVID-19 on customer service in the Indian petro retail industry.

5. References

1. Global Energy Statistical Yearbook 2019, Enerdata
2. Keerthika. R, and Suresh, A. (2019) An Empirical Study on Impact of Services Provided By Petroleum Retail Chains Over Retaining The Loyalty of Customers – Chennai Arena, India, Journal of Energy and Economic Development, 4(1), 1-10, February 2019
3. HCM Sales, Marketing & Alliance Excellence Essentials, 2017
4. Moran,G., Laurent, M., and Eoghan, N.(2014), Consumer Moments of Truth in the digital context: how 'search' and 'e-word of mouth' can fuel consumer decision making, Journal of Advertising Research. Vol. 54, June 2014
5. Bigelow, P. (2019), Chasing the data storm: Vehicle information can open opportunities in retail and safety— if drivers are willing to share it, Automotive News. 6/3/2019, Vol. 93 Issue 6884, pS007-S007. 1p
6. Purohit, S. and Jain, A.K.(2020), Evolution of Fuel Retail In India Vis –a- vis India Customer: Shift in Consumer Behaviour, International Journal of Management (IJM), Volume 11, Issue 8, pp. 199-207.
7. Purohit, S. and Jain, A.K., (2020) , Changing Face of Digitization in Indian Petro- Retail: From Enterprise to Customer, International Journal of Multidisciplinary Education Research, Volume 9, Issue 9(6), pp. 121-129.
8. Purohit S, Jain AK (2020) Technological transition from analogue to the internet of things (IoT) on Indian petro-retail's customer service. Indian Journal of Science and Technology 13(42): 4364-4368.
9. Ochani, A., Pareek, and Hamilton, N. (2020),' Assessment of Impact of Technological Transformation on Consumer Satisfaction in Retail Industry, International Journal of Advanced Science and Technology, Vol. 29, No. 3s, (2020), pp. 2043 – 2053
10. Gujrati, R. and Uygun, H. (2020), Covid-19: Impact on Global Economics, Amity Journal of Computational Sciences (AJCS), Volume 4 Issue, 2020
11. Ereme, J.,(2020), An Essay on the Impact of Covid-19 on Operational Excellence in Oil and Gas Organisations in Nigeria, 2020
12. Srivastava,R. and Srivastava, V.(2020), Changing Scenario of Manufacturing Industries Due to Covid 19, International Journal for Modern Trends in Science and Technology, 6(10): 143-146,

13. Kasim, R., Shahzad, F. and Suzanna,W.(2020), Aafanii Adeeba Wan Ibrahim, COVID-19 Impact on Business Sustainability: A Case of Micro-Small and Medium Enterprises in Malaysia, Journal of Humanities and Social Sciences Research, 9 – 14(2020)
14. Aithal, P.S., and Preethi, J. (2016), How Service Industries Can Transform Themselves into Green Business Industries: International Journal of Management Sciences and Business Research, Vol-5, Issue 4, PP – 150-158
15. Jena, P.K. (2020) IMPACT OF PANDEMIC COVID-19 ON EDUCATION IN INDIA, International Journal of Current Research, Vol. 12, Issue, 07, pp.12582-12586.
16. Sengar, D(2020), Digital Technology for Predicting, Preventing, and Controlling COVID-19, International Journal of Scientific Research in Science, Engineering and Technology, 2020 IJSRSET,| Volume 7, Issue 3 |7(3), pp 07-12
17. Bhalla, T (2020), India to contribute 2.2% to global digital payments market by 2023: Report, Mint, e-paper, July 23 2020, https://www.livemint.com/news/india/india-to-contribute-2-2-to-global-digital-payments-market-by-2023-report-11595504933539.html
18. The top 5 advantages of contactless payments | Paragon, https://www.paragon-id.com/en/inspiration/top-5-advantages-contactless-payments
19. Chakrabarty, A.(2020), Hike in contactless card transaction limit: Know benefits and risks before availing it , December 22, 2020, https://www.financialexpress.com/money/hike-in-contactless-card-transaction-limit-know-benefits-and-risks-before-availing-it/2155288/
20. Digipay. Guru, 2020, How contactless payments are driving digital payment services in times of COVID-19, https://www.digipay.guru/blog/contactless-payments-solutions-during-covid-19/
21. ID TECH Products, Contactless Payment Technology: 5 Things You Need to Know, https://idtechproducts.com/blog/contactless-payment-technology-5-things-you-need-to-know/
22. Harnessing Contactless Payments to Drive New Growth Opportunities in Latin America, May 2018, Webinar, https://ww2.frost.com/event/calendar/harnessing-contactless-payments-drive-new-growth-opportunities-latin-america/
23. Bond Casey, 8 Contactless Payment Apps To Help You Avoid Touching Cash, HUFFPOST 2020 https://www.huffpost.com/entry/contactless-payment-apps_l_5efd654dc5b6ca97091921b0?utm_campaign=share_email&ncid=other_email_o63gt2jcad4
24. Sharma, S.(2020), Digital payments skyrocket as India steps into Unlock phase; UPI payments value surges 99% in Q2| December2, 2020, Financial Express - Business News, Stock Market News. https://www.financialexpress.com/industry/banking-finance/digital-payments-skyrocket-as-india-steps-into-unlock-phase-upi-payments-value-surges-99-in-q2/2141480/
25. Jain, R.(2020) RBI hikes limit for contactless card payments from ₹2,000 to ₹5,000 | Business Insider India,DEC 4, 2020, https://www.businessinsider.in/finance/news/rbi-hikes-limit-for-contactless-card-payments-from-2000-to-5000/articleshow/79542969.cms
26. Shetty, M.(2020), Contactless card payment: Easier norms for contactless use may boost cards | India Business News - Times of India, | TNN | Updated: December 7, 2020, 08:19, https://timesofindia.indiatimes.com/business/india-business/easier-norms-for-contactless-use-may-boost-cards/articleshow/79597438.cms ,
27. The 2020 McKinsey Global Payments Report, Global Banking Practice, McKinsey & Company, 2020.
28. Dwight Silverman, **It's easier than you think to pay without touching cash, credit cards or receipts,** Houston Chronicle, Staff Writer, April 22, 2020, https://www.houstonchronicle.com/techburger/article/It-s-easier-than-you-think-to-pay-without-15218299.php
29. The Shell App with mobile payment | Shell United States https://www.shell.us/motorist/shell-app.html
30. ExxonMobil Brings New Contactless Payment Technology to the Pump | Convenience Store News, 20.10.2020, https://csnews.com/exxonmobil-brings-new-contactless-payment-technology-pump
31. Petrol Plaza, Philippines: Phoenix Petroleum introduces contactless payments, June12, 2020, https://www.petrolplaza.com/news/24916
32. BPCL Blog, CONTACTLESS NFC ENABLED PAYMENT OPTIONS AT RETAIL OUTLETS, October 19 2020, https://www.bharatpetroleum.com/blog/Blog-Detail.aspx?id=24
33. India TV Business Desk, SBI, Indian Oil launch contactless RuPay debit card; check key benefits | Business News – India TV January 08, 2021, 12:34 IST https://www.indiatvnews.com/business/news-sbi-indian-oil-launch-contactless-rupay-debit-card-check-key-benefits-676821