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Study of Customer Preference towards E-Wallets and Digital Payments Application in the Post Covid-19 Era

Karan Modi

Student, St. Kabir Institute of Professional Studies

Ahmedabad, Gujarat

karan.m20@skips.in

Jenisha Shah

Student, St. Kabir Institute of Professional Studies

Ahmedabad, Gujarat

jenisha20@skips.in

Diksha Dhalwani

Student, St. Kabir Institute of Professional Studies

Ahmedabad, Gujarat

diksha20@skips.in

Barkha Gandhi

Student, St. Kabir Institute of Professional Studies

Ahmedabad, Gujarat

barkha20@skips.in

Dr. Poonam Arora

Assistant Professor, St. Kabir Institute of Professional Studies

Ahmedabad, Gujarat

poonam.a@skips.in

Abstract

There has been a massive increase in the number0020of corona positive cases in India since March 2020. India becomes the second country in the world to have the highest corona positive cases. So, People are becoming more conscious of their health and safety during crisis time due to that the preference of the usage of digital payment will increase. To maintain social distancing and avoid having direct contact with a person while doing the monetary transaction, people are more inclined towards usage of more E-wallets, Digital Payment, and Mobile Banking application to reduce touch points which was absent in the case of cash or plastic money (Debit Card/ Credit Card). There has been an increase in awareness of the importance of using more E-wallets, Digital Payment, and Mobile Banking applications during lockdown among the people of India for their safety and easy transfer of money to remote places, which was a boon for them during the lockdown. Government also supporting and guiding the general public to do digital payment to stop the spread of covid-19 diseases. We have conducted the research study of customer preference towards E-wallets and digital payments application in the post covid-19 ERA. For this, we have collected primary data after finalizing the sample size of 308. Our main objective of the research is to study the impact of Covid-19 on use of E-wallets in India and to study factors affecting consumer preferences towards the adoption of E-wallets/ Digital Payment mobile applications during the Covid and Post-Covid-19 period.

On the data obtained from 308 respondents, we applied descriptive statistics and ran hypothesis testing using Cross-tabulation & Karl Pearson's Chi Square test and bi-variate correlation. We found that the demographic factors have no impact on consumer's preference for using digital payment method, while the convenience factors had significant impact. There was a direct relationship between a) employee status and no. of transaction in a month& b) no. of transaction in a month and satisfaction of using digital payment/e-wallet. Lastly it was found that there is no relationship between the purpose of using Digital payment methods/ e-wallet and the satisfaction of using the same.

Keywords: Covid-19, Digital Payment, Cashless Economy, E-Wallet, Cashless, Internet Banking, Mobile Banking, Digital Payment App.

Introduction

In India the nation-wide lockdown was imposed in the month of March, 2020 to counter the spread of the deadly Corona virus infection. As a result, the human activity was restricted which impacted the businesses that required human interaction, on a large scale. There was no other option rather than to stay indoors and only 1-2 hours in morning and evening were allowed for people to purchase the necessities. The awareness of maintaining social distancing and reduction in touch

points was considered as the best manner in which people can secure themselves from contracting the Corona virus infection. It was due to these circumstances, that there was a necessary adoption of E-wallet and Digital Payment Apps which can be used to digitally transfer the amount thereby avoiding the need of exchanging physical currency and avoid any kind of human interaction. The use of such digital methods and electronic transfer of cash was widely encouraged as it was directly reducing the touch point frequency amongst people.

There are various factors that worked as catalyst in the process of shifting to usage of e-wallets and digital payment methods. This change could be found across the demographics of the nation. People had their own preferences to choose among the available mode of digital payment methods such as BHIM, UPI, Mobile Banking, Internet banking and E-Wallet usage. The usage of these methods initially started with a huge boost during the Demonetization of 2016 in order to avoid staying in long lines for cash withdrawal. However, post COVID-19, it became a naturally necessity to use such method of payment. This is the reason why even a road-side stall, street and vegetable vendors were having low budget smart phones to use e-wallets and digital payment application to receive the money digitally. There are various reasons that have contributed to preference towards use of E-wallet and Digital Payment Apps. They are offers& discounts, Ease of payment, Contactless payment & Social Distancing, Digital record of transactions, Time saving and social influence due to the encouragement for its usage in such circumstances. There are several drawbacks to such technology which are reckless spending habit, Lack of technical Knowledge, Smartphone incompatible, Security Concerns and Technical glitches. Apart from above, the people prefer different digital payment method applications that are available on the Android and IOS platform for the mobile devices.

This study determines factors affecting consumers preference towards the usage of E-wallets/ Digital Payment mobile applications during Covid and post-Covid-19 period.

Literature Review

Going Cashless - Essential during Covid-19 Pandemic

During the COVID-19 outbreak where people were encouraged to keep up with the public sphere, there has been an increase in orders placed on ecommerce websites and apps for food, entertainment and food. The unpredictable times in which we live, when the impact of the Coronavirus outbreak has gone on economically and socially, can have a temporary impact on purchase patterns, among others. It would be a great boost for ecommerce including popular food, entertainment and food. Going back, over the last four years, digital payments have grown substantially from 5% to 30%, backed by demonetization and the Government's ongoing drive to further the unwanted Indian economy. (Jain, Sarupria, & Kothari, 2020)

Present study has made an attempt to understand customer perception regarding UPI. It was found that demographic factor except education does not have much impact on the adoption of the UPI.

Anova computation supported this finding as there was no signification difference is perceived by the respondents on the basis of gender age, profession and annual income. It was only education level of the respondents where signification difference is perceived by the respondents. It Indicates that adoption of UPI is influenced by the education level of the customer. If a person has studied beyond matriculation and internet savvy, he or she will be inclined to use the UPI mode. It was also found that in the areas of/ region where education is high such as Meerut, the possibility of acceptance of UPI is much higher the growth of users of Smartphone and internet penetration in such area also facilitated the adoption of UPI. (Kumar, 2020)

Global situation in respect to digital payment Post COVID-19

One survey was undertaken, in which they have done primary survey of 90 people from that one conclusion was came which is that there were 33 people (36.7%) are doing still cash transactions, 35 people (38.9%) are using E-wallet as payment mode and 22 people (24.4%) are using debit/credit card for payment during covid-19. The E-wallet can speed up transactions compared to the cash transaction and also more convenient. E-wallet is safe as physically cash in our wallet. So, we can conclude that E-wallet is taking over the cash as we can clearly see that more people are using E-wallet than cash. (Subaramaniam, 2020)

As the global population continue to increase toward the projected figures of 8.5 and 9.7 billion people by 2030 and 2050, respectively, it is prompting several global phenomena in view of the increasing pressures on urban infrastructures. For instance, today, the population of urban residents is reported to be approximately 54% of the 7.6 global population, but by 2030, those living in urban areas and cities will reach approximately 68%. This rapid urbanization is prompting a surge in demand for both products and services, with monetary transactions being at the core. These financial transactions are not only riding on financial institutions but also driven by the surge of technological application in cities, more so through the smart cities concept, that have captured the attention of large information and communication technology (ICT) corporations. To maximize on the potentials created by the smart city concept, despite it is still in its infancy stage, ICT corporations have been seen to provide different types of tech-inspired products, which in turn are stirring transaction-geared systems in positive ways. For instance, such technologies such as ridesharing in the likes of UBER and AirBnB in the hospitality industry have disrupted the economic activities in cities and increased transactions to unprecedented high numbers. (Allam, 2020)

Demonetization phase (Transformation towards Cash-less society Post Demonetization Move, 2016)

India was in a demonetization phase, when the Government had started promoting cashless transactions. After recognizing the potential of internet and technology, the Digital India project

was launched by the Govt. of India, which aimed at transforming the country into an integrated economy, with the use of mobile phones and internet as two supporting pillars for extending government services. The pre demonetization period shows us a minimal growth in the mobile wallet transactions each financial year. There was a minimal growth of 19mn transactions in mobile wallet transactions from FY13 to FY14. But after the launch of Digital India in Demonetization in the year 2016, Mobile wallets like Paytm and Phone Pe gained momentum and the growth in the mobile wallet transactions increased ever since. Paytm became best alternative of cash for the country in times like demonetization. Many Shopkeepers, vegetable vendors, petrol bunks started accepting payments through Mobile wallets like Paytm, Phone Pe etc. Paytm witnessed an increasing trend of 435% in its traffic, 200% growth in the app downloads and a rise of 250% in the overall transactions volume and their value. The mobile banking volume jumped from 524mn transactions to 1048mn transactions in the period (Nov-Aug of 2016-2017). The value of mobile banking transactions, rose up from ₹2,700 crore in September 2015 to ₹104,300 crore in 2016, and to ₹186,200 crore in 2017. (Agarwal, Poddar, & Karnavat, 2020)

Sectorial Impact

The adverse effects of the COVID-19 pandemic are trickling down to major sectors of the Indian economy, with manufacturing, auto, retail, aviation and hospitality bearing the brunt of the lockdown. This in turn has affected fast-growing digital payments which are closely linked to the aforementioned sectors. Shut shops, travel bans and reduced discretionary spends by consumers (on dining out, movies and entertainment and so on) are further negatively impacting digital payments. Digital payment volume declines are seen in airlines, tourism, hospitality, hotels, entertainment, e-commerce (non-essentials) and restaurants, among other sectors. Further, cross-border payments, be they B2B or C2B, have significantly declined owing to the temporary shutting down of borders further, resulting in restricted movement of goods. International remittances too have been affected and have reduced. However, there are also a few areas that are seeing an uptick in digital payments by way of increased adoption during the lockdown. These include online grocery stores, online pharmacies, OTT players (telecom and media), EdTechs, online gaming, recharges and utility/bill payments. (Belgavi & Gandhi, 2020)

Steps taken to promote digital payment/cashless economy by service providers/ government; & Factors affecting consumer perception towards e-wallets

Factors: Age is an important factor and the age group 25 to 50 are comfortable doing cashless payment over those of age 51 years and above. Similarly, occupation and earnings play an important role. Majority of respondents felt the need for security and convenience of doing the transaction as very important factors for them. Needless to say, lack of convenience and a perception of lack of security are the deterrents. Steps Taken: Mass digital literacy campaigns (particularly on usage and security aspects), improving convenience for making payments are

considered very important factor to boost cashless payments in India. Banks and Financial institutions have to ensure that payment processing devices are easily available and that the number of points of acceptance (such as by installing more ATMs and POS) are increased. User interface designs of internet banking and payment apps should be simpler and should be available in local languages. Regulators and Government have to make digital payments mandatory for high value transactions and for essentials (such as at fuel refilling outlets). Government receipts or payments should be compulsorily be made in digital form. Finally, cashless transactions should be incentivized such by lowering tax rates failing which people would continue to prefer accepting cash mode. The Government has to promote electronic and technology industries that make them. (Manda & Margana, 2019)

Factors: Based on the data collected, it has been indicated that, Safety and security comes first, as it is related with monetary transactions. Next come is how to use or how easy is to use e-wallet, followed by discount & offers provided by the digital tools, payments schedule is a vital part of using strategy to use of e-wallet, thus luring the users to make wide use of these tools. Quick payments feature of these digital tools making the last important reasons among the choice of users to use e-wallets during the situation. Such reasons thus make the users to make a choice to use the digital platforms in times of pandemic outbreak. (Saha, 2020)

Factors: There is strong empowerment for the adoption of e-wallets usage. Culture in India to avoid footfalls in banks for cash withdrawals and physical touch while exchanging cash. A positive attitude towards a cashless economy due to the requirement of social distancing all over the world. Perceived Security (the degree to which the mobile payment user believes that transaction on mobile payment platforms is secure in both financial and personal information aspects) (Zhang, Luximon, & Song, 2019), social influence (the perception of an individual which depends upon the societal environment), performance expectancy (effort expectancy as the degree of ease associated with the use of an information system) (Venkatesh et al., 2003), and effort expectancy (as the level of easiness related while using. any system) (Venkatesh et al., 2003) are factors which drives the consumers towards the usage e-wallet. perceived security, social influence, performance expectancy are the positive and significant predictors of e-wallet usage whereas, effort expectancy does not have a significant influence on e-wallet usage. Social influence and effort expectancy are not correlated with each other for the usage of e-wallet during lockdown whereas perceived security and performance expectancy has strong positive correlating among them and with social influence and effort expectancy. social influence is a key factor to encourage e-wallet usage as compared to traditional payment methods. The awareness and importance of e-wallet usage during pandemic conditions have been educated by peers, friends, and family members to avoid physical cash transactions. (Revathy & Balaji, 2020)

<u>Steps Taken</u>: In India, to reduce social contact and counter concern of the novel coronavirus spreading through currency notes and ATMs, Indian Bank has requested its customers to use Digital Banking Service (DBS). The conceptual process to prevent spread of the corona virus is shown as under (Kaur & Kushwaha, 2021)
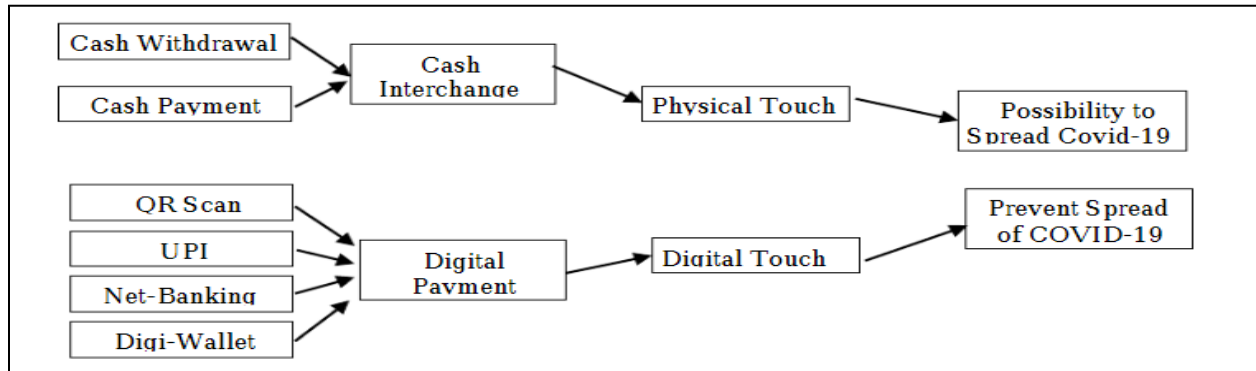
Source: (Kaur & Kushwaha, 2021)

<u>Steps Taken</u>: The attraction of lower and bottom income groups can be potentially increased by the better infrastructure of service provider platform, easy reach to helpline centres for any problem, and "how to use" knowledge provided by mobile applications. (Bijapurkar, Rai, Shukla, & Sachdeva, 2020)

<u>Steps Taken</u>: The customer's psychology was to save themselves and their family so during covid-19 customers who found that the risk was high in cash transactions gradually switch their option to cash less payments as an alternative source. The government was also emphasizing more on digital payment mode. (Tomasz Piotr Wisniewski, 2021)

Expectation Confirmation Model (ECM)

Expectation Confirmation Model (seminal research studies, which conceptualized and tested the theoretical model of Information System continuance that consider the distinction between IS acceptance and continuance behaviours, y Bhattacherjee (2001)). ECM posits the three constructs, namely, **Expectation Confirmation** (expectation fulfilled or not after the post purchase), **Perceived Usefulness** (extent to which a person deems a particular system to boost his or her job performance (Mathwick et al., (2001)) and **Satisfaction Precede the Continuance Intention** (intention of the buyer to continue to purchase after buying the product) to use Information system. Consumers who received greater satisfaction from mobile banking will continue to use it later after the Covid-19 Period and will replace cash transaction and physical transaction. The level of satisfaction would be high among the consumers who perceive mobile banking is highly useful. These perceptions of usefulness induce the user to derive satisfaction leading to continuance intention. Perceived health threat of Covid-19 leads to adoption of mobile-based payment services

to reduce physical cash dealings, it is not sufficient enough to create continued usage of the service. Continuance intention depends on service performance and if performance is as expected, the customer will be satisfied and further develops an intention to continue the usage of mobile payment services. Possible reason for the high level of perceived severities (who understand a given un-healthiness as serious area unit additional doubtless to have interaction in behaviours to forestall the un-healthiness from occurring) among the people is the effect of information of Covid-19 from across the world, particularly regarding its massive spread and death toll. Further, complete lockdown imposed in India for 51 days has created a disturbing perception of the severity of the disease among the people. There is low Perceived Usefulness as it never added value to the job performance of the consumers. (Sreelakshmi & Prathap, 2020)

Limitations & Opportunities to Digital Payments

Limitations -The susceptibility of digital financial services to cyber-attacks, digital fraud, and even runs could become more prevalent. This could be the case particularly if efforts to rapidly scale up digital payments during the COVID-19 crisis cannot be matched by equally paced improvements in cyber security. Even where a digital payment infrastructure is in place, quickly scaling up the services it provides could lead to operational risks, including system capacity constraints and the unavailability of critical staff, particularly if staff are affected by quarantines or illness. In addition, digital financial services based on social media apps could be more prone to panics, particularly product runs during the pandemic. This could be triggered by messaging, including fake news, disseminated on the social media. A large-scale move to digital payment services could create concerns about a "surveillance state." This could happen if for example the government has access to the payments data. If data access is instead restricted to companies, concerns about privacy, as well as data monopolies, could arise. While issues related to government or private company use of payment data are always relevant, there is a risk that the checks and balances provided by either democratic oversight or business regulation could be short-circuited during crisis episodes. Opportunities- a) Payment and transfer by business - Digital wage payments and digital tax payments ensure social distancing, in addition to being cost effective and more secure. As compared to cash and check payments (to the extent that these are handed over and cashed physically) the digital payment of wages, taxes and transfers to, respectively, employees, the government, and other businesses benefits both payers and payees by better maintaining social distancing. Distributed computing has the potential to transform payments and securities settlement as well as back-office functions by reducing costs and allowing direct business-to-business (B2B) transactions that bypass intermediaries. Bypassing intermediaries may be of value where intermediaries are affected by the COVID-19 crisis. For instance, banks may process payments more slowly due to staff shortages from quarantines or illness. Moreover, certain types of payments, particularly cross-border transactions, can involve chains of intermediaries, including correspondent banks, which can be vulnerable to global economic conditions. For example, in the aftermath of the global financial crisis, correspondent banking links toward smaller developing

countries were reduced. B) Payment and transfer by households - Contactless digital payments for P2P transfers and for purchases in stores could help maintain social distancing and reduce the potential spread of COVID-19**.** Existing modalities for digital payments (debit/credit cards, internet banking, mobile wallets, digital payment apps, Unified Payments Interface service, Unstructured Supplementary Service Data, and bank prepaid cards, mobile) have been increasingly used by households around the world. As an example, a recent survey of Indian households indicates the rising use of transactions conducted using digital payment during the COVID-19 crisis. Digital forms of payment, including mobile money and digital currencies, can facilitate the processing of remittances in times of crisis. This is especially the case when traditional forms of remittances require physical queuing. (Itai Agur, 2020)

In a nutshell, from the literature review undertaken, we find that there has been effective increase in usage of digital payment/E-wallet in India since the announcement of lockdown. There are so many factors which led consumer to opt for digitalization of transaction rather than traditional payment system. Many businesses are shifting towards the usage of digital platform for monetary transaction considering the current situation and preference towards safe medium for transaction. In order to safeguard oneself and dear ones there was a consciousness among people to have minimal physical contact while dealing with monetary transactions. To maintain social distancing, to transfer money for making and receiving payments and lucrative offers and discounts were among the most common factors which shifted high population of India for going for cashless transaction/digital payments. After reviewing few research papers based on impact of COVID-19 on usage of digital payment/E-wallets services in India, we can conclude that COVID acted as a great influence for high growth of E-wallet users. Hence in a nutshell the demonetization policy led to the birth of the E-wallet consumer base in country, which later witnessed organic growth, backed by Government encouragement, E-wallet provider promotions, after sales service provided by the digital platforms and conscious need of safety, during the Covid-19 Pandemic which made the presence of the digital payment/ e-wallet in the nook and corner of the India.

Research Problem

The Research problem that has been addressed is a) what are the various factors that affect consumer preference towards use of E-wallet/digital payment Apps in post COVID-19 Era & b) to what extent these factors impact the consumer preference towards use of E-wallet/digital payment Apps in post COVID-19 Era

Objectives of Research

This research focuses on determining the factors viz demographical and convenience factor that impact on consumer preference towards use of the digital payment/e-wallet post Covid-19

1. To study the impact of COVID-19 on use of E-wallet in India
2. To study the factors affecting the consumer preference towards E-wallet post COVID-19 Era

Research Methodology

The research paper expresses the issues as it exists and so demonstrates the use Descriptive method. The sample size of 308 was taken for data collection as the study is done on the major cities of Gujarat State thereby providing reasonable sample size to cover the population. The level of significance at 5% is considered. For data collection a structured questionnaire was designed, which consisted of 15 questions which were demographic, multiple choice, rating scale & matrix relating to all different factors. The geographical coverage of this study is limited to the major cities of Gujarat state, India. The sampling method used is convenience sampling method, owing to the limitation and rigidities faced during the 2nd COVID wave in India. The study has been conducted over a period of 2 month being March and April of 2021 during which the sample collection and the research report has been completed. The study has three parameters which are age, gender, employment status, and income level. The questions were framed and asked keeping in mind these parameters. Each question asked directly or indirectly related to one of the parameters. The limitations imposed as a result of 2nd wave of COVID-19 in India, the geographical coverage of the sample being limited to major cities of Gujarat state are the limitation of the present study. As a result, a study that covers every city of Gujarat and use of a better sampling method (in absence of any extra ordinary events such as Pandemic) provides an opportunity for further scope of study.

Hypothesis

The objective of the study is to get an idea about the mindset of the people and to study factors affecting the consumer preference towards E-wallet post COVID-19 era. Age, gender, employment status, and income level can affect the consumer preference so this study has 9 hypotheses based on the same. Chi Square test and Correlation have been applied as under;

Table 1

Sr No	Hypothesis Framework	Test Applied
1	Ho1 - There is no impact/influence of Gender on Preference of digital payment method	Chi Square
2	Ho2 - There is no impact/influence of Employment status on Preference of digital payment method	Chi Square
3	Ho3 - There is no impact/influence of Yearly Income on Preference of digital payment method	Chi Square

4	Ho4 - There is no impact/influence of Ease of Payment on Preference of digital payment method	Chi Square
5	Ho5 - There is no impact/influence of Digital record of transaction on Preference of digital payment method	Chi Square
6	Ho6 - There is no impact/influence of Time saving on Preference of digital payment method	Chi Square
7	Ho7 - There is no significant relationship between Employment Status and Number of transactions in a month	Correlation
8	Ho8 - There is no significant relationship No. of Transactions in a month and Satisfaction of Using Digital Payment/ E-wallet	Correlation
9	Ho9 - There is no significant relationship Purpose of Using and Satisfaction of using Digital Payment/ E-wallet.	Correlation

The data has been collected from 308 respondents out of which 192 were males and remaining 116 are female respondents. Majority of the respondents were from age group of 18-25 years of age. The respondents were majorly students. The questions used to know and understand the factors affecting the usage as well as mindset of consumers were related to consumers' awareness, their attitude towards e-wallets or digital payments and how frequently they use such platforms. To get knowledge about consumers' mindset there were other questions that they had to answer.

Analytical Procedure

The survey was taken from 308 respondents asking about various questions related to their preference regarding digital payment. The results are as follows:
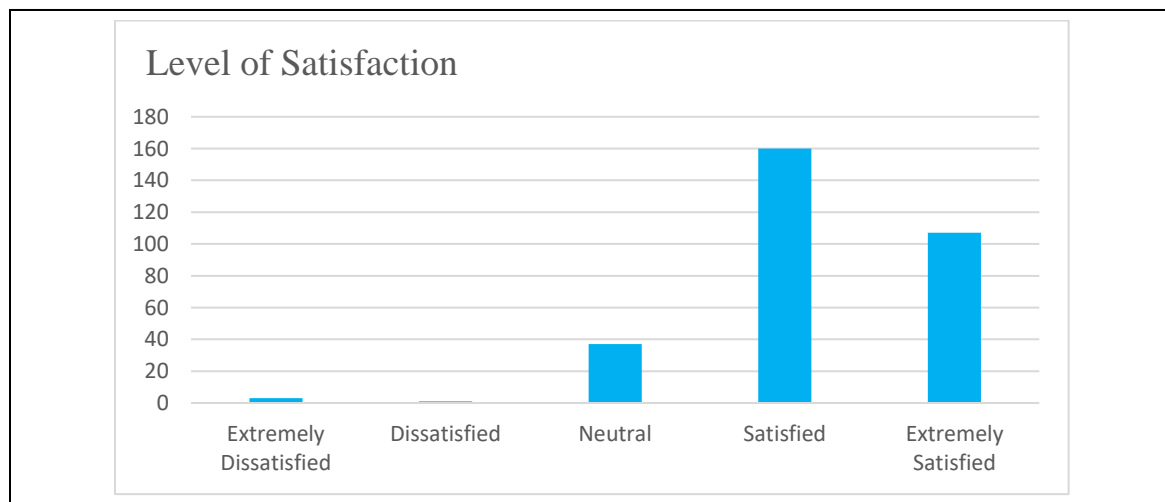
In this chart the X axis shows the level of satisfaction and the Y axis shows the number of respondents. There are 3 respondents (0.97%) who are extremely dissatisfied, 1 respondent (0.32%) who is dissatisfied, 37 respondents (12.01%) who are neutral about it, 160 respondents (51.95%) who are satisfied and 107 respondents (34.7%) who are extremely satisfied. From this data we can interpret that out of total respondents overall has a positive level of satisfaction regarding use of digital payment/E-wallet.

Figure 2 Purpose of Using
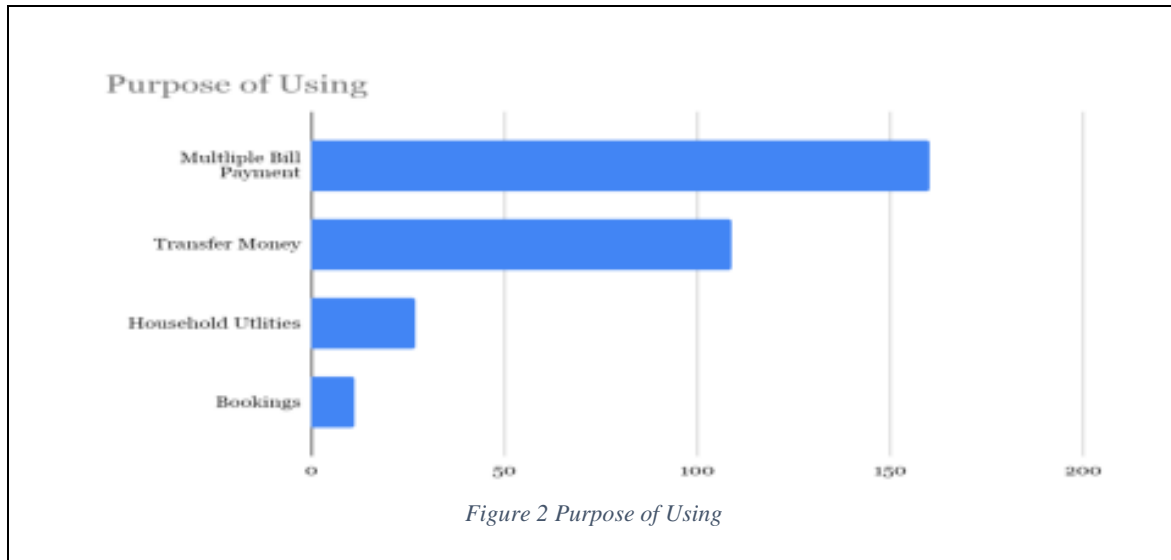
There are various purposes of using such platforms but the main purpose for which they use the most is known from the data collected. We can interpret that 160 out of 308 respondents which is 51.95% uses this platform their main purpose is multiple bill payment, then 109 out of 308 respondents which is 35.39% uses this platform main purpose is for transferring money, 27 people

Figure 3 Number of transactions in a month
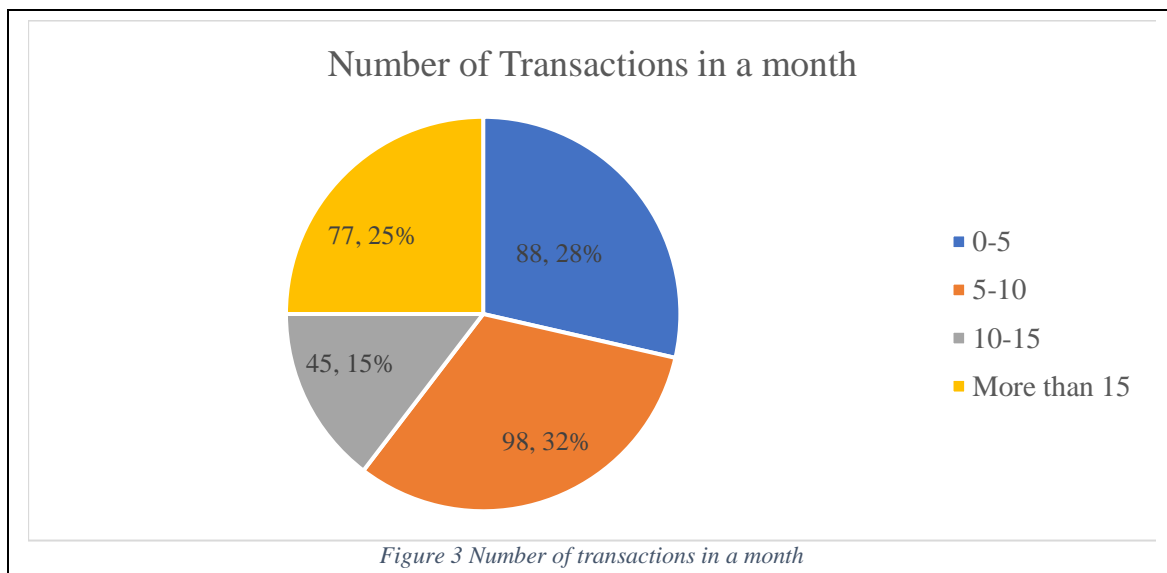
which is 8.77% their main purpose is using the service for household utilities and 12 respondents which is 3.9% their main purpose is for bookings.

From this data we get to know the frequency of using any digital payment or e wallet in a month. 32% of total i.e., 98 respondents have 5-10 transactions from the digital method, 28% of total i.e., 88 respondents use or do transactions in between 0-5 frequency, 25% of total i.e., 77 respondents use for transactions which are more than 15 and 15% of total i.e., 45 people use between 10-15 transactions.

Hypothesis Testing

Table 2

Sr No	Hypothesis Framework	Significance P-Value	Hypothesis Accepted
1	Ho1 - There is no impact/influence of Gender on Preference of digital payment method	0.119	Null Hypothesis
2	Ho2 - There is no impact/influence of Employment status on Preference of digital payment method	0.135	Null Hypothesis
3	Ho3 - There is no impact/influence of Yearly Income on Preference of digital payment method	0.069	Null Hypothesis
4	Ho4 - There is no impact/influence of Ease of Payment on Preference of digital payment method	0.01	Alternate Hypothesis
5	Ho5 - There is no impact/influence of Digital record of transaction on Preference of digital payment method	0.004	Alternate Hypothesis
6	Ho6 - There is no impact/influence of Time saving on Preference of digital payment method	0.014	Alternate Hypothesis
7	Ho7 - There is no significant relationship between Employment Status and Number of transactions in a month	0.000	Alternate Hypothesis

8	Ho8 - There is no significant relationship No. of Transactions in a month and Satisfaction of Using Digital Payment/ E-wallet	0.000	Alternate Hypothesis
9	Ho9 - There is no significant relationship Purpose of Using and Satisfaction of using Digital Payment/ E-wallet.	0.101	Null Hypothesis

Accepted Ho1: There is no impact/influence of Gender on Preference of digital payment method.

In case of Chi-Square test, the value of Asymptotic Significance i.e., P-value is more than the Alpha Value (Level of Significance). 0.119>0.05. This means that Null Hypothesis is accepted. Hence, we conclude that there is no there is no impact/influence of age on preference of digital payment method

Accepted Ho2: There is no impact/influence of Employment status on Preference of digital payment method.

In the case of the Chi-Square test, the value of Asymptotic Significance i.e., P-value is more than the Alpha Value (Level of Significance). 0.135>0.05. This means that Null Hypothesis is accepted. Hence, we conclude that there is no impact/influence of Employment status on preference of digital payment method.

Accepted Ho3: There is no impact/influence of Yearly Income on Preference of digital payment method.

In case of Chi-Square test, the value of Asymptotic Significance i.e., P-value is more than the Alpha Value (Level of Significance). 0.069>0.05. This means that Null Hypothesis is accepted. Hence, we conclude that there is no impact/influence of Yearly Income on Preference of digital payment method.

Accepted Ha4: There is impact/influence of Ease of Payment on Preference of digital payment method.

In case of Chi-Square test, the value of Asymptotic Significance i.e., P-value is more than the Alpha Value (Level of Significance). 0.010<0.05. This means that Alternate Hypothesis is accepted. Hence, we conclude that there is no there is an impact/influence of ease of payment on preference of digital payment method.

Accepted Ha5: There is an impact/influence of Digital record of transaction on Preference of digital payment method

In case of Chi-Square test, the value of Asymptotic Significance i.e., P-value is more than the Alpha Value (Level of Significance). 0.04<0.05. This means that Alternate Hypothesis is accepted. Hence, we conclude that there is an impact/influence of digital record of transaction on preference of digital payment method

Accepted Ha6: There is an impact/influence of Time saving on Preference of digital payment method

In case of Chi-Square test, the value of Asymptotic Significance i.e., P-value is more than the Alpha Value (Level of Significance). 0.014<0.05. This means that Alternate Hypothesis is accepted. Hence, we conclude that there is an impact/influence of time saving on preference of digital payment method

Accepted Ha7: There is a significant relationship between Employment status and Number of Transaction in Month.

The significance value is less than the alpha value i.e., 0.00<0.05. Hence, the alternate hypothesis is accepted. This mean there is a significant relation between the variables in given case. The correlation between Employment Status and Number of a transactions in a month is 0.227. This suggests that the relation between Employment Status and Number of a transactions is positively correlated. The value 0.227 suggests less than moderate degree of relationship between Employment Status and Number of a transactions. Hence, we can conclude that there exists direct relationship between Employment Status and Number of transactions done in a month.

Accepted Ha8: There is a significant relationship between Number of Transactions in a month and Satisfaction of Using Digital Payment/ E-wallet.

The significance value is less than the alpha value i.e., 0.00<0.05. Hence, the alternate hypothesis is accepted. This mean there is a significant relation between the variables in given case. The correlation between Number of transactions in a month and Satisfaction of using Digital Payment/E-wallet is 0.272. This suggests that the relation between Number of transactions in a month and Satisfaction of using Digital Payment/E-wallet is positively correlated. The value 0.272 suggest less than moderate degree of relationship between Employment Status and Number of a transactions. Hence, we can conclude that there exists direct relationship between Number of Transactions in a month and Satisfaction of Using Digital Payment/ E-wallet

Accepted Ho9: There is no significant relationship Purpose of Using and Satisfaction of using Digital Payment/Wallet

From the above, we can observe that the significance value is more than the alpha value i.e., 0.101>0.05. Hence, the Null hypothesis is accepted. This mean there is no significant relation between the variables in given case. Hence, we can conclude that there exists no relationship between Number of Transactions in a month and Satisfaction of Using Digital Payment/ E-wallet.

Conclusion

In this research we have shown the graphical representation of the data which has been collected through the questionnaire. That graphical representation helps us to visually analyse and interpret the data and, in this research, it provides with strong findings. The study of this research is about customer preference towards e-wallets and digital payments application in the post covid-19 era so we have shown the graph regarding the consumer if they have started using the digital platform before or after COVID-19 pandemic, so from we could conclude that the ratio of people using after the COVID-19 pandemic is much less than the respondent who have been using it before COVID-19 pandemic. The other graphical representation covers the demographic factors which includes age, gender, employment status and yearly income which affects the preference of the consumer regarding digital payment/e-wallet. In this we have asked the respondents about their most preferred reason or factor which affects their behaviour so according to the data collected we can conclude that according to the respondents given ranking the reason of "ease of payment" is the most influenced factor. As there are reasons which have a positive impact and there are also reasons which have a negative impact so we have asked respondents to rank the drawbacks according to their preference and by the data collected we can conclude that "technical glitches" is the major drawback. There are various platforms available for the digital payment/e-wallet so we have listed few platforms and asked the respondents to rank them. From that collected data we conclude that UPI is the most favourable platform amongst all. This was concluded and we had also listed a few UPI supported applications and from that we asked the respondents to rank the applications and from that Google Pay was the most preferred amongst all other applications. One of the major findings was about the satisfaction level of the respondents i.e., more than 80% of the respondents were satisfied with using the digital payment/e-wallet platforms. Gender has no impact/influence on the consumer's preference towards usage of E-wallet or Digital Payment Applications. This can be aligned with the rationale that due to the crisis situation that Pandemic has brought upon us, the people, irrespective of the gender, are left with no option but to shift the method of transaction from cash to cash-less thereby leading to use of E-wallets and Digital Payment Applications. Therefore, it is due to compulsive nature of Pandemic situation that gender has no impact upon the preference towards usage of E-wallet and Digital Payment Applications. Employment status and yearly Income generally impacts the decision of choosing a particular method or manner for their requirements. However, through our research we have reached to the conclusion that these two factors do not have impact on the consumer's preference towards use of E-wallet or Digital Payments Application. With this, we come to an understanding that demographic factors such as gender, employment status and yearly income have no influence on consumer's behaviours in regards to usage of E-wallets/Digital Payment Applications. This conclusion can be helpful for many fintech companies who may decide to not waste their time and resources upon demographic factors for the purpose of STP (Segmentation, Targeting and Positioning). We have been able to determine few factors that impact the consumer's preference towards usage of E-wallets and Digital Payment Methods. There are many reasons due to which people prefer the usage of E-wallets and Digital Payment Methods during this Covid-19 Era.

Through our research, we have found and concluded that the convenience factors such as ease of payment, time saving and digital record of transaction have impact on the consumer's preference towards use of E-wallets/ Digital Payment Methods. This conclusive information can be used by the fintech companies to market their product and have effective advertising that can appeal to the convenience and comfort factors that a customer refers to. The employment status and the number of transactions done in a month over e-wallet or digital payment application has a direct relationship. Although our findings have concluded that there is a significant relationship, we need to consider that the degree of relationship, being positive, is less than moderate level. But surely it does show the positive impact that employment status has on number of transactions done in a month over e-wallets/ digital payment applications. The same is the case with variables - number of transactions in a month and satisfaction level of using the e-wallet/ digital payment application. There is a significant relationship between them which is direct in nature. The degree of relationship is less than moderate level but it does have potential of impact. There is no relationship between the purpose of using e-wallet/digital payment applications and the satisfaction level of using the e-wallet/ digital payment application. Therefore, these two are independent of each other. This information can be used by fintech companies. Many e-wallet and digital payment applications have inbuilt services such as Mutual fund investment, Life Insurance policies, etc. The same may not lead to increase in customer satisfaction or enriching consumer experience since the customer satisfaction level and the purpose of using the e-wallet and digital payment method are independent of each other.

Important managerial/ policy implications of the study are a) the fintech industry can provide inbuilt services such investment in shares and securities, b) e-wallet companies can make better promotions by focusing on convenience factors that impact consumer preference rather than focusing on appeals relating to demographic factors, c) the present study can serve as a foundation to expect consumer preference towards better technologies in case any similar unfortunate event as Pandemic occurs in future. Also, the findings of the present study can be taken as a base to determine the changing patterns in other cities of India if badly hit by Pandemic in coming times.

In a nutshell, the conclusions obtained from the research have the potential to have application and implication on the population. The research has given us important insights into the consumer behaviour towards preference of e-wallet/digital payment methods post the Covid-19 Era. The factors that have impact on the consumer behaviour turned out to be convenience factors. The consumer behaviour in respect to preference towards e-wallet and digital payment applications do not get influenced by the demographic factors such as gender, employment status and yearly income. While the country is still facing the Second wave of Covid-19 and in lieu of the expected Third wave of Covid-19 by medical experts, this research seems to remain quite relevant for foreseeable future.

Bibliography

1. Agarwal, V., Poddar, S., & Karnavat, S. J. (2020). A STUDY ON GROWTH OF MOBILE BANKING IN INDIA DURING COVID-19. *Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(6), ISSN 1567-214x.*

2. Allam, Z. (2020). The Forceful Reevaluation of Cash-Based Transactions by COVID-19 and Its Opportunities to Transition to Cashless Systems in Digital Urban Networks. *Elsevier Public Health Emergency Collection*, 107-117.

3. Belgavi, V., & Gandhi, M. (2020). *Impact of Covid 19 outbreak on digital payment.* PwC.

4. Bijapurkar, R., Rai, P., Shukla, D., & Sachdeva, V. (2020). *Digital payments adaption in India, 2020.* Mumbai: NPCI.

5. Itai Agur, S. M. (2020). *Digital Financial Services and the Pandemic: Opportunities and Risks for Emerging and Developing Economies.* Washington: IMF.

6. Jain, A., Sarupria, A., & Kothari, A. (2020, June). The Impact of COVID-19 on E-wallet's Payments in Indian Economy. *IJCRT, 8*(6), 2447-2454.

7. Kaur, G., & Kushwaha, B. P. (2021). Digital Payment Systems A Way to Protect One Another From Coronavirus. *Journal of Contemporary Issues in Business and Government Vol. 27, No. 1, 2021 P-ISSN: 2204-1990; E-ISSN: 1323-6903*.

8. Kumar, P. S. (2020). UPI- An innovative step for making digital payment effective and consumer perception on unified payment interface. *The international journal of analytical and experimental modal analysis*, 2482-2491.

9. Manda, V., & Margana, S. (2019). Transformation towards Cashless Economy - An Indian Perpective. *Proceedings of 10th International Conference on Digital Strategies for Organizational Success* (pp. 98-991). SSRN.

10. Revathy, D., & Balaji, D. (2020). Determinants of behavioral intention on e-wallet usage: an emprical examination in covid-19 lockdown. *"International Journal of Management (IJM)*.

11. Saha, R. (2020). Digital Payments Usage During Covid19 Pandemic with Special Reference To E-Wallet Users In Guwahati City. *IJMER, 10*(1(2)), 24-28.

12. Sreelakshmi, C., & Prathap, S. K. (2020). Continuance adoption of mobilebased payments in Covid-19 context: an integrated framework of health belief model and expectation confirmation model. *International Journal of Pervasive Computing and Communications Vol. 16 No. 4, 2020 pp. 351-369 © Emerald Publishing Limited 1742-7371*, 351-368.

13. Subaramaniam, K. (2020). The Impact of E-Wallets for Current. *Journal of Adv Research in Dynamical & Control Systems*, 751-759.

14. Tomasz Piotr Wisniewski, M. P. (2021). *Switching from Cash to Cashless Payments during the COVID-19 Pandemic and Beyond.* Walton Hall: SSRN.

Political Skill as a Moderator between Emotional Intelligence and Organizational Citizenship Behaviour

Divyesh Patel

PhD Scholar, P P Savani University Surat

Dr Tejal Patel

Associate Professor, P P Savani University Surat

Abstract

Employees are contemplated as an indispensable pillar of the organization. Their attitudes and behaviours at the workplace have a drastic effect on organizational performance and success. Employees' emotional intelligence and political skill at the workplace have immense importance in shaping their behaviours and attitudes. The intent of this paper is to study the literature and the previous research which were conducted on the relationship between Emotional Intelligence and Organization Citizenship behaviour, and to check whether Political Skills have a role to play as a moderator in establishing relationship between EI and OCB. Total 40+ Papers have been reviewed and then 28 papers have been taken into consideration for the study as a literature review, Out of Which 25 Papers demonstrate direct relationship between EI and OCB. 6 Papers shows positive role of Political skills as a moderator between EI and OCB. Most of the research done on political skills as a moderator between EI And OCB is based in Pakistan, Iran And United States and very scant attention is been given to PS in Other Countries. Hence this study aims to identify the gaps and look for the scope of new research to be done in newer geographical domain.

Keywords: Emotional Intelligence, Organizational Citizenship Behaviour, Political Skills.

Introduction

1. Emotional Intelligence

Human body is a unique chemical factory and our thoughts and emotions play a wide role in governing this chemical factory. It is estimated that almost upto90% of our decisions we make are the result of our dominating emotions at that very present moment, only 10% is allotted to our thoughts and our physicality. Emotional Intelligence have been the hot topic for the psychologists since two decades and much have been studied so far, because of the underlying reason that the IQ is no more the single predictor of organizational success. EQ plays a major role in determining the organizational as well as individual success. Journey of EI has been very long because first of all it was famous with some other names since 1940. But it gained more popularity from 1990 when scholars deeply studied EI in organizational context.

Salovey and Mayer (1990) first introduced the concept of emotional intelligence as a type of social intelligence, separable from general intelligence. According to them, emotional intelligence is the ability to monitor one's own and others' emotions, to discriminate among them, and use the information to guide one's thinking and actions. Research has shown that emotional intelligence is the common element that influences the different ways in which people develop in their lives, jobs, and social skills; handle frustration; control their emotions; and get along with other people. It has been found that the difference between a simply brilliant person and a brilliant manager is a person's emotional intelligence. Ultimately, it is emotional intelligence that dictates the way people deal with one another and understand emotions.

4 Aspects of Salovey and Mayer Models Are: 1) Perceiving Emotions: ability to identify emotions in ourselves, others, and as represented by objects, such as pictures, as well as the ability to express emotions accurately. 2) Handling Emotions: Use of emotions to prioritize thought and utilizes feelings as aids to judgment. Changes in mood lead to changes in perspective 3) Understanding Emotions: The understanding and analysing emotions branch involves the accurate labelling of emotions, understanding emotions and relationships, understanding complex feeling. 4) Regulating Emotions: The reflective regulation of emotion branch involves the ability to stay open to feelings, reflectively engaging and detaching from feelings as appropriate and managing emotions in self and attempting to influence them in others.

Reuven Bar-on (2004) developed the attempt to assess EI in terms of a measure of well-being. In his doctoral dissertation he used the term emotional quotient (EQ). 5 aspects of Bar on model are: 1) Self Perception: Self-perception is comprised of self-regard, self-actualization and emotional self-awareness. 2) Self Expressions: Self-expression is comprised of emotional expression, assertiveness and independence. 3) Interpersonal: Interpersonal is comprised of interpersonal relationships, empathy and social responsibility. 4) Decision Making: Decision making is comprised of problem solving, reality testing and impulse control. 5) Stress Management: Stress management is comprised of flexibility, stress tolerance and optimism.

(Goleman, 1998) stated that EI is our capacity to motivate ourselves and manage our emotion when we interact with other people. He suggested that EQ has multidimensional construct that consist on five components which are self-awareness, self-regulation, motivation, empathy and social skills. 4 Aspects of Goleman Model Are: 1) Self Awareness: Self-awareness concerns knowing one's internal states, preferences, resources, and intuitions. The self-awareness cluster contains three competencies: emotional awareness, accurate self-assessment, and self-confidence. 2) Social Awareness: Social awareness refers to how people handle relationships and awareness of others' feelings, needs, and concerns. The social-awareness cluster contains three competencies: empathy, organizational awareness and service orientation. 3) Self-Management: Self-management refers to managing one's internal states, impulses, and resources. The self-management cluster contains six competencies: emotional self-control, transparency, adaptability, achievement, initiative, and optimism. 4) Relationship Management: Relationship management concerns the skill or adeptness at inducing desirable responses in others. The relationship management cluster contains six competencies: developing others, inspirational leadership, change catalyst, influence, conflict management and teamwork and collaboration.

2. Organizational Citizenship Behaviour

OCB is also known as extra-role behaviors which are the act of performing beyond the stated job requirement. Subordinates impulsively go beyond the employment contract and carry out non-obligatory task without expecting explicit rewards and recognition (Organ, 1988). Hence, understanding the determining conditions and reasons that lead to such behaviors is instrumental to yield an insight into when and how these acts happen. As OCB is normally labeled as positive behavior, those who exhibit OCB may become more socially attractive which makes them more likely to be appreciated as friends or partners. Literatures in the past have identified two main approaches known as "role" and "extra-role behavior" in defining the concept of OCB. Extra role means the individual contributions in the workplace which go beyond the specified role requirements and not recognized by the reward system. A great deal of researches have suggested that there are five basic personality factors which affect most of the variance in personality (e.g., Costa & McCrae, 1992) and these dimensions are known as Big Five dimensions which are classified as conscientiousness, altruism, courtesy, sportsmanship, and civic virtue. 1) Civic Virtue: It is referring to the responsibility of the subordinates to participate in the life of the firm such as attending meetings which are not required by the firm and keeping up with the changes in the organization (Organ, 1988). 2) Conscientiousness: Conscientiousness is used to indicate that a particular individual is organized, accountable and hardworking. Organ (1988) defined it as dedication to the job which exceed formal requirements such as working long hours, and volunteer to perform jobs besides duties. 3) Altruism: Smith, Organ, and Near (1983) defined altruism as voluntary behaviors where an employee provides assistance to an individual with a particular problem

to complete his or her task under unusual circumstances. Altruism refers to a member helping other members of the organization in their work. 4) Courtesy: Courtesy includes behaviors, which focus on the prevention of problems and taking the necessary step so as to lessen the effects of the problem in the future. In other words, courtesy means a member encourages other workers when they are demoralized and feel discouraged about their professional development. Early research efforts have found that employees who exhibit courtesy would reduce intergroup conflict and thereby diminishes the time spent on conflict management activities (Podsakoff et al. 2000). 5) Sportsmanship: Organ (1988) defined sportsmanship as the behavior of warmly tolerating the irritations that are an unavoidable part of nearly every organizational setting. Podsakoff and MacKenzie (1997) revealed that good sportsmanship would enhance the morale of the work group and subsequently reduce employee turnover.

3. Political skills

Organizations in literature are accepted as political arena (Mintzberg, 1983). Moreover Mintzberg (1983) contributed to literature that PS is necessary to utilize influence behavior effectively in organizations through manipulation, persuasion and negotiation. Furthermore, Ferris (2007) argued that there are four dimensions of Political Skills Apparent sincerity, Social astuteness, Networking ability, and Interpersonal influence. 1) Apparent Sincerity: means high level of honesty, sincerity and integrity. The people having apparent sincerity are not manipulative and coercive they inspire others with trust. 2) Social astuteness: people observe others astutely. They have the ability to well perform social interactions and to interpret own and others behavior accurately. Such people are sensitive to behavior of others argued by Pfeffer (1992). Socially astute peoples are ingenious show cleverness in dealing with others. 3) Interpersonal influence: the third dimension the people with PS influence others with their convincing style, this dimension as explained by Pfeffer (1992) as flexibility people used to adopt the behavior of others in different situations for different targets in different context. 4) Individuals networking ability: it is to develop and maintain diverse social contacts with others, they consider such contacts as assets essential for organization and personal gains. Pfeffer (1992) argued that they can create and take opportunities and merits from. In addition they are well in managing conflicts dealing with other skilled Negotiators.

4. EI and OCB

The two specific organizational citizenship behaviours of followers driven by the emotional intelligence of the leader were conscientiousness and altruism. Since the emotional intelligence of leaders did affect the organizational citizenship behaviours of followers, the results indicate that emotional intelligence is an important component for being an effective

leader. The emotional intelligence of managers had a positive correlation with the conscientiousness of the subordinates. When understood and appreciated by their leaders, the subordinates may feel motivated and satisfied with their jobs and may reciprocate by being conscientious. In addition, the emotional intelligence of managers was found to have a positive correlation with the altruism of the subordinates. Since the superior believes in creating a work family, holding up a vision that benefits all, the followers are motivated to attain the organizational objectives as a team, thus helping one another to accomplishment. Therefore, the emotional intelligence of a leader plays a significant role in determining the two specific organizational citizenship behaviours of followers. (Ahmadzadeh Mashinchi, S. (2011). An analysis of correlation between organizational citizenship behavior (OCB) and emotional intelligence (EI). *Modern Applied Science*, *5*(2), 119-123)

5. EI and PS

EI and political skill are interlinked with each other because people with high level of emotional intelligence have better understanding and abilities regarding political skill. Ferris tested and found positive relationship between these two variables. Meisler explored the relationship between EI and political skills. Literature also shows a significant positive relationship between these two variables. Higher level of EI is positively related with organizational politics. Meisler also found a positive relationship between EI and political skill. Emotionally intelligent employees can easily understand others through the proper and accurate appraisal of emotions, EI also have ability to regulate emotions such a way that can positively attract others at workplace.

(Riaz, F., Naeem, S., Khanzada, B., & Butt, K. (2018). Impact of emotional intelligence on turnover intention, job performance and organizational citizenship behavior with mediating role of political skill. *J. Health Educ. Res. Dev*, *6*, 250)

6. EI PS and OCB

Goleman (1995) argued that Emotional Intelligence is an essential ingredient for success in Organization. However PS can act as a mediator in association between organizational variables. Studies have addressed these previously ignored issues and explore the association between EI and both political skills and organization citizenship behaviour as well as the possibility that political skills mediates the relationship between EI and OCB, so studies suggested that there is a significant positive relationship between emotional intelligence and political skills and organizational citizenship behaviour. Moreover it is suggested that political skills significantly mediates the relationship between EI and OCB. Furthermore the findings also support the fact that PS positively significantly mediates the relationship between EI and OCB. Empirical results

demonstrate that there is a partial mediation. (Butt, S. S., Nisar, Q. A., Nadeem, S., & Baig, F. (2017). Longitudinal study to examine the influence of emotional intelligence on organizational citizenship behavior: Mediating role of political skills. *WALIA journal*, *33*(1), 54-63)

Literature Review

1. Relationship of EI and OCB

Korkmaz, T., & Arpacı, E. (2009) examines the relationship of organizational citizenship behavior (OCB) with emotional intelligence (EI) of the followers. The two specific organizational citizenship behaviors of followers driven by the emotional intelligence of the leader were conscientiousness and altruism. Since the emotional intelligence of leaders did affect the organizational citizenship behaviors of followers, the results indicate that emotional intelligence is an important component for being an effective leader.

Khalid, S. A., Kassim, K. M., Ismail, M., Noor, A. N. M., Rahman, N. A., & Zain, R. S. (2009) examines the influence of personal factors, emotional intelligence and organizational citizenship behaviors on deviant behaviors. Their study indicated that sportsmanship and emotional intelligence significantly and negatively associated with deviant behaviors. The results also indicate that male students and those with lower academic achievement had significantly higher level of deviant behaviors. Further Suggested impact of demographic factors can be studied.

Ahmadzadeh Mashinchi, S. (2011) examines the relationship of organizational citizenship behavior (OCB) with emotional intelligence (EI) of the followers. Organizational citizenship behavior can be defined as voluntary and spontaneous behaviors that extend beyond employees' normal job duties. In other word, Organizational citizenship behaviors (OCB) describe actions in which employees are willing to go above and beyond their prescribed role requirements. Emotional intelligence was significantly correlated to conscientiousness, civic virtue, and altruistic behaviors of followers.

Salarzehi, H., Yaghoubi, N. M., Naroei, M., & Sin, L. G. (2011). examines the relationship of Emotional Intelligence (EI) with Organizational Citizenship Behavior (OCB). The result shows that there is strong statistical relation between EI and OCB. They also found that conscientiousness and altruism are the variables from OCB which have strong relation to EI.

Chin, S. T. S., Anantharaman, R. N., & Tong, D. Y. K. (2011) studied the level of emotional intelligence among executives in small and medium sized enterprises particularly from the manufacturing sector. SMEs have problems in attracting and retaining their employees. Results from the study show that employees in the SMEs do experience some kind of experiences that affect their working attitudes. Their initial study provides many insights especially to the areas

where respondents show a low level of emotional intelligence. The low level of emotional intelligence is related to the nature of work involved especially when it involves a high level of stress. Large Sample Size Could be taken for further Study.

Gupta, B. (2012) States That Organisational citizenship behaviours (OCB) have been the topic of much research attempting to understand the antecedents and impacts of these behaviours on organisational effectiveness. Her study examines the role of emotional intelligence (EI) on employees' involvement in OCBs. Respondents from six organisations completed EI and OCBs questionnaires. The results of this study indicated significant differences between the employees with high and low EI for the involvement in OCBs. Further, employees with high EI were more involved in OCBs such as individual initiative, personal industry and loyal boosterism. There was no significant difference between high and low emotional intelligent employees on interpersonal helping behaviour. Study with large sample size was also recommended.

Antony, J. M. (2013) Studied to determine the influence of Emotional Intelligence on Organizational Commitment and Organizational Citizenship Behaviour. Commitment and Citizenship behaviour are vital aspects of the organizational world. This study makes use of a sample of 115 Executives working at FCI OEN Connectors, Cochin and Kerala. The tools used for the study are Emotional Intelligence Inventory, The Organizational Commitment Questionnaire and The Organizational Citizenship Behaviour Scale. The statistics used for the study are standard deviation and Pearson's product moment correlation. The results indicate that a positive relationship existed between Emotional Intelligence, Organizational Commitment and Organizational Citizenship Behaviour.

Tofighi, M., Tirgari, B., Fooladvandi, M., Rasouli, F., & Jalali, M. (2015) examined several factors including emotional intelligence affect the efficiency of people. It seems that organizational behaviour of each person is strongly influenced by emotional intelligence. The study suggests that health care managers should organize systematic and dynamic policies and procedures in dealing with emotional intelligence and organizational citizenship behaviour to assist critical and emergency nurses

Narayanan, K. (2016) studied to determine the relationship of emotional intelligence with organizational citizenship behavior. Descriptive and analytical design was adopted and 344 employees from manufacturing firms formed as the sample for the study. The results indicate the attributes of emotional intelligence i.e. self-awareness, understanding emotion, ability to sense emotion and acknowledge emotion, goal setting and its achievement, believing to be a competent person , self-motivation, self-encouragement to try best significantly differ with the dimensions of organizational citizenship behavior and self-control sensitive to feeling and emotion attribute does not significantly differ with the dimensions of organizational citizenship behavior. It was also suggested to study effect of Yoga on EI.

Sharma, K., & Mahajan, P. (2017) studied the relationship of emotional intelligence with organizational citizenship behaviour (OCB).The understanding of Emotional Intelligence (EI) in employees is emphasized because human relations in organisations are influenced by emotional factors more than by rational factors. It is the ability to understand ones emotions and inspire, influence and understand other people's emotions. The fundamental notion behind this study is that employees who exhibit OCB along with Emotional Intelligence (EI) will ultimately increase their productivity which in turn enhances the performance of the organization.

Dirican, A. H., & Erdil, O. (2020) focus on the relationship between ability-based emotional intelligence and discretionary workplace behaviours, that is organizational citizenship behaviour (OCB) and counterproductive work behaviour (CWB). The findings of their study suggested that ability based emotional intelligence assumes an important role in increasing organizational citizenship behaviours and reducing counter productive workplace behaviours in the workplace. Further suggested that more variables can be included in different context.

Mandaviya, M., Gajera, A., & Raval, N. (2020) examined That Positive Organisational Citizenship behaviour (POCB) focuses on "positive paradigms" in the organizations which benefits employees. Encapsulated skills of Emotional Intelligence will support employees to develop their cognitive skills. Positive Organisational Citizenship behaviour (POCB) has been a major construct in the field of I/O Psychology. PsyCap research outcome has been classified as into high potential psychological capabilities such as trust, emotional efficiency, optimism, social and cognitive skills and subjective well-being. Longitudinal Study was recommended for further study.

Sridevi, K. B. (2021) States That Emotional Intelligence is one of the most talked topics in the human resource domain today. Many organisations have recognized the importance of studying and analysing the Emotional Intelligence of their employees as it helps the organisation in understanding their employees, solving critical interpersonal problems, Adopting appropriate training programs and on a broader basis helps improving productivity. The study involves in assessment of the relationship between Emotional Intelligence and Organisational Commitment in manufacturing sector with special reference to a private tea manufacturing company in Nilgiris with 60 employees. The factors of Emotional Intelligence that have a significant impact on Organisational Commitment have also been analysed and insights have been obtained. It was suggested that more sample size to be taken for the future study.

2. Relationship of EI, OCB and Other Variables

Salami, S. O. (2010) studied the relationship between conflict resolution strategies and organizational citizenship behaviour (OCB) and the moderating role of trait Emotional Intelligence (EI) were investigated. The results indicate that forcing and withdrawing strategies negatively

and significantly predicted OCB. Confronting, compromising, and smoothing strategies significantly predicted OCB. Trait EI moderated the relationship between OCB and forcing and withdrawing strategies. It was recommended that counselling and organizational psychologists should design trait EI education and training in conflict resolution for both subordinates and superiors in work organizations.

Chaudhry, A., & Usman, A. (2011) examines the relationship between employees' emotional intelligence and their performance. The results revealed a moderately high correlation between emotional intelligence and organizational citizenship behaviour. It was also established that employees job performance can be predicted significantly based upon their emotional intelligence scores. It was also suggested to consider more dependent variables.

Jain, A. K. (2012) has examined the moderating impact of impression management motive on the relationship of emotional intelligence (EI) and Organizational Citizenship Behaviors(OCBs). Data were collected by administering self-rated questionnaires to male middle level executives based in motor cycle manufacturing organizations based in northern India. Results as analyzed through moderated regression analysis demonstrated the significant negative impact of impression management motive on therelationship of EI and OCBs. However, EI and impression management had predicted OCBs positively. These findings advance the research on the concepts of EI, impression management and OCBs in the area of organizational psychology. Further suggested to conduct more study in Indian Context taking more variables.

Cohen, A., & Abedallah, M. (2015) examined the relationship between emotional intelligence (EI), self-efficacy and two outcome variables: in-role performance and organizational citizenship behaviour (OCB). The study also examined whether burnout mediates this relationship. The target population included Arab teachers in Israel. Hierarchical linear models and mediation analyses showed that EI and self-efficacy are related to OCB, and in-role performance and burnout have a strong and negative relationship with the outcome variables. The findings emphasize the role of the two personal variables examined here as important determinants of job performance and OCB, and demonstrate the importance of burnout in understanding OCB. Furthermore It was suggested studying other cultures.

Irshad, R., & Hashmi, M. S. (2014) investigates the mediating role of EI on the relationship between OCB and transformational leadership (TL). The results provide an evidence for the mediating effect of EI on the relationship between TL and OCB. More Study can be conducted in different countries other than Pakistan.

Pradhan, R. K., Jena, L. K., & Bhattacharya, P. (2016) examined employed professionals identified through convenience sampling in Indian manufacturing and service industries. After establishing the psychometric properties of the scales hypotheses were tested through structural equation modeling. The results show that Psy-cap is positively related to OCB. The study's major

hypothesis that EI moderates the relationship between Psy-cap and OCB was also supported. Goleman's Mixed Model Could be testified for the Further Studies.

Majeed, N., Ramayah, T., Mustamil, N. M., Nazri, M., & Jamshed, S. (2017) explored the association amongst transformational leadership and organizational citizenship behaviour of teachers in public sector higher education institutions in Pakistan. Study of organizational citizenship behaviour in educational organizations and academicians is of high value that definitely requires attention. The results support and add to the positive effects of transformational leadership style interconnected with extra role behaviour at work making it more meaningful. The findings make a significant contribution to leadership and organizational behaviour literature in higher education sector and propose that organizations should implement practices that help in enhancing the level of organizational citizenship behaviour in organizations. Mediating Variable could be used for the further study.

Widiani, N. P., Putri, A. M. A. D., Sari, M. M. R., & Wirajaya, I. G. A. (2019) studied love of money, organizational citizenship behavior, and emotional intelligence, employee performance. The results of this study are, 1) Love of money has a negative effect on organizational citizenship behavior, 2) emotional intelligence has a significant positive effect on organizational citizenship behavior, 3) love of money does not directly influence employee performance, 4) emotional intelligence has a positive effect significant influence on employee performance 6) Organizational citizenship behavior (OCB) mediates the effect of love of money on employee performance, 7) Organizational citizenship behavior (OCB) mediates the influence of emotional intelligence on employee performance. Future research can also be carried out by considering other variables and different industries.

Jena, L. K. (2021) found that workplace spirituality is indeed positively linked with employee's performance. Organizational citizenship behaviour is positively associated with workplace spirituality and employee performance. Mediation analysis indicated that organizational citizenship behaviour significantly enhances the relationship of workplace spirituality and employee performance. Moderation analysis suggested that employee's emotional intelligence significantly boosts employee performance. Future Research can include variables like organizational politics and organizational justice.

3. Relationship of EI and OCB with PS as A Moderator

Laird, M. D., Zboja, J. J., & Ferris, G. R. (2012) Studied That Political skill demonstrated both direct and indirect effects on the development of personal reputation. In particular, work relationship quality and citizenship behaviour partially mediated the relationship between political skill and personal reputation.

Meisler, G. (2014) Studied that EI was positively related to political skill and job satisfaction. In addition, the findings show that political skill mediates the relationship between EI and job satisfaction. The research highlights the importance of EI and political skill in the workplace. Not enough research attention has been paid to exploring the interplay between EI and organizational politics. The current study clarifies the relationship between EI and political skill in the work arena. Moreover, this study found political skill to be a mediator in the relationship between EI and job satisfaction. Future Research can use Political Skills as mediator between EI and other variables.

Andrews, M. C., Kacmar, K. M., & Harris, K. J. (2009) examined the moderating effects of procedural and distributive justice on the relationships between political skill and task performance and organizational citizenship behavior (OCB). They found that both procedural and distributive justice was low, political skill was positively related to performance. Under conditions of both high procedural and high distributive justice, political skill was negatively related to performance. Finally, under conditions of low distributive justice, political skill was positively related to OCB, whereas under conditions of high distributive justice, political skill had little effect on OCB. Future Research can be conducted in private sector.

Butt, S. S., Nisar, Q. A., Nadeem, S., & Baig, F. (2017) examined the associations between emotional intelligence (EI) and both political skill (PS) and organization citizenship behaviour (OCB) concentrating the mediating role of political skill. Confirmatory factor analysis and structure equation modelling techniques have been used for statistical analysis. Results elaborated that emotional intelligence was positively associated to political skill and organization citizen behaviour. In addition, the findings also demonstrated that political skills significantly mediate the association between emotional intelligence and organization citizenship behaviour. This study highlighted the essence of emotional intelligence and political skills in the workplace to promote the extra role behaviours. Political Skills also needed to be explored more in further studies.

Riaz, F., Naeem, S., Khanzada, B., & Butt, K. (2018) investigated the relationship between Emotional Intelligence (EI), turnover intention, job performance and organizational citizenship behaviour with mediator effects of political skill. EI was found a significant positive relationship with political skill, job performance and organizational citizenship behaviour. However, the results of turnover intention were found to against the both hypothesis where EI was positively related to TI directly as well as through mediation. Furthermore political skill was found as a mediator between EI, TI, JP and OCB. This study extends the scope of EI and political skill through a significant positive relationship which can be viewed at work arena. This research also found political skill to be a mediator in the relationship between EI, turnover intention, job performance and organizational citizenship behaviour.

Ahmad-Mughal, S., Nisar, Q. A., Othman, N., & Kamil, B. A. M. (2017) investigate the impact of emotional intelligence and perception of organizational politics on employees' behaviors and attitudes through the mediation of political skill, their study collected data from employees of the

banking sector of Pakistan. The data were collected through questionnaires by applying non-probability convenient sampling technique. Confirmatory factor analysis (CFA) and structure equation modeling (SEM) techniques have been used for statistical analysis. The results revealed the positive interplay of emotional intelligence with behaviors and attitudes. Further, results also indicated a negative association of perception of organizational politics with behaviors and attitudes. In addition, the findings depicted that political skill mediates the relationship of emotional intelligence with behaviors and attitudes. Further Suggested to conduct studies in more cultures and different countries.

4. Research Gaps

Two Studies Which were carried out in United States of America states that emotional intelligence is directly related to OCB and Employees having high level of political skills tends to dominate the social environment which help them to be a better performer and serve them to climb the ladder of success.

Two Studies carried out in African Region, one took love of money and other took conflict and negotiation as a moderator. Hence it concluded that moods contribute a lot to OCB. Pressure from the superiors can cause conflict and hence which affect the behaviour of the employee. It was also concluded that the power of money have no direct relationship with the job satisfaction, author recommended to study more variables other than money to establish direct relationship with EI and OCB.

Two Studies Carried out In Malaysia, one state that higher level of stress directly affects the emotional intelligence and due to which it becomes tough to retain the employees. Other study states that OCB factor sportsmanship is one the leading Factor which is directly affected by EI Parameters.

Six Studies were conducted in Pakistan, out of which 2 studies directly used PS as A Moderator between EI and OCB, and concluded that PS Mediated EI and OCB moreover it was recommended to conduct the study in different countries other than Pakistan. Very Scant Research has been done with PS as a moderator.

Seven Studies have been conducted in Arab Region, out of which 1 used PS As a moderator between EI and OCB. Political skill has largely been unstudied as a moderator between EI and OCB and this study shows that PS mediated EI and OCB. Also it should be noted that Political Understanding is the component of EI.

Nine Studies have been conducted in India and they used Impression Management, Psychological capital, Organizational Commitment and Job Satisfaction as a moderator between EI and OCB. Authors Recommended using Political skill as a Moderator between EI and OCB.

Conclusion

It is evident from the studies that Emotional intelligence scores predicted the job performance. EI also improves altruism and civic virtue. Sportsmanship affects the behaviour of the employee most probably low scores on sportsmanship predicted deviant behaviour of the employees. Two most important factors of OCB which contribute to the effectiveness of leader are Conscientiousness and Altruism. Different variables also moderated the relationship between EI and OCB, such as Impression Management, Transformational Leadership, Psychological capital, Organizational commitment and Political Skills. All the above factors positively moderated the relationship of EI and OCB and helps in improving the productivity, behaviour and attitude of the employee. EI directly increases the competency of the individual. EI also helps to study other employees well and solve critical problems and improves productivity. Political skills being one of the less studied variables in Academic Research positively affects the personal reputation of the employee in the organization which directly enhances his personality which promotes the extra-role behaviours. Political skills positively moderate Emotional Intelligence and the attitude and behaviours of the employee. Further it is also evidence that very scant attention is been given to political skills as a moderating variable between EI and OCB, apart from that studies conducted on the political skills are mostly based in Pakistan, Iran and United States. Much attention is needed in the Indian Context as far as Political skill is concerned.

Limitations

Current study has gathered information from the EI and OCB literature in order to shed the light on direct relationship between EI and OCB. And what role does PS as a variable play between the direct relationship of EI and OCB. Limitation is no quantitative data has been collected and analysed to prove PS as a moderator between EI and OCB. Only previous studies have been used to justify the study.

Future Scope of the Study

Political skills needed to be given more attention in Indian Context, especially it can be used as a moderating variable between many other variables and a Quantitative research can also be

conducted by collecting data from any sectors of India with a large sample size. Different cultures of India can also be studied. Longitudinal studies can also be performed on the sample to get better results. Different Models of EI can be testified with the different scales of OCB to get better clarity on the relation of parameters of EI and OCB.

References

1. Ackley, D. (2016). Emotional intelligence: A practical review of models, measures, and applications. *Consulting Psychology Journal: Practice and Research*, *68*(4), 269.

2. Ahmad-Mughal, S., Nisar, Q. A., Othman, N., & Kamil, B. A. M. (2017). Do Emotional Intelligence & Organizational Politics influence the Employee Work Behaviors and attitudes? Mediating Role of Political Skill. *Jurnal Pengurusan*, (51).

3. Ahmadzadeh Mashinchi, S. (2011). An analysis of correlation between organizational citizenship behavior (OCB) and emotional intelligence (EI). *Modern Applied Science*, *5*(2), 119-123.

4. Andrews, M. C., Kacmar, K. M., & Harris, K. J. (2009). Got political skill? The impact of justice on the importance of political skill for job performance. *Journal of Applied Psychology*, *94*(6), 1427.

5. Antony, J. M. (2013). The influence of emotional intelligence on organizational commitment and organizational citizenship behavior. *International Journal of Social Science & Interdisciplinary Research*, *2*(3), 110-115.

6. Bar-On, R. (2004). The Bar-On Emotional Quotient Inventory (EQ-i): Rationale, description and summary of psychometric properties.

7. Butt, S. S., Nisar, Q. A., Nadeem, S., & Baig, F. (2017). Longitudinal study to examine the influence of emotional intelligence on organizational citizenship behavior: Mediating role of political skills. *WALIA journal*, *33*(1), 54-63.

8. Chaudhry, A., & Usman, A. (2011). An investigation of the relationship between employees' emotional intelligence and performance. *African Journal of Business Management*, *5*(9), 3556-3562.

9. Chin, S. T. S., Anantharaman, R. N., & Tong, D. Y. K. (2011). Analysis of the level of emotional intelligence among executives in small and medium sized enterprises. *Journal of Human Resources Management Research, 1*, *13*.

10. Cohen, A., & Abedallah, M. (2015). The mediating role of burnout on the relationship of emotional intelligence and self-efficacy with OCB and performance. *Management Research Review*, *38*(1), 2-28.

11. Costa, P. T., & McCrae, R. R. (1992). The five-factor model of personality and its relevance to personality disorders. *Journal of personality disorders*, *6*, 343-343.

12. Dirican, A. H., & Erdil, O. (2020). The influence of ability-based emotional intelligence on discretionary workplace behaviors. *Journal of Human Behavior in the Social Environment*, *30*(3), 369-382.

13. Ferris, G. R., Treadway, D. C., Perrewé, P. L., Brouer, R. L., Douglas, C., & Lux, S. (2007). Political skill in organizations. *Journal of management*, *33*(3), 290-320.

14. Goleman, D. (1998, March). The emotionally competent leader. In *The Healthcare Forum Journal* (Vol. 41, No. 2, pp. 36-38).

15. Gupta, B. (2012). The role of emotional intelligence in employees' organisational citizenship behaviours. *International Journal of Indian Culture and Business Management*, *5*(4), 458-471.

16. Irshad, R., & Hashmi, M. S. (2014). How transformational leadership is related to organizational citizenship behavior? The mediating role of emotional intelligence. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, *8*(2), 413-425.

17. Jain, A. K. (2012). Moderating effect of impression management on the relationship of emotional intelligence and organizational citizenship behavior. *Journal of Behavioral and Applied Management*, *13*(2), 86-107.

18. Jena, L. K. (2021). Does workplace spirituality lead to raising employee performance? The role of citizenship behavior and emotional intelligence. *International Journal of Organizational Analysis*.

19. Khalid, S. A., Kassim, K. M., Ismail, M., Noor, A. N. M., Rahman, N. A., & Zain, R. S. (2009). Emotional intelligence and organizational citizenship behavior as antecedents of students' deviance. *International Journal of Business and Management*, *4*(7), 117-125.

20. Korkmaz, T., & Arpacı, E. (2009). Relationship of organizational citizenship behavior with emotional intelligence. *Procedia-Social and Behavioral Sciences*, *1*(1), 2432-2435.

21. Laird, M. D., Zboja, J. J., & Ferris, G. R. (2012). Partial mediation of the political skill-reputation relationship. *Career Development International*.

22. Majeed, N., Ramayah, T., Mustamil, N. M., Nazri, M., & Jamshed, S. (2017). Transformational leadership and organizational citizenship behavior: modelling emotional intelligence as mediator. *Management & Marketing*, *12*(4), 571-590.

23. Mandaviya, M., Gajera, A., & Raval, N. (2020). Enriching employee engagement and job satisfaction: the mediating role of positive organisational citizenship behaviour and emotional intelligence. *PalArch's Journal of Archaeology of Egypt/Egyptology*, *17*(9), 4434-4455.

24. Meisler, G. (2014). Exploring emotional intelligence, political skill, and job satisfaction. *Employee Relations*.

25. Mishar, R., & Bangun, Y. R. (2014). Create the EQ modelling instrument based on Goleman and Bar-on models and psychological defence mechanisms. *Procedia-Social and Behavioral Sciences*, *115*, 394-406.

26. Narayanan, K. (2016). The Effect of Emotional Intelligence on Organizational Citizenship Behavior. *Asian Journal of Management Research*, *7*(2), 154-169.

27. Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington books/DC heath and com.

28. Pfeffer, J. (1992). Understanding power in organizations. *California management review*, *34*(2), 29-50.

29. Podsakoff, P. M., & MacKenzie, S. B. (1997). Impact of organizational citizenship behavior on organizational performance: A review and suggestion for future research. *Human performance*, *10*(2), 133-151.

30. Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviours: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of management*, *26*(3), 513-563.

31. Pradhan, R. K., Jena, L. K., & Bhattacharya, P. (2016). Impact of psychological capital on organizational citizenship behavior: Moderating role of emotional intelligence. *Cogent Business & Management*, *3*(1), 1194174.

32. Riaz, F., Naeem, S., Khanzada, B., & Butt, K. (2018). Impact of emotional intelligence on turnover intention, job performance and organizational citizenship behavior with mediating role of political skill. *J. Health Educ. Res. Dev*, *6*, 250.

33. Salami, S. O. (2010). Conflict resolution strategies and organizational citizenship behavior: The moderating role of trait emotional intelligence. *Social Behavior and Personality: an international journal*, *38*(1), 75-86.

34. Salarzehi, H., Yaghoubi, N. M., Naroei, M., & Sin, L. G. (2011). A survey of relationship between emotional intelligence and organizational citizenship behavior in Iran. *International Business and Management*, *3*(1), 130-135.

35. Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, cognition and personality*, *9*(3), 185-211.

36. Sharma, K., & Mahajan, P. (2017). Relationship between emotional intelligence and organisational citizenship behaviour among bank employees. *Pacific Business Review International*, *9*(1).

37. Smith, C. A. O. D. W. N. J. P., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. *Journal of applied psychology*, *68*(4), 653.

38. Sridevi, K. B. (2021). A Study on the Relationship Between Emotional Intelligence and Organisational Commitment in Manufacturing Sector With Special Reference to a Private Tea Manufacturing Company in Nilgiris. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, *12*(11), 4623-4630.

39. Tofighi, M., Tirgari, B., Fooladvandi, M., Rasouli, F., & Jalali, M. (2015). Relationship between emotional intelligence and organizational citizenship behavior in critical and emergency nurses in south east of Iran. *Ethiopian journal of health sciences*, *25*(1), 79-88.

40. Widiani, N. P., Putri, A. M. A. D., Sari, M. M. R., & Wirajaya, I. G. A. (2019). The effect of love of money and emotional intelligence on employee performance with organizational citizenship behavior as mediating variable. *International Research Journal of Engineering, IT and Scientific Research*, *5*(1), 39-49.

Factors Affecting the Preference for Internet Communication Tools – A Student's Perspective

Dr. Kalpesh B. Gelda

City C.U. Shah Commerce College, Opp. Dinbhai Tower, Lal Darwaja, Ahmedabad - 380001

gj1fa5605@gmail.com

Abstract

The rise of ICT Tools must be considered the most important shift in business. The question must be asked - why not with online education. With mobile devices now mainstream, educators need to leverage student desires to use their personal devices for school and college. Using mobile awareness, schools as well as college can connect with online students and create a more personal relationship. This relationship can provide the student with opportunities to download dynamic learning from digital displays. These digital displays include mobile phones, notebooks, and tablets. Indeed, there is rapid expansion of wireless synchronization between media devices with Smartphones, notebooks, and tablets which should lead to a much more enhanced digital experience. ICT Tools such as World Wide Web, Electronic Mail, Instant Messaging, Voice over Internet Protocol, Interactive Video Conferencing, Skype, Mobile Phones / Smart Phones, Social Networks have a major impact on the Individual's Lifestyle. In our study to reach the conclusion 200 Students studying in the colleges located in Ahmedabad City have been contacted who are using smart digital gadgets. We have asked questions to the respondents related to lifestyle segmentation approach towards internet communication tools and on the basis of responses received we can say that internet communication tools are very important to show the depict the status and lifestyle of an individual student. The important factors which affect the usage of internet communication tools are technology and features, influence by friends/ relatives and lifestyle of the individual.

Keywords – Internet Communication Tools, Life Style, Students, Segmentation, Status

Introduction

Information, Communication and Technology (ICT) is the type of technology employed in the shape of tools, equipment and application support, that helps in the collection, storage, retrieval,

use, transmission, manipulation and dissemination of information as accurately and efficiently as possible. It is for the purpose of enriching the knowledge and developing communication, decision making as well as problem solving ability of the user. ICT will not only include hardware devices connected to computers, and software applications, but also interactive digital content, internet and other satellite communication devices, radio and television services, web based content repositories, interactive forums, learning management systems, and management information systems. The basis for determining the success of any technology is based on people's acceptance and decision to use that technology. While acceptance of any computer-based communication media is significantly influenced by user experience, the decision to choose a communication media might be determined based on the perception of its usefulness and ease of use. The outcome of this research will describe the reasons for preferential differences on the existing ICTs (Internet communication tools) among students and the research might contribute to future studies that involve the adoption of future internet communication tools.

Literature Review

Zhang, Li, Ge, & Yen (2015) in the paper titled A theoretical acceptance model for computer-based communication media said that ICT enriched students with communication skills and prepare them for future jobs as communication accounts for the major time spent at work by managers. Effective communication improves the job performance, tasks accomplishment and broaden view point of ICT users.

(Skierkowski & Wood (2016) in the paper titled to text or not to text? The importance of text messaging among college aged youth stated that with the proliferation of mobile technologies requirements of effective communication cannot be realized with the traditional communication tools. The convenience and affordability of ICTs made them a phenomenon that improves corporate performance and became widely accepted

Sultan (2017) in the paper titled Addiction to mobile text messaging applications is nothing to "lol" about opined that Although ICTs and traditional communication technologies such as SMS share the capability of sending text messages and such likes via mobile devices, but ICT have far more convenient functions of sending unlimited multimedia from with emoticons and free messages enhanced additional service charges

Forbes (2018) in the paper titled WhatsApp - The Biggest Social Network You've Never Heard Of defined that students that are talkative or extroverts naturally tend to be more active social

individuals both physically and in virtual environments compared with introvert students, as such extroverts may find the social support of rapid ICTs more appealing.

Cavus and Bicen (2019) in the paper titled A study to find out the preferred free e-mail services used by university students identified that most preferred communication technologies are those that are cost-effective or offer free services.

Church and de Oliveira (2020) in the paper titled What's up with WhatsApp? Comparing mobile instant messaging behaviours with traditional SMS explained that the instantaneous nature of present communication technologies is the motive behind the adoption and acceptance of these technologies.

Sprecher (2021) Too much Facebook? An exploratory examination of social media fatigue maintained that the richness of computer-based communication channels and expectations to partner with a certain group of people facilitates the affiliative outcome of adopting ICTs. In this era of rapid technological transition, this research will be of great relevance to past and future findings on ICT preference and factors behind it

Research Gap

The above mentioned literature reviews explained about the significance of ICT which has become paramount. However our aim of the research was to examine the Factors Affecting the Preference for Internet Communication Tools from the student's perspective in Ahmedabad City.

Research Methodology

A structured questionnaire is prepared to collect the data and in our study 200 students studying in the colleges located in Ahmedabad City have been surveyed who are using smart digital gadgets to fulfil their educational needs. The non-probability convenience sampling method is used to reach the respondents. The survey of 200 students was carried out for the one year time frame ie. Year 2021-2022. Our objectives of the study and tools used to fulfil all objectives are as follows.

Table 1

Sr No.	Research Objectives	Tools / Tests / Analysis
1	To the study the life style segmentation of Students with respect to ICT.	Descriptive Statistics, Mean

| 2 | To identify the factors affecting the preference for Internet Communication Tools | Factor Analysis |

Research Hypothesis

The following alternate hypothesis are framed for substantiating the research objectives.

1. ICT & Technology acts as major factor the preference for Internet Communication Tools from student's perspective in Ahmedabad City.
2. Life Style acts as major factor the preference for Internet Communication Tools from student's perspective in Ahmedabad City.
3. Necessity acts as major factor the preference for Internet Communication Tools from student's perspective in Ahmedabad City.

Results & Discussion

(1) To the study the life style segmentation of Students with respect to ICT, the descriptive statistics mean have been used.

Table 2

Sr No.	Likert Scale Based Statements	Mean Value
1	My ICT Digital Gadgets dictate what styles I have	3.17
2	I use ICT Digital Gadgets to express my lifestyle	3.46
3	ICT usage is inevitable nowadays	3.53
4	Having ICT Digital Gadgets and Knowing ICT and applying it for educative purposes represents status in the society	3.94
5	It is important for me to have a Hi-Tech Digital Gadget	4.08
6	Too much usage of Hi-Tech Digital Gadget as an aspect of ICT makes me bored	2.24

Source – Survey

The results suggest that, students surveyed did not agree with the statement Too much usage of Hi-Tech Digital Gadget as an aspect of ICT makes me bored. However they showed their consensus with respect to the statements My ICT Digital Gadgets dictate what styles I have, I use ICT Digital Gadgets to express my lifestyle, ICT usage is inevitable nowadays, Having ICT Digital Gadgets and Knowing ICT and applying it for educative purposes represents status in the society

and strong agreement level was seen among the students with respect to the statement It is important for me to have a Hi-Tech Digital Gadget.

(2) To identify the factors affecting the preference for Internet Communication Tools, Factor Analysis have been conducted.

The Cronbach alpha value for assessment of the perceptions of the students with respect to ICT is 0.808. It shows good level of internal consistency (reliability). Further in order to test the appropriateness of the data for factor analysis "KMO and Bartlett's Test was carried out. The data value of KMO is 0.572 which suggests that the data is adequate for factor analysis. This is depicted by Table 3.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.572
Bartlett's Test of Sphericity	Approx. Chi-Square	41.205
	df	36
	Sig.	0.253

Source – SPSS Output

Principal Component Analysis with varimax rotation is employed for extracting factors. Those factors having Eigenvalues greater than one are considered significant, all other factors are considered insignificant and disregarded. Table 4 indicates the factor extraction and communality less than 0.5 is ignored while deciding the factors.

Table 4: Communalities

Statements	Initial	Extraction
My ICT Digital Gadgets dictate what styles I have.	1.000	.684
I use ICT Digital Gadgets to express my lifestyle.	1.000	.642
ICT usage is inevitable nowadays.	1.000	.616
Having ICT Digital Gadgets and Knowing ICT and applying it for educative purposes represents status in the society.	1.000	.572
It is important for me to have a Hi-Tech Digital Gadget.	1.000	.565

Too much usage of Hi-Tech Digital Gadget as an aspect of ICT makes me bored.	1.000	.541

Extraction Method: Principal Component Analysis

Source: SPSS Output

The initial extraction using principal component analysis revealed 3 factors; having the Eigen values exceeding one (Table 5). They explain nearly 57% of the variability.

Table 5: Total Variance Explained

Component	Initial Eigen Values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.438	15.98	15.98	1.438	15.98	15.98
2	1.230	19.67	35.65	1.230	19.67	35.65
3	1.102	21.43	57.08	1.102	21.43	57.08
4	.981	20.90	77.98			
5	.893	12.92	90.90			
6	.812	9.10	100.00			

Extraction Method: Principal Component Analysis

Source: SPSS Output

The rotation maintains the cumulative percentage of the variation explained by the extracted components, but the variation is now spread evenly over the components. The rotated component matrix helps to determine what the component represents.

Table 6: Rotated Component Matrix[a]

	Component		
	1	2	3
Statement 1	.161	.684	-.456

Statement 2	.196	.642	-.373
Statement 3	.261	.303	.616
Statement 4	.572	.230	.312
Statement 5	.565	.174	.298
Statement 6	.232	.541	.212
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			

Source – SPSS Output

Table 7: Factor Loading

Statements	Factors	Loading
Group 1		
Having ICT Digital Gadgets and Knowing ICT and applying it for educative purposes represents status in the society.	ICT & Technology	.572
It is important for me to have a Hi-Tech Digital Gadget.		.565
Group 2		
My ICT Digital Gadgets dictate what styles I have.	Life Style	.684
I use ICT Digital Gadgets to express my lifestyle.		.642
Too much usage of Hi-Tech Digital Gadget as an aspect of ICT makes me bored.		.541
Group 3		
ICT usage is inevitable nowadays.	Necessity	.616

Source: SPSS Output

Suggestions

The suggestions based on the above results and discussion is as follows.

1. Factor 1 must be named as ICT & Technology. It is to be named for the statements which reflects about the ICT Digital Gadgets.

2. Factor 2 must be named as Life Style. This factor highlights three statements about the life style of a student with respect to ICT Tools.

3. The last statement is all about the influence of ICT on the student's life. Hence factor must be named as influence.

Policy Implication

The main aim of this research is to identify the most preferred factors with respect to ICT among the existing ICTs that are widely used by students and describe some of the most important factors that drive the preference. ICT Tools such as World Wide Web, Electronic Mail, Instant Messaging, Voice over Internet Protocol, Interactive Video Conferencing, Skype, Mobile Phones / Smart Phones, Social Networks have a major impact on the Individual's Lifestyle.

Conclusion

The inclusion of digital technologies in learning environments help students from diverse backgrounds to understand and contribute to knowledge construction, engagement, and academic achievement. The findings of the research study states that now a days hi-tech digital gadgets are very important to show the status and lifestyle of the individual student. The important factors affect the student's preference for Internet Communication Tools are Internet Communication Tools & Technology, Life Style and Necessity.

References

1. Cavus, N., & Bicen, H. (2019), A study to find out the preferred free e-mail services used by university students. *Procedia - Social and Behavioral Sciences, 1(1), 419–425.*

2. Church, K., & de Oliveira, R. (2020), What's up with WhatsApp? Comparing mobile instant messaging behaviours with traditional SMS, *15th International Conference on Human-Computer Interaction with Mobile Devices and Services (MobileHCI'13), 352– 361.*

3. Forbes. (2015). WhatsApp - The Biggest Social Network You've Never Heard Of. *Retrieved April 24, 2015, from http://www.forbes.com/sites/benedictevans/2012/10/1 9/whatsapp-the-biggest-social-network-you ve-never heard-of/*

4. Sultan, A. J. (2017). Addiction to mobile text messaging applications is nothing to "lol" about. *Social Science Journal, 51(1), 57–69.*

5. Skierkowski, D., & Wood, R. M. (2016). To text or not to text? The importance of text messaging among college aged youth, *Computers in Human Behavior, 28(2), 744–756.*

6. Sprecher (2021). Too much Facebook? An exploratory examination of social media fatigue, *Computers in Human Behavior, 44, 148–155.*

7. Zhang, P., Li, T., Ge, R., & Yen, D. C. (2015). A theoretical acceptance model for computer-based communication media: Nine field studies, *Computers in Human Behavior, 28(5), 1805– 1815.*

8. Research Methodology (Methods and Techniques) by C.R. Kothari, *New Age International (P) Limited, Publishers, ISBN (13) : 978-81-224-2488-1*

9. Marketing Research, An Applied Orientation by Naresh K. Malhotra, *Pearson Education, ISBN – 81-7808-368-X*

10. Marketing Research Concept and Cases by Donald R. Cooper, Pamela S. Schindler, *Tata Mcgraw Hill, and ISBN-13: 978-0-07-060091-1, ISBN-10: 0-07-060091-0*

Financial Distress Evaluation of Indian Steel Companies Based On KMV Merton Default to Distance Model

Dr. Paresh Shah

Prof. & Principal, Rai School of Management Studies, Rai University, and Ahmedabad

profpareshshah@yahoo.co.in

Mrs. Sonal Dave

Research Scholar, Rai University, Ahmedabad

ganeshprince246@gmail.com

Abstract

The Indian steel industry is booming in a most spectacular way, According to the global source, it's the fourth largest producer in the world. And it is one of the potential future markets in the world. Predicting financial distress remains an important area of focus for researchers due to its vital importance for the firms and stakeholders including investors, lenders, and participants of capital markets in general. Moreover, the cost of financial distress is high, and it could result in business closure. In such a situation, the financial distress model can serve as a whistle-blowing mechanism to help the corporate managers to initiate remedial measures. Besides, the financial distress model can help the firms to avoid potential bankruptcy. One of the main problem which the investors are facing at the time of investing money in any company is the 'Risk of Financial Distress'. The sampling process has been used for the study. The samples of the population (top 5 steel companies of India.). The non-probability convenience sampling method has been used in the research. The sample size is of 5 Steel companies. The samples include the top five Steel companies of India based on market capitalization. For the research work the secondary data have been used. The secondary data have been collected for the period 2012-2021 form the website www.screener.in. In case of KMV Model If the value of default distance is positive, then financial distress does not exist. However, if the default distance is negative, it indicates high chances of financial distress in the company.

Keywords – Bankruptcy, Default Distance, Financial Distress, KMV Model, Steel Companies, India

Introduction

Solvency is the ability of a company to meet its long-term financial obligations. Solvency is essential to staying in business as it asserts a company's ability to continue operations into the foreseeable future. While a company also needs liquidity to thrive, liquidity should not be confused with solvency. A company that is insolvent must often enter bankruptcy. Solvency directly relates to the ability of an individual or business to pay their long-term debts including any associated interest. To be considered solvent, the value of an entity's assets, whether in reference to a company or an individual, must be greater than the sum of its debt obligations. Various mathematical calculations can be performed to help determine the solvency of a business or individual. Investors can use ratios to analyse a company's solvency. The interest coverage ratio as well as debt service coverage ratio divides operating income by interest expense to show a company's ability to pay the interest on its debt, with a higher result indicating a greater solvency. The debt-to-assets ratio divides a company's debt by the value of its assets to show whether a company has taken on too much debt, with a lower result indicating a greater solvency. Equity ratios demonstrate the amount of funds that remain after the value of the assets, offset by the outstanding debt, is divided among eligible investors. Solvency ratios vary by industry, so it is important to understand what constitutes a good ratio for the company before drawing conclusions from the ratio calculations. Ratios that suggest a lower solvency than the industry average may suggest financial problems are on the horizon. Thus my research aim is to study the variables predicting insolvency of Indian steel enterprises based on KMV Menton Distance to Default Model and to substantiate the findings about financial distress.

Literature Review

Korol (2016) studied on "Early warning models against bankruptcy risk for Central European and Latin American enterprises" and provided drawbacks for the model used by Alaka. Some restrictive assumptions that were considered are: (1) The variables (i.e. financial ratios) should have normal distributions, must be independent and must have high discriminative ability to separate the healthy companies from the distressed ones; (2) The values for all the indicators for all the firms must be available and be complete (i.e. there should be no missing values for any variables); (3) The classification of firms must be clearly defined.

Valaskova (2017) in the paper titled "Quantification of the Company Default by Merton Model" mentions that the Credit Metrics model sees the risk of volatility in the portfolio while the Merton model respectively KMV model doesn't. The credit risk in the assets value volatility is seen by these two models. The default possibility or the possibility of change in rating category causes the volatility of the portfolio.

Kliestik (2018) in the paper "Calculation of distance to default" worked on the distance to default for evaluating the probability of default of a company. The default is usually associated with bankruptcy The KMV model is used for the same. The model defines that the failure of the analysed company occurs at a time when the market value of the business assets derived from the market price of the equity falls below the payable debt.

Mehdian (2019) in the paper titled "Measuring Financial Distress and Predicting Corporate Bankruptcy: An Index Approach" suggested a simple approach in order to employ a set of financial ratios as inputs to estimate an aggregate bankruptcy index (ABI). The value of this index is between 0 and 1 and it basically ranks the firms on the basis of their relative financial distress. Their findings was that ABI can be used to predict the bankruptcy of firms more accurately than Z-score. According to them ABI has relatively robust predictive power so it can be applied together with other models to predict corporate bankruptcy.

Özari (2020) in the paper "A Merton Model Approach to Assessing the Default Risk: An Application on Selected Companies from BIST100" showed that how the Merton Model approach can be used to estimate the default probabilities of selected BIST100 companies. There are four inputs used total debt of company, stock returns volatility, time and risk-free interest rates. The distance to default and expected default frequencies of the companies were calculated and their correlation with total debt was examined. There was positive strong relationship between debt and equity and between debt and expected default frequencies; negative relationship between debt and distance to default for the total time period of five years.

Alaka (2021) in the paper on "Systematic review of bankruptcy prediction models: Towards a framework for tool selection" proposed an integrated framework for bankruptcy prediction models on the basis of 13 criteria which includes accuracy, ability to use, small sample size and transparency of result.

Research Gap

The reviews mentioned the ways and means to predict bankruptcy risks in the given industry as well as companies. However specifically Financial Distress Evaluation using accounting variables based on KMV Merton Default to Distance Model has not been carried out. Hence the researcher in the study tries to assess whether the selected steel companies in India are suffering from financial distress based on default to distance model.

Research Methodology

The study is envisaged to be predominantly empirical in nature and based on secondary data. The relevant data are collected from secondary sources like moneycontrol.com, MCA website, and audited financial reports of respective companies, economic survey and annual survey of

industries. Traditionally Indian steel industry is categorized into main, major and secondary steel industry producers. The sample of 5 steel companies has been chosen on the basis of their market capitalization for the year 2012-21. Primarily the samples are 20 to 25 companies, whereby will pass through the elimination on account of non-justification and value parameters. Finally on basis of market capitalization it would be top 5 companies. In context of the study the market capitalization is the aggregate valuation of the company based on its current share price and the total number of outstanding stocks. It is calculated by multiplying the current market price of the company's share with the total outstanding shares of the company. The list of top 5 companies is mentioned below.

Table No. 1 Sample Size

Sr. No.	Company Name	BSE Scrip Code	NSE Scrip Symbol	Market Capitalization (Rs in crores)
1	Tata steel	500470	INE081A01012	74812.76
2	Jsw Steel	500228	INE019A01038	69011.64
3	SAIL	500113	INE114A01011	40251.97
4	Jindal Stainless	532508	INE220G01021	5575.69
5	Jindal (Hisar)	539597	INE455T01018	5445.37

Source: Moneycontrol.com

KMV Merton Distance-to-Default Model

The secondary research of the study elaborates about KMV Merton Distance-to-Default Model. The model substantiates as to how distance value default as well as default deviation value is arrived based on the accounting variables assessed under KMV Merton Distance-to-Default Model. The total assets value, total net worth, total borrowings and total other liabilities are recorded along with their relative weight proportions. Secondly the standard deviation statistic for the total assets is found out. Thirdly the default point value is found out. The default point value is (values of total other liabilities (+) 0.5 * values of borrowings). Thereafter the default distance value is measured by using following formulae. Default Distance Value = {Total Value of Assets (-) Total Default Point Value} (÷) {Total Value of Assets as affected by its Standard Deviation}. Fourthly Total Value of Liabilities is arrived as Total Net worth + Total Borrowings + Total Other Liabilities. Fifth, the value of default deviation from total liability value is found out. Default Deviation Value = Total Value of Liabilities (-) Default Distance Value. If the value of default distance is positive, then financial distress does not exist. However, if the default distance is negative, it indicates high chances of financial distress in the company.

Research Hypothesis

1. The positive value of default distance as per KMV Merton Distance-to-Default Model indicates absence of financial distress.
2. The negative value of default distance as per KMV Merton Distance-to-Default Model indicates presence of financial distress.

Results and Discussion

(1) KVM Merton Distance-to-Default Model Statistics for Tata Steel

Table No. 2

Years	Total Assets	Total Net worth	Total Borrowings	Total Other Liabilities	Default Point Value
2012	46791	16749	19909	17543	74226.5
2013	146876	17344	21346	19102	78450.5
2014	171604	21938	34762	21704	90267.5
2015	159109	23054	37990	25374	87409.5
2016	176884	18966	42204	20737	94433.5
2017	172447	22647	43334	22024	95396
2018	208722	28206	39185	24787	104062.5
2019	232773	34815	47376	32626	115721.5
2020	249149	36623	59349	35872	119684
2021	243909	46764	54074	47479	126198.5

Source – screener.in (Rs in crores)

The total assets value, total net worth, total borrowings and total other liabilities are recorded along with their relative weight proportions. Secondly the standard deviation statistic for the total assets is found out. Thirdly the default point value is found out. The default point value is (values of total other liabilities (+) 0.5 * values of borrowings). Thereafter the default distance value is measured by using following formulae. Default Distance Value = {Total Value of Assets (-) Total Default Point Value} (÷) {Total Value of Assets as affected by its Standard Deviation}. Fourthly Total Value of Liabilities is arrived as Total Net worth + Total Borrowings + Total Other Liabilities. Fifth, the value of default deviation from total liability value is found out. Default Deviation Value = Total Value of Liabilities (-) Default Distance Value. If the value of default distance is positive, then financial distress does not exist. However, if the default distance is negative, it indicates high chances of financial distress in the company.

(2) KVM Merton Distance-to-Default Model Statistics for JSW Steel

Table No. 3

Years	Total Assets	Total Networth	Total Borrowings	Total Other Liabilities	Default Point Value
2012	53922	16749	19909	17543	27497.5
2013	57513	17344	21346	19102	29775
2014	77640	21938	34762	21704	39085
2015	85654	23054	37990	25374	44369
2016	81907	18966	42204	20737	41839
2017	88005	22647	43334	22024	43691
2018	91970	28206	39185	24787	44379.5
2019	114797	34815	47376	32626	56314
2020	131820	36623	59349	35872	65546.5
2021	148317	46764	54074	47479	74516

Source – screener.in (Rs in crores)

The total assets value, total net worth, total borrowings and total other liabilities are recorded along with their relative weight proportions. Secondly the standard deviation statistic for the total assets is found out. Thirdly the default point value is found out. The default point value is (values of total other liabilities (+) 0.5 * values of borrowings). Thereafter the default distance value is measured by using following formulae. Default Distance Value = {Total Value of Assets (-) Total Default Point Value} (÷) {Total Value of Assets as affected by its Standard Deviation}. Fourthly Total Value of Liabilities is arrived as Total Net worth + Total Borrowings + Total Other Liabilities. Fifth, the value of default deviation from total liability value is found out. Default Deviation Value = Total Value of Liabilities (-) Default Distance Value. If the value of default distance is positive, then financial distress does not exist. However, if the default distance is negative, it indicates high chances of financial distress in the company.

(3) KVM Merton Distance-to-Default Model Statistics for SAIL

Table No. 4

Years	Total Assets	Total Net worth	Total Borrowings	Total Other Liabilities	Default Point Value
2012	78669	40276	17405	20989	29691.5
2013	86689	41642	22539	22509	33778.5
2014	94072	43282	26020	24770	37780
2015	102849	43741	32146	26963	43036
2016	101527	40152	35141	26234	43804.5
2017	107843	37043	41396	29405	50103
2018	115694	36947	45409	33339	56043.5
2019	118201	39647	45170	33385	55970

2020	127198	41511	54127	31560	58623.5
2021	119246	45407	35576	38263	56051

Source – screener.in (Rs in crores)

The total assets value, total net worth, total borrowings and total other liabilities are recorded along with their relative weight proportions. Secondly the standard deviation statistic for the total assets is found out. Thirdly the default point value is found out. The default point value is (values of total other liabilities (+) 0.5 * values of borrowings). Thereafter the default distance value is measured by using following formulae. Default Distance Value = {Total Value of Assets (-) Total Default Point Value} (÷) {Total Value of Assets as affected by its Standard Deviation}. Fourthly Total Value of Liabilities is arrived as Total Net worth + Total Borrowings + Total Other Liabilities. Fifth, the value of default deviation from total liability value is found out. Default Deviation Value = Total Value of Liabilities (-) Default Distance Value. If the value of default distance is positive, then financial distress does not exist. However, if the default distance is negative, it indicates high chances of financial distress in the company.

(4) KVM Merton Distance-to-Default Model Statistics for Jindal Stainless

Table No. 5

Years	Total Assets	Total Net worth	Total Borrowings	Total Other Liabilities	Default Point Value
2012	16490	2083	10674	3732	9069
2013	17250	1340	11601	4309	10109.5
2014	16431	62	11924	4449	10411
2015	14018	198	11288	2899	8543
2016	14858	1346	10347	3164	8337.5
2017	10909	1789	5888	3233	6177
2018	10834	3071	4408	3961	6165
2019	10715	3286	3963	4431	6412.5
2020	10678	2717	3903	4057	6008.5
2021	10735	3205	3107	4423	5976.5

Source – screener.in (Rs in crores)

The total assets value, total net worth, total borrowings and total other liabilities are recorded along with their relative weight proportions. Secondly the standard deviation statistic for the total assets is found out. Thirdly the default point value is found out. The default point value is (values of total other liabilities (+) 0.5 * values of borrowings). Thereafter the default distance value is measured by using following formulae. Default Distance Value = {Total Value of Assets (-) Total Default Point Value} (÷) {Total Value of Assets as affected by its Standard Deviation}. Fourthly Total Value of Liabilities is arrived as Total Net worth + Total Borrowings + Total Other Liabilities. Fifth, the value of default deviation from total liability value is found out. Default Deviation Value = Total Value of Liabilities (-) Default Distance Value. If the value of default distance is positive,

then financial distress does not exist. However, if the default distance is negative, it indicates high chances of financial distress in the company.

(5) KVM Merton Distance-to-Default Model Statistics for Jindal Hisar

Table No. 6

Years	Total Assets	Total Net worth	Total Borrowings	Total Other Liabilities	Default Point Value
2012	3722	438	658	3122	3451
2013	4095	474	761	3405	3785.5
2014	6408	520	962	3721	4202
2015	6192	547	1053	4639	5165.5
2016	5533	609	2007	2917	3920.5
2017	6678	893	3514	2270	4027
2018	6756	1474	2935	2347	3814.5
2019	6493	1853	2367	2273	3456.5
2020	6584	2291	2181	2132	3222.5
2021	7037	2971	1481	2585	3325.5

Source – screener.in (Rs in crores)

The total assets value, total net worth, total borrowings and total other liabilities are recorded along with their relative weight proportions. Secondly the standard deviation statistic for the total assets is found out. Thirdly the default point value is found out. The default point value is (values of total other liabilities (+) 0.5 * values of borrowings). Thereafter the default distance value is measured by using following formulae. Default Distance Value = {Total Value of Assets (-) Total Default Point Value} (÷) {Total Value of Assets as affected by its Standard Deviation}. Fourthly Total Value of Liabilities is arrived as Total Net worth + Total Borrowings + Total Other Liabilities. Fifth, the value of default deviation from total liability value is found out. Default Deviation Value = Total Value of Liabilities (-) Default Distance Value. If the value of default distance is positive, then financial distress does not exist. However, if the default distance is negative, it indicates high chances of financial distress in the company.

Comparative Study for Hypothesis Testing

The comparative position for hypothesis testing is derived from the accounting assessment of financial distress as measured by KVM Merton Distance-to-Default Model.

1. According to KVM Merton Distance-to-Default Model for assessing the financial distress, the value of default deviation is Rs. 100098.018 crores. **This value is positive. Hence it**

can be deduced that the company Tata Steel is not facing the position of financial distress.

2. According to KVM Merton Distance-to-Default Model for assessing the financial distress, the value of default deviation is Rs. 2338.01crores. **This value is positive. Hence it can be deduced that the company JSW Steel is not facing the position of financial distress.**

3. According to KVM Merton Distance-to-Default Model for assessing the financial distress the value of default deviation is Rs. 6.006 crores. This value is positive. However it is near to the value of total liabilities. **The company SAIL at present is not facing the position of financial distress. However, the company has to remain very alert, given the economic scenario.**

4. According to KVM Merton Distance-to-Default Model for assessing the financial distress, the value of default deviation is Rs. 1940 crores. **This value is positive. Hence it can be deduced that the company Jindal Stainless is not facing the position of financial distress.**

5. According to KVM Merton Distance-to-Default Model for assessing the financial distress the value of default deviation is Rs. (97.987) crores. **This value is negative. Hence it can be deduced that the company Jindal Hisar is facing the position of financial distress.**

Policy Implications / Recommendations

Keeping in view the above comparative position derived from the accounting assessment of financial distress as measured by KVM Merton Distance-to-Default Model, it is highly recommended from the fundamental analysis view point that investors must select those companies for investment purpose where financial distress is not present.

Conclusion

This research effort substantiates the fact that steel companies like Tata Steel, JSW Steel and Jindal Stainless do not suffer from financial distress. The investors if they have invested in their money, will be able to take the advantage of wealth maximization. However with respect to SAIL, the investors need to remain cautious while making any serious investment. While it is revealed that Jindal Hisar is facing the position of financial distress. Hence the investors should not take a decision to invest their money, given the economic scenario.

References

1. Korol (2016), Early warning models against bankruptcy risk for Central European and Latin American Enterprises, *Economic Modelling, 31 (C), pp. 22-30.*

2. Valaskova. (2017), Assessing Credit Risk by Moody´s KMV Model. *2nd International Conference on Economics and Social Science (ICESS 2014). 61, pp. 40-44. Advances in Education Research. doi:ISSN:2160-1070*

3. Kliestik, (2018), Calculation of distance to default, *2nd Global Conference on Business, Economics, Management and Tourism. 23, pp. 238-243.*

4. Mehdian (2019), Measuring Financial Distress and Predicting Corporate Bankruptcy: An Index Approach, *Review of Economic Business Studies, 9(1), pp. 33-51. doi:10.1515/rebs-2016-0024*

5. Ozari (2020) A Merton Model Approach to Assessing the Default Risk: An Application on Selected Companies from BIST100, *Journal of Economics and Finance, 8(6 (Ver. I)), 54-61.*

6. Alaka (2021), Systematic review of bankruptcy prediction models: Towards a framework for tool selection. *Expert Systems with Applications, pp. 164-184. Retrieved from http://eprints.uwe.ac.uk/33627*

7. Marketing Research Concept and Cases by Donald R. Cooper, Pamela S. Schindler, *Tata Mcgraw Hill, and ISBN-13: 978-0-07-060091-1, ISBN-10: 0-07-060091-0*

8. Marketing Research, An Applied Orientation by Naresh K. Malhotra, *Pearson Education, ISBN – 81-7808-368-X*

9. Research Methodology (Methods and Techniques) by C.R. Kothari, *New Age International (P) Limited, Publishers, ISBN (13) : 978-81-224-2488-1*

Determinants of Online Learning Readiness among International Business Undergraduates of a State University in Sri Lanka

Weerasekera S

Faculty of Management and Finance

University of Colombo, Sri Lanka

wmsandunw@dinb.cmb.ac.lk

Abstract

This study investigates what are the determinants of Online Learning Readiness among International Business (IB) undergraduates of a state University in Sri Lanka. It further extends and validates the study by Hung, Chou, Chen, and Own (2010). Moreover, the study was conducted against the backdrop of the Covid 19 pandemic, where almost every Higher Educational institution across the globe, adopted online learning strategies to adhere to social distancing requirements. This study mainly focuses on undergraduates in the area of International Business, which is an interdisciplinary study with unique teaching and learning strategies available for academics. For this purpose, an online self-administered questionnaire was distributed among 123 International Business undergraduates. The findings of this study suggest that there is no difference between male and female students as well as third and final year students with regard to their response towards Online Learning Readiness through an independent sample t-test. Further, the implications of this study highlight the need to adopt unique strategies to improve, Online Communication Self-efficacy as well as Technology Readiness dimensions, as well as the importance of creating an inclusive online learning environment for all students with different backgrounds through unique online teaching strategies in the domain of International Business.

Keywords: Online Learning Readiness, Teaching in International Business, Covid 19 pandemic, Higher education sector

Introduction

Higher education providers are now increasingly aware of the diversity of their content as well as their learners (Gilte-Swan, 2017). This diversity among students in higher education highlights the need to have different instructional media in teaching and learning (Bollinger, 2003). Moreover, teaching and learning are becoming increasingly context-dependent (Gilte-Swan, 2017). The field

of higher education has changed from an instructor-led training era (Pre 1983) to the multimedia era (1984-1993), the introduction of the web (1994-1999), and the next-generation web (2000 to date) (Sudha, 2011). The Covid-19 pandemic has created an environment, in which learning in Higher Educational Institutions (HEI) is adversely affected by changes in the socio-economic situation (Nandy, 2020). This is mainly through stopping or drastically reducing face-face interactions and switching to virtual classrooms (Nandy, 2020). In this backdrop, online communication is becoming increasingly common among college students (Li, Shi, & Dang, 2014).

Online learners tend to be more autonomous, and self-directed, focus on their personal experiences, have the capability to apply theoretical concepts more effectively, and are more likely to view educators as facilitators (Bear, 2012; Gannon-Cook, 2012; Gaspar, Langevine, Boyer, & Armitage, 2010; Kim, 2009; Park & Choi, 2009). Online education, in general, seems to have numerous benefits from convenience in terms of time, geography, diversity (Aggarwal & Wu, 2020), schedule flexibility (Dougherty & Funke, 1998; Northup, 2002; Young & Nograd, 2006), accessible (Swan, Shea, Fredricksen, Pickett, & Maher, 2006), degree of comfort with technology (Song, Singleton, Hill, & Koh, 2004), virtual teamwork opportunity, active interaction with peers and lecturers (El Mansour & Mupinga, 2007; Kim, Liu, & Bonk, 2005; McEwin, 2001; Ryan, 2001). Despite these benefits, there are certain challenges associated with online education as well, ranging from technical difficulties, isolation, emotional disconnection, and delay in feedback (Bocchi, Eastman, & Swift, 2004; El Mansour & Mupinga, 2007; Kim et al., 2005). Nevertheless, most researchers have identified online instruction is more successful than traditional instruction (Angiello, 2010; Angello & Natvig, 2010; Crawford-Ferre & Weist, 2012), given that there is proper technical support for both instructors and students (Osmon, 2005).

In paying attention to the domain of International Business (IB), it is an interdisciplinary study and domain that was established in the 1950s, and 1960s with the internationalisation of functional areas (Eden, 2009; Klarin, Inkizhinov, Nazarvo, & Gorenska, 2021; Wright, 1970). Research related to the field of IB consists of studying about Multi-National Enterprises (MNEs), MNE activities, and interactions with the environment and all other actors on the international level, as well as cross-country comparisons of actors and the business environment (Boddewyn, 1997; Eden, 2008). International Business Education on the other hand involves the practice of teaching IB courses and curricula and this can be a form of a transformative learning process that results in international awareness competence, and expertise that involves all stakeholders, especially those students who are likely to become managers (Klarin et al., 2021; Schworm et al., 2017).

In an online learning environment, instructors create a safe learning environment, through clear purpose, structure, and expectations (Reuschle & Mitchell, 2009). The failure of online learning appears to be not caused by technical matters, but by the inability of educators and administrators in providing the planning of learning as well as the lack of attention paid to non-technical domains (Frimpon, 2012; Lucero, Victoriano, Carpio, & Fernando, 2020). Additionally, it can also be due to factors such as poor alignment to needs, communication, lack of implementation skills, poor

implementation process, management commitment, scalability, support, and technology (Sharma, Stone, & Ekinzi, 2009). In paying attention to readiness in an online learning environment, when students demonstrate online learning readiness, they tend to prefer online instruction as opposed to face-face classroom instruction (Warner, Christy, & Choy, 1998). They are quite confident in utilizing electronic communication for learning and are likely to have the ability to engage in autonomous learning (Warner et al., 1998).

Nevertheless, adapting to the online learning environment can be challenging for both students and facilitators (Jaques & Salmon, 2007; Kirkwood & Price, 2014). There seem to be a dearth of research with regard to factors affecting online learning readiness among International Business undergraduates (Chung, Subramanian, & Dass, 2020; Tang et al., 202) and even within the context of Sri Lanka (Akuratiya & Meddage, 2021). Therefore, in order to address this research gap, the current study attempts to investigate what are the determinants of online learning readiness among International Business undergraduates of a state University in Sri Lanka?

The next section comprises a review of online learning readiness and its dimensions such as Self-Directed Learning (SDL), Technology Readiness (TR), Online Communication Self-efficacy (OCS), Learner Control (LC), and Motivation for Learning (ML) based on the Online Learning Readiness (OLR) scale by Hung et al. (2010). Then the final section of this review identifies the relationship between the theory of self-efficacy by Bandura (1977) and the scale for Online Learning Readiness.

1. Online learning readiness

Readiness can be considered a significant input in the process of teaching and learning (Bloom, 1995). Accordingly, a change in the behaviour of the learner can be influenced by the readiness of the student (Engin, 2017). Moreover, students with online learning readiness are likely to increase learning environment interaction (Demir & Horzum, 2013). Hence, it has been suggested that for students to benefit from online learning, they should possess online readiness (Engin, 2017). Some of the factors which affect online learning readiness include educational policies, administration, standards, content, rules and regulations, financial resources, Human resources, culture, security, hardware equipment, communication networks, and logistics (Firat & Bokzurt, 2018). Moreover, Psycharis (2005) highlights, the readiness of staff and administration, economic readiness, environmental readiness, technological readiness, and readiness of culture as some of the major determinants of online learning readiness.

2. Self-directed learning

Self-directed learners tend to actively engage in the learning processes such as acquiring information, planning, and evaluating the learning activities (Geng, Law, & Niu, 2019). Self-

directed learning is a process where individuals take initiative in understanding the learning needs, establishing learning goals, identifying resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes (Knowles, 1975). The self-directed learning process contributes to the use of internet communication technology for collaborative learning (Li et al., 2014).

3. Technology readiness

E-learning involves the application of new technology such as the internet, intranet, email, and satellite broadcasts to the learning process (Puteh, 2008). Factors affecting e-learning readiness include organizational culture, individual learners, and technology at large (Mosa, Mahrin, & Ibrrahim, 2015). This is one's willingness to leverage new technology in performing tasks (Parasuraman, 2000). Darab and Montazer (2011), have identified that the technological aspects determined in the form of readiness are related to the usage of equipment, security, and communication network. Moreover, Akalson and Law (2011), highlight that the technological aspects of online learning include, hardware, software, and the stability of the internet. Moreover, Keramati, Afshani, and Kamrani (2011) have mentioned that technology readiness factors include perceptions of students and teachers along with Information Technology (IT) and support. Some of the areas of technological readiness include access to computers and the internet as well as the ability of individuals to use such facilities (Aydin & Jasci, 2005)

4. Learner control

The degree to which a learner can direct his or her own learning experience and process (Shyu & Brown, 1992). Control in learning gives individuals the opportunity to make choices and to affect outcomes, resulting in students feeling more competent and the activity having greater personal meaning and intrinsic interest (Lepper, 1985). Elements of control over learning can include control over learning pace, sequence, difficulty, amount of practice, etc. (Chang & Ho, 2009). Control over instruction can range from complete control by the instructor or computer to total internet or learner control (Chang & Ho, 2009). Individual learners are likely to learn more when allowed to control their instruction (Hannafin & Sullivan, 1995; Kinzie, Sullivan, & Berdel, 1988; Yeh, 1994). Moreover, Bloom (1976) highlights those students do not learn at the same rate, and hence, control over learning would allow these students with varying degrees of learning, to achieve their respective learning outcomes.

5. Motivation

Motivation can be described as a state of cognitive and emotional arousal (Williams & Burden, 1997). Students can be motivated in different ways, such as through intrinsic motivation, where

they learn for pleasure, identified regulation, due to learning being personally relevant to avoid shame or guilt, and extrinsic motivation, in order to achieve positive outcomes or avoid negative outcomes and finally motivation when people lack any motivation at all (Vanslambrook, Zhou, Lombaerts, Phillipsen, & Tondeur, 2017).

6. Theory of self-efficacy and online learning readiness

Self-motivation refers to the situation of making oneself aware of the rewards of achieving a certain level of behaviour and individuals are likely to create self-inducements until they achieve these self-prescribed standards in their performance (Bandura, 1977). On a similar note, efficacy refers to the self-conviction of an individual to achieve a certain level of an outcome and these efficacy expectations tend to differ in magnitude, difficulty, generality, and strength (Bandura, 1977). These self-efficacy beliefs tend to determine how people might feel, think, be motivated, and therefore how they act and behave (Alquarshi, 2016). This is not the same as motivation, however, related to it (Lorsbach & Jinks, 1999). Moreover, for an individual with a high level of self-confidence, self-efficacy tends to be high as well (Alquarshi, 2016). Sources of self-efficacy include performance, accomplishments, vicarious experiences, verbal persuasion, and physiological states (Bandura, 1977).

Self-efficacy seems to be context-specific (Hodges, 2008) and a change in learning from face-face online learning might affect self-efficacy (Maathuis-Smith et al., 2011). Additionally, self-efficacy in an online learning environment is considered to play a significant role in learners' performance and persistence (Pajares, 1996; Pajares, 2002). Some determinants of self-efficacy in the context of online learning environments include online learning systems, online learning technology anxiety, instructor feedback, and pre-course training (Bates & Kasaweh, 2007). Hence, it can be suggested that there is a need to design an online learning environment in a manner in order to improve learner self-efficacy (Taipjutourous, 2012).

Research Methodology

This study was conducted through a survey strategy by distributing a self-administered structured questionnaire, and around 169 undergraduates were selected conveniently from the Department of International Business from a state University in Sri Lanka as a sample. This is in line with past studies related to investigating online learning readiness (eg. Chung et al., 2020; Hung et al., 2010; Tang et al., 2021) by testing the scale established and validated by Hung et al. (2010). Data were collected by self-administering a two-part questionnaire. The first part collected data about self-directed learning, online communication self-efficacy, and technological readiness, learner control, and motivation for learning, while the second part collected respondents' demographic information such as gender, academic year. All questions in the first part were adapted from the instruments utilized by Hung et al. (2010). All questions in the second part were on a five-point

Likert scale anchoring strongly disagree (1) to strongly agree (5). Respondents were asked to circle the response which best described their level of agreement with the statements. The questionnaire was shared through Google survey forms and received 123 responses. The response rate was 73 % approximately, and it is similar to previous studies related to online learning readiness (Hung et al., 2010) and the study's variables were tested with the Structural Equation Method (SEM), using AMOS 23 and SPSS 22 software.

Results

Data were collected from 123 respondents aged 21–23 years, with 69.5% females and 31.5% males. A Confirmatory Factor Analysis (CFA) (Figure 1) was performed to test the measurement model with first-order latent constructs of Self-directed Learning (SDL), Online Communication Self-efficacy (OCS), Technology Readiness (TR), Locus of Control (LC), and Motivation for Learning (ML). The measurement model resulted in an adequate fit and the model fit indices were: $\chi2 = 940.573$, df = 550, $\chi2$ /df = 1.710, CFI = 0.798, and RMSEA = 0.076. Finally, the parsimony fit indices of PGFI = 0.696 and PNFI = 0.552 reflect values above the threshold value of 0.5.
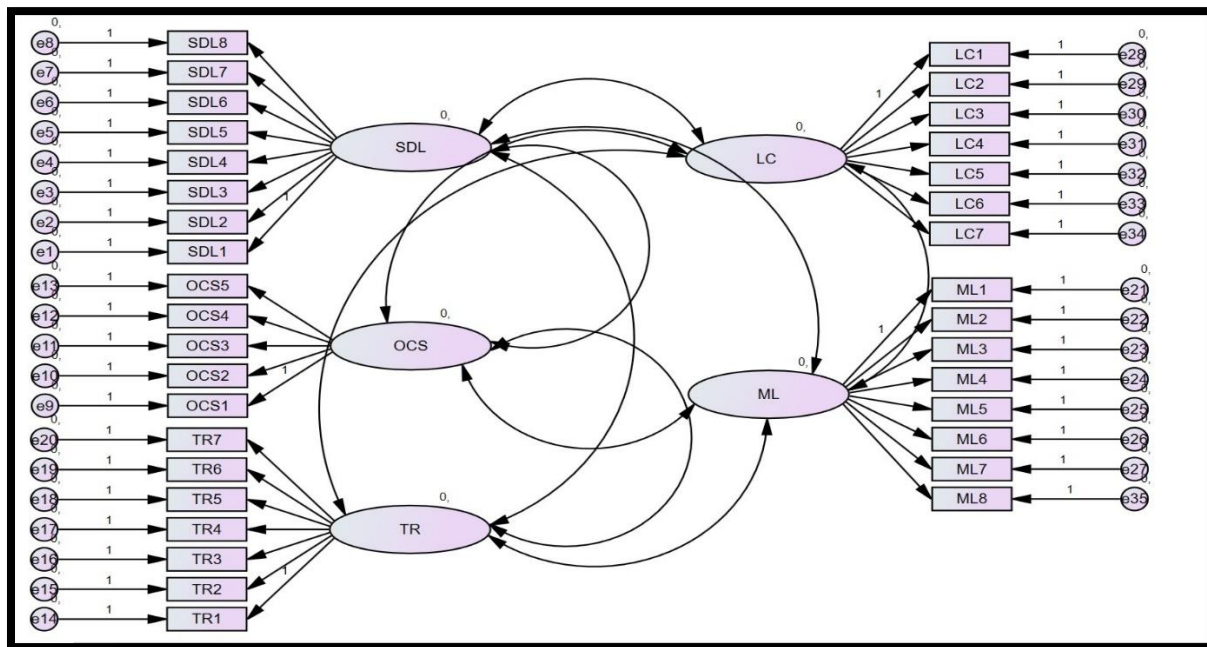
Figure 01. Confirmatory Factor Analysis (CFA) model. Source: AMOS software

The validity of the study can be determined based on several criteria, such as factor loadings, composite reliabilities, Average Variance Extracted (AVE), and discriminant validity. Accordingly, validity is considered to exist when the factor loadings are significant and their values are greater than 0.5 (Baggozzi & Yi, 1988; Straub, 1989), and outer loadings are greater than 0.7 (Hair, Sarstedt, Ringle, & Mena, 2012; Hair, Black, Babin, & Anderson, 2014; Hulland, 1999),

compositereliabilities are greater than 0.5 for all constructs (Bagozzi & Yi, 1988) and if the Average Variance Extracted (AVE) is greater than 0.5 for all constructs (Fornell & Larcker, 1981; Hair et al., 2014). Moreover, discriminant validity is likely to exist when the Average Variance Extracted (AVE) is greater than the squared correlation between the construct andany of the other constructs (Fornell & Larcker, 1981). Thus, it appears all factor loadings are above 0.5. Additionally, the reliability of the study in terms of the Cronbach's alpha value indicates values above the minimum threshold values suggested by Nunnally (1978, p.245-246). Accordingly, the current study seems to demonstrate both validity and reliability.

Furthermore, in terms of the differences among student scores for the five readiness dimensions on the OLR scale which is adopted from Hung et al. (2010), it appears that the mean values range from 3.5958 to 3.8323, on a 5-point Likert scale, which indicates 'agree' level responses when considered as an approximate figure. Then, in order to find the differences in responses to the OLR scale in terms of gender, an independent sample t-test was conducted. Accordingly, in terms of the findings in Levene's test of equality of variances, it appears that the p values of all dimensions of the OLR scale, except for motivation for learning are not significant. Similarly, in the t-test for equality of means, all p values are not significant, which indicates that the mean 1 and mean 2 values of each dimension of the OLR scale are equal to each other. Hence, it can be suggested that based on the findings of the current study, there are no differences between the responses of male and female students in terms of self-directed learning, online communication self-efficacy, technology readiness, and learner control, except for motivation for learning which indicates a marginal difference between genders.

In terms of mean scores, final-year students seem to have higher values compared to third-year students. However, an independent sample t-test was conducted, and based on findings in Levene's test of equality of variances, the p values of all dimensions of the OLR scale are not significant. While the t-test for equality of means indicates that all p-value except for the p-value of self-directed learning is not significant. Therefore, it can be suggested that there are no differences between third-year and final-year students in terms of their responses to the ORL scale.

Discussion

Online learning readiness was considered to be positively related to their interactions in the learning environment and was negatively related to perceived structure (Kaymak & Horzum, 2013). In paying attention to gender differences in terms of Online Readiness for Learning, there is a marginal difference in terms of the mean scores for male and female undergraduates, with females indicating higher mean scores. Nevertheless, it seems that there is no difference between male and female undergraduates based on the results of the independent sample t-test. These findings can be supported in terms of the study by Chung et al. (2020) which investigated online learning readiness among 399 university students in Malaysia. Similarly, Tang et al. (2021) conducted a comparative analysis of students' live online readiness during the COVID 19

pandemic in higher education through a survey 0f 913 students, while Bunz, Curry, and Voon (2007), compared people's perception of their Computer-Email-Web (CEW) fluency to their actual abilities to perform related tasks, based on 61 responses from a survey questionnaire. Additionally, Masters and Obeprieler (2004) have achieved similar results based on their study of 311 University students to investigate equitable online participation through curriculum articulation. Moreover, even the study by Hung et al. (2010), which developed and validated a multidimensional instrument for college student's readiness for online learning based on responses of 1051 college students in Taiwan demonstrates that there is no difference between male and female students with regard to their response to online learning readiness. Moreover, the lack of differences in responses to the OLR scale among third-year and final-year students can be supported based on the above-mentioned study by Chung et al. (2020) as well as the study by Firat and Bozkurt (2018) which investigated variables affecting online learning readiness in an open and distance learning through a survey of 6507 undergraduates.

Finally, in terms of students' readiness scores for five dimensions of the OLR scale, it appears that mean scores in all five dimensions are greater than the average mean of 3, in other words, they indicate 'agree' level responses. Accordingly, this finding can be supported based on the findings of Hung et al. (2010), which provide similar agree level mean scores for all five dimensions. In paying attention to the medium of instruction, belief in higher learning outcomes for face-face setting is common research finding (O'Malley & McGeaw, 1999; Zeng & Perris, 2004), however, students who became more experienced with online instruction had increased comfort and in turn gave higher satisfaction ratings to their class (Harrington & Loffredo, 2010).

1. Policy implications and recommendations

Some of the implications of this study include, that academics need to pay more attention to improving the dimensions of online communication self-efficacy and technology readiness. Online communication self-efficacy can be improved in terms of providing clear instructions to students in terms of assessments or other academic activities, timely communication of such activities, encouraging students to participate in discussions as well as providing instant feedback (Tang et al., 2021), adopting various teaching and learning activities such as the jigsaw method, one minute paper, reflective logs, incomplete handouts, prior knowledge probe activities, etc (Gibbs & Habeshaw, 1992; Gikandi, Morrow, & Davis, 2011; Norton, 2009). Further, case-based teaching and focused individual projects through online learning platforms, which are unique strategies in teaching international business can be adopted (Aggarwal & Wu, 2019). This will enable the students to exercise their individual abilities and get highly engaged in the process of learning (Aggarwal & Wu, 2019).

Next, in terms of improving technology readiness among students, academics can seek help from IT support staff, to conduct awareness sessions for students as well as provide clear guidelines for participating in online learning activities. These suggestions to improve would also address the

slightly lower response by third-year undergraduates toward online learning readiness, given their lack of maturity in handling online tools of education. Moreover, another implication of the study would be that the government can also play a major role in terms of facilitating the necessary infrastructure for continuous online learning activities, whether it be in terms of funding or providing training facilities to academics and even students, which additionally, despite the lack of difference between male and female undergraduates regarding online learning readiness, the marginal difference in mean response needs to be addressed. This is to ensure that the learning space is inclusive for everyone irrespective of their differences, and academics, in general, need to address the needs and interests of all students (Hockings, 2010). Hence, more attention needs to be paid to male students to enhance their effectiveness in participation in the online learning process. Additionally, academics can also be suggested to utilize various instruments to identify the learning styles of students even in an online learning environment. For this purpose, widely used instruments such as the Visual Aural Read/Write Kinesthetics (VARK) instrument (1995), can be adopted to ensure that the online learning space is safe and inclusive irrespective of their background or differences.

Finally, it seems that the overall positive response towards online learning suggests the need for the continuation of online learning strategies, at least through hybrid learning environments that combine online and onsite learning, even during the post-pandemic era.

2. Limitations and avenues for future research

This study considers factors affecting the online learning readiness of IB undergraduates, with a sample size of 169. This smaller sample size and the restriction to undergraduates from the discipline of IB may minimise the generalisability of the study. Moreover, when analysing the demographics of the study, it seems that the study is skewed towards female undergraduates, which would further minimise the generalisability.

Therefore, future studies can consider a larger sample size of both undergraduates and post-graduate students from different disciplines as well as from different higher educational institutions. Additionally, this study employs a cross-sectional research design, based on the quantitative methodology that has collected data through a self-administered survey questionnaire. Hence, future studies can consider exploratory, qualitative methodology (Guba & Lincoln, 1985; Silverman, 2005), aligned with past studies such as the study by Akuratiya and Meddage (2021).

Conclusion

This study is designed to investigate what are the determinants of Online Learning Readiness (OLR) among International Business (IB) undergraduates of a state university in Sri Lanka. It further extends and validates the study by Hung et al. (2010), which seems to have considered the

dimensions of the theory of self-efficacy (Bandura, 1977). Accordingly, the findings suggest that there is no difference between male and female students as well as third and final year students with regard to their response toward OLR.

Furthermore, this study highlights the significance of motivating male students toward online learning readiness, given the relatively lower mean scores as well as the need to improve the dimensions of Online Communication Self-efficacy (OCS) and Technology Readiness (TR) through various strategies for teaching and learning in International Business as well the importance of obtaining support from IT staff for their assistance in the online learning process. Then, it also suggests the need to create an inclusive learning environment by utilizing various learning style instruments such as the VARK instrument (1995) to identify the preferred learning styles of all students. Finally, it can be suggested there is a need to continue online learning at least in the form of a hybrid learning environment even during the post-pandemic era.

Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship, and publication of this article.

References

1. Aggarwal, R., & Wu, Y. (2020). Online Teaching in International Business. *Journal of teaching in international business, 31*(1), 1-10. https://doi.org/10.1080/08975930.2020.1738755

2. Akaslan, D., & Law, E. (2011). *Measuring teachers' readiness for e-learning in higher education institutions associated with the subject of electricity in Turkey* [Paper presentation]. Global Engineering Education Conference (EDUCON), IEEE.

3. Akuratiya, A. D., & Meddage, N. R. (2021). Readiness for online learning among students amidst Covid 19: A case of a selected HEI in Sri Lanka. *International Journal of Research and Innovation in Social Science, 5*(8), 191-197.

4. Alqurashi, E. (2016). Self-efficacy in online learning environments: A literature review. *Contemporary Issues in Education Research, 9*(1), 45-52.

5. Angelino, L. M., & Natvig, D. (2010). A conceptual model for engagement of the online learner. *Journal of Educators Online, 6*(1), 1-19.

6. Angiello, R. (2010). Study looks at online learning vs. traditional instruction. *Education Digest,76*(2), 56-59.

7. Aydin, C., & Tasci, D. (2005). Measuring readiness for e-learning: Reflections from an emerging country. *Educational Technology & Society, 8*(4), 244-257.

8. Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation model. *Journal of Academy of Marketing Science, 16*(1), 74–94. https://doi.org/10.1007/BF02723327

9. Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychology Review, 84*(2), 191-215.

10. Bates, R., & Khasawheh, S. (2007). Self-efficacy and college students' perceptions and use of online learning systems. *Computers in Human Behavior, 23*, 175–191.

11. Bear, A. (2012). Teaching, learning, and individual differences. *Journal of Adult Education, 41*(2), 27–42.

12. Bloom, B.S. (1976). *Human characteristics and school learning*. McGraw-Hill.

13. Bloom, B. (1995). *İnsan nitelikleri ve okulda öğrenme*. Milli Eğitim Basımevi.

14. Bocchi, J., Eastman, J. K., & Swift, C. O. (2004). Retaining the online learner: Profile of students in an online MBA programme and implications for teaching them. *Journal of Education for Business, 79*(4), 245–253.

15. Boddewyn, J. J. (1997). The conceptual domain of international business: Territory, boundaries, and levels. In B. Toyne, & D. W. Nigh (Eds.), *International business: An emerging vision* (pp. 50–61). University of South Carolina Press.

16. Bollinger, L. (2003). The need for diversity in higher education. *Journal of the Association of American Medical Colleges, 78*(5), 431-436. https://doi.org/10.1097/00001888-200305000-00002

17. Bunz, U., Curry, C., & Voon, W. (2007). Perceived versus actual computer-email-web fluency. *Computers in Human Behavior, 23*(5), 2321–2344.

18. Chang, M-M., & Ho, C-M. (2009). Effects of locus of control and learner-control on web-based language learning. *Computer Assisted Language Learning, 22*(3), 189-226. https://doi.org/10.1080/09588220902920094

19. Chung, E., Subramaniam, G., & Dass, L. C. (2020). Online learning readiness among university students in Malaysia amidst Covid-19. *Asian Journal of University Education, 16*(2), 47-58. https://doi.org/10.24191/ajue.v16i2.10294

20. Crawford-Ferre, H. G., & Wiest, L. R. (2012). Effective online instruction in higher education. *The Quarterly Review of Distance Education,13*(1), 11–14.

21. Darab, B., & Montazer, G. (2011). An eclectic model for assessing e-learning readiness in Iranian universities. *Computers & Education, 56*(3), 900-910.

22. Daugherty, M., & Funke, B. L. (1998). University faculty and student perceptions of web-based instruction. *Journal of Distance Education, 13*(1), 21-39.

23. Demir K. Z., & Horzum, M. B. (2013). Relationship between online learning readiness and structure and interaction of online learning students. *Educational Sciences: Theory and Practice, 13*(3), 1792-1797.

24. Eden, L. (2008). Letter from the editor-in-chief. *Journal of International Business Studies, 39*(1), 1–7. https://doi.org/10.1057/palgrave.jibs.8400336.

25. Eden, L. (2009). Letter from the editor-in-chief: Happy 40th anniversary! *Journal of International Business Studies, 40*(1), 1–4. https://doi.org/10.1057/jibs.2008.88.

26. Engin, M. (2017). Analysis of students' online learning readiness based on their emotional intelligence level. *Universal Journal of Educational Research, 5*(12A),32-40. https://doi.org/10.13189/ujer.2017.051306

27. Frimpon, M. F. (2012). A re-structuring of the critical success factors for e-learning deployment. *American International Journal of Contemporary Research, 2*(3), 115-127.

28. El Mansour, B., & Mupinga, D. M. (2007). Students' positive and negative experiences in hybrid and online classes. *College Student Journal, 41*(1), 242–248.

29. Firat, M., & Bozkurt, A. (2018). Variables affecting online learning readiness in an open and distance learning university. *Educational Media International, 57*(2), 112-127. https://doi.org/10.1080/09523987.2020.1786772

30. Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50. https://doi.org/10.1177/002224378101800104

31. Gannon-Cook, R. (2012). Restoring washed-out bridges so e-learners arrive at online course destinations successfully. *Creative Education, 3*(4), 557–564.

32. Gaspar, A., Langevin, S., Boyer, N., & Armitage, W. (2010). Students' activities focus on online asynchronous peer learning forums. *Informatics in Education, 9*(1), 19–36.

33. Geng, S., Law, K. M. Y., & Niu, B. (2019). Investigating self-directed learning and technology readiness in a blending learning environment. *International Journal of Educational Technology in Higher Education, 16*, 1-22. https://doi.org/10.1186/s41239-019-0147-0

34. Gibbs, G., & Habeshaw, T. (1992). *Preparing to teach: An introduction to effective teaching in higher education*. McGrawHill.

35. Gikandi, T. W., Morrow, D., & Davis, N. E. (2011). Online formative assessment in higher education: A review of the literature. *Computers & Education, 57*(4), 2333–2351.

36. Gillett-Swan, J. (2017). The challenges of online learning: Supporting and engaging the isolated learner. *Journal of Learning Design, 10*(1), 20–30. https://doi.org/10.5204/jld.v9i3.293

37. Guba, E. G., & Lincoln, Y. S. (1985). *Naturalistic inquiry*. SAGE.

38. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis: Pearson new international edition.* Pearson Education Limited.

39. Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Sciences, 40*(3), 414-433. https://doi.org/10.1007/s11747-011-0261-6

40. Hannafin, R.D., & Sullivan, H. J. (1995). Learner-control in full and lean CAI programs. *Educational Technology Research and Development, 43*(1), 19–30.

41. Harrington, R., & Loffredo, D. A. (2010). MBTI personality type and other factors that relate to preference for online versus face-to-face instruction. *Internet and Higher Education, 13*, 89-95. https://doi.org/10.1016/j.iheduc.2009.11.006

42. Hockings, C. (2010). *Inclusive learning and teaching in higher education: A synthesis of research.* Higher Education Academy. http://www.heacademy.ac.uk/ourwork/teachingandlearning/inclusion/alldisplay?type=resources&newid=ourwork/inclusion/Inclusion_Research_Syntheses_Main_Page&site=York

43. Hodges, C. B. (2008). Self-efficacy in the context of online learning environments: A review of the literature and directions for research. *Performance Improvement Quarterly, 20*(3–4), 7–25.

44. Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal, 20*(2), 195–204. https://doi.org/10.1002/(SICI)1097-0266(199902)20:2<195::AID-SMJ13>3.0.CO;2-7

45. Hung, M. L., Chou, C., Chen, C. H., & Own, Z. Y. (2010). Learner readiness for online learning: Scale development and student perceptions. *Computers & Education, 55*(3), 1080–1090. https://doi.org/10.1016/j.compedu.2010.05.004

46. Jaques, D., & Salmon, G. (2007*). Learning in groups: A handbook for face-to-face and online environments.*Routledge.

47. Kaymak, Z., & Horzum, M. B. (2013). Relationship between online learning readiness and structure and interaction of online learning students. *Educational Sciences: Theory and Practice, 13*(3), 1792-1797.

48. Keramati, A., Afshari, M. M., & Kamrani, A. (2011). The role of readiness factors in e-learning outcomes: An empirical study. *Computers & Education, 57*(3), 1919-1929.

49. Kim, K-J. (2009). Motivational challenges of adult learners in self-directed e-learning. *Journal of Interactive Learning Research, 20*(3), 317–335.

50. Kim, K.-J., Liu, S., & Bonk, C. J. (2005). Online MBA students' perceptions of online-learning: Benefits, challenges, and suggestions. *The Internet and Higher Education, 8*(4), 335–344.

51. Kinzie, M. B., Sullivan, H. J., & Berdel, R. L. (1988). Learner-control and achievement in science computer-assisted instruction. *Journal of Educational Psychology, 80*, 299–303.

52. Kirkwood, A., & Price, L. (2014). Technology-enhanced learning and teaching in higher education: What is 'enhanced' and how do we know? A critical literature review. *Learning, Media and Technology, 39*(1), 6–36. https://10.1080/17439884.2013.770404

53. Klarin, A., Inkizhinov, B., Nazarvo, D., & Gorenska, E. (2021). International business education: What we know and what we have yet to develop. International Business Review, 30(5), 1-15. https://doi.org/10.1016/j.ibusrev.2021.101833

54. Knowles, M. S. (1975). *Self-directed learning: A guide for learners and teachers*. Association Press.

55. Lee, K., Tsai, P. S., Chai, C. S., & Koh, J. H. L. (2014). Students' perceptions of self-directed learning and collaborative learning with and without technology. *Journal of Computer Assisted Learning, 30*(5), 425–437.

56. Lepper, M. R. (1985). Microcomputers in education: Motivational and social issues. *American Psychologist, 40*, 1–18.

57. Li, C., Shi, X., & Dang, J. (2014). Online communication and subjective well-being in Chinese college students: The mediating role of shyness and social self-efficacy. *Computers in Human Behavior, 34*, 89–95.

58. Lorsbach, A. W., & Jinks, J. L. (1999). Self-efficacy theory and learning environment research. *Learning Environments Research, 2*, 157–167.

59. Lucero, H. R., Victoriano, J. M., Carpio, J. J., & Fernando, P. G. (2020). Assessment of e-learning readiness of faculty members and students in the government and private higher education institutions in the Philippines. International Journal of Computing Sciences Research, 5(1), 398-406. https://10.25147/ijcsr.2017.001.1.48

60. Maathuis-Smith, S., Wellington, S., Cossham, A., Fields, A., Irvine, J., Welland, S., & Innes, M. (2011). Obtaining high retention and completion rates in a New Zealand ODL environment: A case study of strategies employed by Information and Library Studies faculty at The Open Polytechnic. *Journal of Open, Flexible and Distance Learning, 15*(1), 31–45.

61. Masters, K., & Oberprieler, G. (2004). Encouraging equitable online participation through curriculum articulation. *Computers & Education, 42*(4), 319–332.

62. McEwen, B. C. (2001). Web-assisted and online learning. *Business Communication Quarterly, 64*(2), 98–103.

63. Mosa, A. A., Mahrin, M. N., & Ibrrahim, R. (2015). Technological aspects of e-learning readiness in higher education: A review of the literature. *Computer and Information Science, 9*(1), 113-127.

64. Nandy, M., Lodh, S., & Tang, A. (2020). Lessons from COVID-19 and a resilience model for higher education. *Industry and Higher Education, 35*(1), 3-9. https://doi.org/10.1177/0950422220962696

65. Northrup, P. T. (2002). Online learners' preferences for interaction. *Quarterly Review of Distance Education, 32*, 219−226.

66. Norton, L. (2009). Assessing student learning. In H. Fry., S. Ketteridge, & S. Marshall, *A handbook for teaching and learning in higher education* (pp. 132–144). Routledge.

67. Nunnally, J. N. (1978). *Psychometric theory*. McGraw-Hill Book Company.

68. O'Malley, J., & McGraw, H. (1999). Students' perceptions of distance learning, online learning and the traditional classroom. *Online Journal of Distance Learning Administration, 2*(4)

69. Osman, M. E. (2005). Students' reaction to WebCT: Implications for designing online learning environments. *International Journal of Instructional Media, 32*(4), 353-362.

70. Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational Research, 66*(4), 543–578.

71. Pajares, F. (2002). Gender and perceived self-efficacy in self-regulated learning. *Theory into Practice, 41*(2), 116–125.

72. Parasuraman, A., & Grewal, D. (2000). The impact of technology on the quality-value-loyalty chain: A research agenda. *Journal of the Academy of Marketing Science, 28*(1), 168–174.

73. Park, J.-H., & Choi, H. (2009). Factors influencing adult learners' decision to drop out or persist in online learning. *Educational Technology and Society, 12*(4), 207–217.

74. Psycharis, S. (2005). Presumptions and actions affecting an e-learning adoption by the educational system implementation using virtual private networks. *European Journal of Open, Distance, and E-learning, 8*(2).

75. Puteh, M. (2008). E-learning concepts and literature review. In Salleh (Ed.), *E-learning issues in Malaysian higher education*. Universiti Teknologi Malaysia.

76. Reushle, S. & Mitchell, M. (2009). Sharing the journey of facilitator and learner: Online pedagogy in practice. *Journal of Learning Design, 3*(1), 11-20.

77. Ryan, S. (2001). Is online learning right for you? *American Agent and Broker, 73*(6), 54–58.

78. Schworm, S. K., Cadin, L., Carbone, V., Festing, M., Leon, E., & Muratbekova-Touron, M. (2017). The impact of international business education on career success—Evidence from Europe. *European Management Journal, 35*(4), 493–504. https://doi.org/10.1016/j.emj.2017.02.009.

79. Sharma, D., Stone, M., & Ekinci, Y. (2009). IT governance and project management: A qualitative study. *Journal of Database Marketing & Customer Strategy Management, 16*(1), 29-50.

80. Shyu, H. Y., & Brown, S. W. (1992). Learner control versus program control in interactive videodisc instruction: What are the effects in procedural learning? *International Journal of Instructional Media, 19*(2), 85–95.

81. Silverman, D. (2005). Instances or sequences? Improving the state of art of qualitative research. *Forum: Qualitative social research, 6*(3), 1-16.

82. Song, L., Singleton, E. S., Hill, J. R., & Koh, M. H. (2004). Improving online learning: Student perception of useful and challenging characteristics. *Internet and Higher Education, 7*, 59−70.

83. Straub, D.W. (1989). Validating instruments in MIS research. *MIS Quarterly, 13*(2), 147– 169. https://doi.org/10.2307/248922

84. Sudha, P. (2011). Higher education students' readiness for e-Learning. *Techno LEARN, 1*(1), 155-165.

85. Swan, K., Shea, P., Fredricksen, E., Pickett, A., Pelz, W., & Maher, G. (2000). Building knowledge-building communities: Consistency, contact, and communication in the virtual classroom. *Journal of Educational Computing Research*, *23*(4), 359−383. https://doi.org/10.2190/W4G6-HY52-57P1-PPNE

86. Taipjutorus, W., Hansen, S., & Brown, M. (2012). Investigating a relationship between learner control and self-efficacy in an online learning environment. *Journal Of Open, Flexible, and Distance Learning, 16*(1), 56-69.

87. Tang, Y. M., Chen, P. C., Law, K-M., Wu, C. H., Lau, Y-Y., Guan, J., He, D., Ho, G. T. S. (2021). Comparative analysis of Student's live online learning readiness during the coronavirus (COVID-19) pandemic in the higher education sector. *Computers and Education, 168*, 1-17. https://doi.org/10.1016/j.compedu.2021.104211

88. Vanslambrouck, S., Zhu, C., Lombaerts, K., Philipsen, B., & Tondeur, J. (2018). Students' motivation and subjective task value of participating in online and blended learning environments. *The Internet and Higher Education, 36*, 33–40.

89. Warner, D., Christie, G., & Choy, S. (1998). *Readiness of VET clients for flexible delivery including on-line learning*. Australian National Training Authority.

90. Williams, M., & Burden, R.L. (1997). *Psychology for language teachers; A social constructivist approach.* Cambridge University Press.

91. Wright, R. W. (1970). Trends in international business research. *Journal of International Business Studies, 1*(1), 109–123. https://doi.org/10.1057/palgrave.jibs.8490724.

92. Yeh, S. W. (1994*). Effects of learner-control and advance organizers on EFL learning from hypermedia-based CBIV lessons* [Unpublished doctoral dissertation]. Purdue University.

93. Young, A., & Norgard, C. (2006). Assessing the quality of online courses from the students' perspective. *Internet and Higher Education, 9*, 107−115.

94. Zeng, W. Y., & Perris, K. (2004). Researching the efficacy of online learning: A collaborative effort amongst scholars in Asian open universities. *Open Learning, 193*, 247−264.

MOOCs - The Learning Driver for the Students of Higher Education : Awareness among the Students regarding MOOCs

Nishita T. Thakrar

Assistnant Profesor, Atmiya University, Rajkot

Shrey H. Bhupatkar

Assistnant Profesor, Atmiya University, Rajkot

Abstract

The purpose of the paper is to get the idea and to investigate the perception and awareness of Massive Open Online Courses(MOOCs) among the students of higher education as in today's era the online teaching become the essential part of learning due to COVID-19 and many other factors like accessibility, openness etc. So MOOCs are one of the emergent management solutions to assure that education is continuous and do not disordered. Here the data has been collected from the students of the higher education of Rajkot city by using the convenient sampling method. Data has been collected from 123 students and for the purpose of analysis of the data independent t-test, one way ANOVA, Cronbach's Alpha and in descriptive statistics percentage analysis is used by the researcher. From the data collected from the students we can conclude that UG and PG students have significant difference in their purpose of learning of MOOCs and the number of courses done by them. Researcher has also concluded that the selection of the different MOOCs provider do not vary significantly among the UG and PG students.

Keywords: Higher education, Massive open Online Courses (MOOCs), learning purposes.

Introduction

Sir Ken Robinson has truly said that the more complex the world becomes, the more creative we need to be to meet its challenges. In this competitive era, technology is the vital factor through which one can gain the knowledge which is available through worldwide and knowledge gaining is not just restricted to the classroom, and MOOC has turned out to be the recent development in the field of the education. MOOCs have attracted learners from around the world which shows the revolution in teaching that frees information from the barriers of paying for high-priced courses to

now imparting classes from the renowned professors at no cost or at low cost. Others perceive the MOOC movement as a reinvention of old classroom-learning theories being performed in new ways engaging students networking crosswise the world and attracting in new forms of acquiring knowledge. The word "MOOC" was derived in 2008 by Dave Cornier of the University of Prince Edward Island and Bryan Alexander of the National Institute for Technology in Liberal Education. The Massive Open Online Courses (MOOCs) used by hundreds of universities comprise of thousands of courses, generating opportunities for learners of all ages to develop themselves. Massive open online courses are a new type of online learning environment which permit an unlimited or boundless number of participants from anywhere in the world and free access to course content mostly given or delivered by world-well-known experts. MOOCs are majorly divided into three types such as cMOOCs that is Connectivist Massive Open Online Courses, another is xMOOCs that is Expanded/Extension MOOCs and the last part is hMOOCs that is Hybrid MOOCs. First, in 2008 MOOCs this came out on the path of connectivism theory and cMOOCs also originally build up on connectivism pedagogies which get the benefit of the online environment for joining or connecting the students. xMOOCs incline to provide material for the students for example notes, pre-recorded videos, utilization of discussion forum and also evaluate learning through quizzes. The year 2012 was selected by the New York Times as "The Year of the MOOC." MOOCs sustained this rise in the subsequent years, and by 2021 it grow into an environment in which more than 220 million learners took the benefit of the MOOCs and in the year 2021 new 40M students signed up for at least in one MOOC and during the pandemic year 2020 total 60M new learners signed up.

What does the word MOOCs represent?

The full name of the MOOCs define as "Massive Open Online Courses" in which the word "massive" denote an unlimited or unrestricted students, courses and its content and material used. Openness denotes that access of the course is open to for those who wants to learn that course. The online word denotes that MOOCs are geared up through online materials in the online environment and the Courses word point out that online course is started and finished within a limited period of time.

Different MOOCs Providers

MOOCs Providers:	
Canvas Network	**Khan Academy**
edX	**Udacity**
SWAYAM	**Udemy**
Coursera	**FutureLearn**
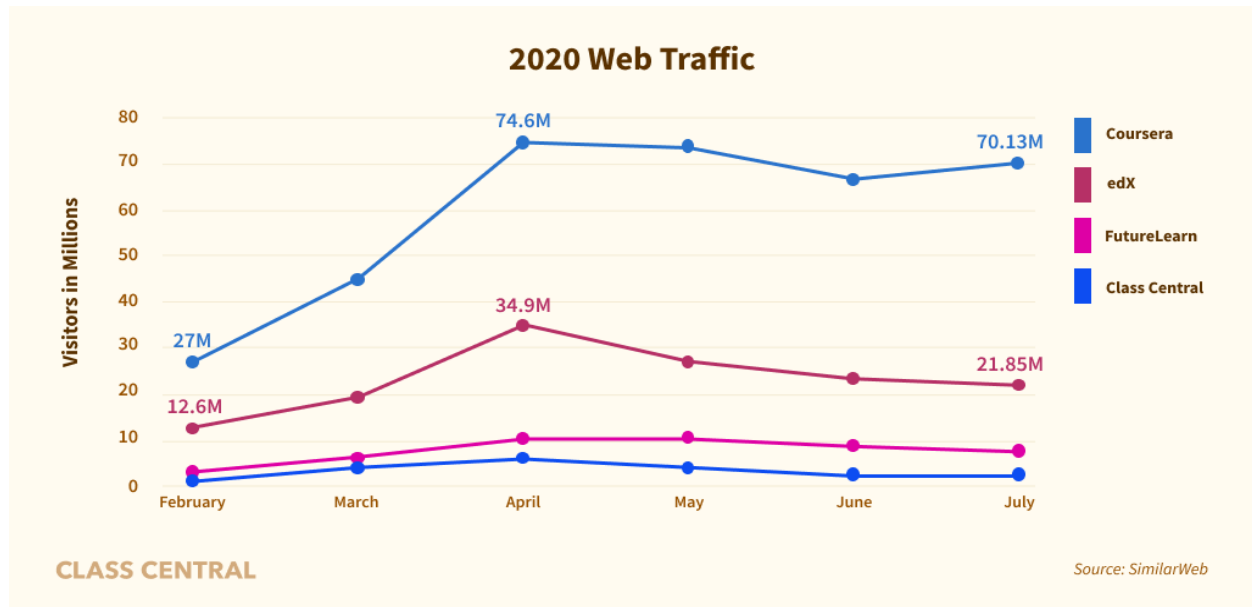
Canvas Network

This Canvas Network launched in the year of 2010 which is specializes in professional enlargement classes and lectures for teachers or other education leaders. Subjects comprise of leading and applying assessment in student affairs, supporting women in STEM fields, and research data management for librarians and Students can avail MOOCs in different languages like English, Chinese, Portugese, and Spanish. Canvas Network gives free and self-paced online classes like any other MOOCs provider so that learners can learn as per their convenience.

Khan Academy

The mission of the Khan Academy is education is a human right. This platform provides free online courses consist of videos, exercise and personalized learning dashboard. Khan Academy also supports K-12 students, with content for pre-algebra, English language education, AP chemistry, and U.S government and civics and also includes material of SAT, GRE etc.

edX

edX is a joint venture between Harvard and MIT in the year 2012. This platform gives various courses namely cyber security, python, humanities and many more which gives permission to 140 higher education institutions including many students too. edX allows academicians to enhance their skills by implementing MOOCs in a creative way by catering different needs of the students.

Udacity

This is a MOOC platform which works to earn profit by offering career development and vocational courses from 2011. The students who are interested in developing their career as an Android developer, who wants to master their skills in C++, Block chain can plump for this platform.

It renders many services where working professionals may increase their competence by using comprehensive career services namely personalized job coaching, resume building guidance and LinkedIn practice. Udacity allows its users to create detailed profiles to make use of as they are tied with major employers like Google and Mercedes-Benz.

SWAYAM

The full name of the SWAYAM is "Study Webs of Active Learning for Young Aspiring Minds." This programme is initiated by the Government of India to attain the three important principles of education that is access, equity and quality. SWAYAM platform developed and designed by MHRD and NPTEL with the help of the Google Inc. and Persistent Systems Ltd in the year 2017.

Udemy

Udemy established in the year of 2010 and this is MOOC provider for profit and offer 1,50,000 courses in 65 languages and the MOOCs courses includes office productivity, health and fitness, photography, finance and accounting classes, learning the key elements of Bit coin and block chain or developing global market analysis skills etc.

Coursera

Coursera was founded by the two Stanford professors in the year of 2012, which are the largest MOOCs providers in the world. Coursera offers more than 3,900 courses in the field of business, computer science, engineering, arts and humanities etc. and also offers online degrees through its partner schools.

FutureLearn

Future Learn founded by the 12 university partners, including King's College London and the University of Leeds in the year 2012 and offer the courses in the field of management, ecology and wildlife science. Future Learn also provides low cost academic programs that allow students to earn Bachelor of Arts in international business and many more.

Statement of the Problem

People mostly search for gathering knowledge in an efficient and less time-consuming way. So, online learning is a possible solution for the present situation. For students and teachers, it is graceful to complete a course using with the help of the MOOCs platform. Till date, there has been little research done on student's awareness and usage of MOOCs especially in this modern area so the statement of the present study's problem is " MOOCs - The Learning Driver for the Students of Higher Education : Awareness among the Students regarding MOOCs." So, an effort has been done to check the awareness and level of familiarity with MOOCs students. MOOCs may provide professionals an opportunity to upgrade their skill or further their education.

Review of Literature

(Raja M, 2021) Has studied "COVID-19 and students perception about MOOCs" a case of Indian higher educational institutions." The objective of the study was to measure the outcome or result of the MOOCs with special regard to COVID-19 students of higher eductional institutions. The researcheer has colllected data from the students of the higher educations by using the convenient sampling method and factor analysis was used by the researcher. Resesacher has concluded that the education should be free to increase the learning motivation and researcher has also concluded that if the MOOCs will be free of cost then enrollement in the MOOCs can be increased.

(Rahul, 2021) Has conducted a study on "A study on E-Learning using SWAYAM(MOOCs)-Awarness among under gradute and post gradute students." Researcher has collected data from 61 under graduate and 44 post gradute students of Mumbai University. Data has been collected through the questionnaire and nature of the study was descriptive. The objective of the study was to know the awarness among students as the online teaching has played an imporatant role during the COVID 19. The study has revealed that there was less awarness of MOOCs and SWAYAM but students had positive atttitude in accepting and adopting the different online platforms for online education. Researcher has also concluded that students had more attached and preferred calssroom teaching.

(Jrall R, 2021) Has made a research on "Awarness about MOOCs Platforms and its Usage: Need of an Hour in Pandemic." The major objective of the study was to measure the awarness and usage of MOOCs among teachers of M.Ed level. Researcher has collected data from 50 teachers by using purposive sampling method. The study was empirical in nature and researcher has concluded that as compare to males, female were more aware about the MOOCs and its resourcers.

(Purkayastha N, 2021) has conducted a study on "Awarness on Massive Open Online Course(MOOCs) among the Post graduate students of North East India with Special Reference to Assam University, Silchar and Tripura University, Agartala: A Study." The objectives of the study were to check the awarness level and perception of post graduate students of Assam and Tripura University. Researcher has concluded that MOOCs are the positive development in the field of the

education and also conluded that students were interested in MOOCs but they have less knowledge regarding MOOCs.

(DreisiebnerS, 2019) Made a study on "Content and instructional design of MOOCs on information literacy A comprehensive analysis of 11 xMOOCs." The objective of the study was to find the present status of information literacy through the Massive Open Online Courses. Researcher has used information literacy standards and performance indicators of Association of college and research libraries(2000). Researcher has concluded that the content and courses covereed by the IL MOOCs vary largly and also concluded that some MOOCs majorly reveal the performance indicators given by the ACRL standards on IL of 2000. Researcher has found out that MOOCs did not focus on subject-specific or country or culture specific.

(Ma L, 2019) Has conducted a study on "Drivers and barriers to MOOC adoption: perspectives from adopters and non-adopters." The objective of the study was to know the factors or drivers and barriers in adopting the MOOCs and also to get to know that which factors affect in adoption of the MOOCs. Researcher has used the questionnaire method to collect the data from 1018 people and strata is divided into adoptors and non adopters of the MOOCs. Researcer has found that non adoptors of the MOOCs were due to lack of publicity and related information.

(Kundu A, 2019) Conducted a study on "Perceptions of MOOCs among Indian State Universitystudents and teachers." The mojaor objective of the study was to know that whether the acceptibility of the MOOCs was llimited to Indian top university or else it is also reached to the other parts of the country. Questionnaire was used by the researcher to collect the data from 480 respondents and discriptive statistics like percantage analysis ans inferential analysis was used by the researcher. Researcher has oncluded that MOOCs was successful in reaching the goals of the learners.

(Soy, 2019) Has made a research on "A Study on the Awareness of MOOCs among Students of Higher Learning in Paschim Bradhaman District of West Bengal." The objectives of the study were to measure the awareness of MOOCs among and their look towards the MOOCs. Another objective was to check the perception of the students regarding MOOCs. Researcher has concluded that different students of different streams had significant difference in level of awareness regarding MOOCs.

(Smith N, 2017)Has conducted a study on "A comparison of MOOC development and delivery approaches." The purpose of the study was to made comparison in developing and delivering MOOCs and researcher has concluded that MOOCs can reach to thousands of students but the limitation found by the researcher was that self-made MOOCs have not so large so audience but it can be achieved and researcher has also found that MOOCs can be prominent in future years.

(Singh G, 2017) Has made a study on Awareness towards Massive Open Online Courses (MOOCs) and their usage for Teacher Education in India." Here the researcher has collected data from 156 educators and the awareness regarding different factors like concept, usability, technology and

current practices has been checked. Researcher has concluded that there was teacher educators had the fundamental knowledge regarding MOOCs and advantages and limitations of MOOCs. Researcher has given his view that the future scope of MOOCs is wide in India.

Research Gap

The present study has covered the awareness and perception of the students regarding Massive Open Online Courses which are most popular concept of the education for that reason research has selected this topic to check the awareness level of students of under graduate and post graduate students of Rajkot City. The present study also covers MOOCs completed by the under graduate and post graduate students and how the awareness level differs among UG and PG students.

Significance of the Study

Massive Open Online Courses have recognized new benchmarks in the online learning environment; Massive Open Online Courses (MOOCs) in various disciplines, including Library and information science, have been developed worldwide and so many professionals of different disciplines are attracted to MOOCs and involved themselves in assisting and providing MOOCs. With this study, the students and teachers will learn what Massive Open Online Courses are and how the teachers or any institute can disseminate the information about the MOOCs so the students can gain the knowledge worldwide.

Objectives of the study

1. To study the perception of the youth regarding Massive Open Online Courses (MOOCs).
2. To measure purpose of learning of MOOCs of UG and PG students.
3. To Study selection of courses done by the UG and PG students.

Research Methodology

Research Type: This research is exploratory in nature.

Sampling Technique: Here the researcher uses the Non –probability sampling technique.

Sampling Type: Here the researcher has collected data from the students by using the Convenience sampling.

Sampling Unit: students of UG and PG are the respondents of the study.

Sample Size: Researcher has collocated data from the 123 students.

Data Used: The present study is based on the Primary Data collected through the well-structured questionnaire.

Area under Study: Here the geographical area covered by the researcher is Rajkot city.

Data Analysis

As the data is primary in nature, the researcher, for authenticity of questions conducted the reliability test before jumping into further analysis. The results of the reliability tests are as below.

Reliability analysis with respect to Purpose of learning of MOOCs.

Reliability Statistics

Cronbach's Alpha	N of Items
.777	5

Source: computed from questionnaire.

Here the reliability test has been conducted to check the reliability of the data regarding purpose of Massive Open Online Courses and the result of the Cronbach's Alpha shows the value of 0.777 which shows that data is reliable.

Hypothesis 1

H0: There is no significant difference between educational qualifications and number of MOOCs completed by Students.

H1: There is significant difference between educational qualifications and number of MOOCs completed by Students.

Independent Samples Test								
	Levene's Test for Equality of Variances		t-test for Equality of Means					
	F	Sig.	t	df	Sig. (2-	Mean Difference	Std. Error	95% Confidence Interval of

					tailed)		Difference	the Difference		
									Lower	Upper
How many MOOCs completed earlier ?	Equal variances assumed	22.558	.000	-7.635	121	.000	-1.085	.142	-1.367	-.804
	Equal variances not assumed			-6.478	54.310	.000	-1.085	.168	-1.421	-.749

Analysis

Here, to measure that whether there is significant difference between educational qualification and No. of courses completed by the students through MOOCs platform, independent T- test is applied which shows the significance value 0.000 which is less than 0.05 so we can conclude that there is sufficient evidences to reject the null hypothesis and we can conclude that the Courses completed by UG students and PG students are not equal so there is significant difference between number of MOOCs completed by UG and PG students.

Hypothesis 2

H0: Selection of different MOOCs provider do not depend on educational qualifications.

H1: Selection of different MOOCs provider do not depend on educational qualifications.

Independent Samples Test								
	Levene's Test for Equality of Variances		t-test for Equality of Means					
	F	Sig.	t	df	Sig. (2-		Std. Error	95% Confidence

					taile d)	Mean Differe nce	Differe nce	Interval of the Difference	
								Low er	Upp er
Indicat e the name of the MOOC s provide r from where you have comple ted the above MOOC course:	Equal varian ces assum ed	.1 95	.6 59	- .6 75	121	.501	-.207	.307	- .815	.400
	Equal varian ces not assum ed			- .6 77	80.5 12	.501	-.207	.306	- .817	.402

Analysis

Here, to get to know that whether there is significant difference between educational qualification and the different platforms of MOOCs provider and for that purpose independent T test is applied and result shows that students of UG and PG have no significant difference in selecting the different MOOCs provider as the significance value is 0.501 which is more than 0.05 so we accept the null hypothesis and can conclude that selection of different MOOCs providers by UG and PG students do not vary significantly.

Different purposes of MOOCs of UG students

	SA	W (5)	A	W (4)	N	W (3)	DA	W	SD	D	Weig hted Mean
To Update my Skills.	33	16 5	39	15 6	8	24	1	2	1	1	23.2
To update my knowledge as it is relevant to school or	24	12 0	45	18 0	10	30	2	4	1	1	22.33

	SA	W	A	W	N	W	DA	W	SD	D	Weighted Mean
degree program or academic research.											
For personal growth and enrichment.	28	140	38	152	14	42	0	0	2	2	22.4
To meet the requirements of existing job demand for fun and Challenge.	17	85	42	168	16	48	6	12	1	1	20.93
To earn a certificate.	26	130	37	148	10	30	3	6	6	6	21.33

Analysis

From the above analysis we can say maximum that is 47% of the UG students agree on the purpose of to update their skills followed by 40% of the UG students strongly agree upon this statement and 54% students of UG are agree upon to update their knowledge as it is relevant to school or degree program. 46% of the UG students agree upon the purpose of their personal growth and enrichment and 34% of the UG students strongly agree upon this statement. 51% of the UG students agree upon the purpose to meet their job demand and 45% UG students agree upon the fact to earn the certificate and only 7% students strongly disagree upon this statement.

Different purposes of MOOCs of PG students

	SA	W (5)	A	W (4)	N	W (3)	DA	W	SD	D	Weighted Mean
To Update my Skills.	12	60	24	96	3	9	1	2	1	1	11.2
To update my knowledge as it is relevant to school or degree program or academic research.	12	60	25	100	3	9	1	2	0	0	11.4
For personal growth and enrichment.	19	95	6	24	1	3	0	0	15	15	9.133
To meet the requirements of	10	50	22	88	9	27	0	0	0	0	11

existing job demand for fun and Challenge.											
To earn a certificate.	12	60	22	88	7	21	0	0	0	0	11.26

Analysis

From the above analysis we can say maximum that is 58% of the PG students agree on the purpose of to update their skills followed by 29% of the PG students strongly agree and only 3% students disagree and strongly disagree on this statement. 60% students of PG are agree upon the purpose to update their knowledge as it is relevant to school or degree program. 46% of the PG students are strongly agree upon the purpose of personal growth and enrichment. 53% of the PG students agree upon the purpose to meet their job demand and the fact to earn the certificate.

Hypothesis 3

H0: Purpose of Learning through MOOCs is independent of educational qualifications.

H1: Purpose of Learning through MOOCs is dependent on educational qualifications.

t-Test: Two-Sample Assuming Equal Variances		
	Variable 1(UG Students)	*Variable 2(PG Students)*
Mean	22.04	10.8
Variance	0.821333333	0.888889
Observations	5	5
Pooled Variance	0.855111111	
Hypothesized Mean Difference	0	
Df	8	
t Stat	19.21874572	
P(T<=t) one-tail	2.78535E-08	
t Critical one-tail	1.859548038	
P(T<=t) two-tail	5.5707E-08	
t Critical two-tail	2.306004135	

Analysis

Here to measure whether is any significant differences in UG and PG students with regard to purpose of doing the MOOCs researcher has applied independent T-test and the value of T-test is

less than 0.05 which provide the sufficient evidence to reject the null hypothesis and we can say that UG and PG students have different purposes in doing MOOCs however the UG and PG students' choice of MOOCs provider do not vary so we can say that different MOOCs provider and its importance to UG and PG students are equal.

Limitations of the Study

As the present study collected data from the students then limitations of the respondents is taken as the limitation of the research. Present study covers the limited number of students so it becomes the limitation of the study. The limitation of the statistical tools become the limitation of the present study.

Scope for Future Study

This present study covers limited number of students so with more number of students this limitation of the study can be reduced. Here the limited variables and limited questions asked to students to check the level of awareness so in future it is possible to cover wide range of variables. Here in the present study comparison between under graduate and post graduate students only covered but students of different disciplines not covered so it may be included in the future study.

Conclusion

From the above research we can conclude that MOOCs played a vital role in dissemination of knowledge to students and through MOOCs PG students are accept the use of MOOCs and its importance so there is wide difference among UG and PG students regarding the Number of MOOCs completed by them. So educational qualification affect the MOOCs significantly. The purpose of doing MOOCs for UG and PG students are not same as we can conclude from the above data analysis. So, MOOCs played a vital role and the requirements of doing MOOCs is different from person to person and also depend on their educational qualification.

References

1. Jrall R, G. J. (2021). Awareness About The MOOCS Platforms And Its Usage: Need Of An Hour In Pandemic. *Journal of Emerging Technologies and Innovative Research, 8*(11).

2. Kundu A, B. T. (2019). Perceptions of MOOCs among Indian State University students and teachers. *Emerald insight* .

3. Ma L, S. L. (2019). Drivers and barriers to MOOC adoption: perspectives from adopters and non-adopters. *Emerald insight* , 671-684.

4. Purkayastha N, K. M. (2021). Awareness on Massive Open Online Courses (MOOCs) among the Postgraduate Students of North East India with Special Reference to Assam University, Silchar and Tripura University, Agartala: A Study. *Library Philosophy and Practice (e-journal).*

5. Rahul, S. (2021). A Study on E-Learning usuing SEAYAM(MOOCs) - Awarness among under gradute and post gradute students. *International Journal of Creative Research Thoughts, 9*(1), 1785-1789.

6. Raja M, K. T. (2021). "COVID-19 and students perception about MOOCs" a case of Indian higher educational institutions. *Emerald Insight* , 450-474.

7. S, D. (2019). Content and instructional design of MOOCs on information literacy A comprehensive analysis of 11 xMOOCs. *Emerald Insight*, 173-190.

8. Singh G, C. R. (2017). Awareness towards Massive Open Online Courses (MOOCs) and their usage for Teacher Education in India. *Asian Journal of Distance Education*.

9. Smith N, C. H. (2017). A comparison of MOOC development and delivery approaches. *Emerald Insight*, 152-164.

10. Soy, S. (2019). A Study on Awarness of MOOCs among Students of Higher Learning in Paschim Bardhaman District of West Bengal. *International Journal of Research in Social Sciences, 9*(1), 697-707.

Accomplishing 'Quiet a Leadership'

Dr. Swapnil Chaurasia

Assistant Professor

Shrimad Rajchandra Institute of Management & Computer Application (SRIMCA-MBA)

Uka Tarsadia University, Maliba Campus, Bardoli-Mahuva Road, Tarsadi, Barodli, Gujarat 394350

swapnil.chaurasia@utu.ac.in

Abstract

It is a widely accepted and evident fact that great leaders build great organizations. Importance of leadership is widely studied all across the world in the domain of management and business. Business world has witnessed paradigm shift in the way business was to the business is as per today. Different kinds of businesses have emerged in the recent times, and it is all because of the leaders of today. Many researches and studies in the past have focused upon the leadership types and the style of leadership along with conventional theories of leadership and have provided helpful insights in regard to leaders and leadership as a concept. There have been ample of literatures highlighting the personality types suitable for being leaders as well as how different personality traits forms a distinctive association or relationship with leadership. Though there have been supportive and opposing assumptions regarding various personality traits and the resultant leadership outcomes yet it is also suggested that an effective and efficient leader is bounded to a particular personality trait or a resultant of a peculiar personality. The paper aims at presenting summarized qualitative viewpoints of past researches and present studies which have successfully provided empirical evidences of how personality traits of an introvert can lead to successful and optimized leadership in the modern business context. The paper endeavors to expand the idea put forth by various researchers, practitioners, scholars and the like supporting the notion that individual traits reflecting introversion results into effective and successful leadership especially in the modern business scenario.

Keywords: Leadership, Introverted Leadership, Personality traits and leadership, leadership styles.

Introduction

An organization that wishes to grow and develop individuals as new leaders focuses on hiring individuals according to the type of leadership it intends to implement or have. Leadership is a much talked about concept in the area of business with plethora of researches, experiments and empirical studies providing its existence a solid foundation.

The ability to influence others to act in a certain way is expressed through leadership, which is a process of guiding a group of people through communication and convictions as well as a collection of factors also called as determinants relating to the confidence in those who are moving in the same direction, the goal of the system under consideration, the group decision, and the motivation of human capital an organization possesses. A leader is a person with managerial authority and the ability to sway others. Leadership is the action of leaders. Since one of the four management responsibilities is leadership, managers must possess strong leadership skills. In the management process, leadership is a proactive quality. It converts choices into sensible acceptable and expected behaviours.

Like in any societal setup, both introverts and extroverts coexist in an organization. Most people assume that leaders are extroverted, highly visible, and charming individuals. But that is just one side of the coin. Over the years introverts have proven themselves to be the silent but great contributors towards accomplishments of intricate organizational goals that extend beyond balance sheets and profit and loss statements. The key challenge for any organization today is to get beyond the surface and unlock the full potential of its human resources so as to explore the possibilities that can lead to unimaginable growth. Though there will be visible difference in the way of operations between a fast paced and outspoken extrovert and a self-paced introvert, and that is how it is supposed to be as the organization juggles between such extreme traits imbibed in their natural existence. Dictionary defines introversion as a quality of being reticent, whereas psychology defines introversion as the characteristic of being concerned with inner feelings and thoughts rather than external things or the material. Addressing the trait as a quality reflects the positive aspect of the trait in general. The general idea of an introverted person is a person who exhibits traits associated with introversion and are said to be introverted personality type, which means they prefer to pay attention to their own inner thoughts and ideas rather than what is happening around them. Introversion is a personality trait and a quality attribute. People that are introverted frequently pay greater attention to their own sentiments. They are typically reserved, introspective, and silent. Just like an extrovert leader, an introvert leader can mentor, guide, make crucial decisions, and network. Despite having a different leadership style, introverted individuals can nevertheless make a significant contribution to their organizations and the lives of the people they supervise, manage or lead.

Review of Literature

The relationship between personality and leadership and job success has been extensively researched by psychologists. Psychological and organizational behaviour research has long attempted to establish a causal relationship between individual traits, notably personality, and leadership and organizational success. According to Colquitt, a person's personality traits are the internal structures and tendencies that explain their qualities, patterns of thought, emotion, and behaviour (Colquitt, 2009). Ability captures what people can do, while personality catches what people are like (Colquitt, 2009). Characteristics of a person's personality include recurrent patterns or tendencies (Colquitt, 2009). As a result, personality is a changing process that has to do with people's psychological growth and development. In the highly competitive corporate environment of today, personality traits are extremely important. An inappropriate personality type frequently proves disastrous and results in unfavourable tensions and concerns in the workplace.

Despite being mostly out of our control, personality traits have a significant impact on our attitudes, as well as our expectations and presumptions about other people (Kinicki, 2008). According to (Kinicki, 2008), personality is a consistent collection of traits that determines a person's identity Extroverts are seen to possess attributes of extraversion that set the groundwork for becoming leaders. Being friendly, talkative, gregarious, aggressive, active, ambitious, and expressive are examples of extraverted tendencies (Barrick and Mount, 1991). They have an intense craving for admiration, acceptance by others, status, and power (McCrae and Costa, 1997). Extraversion is linked to adjective qualities including talkativeness, sociability, fervor, boldness, and dominance (Colquitt, 2009). The relationship between personality traits and success in the interviewing process is less well established, despite the fact that there is ample evidence that personality dimensions are indicators of work performance. Mueller and Plug's research demonstrates that personality qualities have an impact on income that is comparable to that of cognitive abilities (Mueller, Gerrit and Erik Plug, 2006). The substantial intergenerational link in labour market outcomes that cannot be explained by parental education and income transmission can also be explained by these characteristics. One trait demonstrated primarily by introverts is agreeableness. Agreeableness is a weak predictor of job performance (Barrick and Mount, 1991) According to a meta-analysis, personality qualities are related to job satisfaction (Judge et al, 2002), which may eventually foster leadership growth.

Contrary to popular belief, introverts are neither shy nor antisocial; rather, they are people who love spending time by themselves in order to recharge. The propensity of introverts is to analyses their ideas privately and to wait until they are well-formed before expressing them with others. Extroverts, on the other hand, are thought of as more sociable and outgoing since they get their energy from engaging with people (Depue & Collins, 1999). This difference is likely caused by sensitivity to stimuli, with introverts being highly sensitive to outside stimulus and extroverts being less sensitive and less reactive to sensory input. In an effort to better understand trait activation theory, (De Hoogh and Koopman, 2005) tested how a dynamic workplace affected the relationship between personality and charismatic leadership. According to research by De Hoogh and

colleagues, charismatic leadership was only associated with agreeableness, conscientiousness, and stable surroundings, while neuroticism and openness to experience were only associated with charismatic leadership in dynamic workplaces (De Hoogh and Koopman, 2005). The lack of a correlation between extroversion and charismatic leadership in either setting surprised the researchers, but they blame it on a potential self-presentation effect because participants were being assessed for managerial potential and may have thought extroversion was a highly desirable quality in a manager. In a ground breaking study on how organizations grow from excellent to great, Collins (2001) found that a Level Five Leader was one of the main factors contributing to success. The researchers discovered that this leader lacked charisma and extroverted traits; rather, they discovered that the most transformative leaders have a contradictory blend of individual humility and professional determination (Collins, 2001). They are confident and timid, according to Collin, as well as timid and aggressive.

(Grant and Hofmann, 2011) looked at the role that employee initiative played in moderating the link between extroversion of the leader and group output. The findings showed that extroverted leaders led passive employees to greater group performance whereas introverted leaders led proactive employees to greater group performance (Grant and Hofmann, 2011). These results, according to the researchers, can be linked to the introverted leader's willingness to listen to and accept advice from proactive staff members without feeling threatened or the need to demonstrate their superiority.

Personality & Leadership

Organizations are encountering a variety of difficulties as we move into the twenty-first century due to the evolving nature of employment. It is obvious that firms will need to alter their tactics to gain a competitive advantage as they broaden their horizons globally, rely on technology for communication, and train knowledge employees to be adaptive in response to constantly changing work needs to develop and transform into leaders (Tannenbaum, 2002). It is acknowledged that skilled leaders may aid in overcoming these difficulties and paving the road to accomplishing this aim in the dynamic workplace of today. Talented leaders can direct and mentor staff, teams, and organizations to succeed and get through these challenges. Personality plays an important role in determining effectiveness of leadership. Several research sought to identify traits that distinguish talented leaders, first driven by the trait approach to leadership.

Early research provided erratic results (e.g., (Bass, 1990); (Mann, 1959); (Stogdill, 1948)), but after the development of the 5-factor model of personality, interest in learning the characteristics of great leaders was rekindled (Costa & McCrae, 1992). The possibility to better comprehend the relationship between personality and effective leadership is provided by recent theoretical and methodological advancements (Antonakis, Day, & Schyns, 2012). Despite the fact that personality traits do not exist in isolation, previous studies have often looked at each feature separately. As an alternative, viewing personality as a higher-order assemblage, or cluster, of personality traits

enables a more comprehensive understanding of the person (Barrick & Mount, 2005). Grouping crucial performance elements, for instance, developed a taxonomy of leadership performance, providing a more comprehensive view of effective leadership performance. Additionally, previous research has mostly examined the relationship between personality and overall performance (Judge et al, 2002). Although there are numerous components of leadership performance that relate differently to parts of personality, some types of leaders may excel in some areas but not in others. An effective leader has been described in a number of ways. The trait approach to leadership aims to identify personality traits that are connected to good leadership which would also be appropriate from the viewpoint of the organization. The lack of a structure in describing personality, which causes a wide range of attributes to be explored under numerous names, is one of the main issues in previous research linking personality to leadership.

Leadership Criteria

Different approaches can be used to define and assess leadership. Leadership can be divided into two major groups: leadership emergence and leadership effectiveness (Lord et al., 1986). Research on leadership emergence "identifies the elements linked with someone being seen as leader like," according to (Hogan R., 1995). Whether (or to what extent) someone is perceived as a leader by others, who frequently have little knowledge of that person's performance, is referred to as "leader emergence." The ability of a leader to influence and direct his or her unit's activities toward the accomplishment of its objectives is known as leadership effectiveness. Team, group, or organizational effectiveness should be used to gauge a leader's effectiveness. In reality, however, evaluations of a leader's effectiveness typically come from a leader's peer, superior, or subordinate.

Even though these ratings are the most common way to evaluate a leader's effectiveness, they have the potential to be biased. As opposed to objectively measurable performance outcomes, these ratings are based on people's judgments of a leader's success. There is evidence that judgments of leadership effectiveness converge with objective measurements of work group performance, regardless of whether implicit leadership theories, selective recollection, or even halo influence ratings of leadership effectiveness. Even though these ratings are the most common way to evaluate a leader's effectiveness, they have the potential to be biased. As opposed to objectively measurable performance outcomes, these ratings are based on people's judgments of a leader's success. However, there is evidence that ratings of leadership effectiveness converge with objective measures of work group performance, supporting the use of supervisor and subordinate ratings as measures of leadership effectiveness, regardless of whether ratings of leadership effectiveness are skewed by implicit leadership theories, selective recall, or even halo. Leadership emergence and effectiveness conceptually reflect two levels of analysis. Numerous early research on leadership that were conducted in groups without a formal leader—that is, a leader arose from within a group—show that leadership emergence is a within-group phenomenon. In contrast, the above definition of successful leadership identifies it as a phenomenon that occurs between groups.

Characteristics of an Introvert

There can and have been many misconceptions about introverted individuals on the basis of their personality traits along with the characteristics and the behaviour they exhibit in an organizational setup. One of the main personality traits mentioned in numerous theories of personality is introversion. A person who tends to turn inward and concentrate more on their own thoughts, feelings, and moods rather than seeking out external stimulus is referred to as an introvert. As discussed, introversion is a quality of a person which is reflected by behaviours such as quiet, shy, closed and the like. People in an organization may perceive introverted individuals as slow thinkers, less competitive, less friendly sometimes less trustworthy even, lacking the spark and many more. But, this does not necessarily mean they fall any short of what is required to be a good manager or an effective leader. Studies and researches have provided many insights towards these characteristics of introverts and their advantages in an organizational setup. Introverts are basically thinkers rather than slow thinker. They tend to think first and then respond making their response much more apt for the situation unlike most of the introverts who just get to react as they are triggered. Introverts also tend to analyse more than an extrovert; they seek to assess the situation from various angles before coming up to a conclusion. This characteristic proves to be of much advantage as it provides much better understanding of themselves and the environment.

Introverts as perceived are not closed but are reserved and share very strong bonds with the ones they are comfortable with. As they are reserved they are inside seeking unlike extroverts who are outside seekers. Introverts are also assumed to be less expressive by many, but this lack of expression is only limited to facial expressions. On the other hand it has been found by many researchers studying the traits of and personalities of highly effective and successful individuals that majority of the artists who have moved masses through their views and concepts have been introverts. Scientists like Sir Isaac Newton and Einstein were introverted individuals. Successful tycoons like Warren Buffett, Bill Gates and Elon Musk have been explicitly agreed to have introverted qualities. As per a recent report by Gadget360 degrees Amazon currently employs approximately 0.7 million employees worldwide while employing 0.5 million alone in the US which is up 43% from the year before and more than triple what it was five years ago. Tesla CEO Elon Musk has over 100 million Twitter followers. Making Musk the 6th most followed individual in the Twitter space. These highly successful individuals who exhibit introverted qualities have been successful and effective as they have been minutely observing the needs of the people from not only inside but outside as well and this has helped them in making all possible changes and modifications in their strategies that has eventually contributed to the enormous success of their organizations respectively. Introverts do focus on depths of the matter at hand and because of which they are able to produce what is actually wanted by their stakeholders. Embracing and enjoying their solitude these introverts let their work do the talking. Such individuals may seem to be slow at speaking about the situation and what they are up to or what they are planning to do or even what is their plan at hand but they are extremely good at putting the strategies on to papers

in the form of models and strategies to tacked the situation at hand in the best possible and refined manner which evident from the result accomplished.

Figure: Characteristics of Introverted Leaders

Thinkers
• Tend to first think before responding

Analyzers
• Try to analyze situation from different viewpoints before acting

Inside Seeking
• Realize happiness and energy through seeking answers from within

Reserved
• Share strong connection with a few and limited number of individuals

Less Expressive
• Express less verbally or facial expressions & prefer writing instead

Doers
• Tend practice rather than preach

Focus on substance and depth
• Try to observe deep and minute details of the situation

Introversion and Leadership

It has always been a matter debate regarding the effectiveness of introverted individuals as leaders. Does introversion end up producing remarkable results when leadership is considered or does the traits of an introvert is only good for making an obedient employee. Well studies have found that some of the best listeners of their team members, clients, and consumers are introverted leaders. Introverted bosses build close relationships with their team members at work. When they give tasks or ask team members to take on difficulties, this works to their benefit. To generate intelligent

responses and ideas, they also carefully consider the objectives and difficulties facing the team. In leadership positions, introverts typically let others shine and give them credit for accomplishments. Today's business leaders must comprehend why introverts are excellent leaders in the current business environment. For an organization to achieve the desired results and guarantee a higher return on shareholder money, its executives must operate at peak efficiency for which it becomes mandatory to evaluate and know the kind of leadership style would suit the best. To ensure that the appropriate leader is in control of that team, it is crucial for a company's leaders to comprehend the elements of the team. According to a recent study, extroverted executives can really hurt a company's success, especially if the followers are also extroverted, Carmen Nobel writes in the Harvard Business School publication Working Knowledge. In other words, if everyone in the room is providing ideas and the leader is too busy being outgoing to listen to or act upon them, new ideas won't develop into successful ventures.

On the other hand, an introverted leader is more likely to pay attention to and consider the suggestions of a motivated team. A staff meeting, however, might come to resemble a Quaker meeting if an introverted leader is in charge of a group of obedient followers: there is a lot of thinking but little conversation. One may make sure the best leader is chosen to increase a team's efficacy and efficiency by recognizing the characteristics of introverts and extroverts. It follows that very little work would be done if everyone tried to emulate the outgoing, highly expressive, and sociable characteristics of an extrovert. Similar results would occur if everyone was an introvert; instead of tackling the issue head-on, everyone would be restrained and contemplating. Most commonly, introverts are described as being cold, unfriendly, and having negative attitudes and feelings. This would result in planning with no sign of implementation.

Conclusion

Most businesses in this fast paced modern era need to strengthen their leadership capabilities. Organizations that are successful don't wait for the leaders to emerge. Successful businesses look for leaders and put them in unusual situations designed to help them realize this potential. Thus, creating leaders and developing leadership within the leaders. More people can become leaders inside companies by making use of basic desired qualities like paying careful attention, education, and appropriate support and the like. Organizations must remember that while developing the leadership skills of some individuals, management of these skills are equally important as great leadership without excellent management is ineffective and occasionally much worse than the contrary. Combining strong management with excellent leadership, and eventually their mutual compensation, represents true performance. No one can simultaneously be a good manager and a good leader as these require different set of skills and are results of different set of traits laying in the foundation. The results expected and the mindset required for the both positions are poles apart. Thus, leadership has to be treated and nurtured differently. Some people have the potential to make great managers but not strong leaders. Others struggle to become effective managers while having

strong leadership potential. Both groups are valued by visionary organizations, and they go to tremendous lengths to join them. Many businesses neglect the latest specialized literature that explains why people are not very good managers and authentic leaders when hiring for leadership positions.

When a company is aware of the fundamental distinctions between management and leadership, it may start to prepare employees for leadership roles by considering both facets. Then comes the most critical part of developing a leader. A leader who by his qualities would sail the organization towards success. There exists a number of literature focusing and supporting certain set of traits that could lead to efficient and effective leadership in an organization. Introversion is a quality which has been misunderstood in an organizational setup in regard to leadership. It has been evident that in today's modern era more of the traits corresponding to introversion are suited for an effective and successful leadership. Hence organizations should be very observant towards the characteristics of individual so as to develop desired leadership qualities in amongst their employees and gif the organization with a leadership which not needed but deserved.

References

1. Agle, B. Nagarajan, N.J. Sonnenfeld J.A., & Srinivasan D. (2006). Does CEO charisma matter? An empirical analysis of the relationships among organizational performance, environmental uncertainty, and top management team perceptions of CEO charisma. Academy of Management Journal, 49, 161-174.

2. Antonakis J, Day DV, Schyns B. (2012) Leadership and individual differences: At the cusp of a renaissance. The Leadership Quarterly; 23:643–650.

3. Arthur W, Day D, McNelly TL, Edens PS. (2003). A meta-analysis of the criterion-related validity of assessment center dimensions. Personnel Psychology, 56:125–513.

4. Avolio BJ. (2007) Promoting more integrative strategies for leadership theory-building. American Psychologist, 62:25–33.

5. Barrick MR, Mount MK. (2005). Yes, personality matters: moving on to more important matters. Human Performance; 18(4):359–372.

6. Barrick, M. R., Mount, M. K., & Judge, T. A. (2001). Personality and performance at the beginning of the new millennium: What do we know and where do we go next? International Journal of Selection and Assessment, 9, 9–30.

7. Barrick, Murray R and Michael K Mount (1991) "The big five personality dimensions and job performance: a meta-analysis," Personnel Psychology, Vol. 44, No. 1, pp. 1{26.

8. Bass (1990). BM. Bass and Stogdill's handbook of leadership. New York: Free Press.

9. Bennis, WG. (1959). Leadership theory and administrative behavior: The problem of authority. Boston, MA: Boston University Human Relations Centre.

10. Bono, J. E. & Judge, T.A. (2004). Personality and transformational and transactional leadership: A meta-analysis. Journal of Applied Psychology, 89(5), 901-910.

11. Cain, S. (2012) Quiet: the power of introverts in a world that can't stop talking. New York: Crown Publishers.

12. Collins, J. (2001). Level 5 leadership: The triumph of humility and fierce resolve. Harvard Business Review, 83(7), 136.

13. Collins, J. (2011). Good to great: Why some companies make the leap to greatness and others on.

14. Colquitt, J, Le-Pine, J, & Wesson, M. (2009). Organizational Behavior; improving performance and commitment in the workplace, New York, McGraw-Hill, Irwin.

15. Costa, PT.; McCrae, RR (1992). Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) manual. Odessa, FL: Psychological Assessment Resources.

16. De Hoogh, A. H., Den Hartog, D. N., & Koopman, P. L. (2005). Linking the Big Five Factor of personality to charismatic and transactional leadership; perceived dynamic work environment as a moderator. Journal of Organizational Behavior, 26(7), 839-865.

17. Depue, R. A., & Collins, P. F. (1999). Neurobiology of the structure of personality: Dopamine, facilitation of incentive motivation, and extraversion. Behavioral and Brain Sciences, 22(3), 491-517.

18. Grant, A. M. (2013). Rethinking the extraverted sales ideal: The ambivert advantage. Psychological Science, 24 (6), 1024-1030.

19. Grant, A. M., Gino, F., & Hofmann, D. (2010). The hidden advantages of quiet bosses. Harvard Business Review.

20. Grant, A. M., Gino, F., & Hofmann, D. (2011). Reversing the extraverted leadership advantage: the role of employee proactivity. Academy of Management Journal, 54(3), 528-550.

21. Haakonsson, D. D., Burton, R. M., Obel, B., & Lauridsen, J. (2008). How failure to align organizational climate and leadership style affects performance. Management Decision, 46(3), 406-432.

22. Hammer, A.L. & Martin, C.R. (2003). Estimated Frequencies of the Types in the United States Population, Training Handout, Centre for Applications of Psychological Type, 3rd Ed.

23. Harper Collins. De Hoogh, A. H., Den Hartog, D. N., & Koopman, P. L. (2005). Linking the Big Five-Factor of personality to charismatic and transactional leadership; perceived dynamic work environment as a moderator. Journal of Organizational Behavior, 26(7), 839-865.

24. Hogan, R. (1995). J. Hogan personality inventory manual. 2nd. Tulsa: Hogan Assessment Systems.

25. Hogan, R.; Hogan (2007) J. Hogan personality inventory manual. 3rd. Tulsa: Hogan Assessment Systems.

26. Judge Timothy A., Joyce E. Bono, Remus Ilies, Megan W. Gerhardt (2002) "Personality and Leadership: A Qualitative and Quantitative Review"Journal of Applied Psychology Vol. 87, No. 4, 765–780

27. Judge, T.A., Bono, J.E., Ilies, R., & Gerhardt, M.W. (2002). Personality and leadership: A qualitative and quantitative review. Journal of Applied Psychology, 87(4), 765-780.

28. Kinicki, (2008).Organizational Behavior: Core Concepts, New York, McGraw-Hill Irwin.

29. Lord RG, De Vader CL, Alliger GM (1986). A meta-analysis of the relation between personality traits and leadership perceptions: An application of validity generalization procedures. Journal of Applied Psychology, 71:402–410.

30. Mann RD (1959). A review of the relationships between personality and performance in small groups. Psychological Bulletin, 56:241–270.

31. Mann RD (1959). A review of the relationships between personality and performance in small groups. Psychological Bulletin; 56:241–270.

32. Marks, H. M., & Printy, S. M. (2003). Principal leadership and school performance: An integration of transformational and instructional leadership. Educational Administration Quarterly, 39(3), 370-397.

33. McCrae RR, Costa PT. (1987). Validation of the five-factor model of personality across instruments and observers. Journal of Personality and Social Psychology, 52:81–90.

34. Merz EL, Roesch SC. (2011). A latent profile analysis of the Five Factor Model of personality: Modeling trait interactions. Personality and Individual Differences, 51:915–919.

35. Mueller, Gerrit and Erik Plug (2006) "Estimating the effect of personality on male and female earnings," Industrial and Labour Relations Review, Vol. 60, No. 1, pp. 3{22.

36. Murphy KR, Dzieweczynski JL. (2005) Why don't measures of broad dimensions of personality perform better as predictors of job performance? Human Performance, 18:343–357.

37. Ployhart, R. E., Lim, B. C., & Chan, K. Y. (2001). Exploring relations between typical and maximum performance ratings and the five factor model of personality. Personnel Psychology, 54(4), 809-843.

38. Ryckman, R. M., Thornton, B., Gold, J. A., & Collier, S. (2011). Considering Competition Avoidant Individuals Via the Big Five Model. Current Research in Psychology, 2(1), 108.

39. Tannenbaum, S. (2002). A strategic view of organizational training and learning In: Kraiger, K., editor. Creating, implementing, and managing effective training and development. p. 10-52.

40. Tett, R. P., & Burnett, D. D. (2003). A personality trait -based interactionist model of job performance. Journal of Applied Psychology, 88(3), 500.

41. Thornton, GC.; Rupp, DE.(2005). Assessment centres in human resource management. New York: Psychology Press.

Determinants of Capital Structure of Selected Large Cap Companies Listed in India

Mr. Gaurang Badheka

Assistant Professor

C K Shah Vijapurwala Institute of Management

Affiliated to Gujarat Technological University

gbadheka80@gmail.com

Dr. Kerav Pandya

Director

C K Shah Vijapurwala Institute of Management

Affiliated to Gujarat Technological University

kerav.pandya@cksvim.edu.in

Abstract

The concept of capital structure gained immense popularity among the academicians, researchers and practitioners since last seventy years. Many theories have been developed explaining the choice of long term sources of finance. It is one of the most controversial and debated concepts in the finance domain and no single theory is universally acceptable owing to the complexity involved in financing decision. Various company, industry and country specific factors play a very decisive role in determining the appropriate capital structure. The study aims to understand the explanatory power of determinants of capital structure of the sample of 59 large cap companies listed on Bombay Stock Exchange for the period of five years 2015-16 to 2019-20. Debt-equity ratio is taken as the dependent variable and size, profitability, liquidity, growth opportunities, liquidity, non-debt tax benefits and business risk are taken as the independent variable under the study. Correlation and OLS regression are applied to find the association and relationship between dependent and independent variables. The study found that size, tangibility and growth opportunity have a positive impact on the leverage but the impact is insignificant. On the other hand, Profitability, liquidity, non-debt tax shield and risk have a negative influence on the leverage of the firm, of which, profitability and liquidity have a statistically significant influence on the leverage while non-debt tax shield and risk are insignificant to the debt-equity ratio.

Keywords: Capital structure, Determinants, Theories of Capital Structure.

Introduction

Finance is one of the core and foremost requirement to start, run and grow any organization. No commercial activity can be undertaken without adequate funding. These finance need can be met by long term source or short term sources or both. It is a well-accepted and universal practice to finance the long term assets by the long term sources of finance and the short term assets are finance by the short term assets, with some exceptions. Long term sources of finance can also be used to fund the part of the current or short term assets in the business. From accounting point of view, financial or capital structure refers to the left side of balance sheet which is denoted by "Total Liability" consisting of share capital, long term debt and current liabilities. Simply putting, the term capital structure is defined as the total amount of long term debt and shareholders' funds. According to the definition of **Gerstenberg**, "Capital Structure of a company refers to the composition or make up of its capitalization and it includes all long-term capital resources". According to the definition of **James C. Van Horne**, Capital Structure is "The mix of a firm's permanent long-term financing represented by debt, preferred stock and common stock equity".

Thus, Capital structure refers to the mix of different sources of long term finance to meet the capital requirements of the firm. The permanent source of finance for a firm is primarily represented by long term debt, hybrid securities and equity share capital. Firm's capitalization includes long term sources of finance like equity share capital, preference share capital, bonds and debenture, long term borrowings, etc. Capital structure decision covers the selection of the appropriate source of long term finance and their relative proportion in the total capital requirements. Being one of the most crucial financial decision, the top management of the organization takes due care in designing the capital structure. Many factors are accounted for by the finance manager which choosing the capital mix. Some of the prominent factors are risk, cost of capital, control, taxation, government policies, legal restrictions, marketability, flexibility, timing, size and nature of business, floatation cost and many more.

Can there be any optimum capital structure? This question triggered a huge debate among the experts in choosing the optimum capital structure. By the term "Optimum Capital Structure", it is meant the most appropriate combination of the various sources of finance in line with the objectives of the firm. In finance domain, the ultimate objective of any business origination is the wealth maximization. Hence, the capital structure which enables the firm to maximize its value is called the optimum capital structure. It is the combination of debt-equity where the overall cost of capital is minimum. Any other combination of debt and equity would not the able to achieve the objective of maximizing the shareholders' wealth. Conceptually, to arrive at the optimum capital structure, the firm needs the overall requirement of capital, availability of various sources of finance, cost of each source of finance and rate of return on investment. However, in reality, the accurate and exact details as listed above are hardly available. Capital structure decision has been

one of the most researched and discussed topics in the domain of financial management. Many academician, experts and practitioners have tried to understand the dimensions and practices of capital structure through difference research across the globe.

Capital Structure Theories

Various experts and academicians, including noble laureates, have tried to understand and formulate the theories of capital structure. Different theories of capital structure have been developed based on unique assumptions. S. C. Myers had rightly said "there is no universal theory of capital structure and no reason to expect one". The statement indicates the complex nature of the subject matter and concludes that no single theory is able to provide a universal justification to the concept due to the firm, industry and country specific differences. Below is the summary of some of the leading theories of capital structure. These theories put to-gather provide a holistic understanding of the subject matter.

The foundation of the capital structure theories was laid down by Franco Modigliani and Merton Miller published a path breaking study in 1958 on the capital structure which gained immense popularity. Their theory served as the bases for the development of various modern theories of capital structure by other leading academicians and experts. They presented their theory on the premises that the value of the firm is based on the earning capacity of the firm which in turn ultimately depends on the investment decision. They concluded that the value of the firm is unaffected by the finance mix and the value of the firm is derived from the asset mix of the business and not on how these assets are finance.

In the initial study, Modigliani and Miller presented the theory assuming the no tax environment. Using very restrictive set of assumptions, they proved that the capital structure of the firm is irrelevant to the value of the firm. MM approach with no tax provided a behavioral justification of irrelevance of the capital structure based on the arbitrage process. The original theory presented in 1958 was widely criticized due to its very restrictive assumptions. In 1963, the paper was revised and improved by Modigliani and Miller by incorporating the corporate tax. They recognized that the value of the firm would enhance and cost of capital would reduce when there exist corporate taxes. The value of levered firm would be higher than the unlevered one by the amount of present value of tax benefits. In spite of the justifications provided by the authors, it is seldom to find any firm using 100% or near to 100% debt finance. Few years later, Merton Miller (without Modigliani) introduced the element of personal tax in the theory. His justification of centered around the personal income tax treatment on interest on debt and return on equity.

Trade-off theory is an improved and modified version of MM theory of capital structure with tax. The theory explains the selection of optimum level of debt by comparing its costs and benefits. Trade off theory explains the process of offsetting the costs of higher leverage against the benefits of debt in the business. Trade off theory mainly discusses two interrelated aspects – cost of

financial distress and agency cost. The very primary and evident benefit of using debt is the tax benefit due to the interest payment. Whereas, the cost of using the debt is cost of financial distress which includes bankruptcy cost and non-bankruptcy costs. Firms generally restrict debt financing to a certain limit due to these costs and benefits. Beyond a certain limit the marginal costs overweight marginal benefits of using the debt financing.

Pecking order theory specifies the order or the preference of using the sources of long term finance. The theory developed by Stewart Myers and Nicolas Majluf in 1984, states that finance managers follow a hierarchy or preference while considering sources of finance. The theory is based on the information asymmetry between managers and outside stakeholders. The managers, without any doubt, possess more information compared to the shareholders and other stakeholders. They prefer to go for debt financing when they are positive about the future outlook of the business and they prefer to use equity financing when they are doubtful about the future profitability and performance of the business. Retained earnings are the first choice for the managers followed by the debt and ultimately the equity capital to be used.

Signaling theory, as the name suggests, took the concept of asymmetry of information and explains that the internal stakeholder generally possess more and accurate information than the external stakeholders. So, the external stakeholders use the issuance of debt or equity capital as the signal for further action and decision. Issuance of equity share capital is perceived as a signal that the firm is not optimistic about the future prospects and issuance of debt is regarded as a strong bright prospect and usually emits positive signal about the health of the firm.

Numerous studies and researches have been conducted across the world on the applicability of the theories of capital structure. By studying the scholarly work on the topic, it can be concluded that there is no single theory which can be universally appliable. Various studies conducted at the different time period, with difference sample and different geography showed contradicting results and finding which is affirmative to the non-existence of single acceptable theory of capital structure.

Salim and Yadav (2012) examined the relationship between capital structure and firm's performance by taking the sample of 237 firms of the Malaysian listed companies cross six sectors.

Héctor Cuevas-Vargas et al (2022) attempted to examine the impact of capital structure and innovation on firms' performance among small and medium-sized (SMEs) manufacturing firms of Mexico. Partial Least Square Structural Equation Model from a sample of 220 Mexican firms was applied to conduct the study.

With the help of various theories and literature available on capital structure, ***Modugu (2013)*** studied the critical issues involved in the capital structure decision. He also presented a conceptual framework of various determinants and emphasized on the need for optimum capital structure for long term profitability and solvency.

Al-Shubiri (2010) compared the capital structure with the value to equity holders. He also examined the relationship between abnormal return and firms' leverage. It was concluded that the leverage and returns are negatively related.

Birru (2016) did a study to understand the Impact of Capital Structure on Financial Performance of Commercial Banks in Ethiopia. Two accounting-based indicators were taken as the dependent variable representing the financial performance and five capital structure measures as the independent variables for the period of 5 years.

A similar study was done by *Antwi et al. (2012)* to understand the impact of capital structure on valuation of business. The study was carried out on 34 companies quoted on Ghana Stock Exchange for the year 2010. It was found that equity and debt are found to be the major determinants of business valuation.

Another such study was undertaken by *Das and Swain (2018)* in Indian context to check the influence of capital structure on the firm's financial performance. Appling the regression on the data of the sample of 50 for 10 years, it was concluded that there is a significant relationship between capital structure and firms' performance.

Determinants of Capital Structure

Capital structure gained tremendous attention since the first paper on the topic was published by Modigliani and Miller in 1958. Many factors affect the financing decision of a firm. These determinants can be broadly classified into macroeconomic and microeconomic determinants of capital structure. Macroeconomic factors are those which affect the overall business environment and cannot be controlled. Microeconomic factors are specific to the concerned firm and generally within the control of the firms. A large quantity of material and research is available on the determinants of the capital structure. Below is an attempt to present some of the scholarly researches done on the topic and their findings.

Tiwari and Krishnankutty (2015) studied the determinants of capital structure on the balanced panel data of 298 firms listed on Bombay Stock Exchange from 2001 – 2010 using the quantile regression model. The results showed there is no association between dependent and independent variables in the model.

The study was done by *Khaki and Akin (2020)* to find the firm specific determinants of Gulf Cooperation Council (GCC) consisting of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE). The sample consists of 329 non-financial firms during the period of 2009 – 2017 and various regressions models were applied to carry out the study. The study indicated that size, tangibility, and growth opportunities have positive impact on leverage. On the other hand, profitability, age, financial constraints, liquidity, and government ownership have negative relationship with leverage.

Thippayana (2014) conducted similar study in Thailand on the data of 144 firms listed on Thailand Stock Exchange from 2000 to 2011. Multiple regression analysis was used to understand the relationship between capital structure as the dependent variable and selected explanatory variables.

Sharabanti Pal (2014) examined the determinants of capital structure on the sample of 37 Indian steel companies listed on Bombay Stock Exchange and National Stock Exchange. With the help of correlation and multiple regression, it was found that non-debt tax shield, tangibility and growth opportunities are positively related with leverage. Size has a significant negative relationship with leverage and profitability and business risk have negative impact but non-significant.

By taking the sample of 34 chemical companies listed on Karachi Stock Exchange, *Akhtar and Masood (2013)* explored and analyzed the capital structure determinants of chemical sector of Pakistan.

Baral (2014) undertook the study to examine the capital structure determinants of Nepalese Listed companies as on July 16, 2003. Total eight variables consisting of one dependent and seven independent variables were included in the study to identify the impact of these variables on capital structure. It was found that corporate size, growth and earnings rate are significantly affecting capital structure whereas other four variables are insignificant.

In a study, *Poddar and Mittal (2014)* examined the firm specific characteristics which might affects the capital structure of steel companies of India. They took the data of five steel companies of India for 15 years from 1997 – 2011, pooled regression method with fixed effect was applied on four variables.

In a unique study, *Nidar and Utomo (2017)* attempted to establish the relationship between capital structure and life cycle of the company. There are many variables which affect the capital structure of the firm. These variables kept on changing according to the phases of life cycle of the firm.

Hussain and Miras (2015) took the data of 10 years from 2003 – 2012 of 45 companies listed under food processing sector of Malaysia. The dependent variable for the study was total debt ratio and independent variables were size, profitability, growth opportunity, tangibility and liquidity.

Tiwari and Krishnankutty (2014) studied the fundamentals underling the capital structure determinants and evaluated the determinants of the same. They took a sample of 90 selected companies listed on Bombay Stock exchange from the period of 2002 – 2009 and applied the panel data methodology for regression.

Singh (2016) undertook a panel data analysis of the determinants of capital structure for the non-financial firms of Oman. By taking a sample of 61 companies listed on the Muscat Securities Market during 2011-2015, he performed panel data techniques; fixed and random effects on the dataset. It was found that that tangibility, profitability and liquidity have negative relationship with the leverage, and firm size and growth opportunity were positively related to the leverage.

Research Methodology

Extensive literature review on the subject matter helps to identify the research gap, research objectives and to frame the hypothesis. After the systematic literature review, it was found that the determinants of capital structure of large cap Indian companies were not been adequately studied. Numerous researches have been conducted by taking the sample from different industries and sectors but the studies based on the market capitalization of the Indian firms were not conducted to a great extent. Hence, the paper aims to understand the determinants of capital structure of large cap companies listed on Bombay Stock Exchange. Due to nature of the study, the listing on a particular stock market does not impact the analysis and results of the study. Based on the objective of the study, the hypothesis can be framed as below.

H0: There is no significant influence of selected independent variables on the debt-equity ratio of large cap companies in India.

H1: There is significant influence of selected independent variables on the debt-equity ratio of large cap companies in India.

The study aims at understanding the key determinants of capital structure of selected large cap companies listed on Bombay Stock exchange. The population for the study consists of all the companies listed on Bombay Stock Exchange, Mumbai. There were 75 large cap companies listed on BSE from which final 59 firms were selected. The list of large cap stocks is taken from the S&P BSE Large Cap Index Constituents available on BSE website as on 31st March 2021. Firms with inadequate data and zero value were removed due to the non-fulfillment of required criteria for data analysis and to obtain a balanced panel data for the analysis. After necessary data filtration, only those firms which has the full five years data and without zero value were considered for the study.

The study used descriptive statistics, correlation and regression on the panel data from the selected sample. The research is a longitudinal study based on the secondary data. The data was collected for the time period of five years from 2015 – 16 to 2019 – 20. Five years data of 59 firms and total 8 variables for each company year would provide a total 2,360 (59 companies x 5 years x 8 variables) observations. Most of the studies across the world on the topic used a minimum of 5 years data for panel regression. Data collection was done from the well-known database CMIE Prowess and SPSS and Eviews software are used to carry out the data analysis. To use multiple regression on the data set, the key assumptions of Multicollinearity, auto-correlation, normality and homoscedasticity were checked. The data was filtered and outliers were removed untill the data is available in the required format and acceptable characteristics. The variables used for the multiple regression model were selected from the literature.

Based on the extensive review of literature, some of the commonly and widely used variables are derived. In majority of the study, debt level is used as the dependent variable which again

bifurcated into total debt, long term debt and short-term debt level. Commonly found independent variables are size, profitability, assets, liquidity, non-tax benefit, business risk, growth opportunity, etc. Few studies also consider age, ownership structure, dividend policy, tax rate, product uniqueness, etc. also as the explanatory variables.

For the current study, total debt level is taken as the dependent variable which is denoted by the debt-equity ratio. Size, profitability, assets, liquidity, non-tax benefit, business risk and growth opportunity are considered as the independent or explanatory variables.

Size

It denotes the size of the firm. It is very important to understand the relationship between size and capital structure as the larger firms tend to diversify their financing sources compared to the smaller firms. This is because larger firms are able to take the advantage of economies of scale in issuing debt. Natural logarithm of Total assets is taken as a proxy for the size.

Growth

According to various studies firms with higher growth potential are found to be more levered compared to the low growth potential. Firms at the initial stage of life tends to be more concentrated on ownership, it is also expected that firms with high growth potential will need more external funding and can be highly levered. Growth opportunities are denoted by the percentage change in total assets.

Tangibility

Tangibility refers to the total tangible assets in the total assets. Firms with more tangible assets are more comfortable to acquire secured finance and can be more debt funded compared to firms with less tangible assets. Firms can use the tangible assets as the collateral which raising the debt financing for the business. Empirically it was observed that leverage and fixed asset ratio show the positive relationship.

Profitability

According to the Signaling theory, debt financing emits the positive signal about the future prospects about the firm and hence, the firm should go for debt finance and leverage and profitability should enjoy a positive relationship. However, research shows the contrary view on

this. Profitable firms are tend to have low debt level and indicate a negative relationship between debt and profitability.

Liquidity

Liquidity refers to the firms' ability to meet the short term obligations by using the liquid assets. Different studies showed contradicting results as some are showing positive relationship whereas some are showing inverse relationship.

Non-debt tax benefits

Tax plays a very crucial role in any financial decision and capital structure is not an exception to this. A firm which has a high non-debt tax shield generally prefers to have a lower level of debt. Firms prefer higher amount of depreciation as a non-debt tax shield to reduce the tax burden. Studies across the world show contradictory views on this aspect. Few conclude the negative relationship while few highlighted positive relationship between non-debt tax shield and level of debt.

Business risk

Business risk refers to the future uncertainty about the future operation and future profitability of the firm. Leverage has an inverse relationship with the business risk due to the increased risk of bankruptcy. In various studies the business risk is defined as a standard deviation of the various indicators of profitability. All these studies showed a negative relationship between business risk and leverage. Firms with greater leverage possess higher financial risk and financial distress.

Below is the summary of variables used for the regression model.

Variable	Indicator (Proxy)
Dependent Variable	
Debt level (Leverage)	Debt/ Equity ratio
Independent variables	
Size	Natural log of total assets
Profitability	Return on assets = (EBIT/TA) x 100
Tangibility	(fixed assets / TA) x 100

Growth opportunity	% change in Total assets
Liquidity	Current ratio
Non-debt tax shield	(Depreciation + amortization)/ TA x 100
Business risk	Standard Deviation of ROA

Data Analysis and Interpretation

Descriptive statistics, correlation and multiple regression is used to analyze the data. Regression equation is to be studies to understand the explanatory power of independent variables on the dependent variable. The variables are already defined and explained in the heading of research methodology. The multiple regression equation for the study can be framed as below.

Leverage ratio = f (firm size, profitability, tangibility, growth opportunity, liquidity, non-debt tax benefit, risk)

The statistical model for the same can be written as:

Debt-equity ratio = Constant + β1 (size) +β2 (profitability) + β3 (tangibility) + β4 (growth opportunity) + β5 (liquidity) + β6 (non-debt tax benefit) + β7 (risk)

Where β1, 2 ….7 are the slope or coefficient of respective independent variables.

The basic conditions for multiple regression are: normality, no auto-correlation, no multicollinearity and presence of homoscedasticity. The assumptions are checked in Eviews software.

When the data is not normal, the acceptable approach and remedy is to use the log transformation on the data set. In the study the normality of the data is attained by transforming the data into the natural logarithm. Log transformation would convert the non-normal data into the normally distributed dataset. The below table shows the descriptive statistics of the raw data and log transformed data.

Table 1: Descriptive statistics (Basic data) SPSS output

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
DE	59	.00200	5.78400	.5729831	1.12515197	3.262	.311	11.157	.613
TA	59	10.08509	15.69882	12.6145422	1.26873931	.365	.311	-.421	.613
ROA	59	.48257	62.45578	17.0304748	11.72215438	1.689	.311	3.650	.613

						Skewness		Kurtosis	
TANG	59	.19376	63.71757	24.2603967	16.10349248	.494	.311	-.325	.613
GROW	59	.35796	45.59056	13.4316429	10.08845558	1.445	.311	1.824	.613
CR	59	.12098	6.20978	2.0695615	1.31220731	1.100	.311	.987	.613
NDTS	59	.01696	8.69334	2.3970704	1.54318664	1.356	.311	3.819	.613
SD	59	.38016	12.77447	3.0151636	2.34932811	1.759	.311	4.262	.613
Valid N (listwise)	59								

Table 2: Descriptive Statistics (Log transformed data) SPSS output

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
LNDE	59	-6.21	1.76	-2.2246	2.10816	-.082	.311	-.998	.613
TA	59	10.08509	15.69882	12.6145422	1.26873931	.365	.311	-.421	.613
LNROA	59	-.73	4.13	2.6031	.76033	-1.339	.311	5.326	.613
LNTANG	59	-1.64	4.15	2.7798	1.20276	-1.809	.311	3.406	.613
LNGROW	59	-1.03	3.82	2.3085	.84818	-1.050	.311	3.025	.613
LNCR	59	-2.11	1.83	.5126	.71539	-.852	.311	1.903	.613
LNNDTS	59	-4.08	2.16	.5539	1.05799	-2.231	.311	6.410	.613
LNSD	59	-.97	2.55	.8189	.79356	-.263	.311	-.364	.613
Valid N (listwise)	59								

Below is the correlation matrix which shows the correlation between correlations of each variable with another variable. One of the prerequisites of multiple regression is the absence of multicollinearity. The presence of multicollinearity causes a serious problem and validity of the regression model. Multicollinearity is the existence of very high correlation among two or more independent variables in the multiple regression equation. It can lead to the misleading results and less reliable inference due to the overlapping relationship. Generally, when two variables have more than 0.80 correlation, it shows a strong case of multicollinearity. Variance Inflation Factor (VIF) and Tolerance level are the generally acceptable measures to detect the presence of multicollinearity. A normally acceptable limit of VIF is 10. However, few experts even take a

stricter threshold of VIF of 5. In the present study, the data is free from the multicollinearity problem as the VIF is below 10 which means that the inter connection of various independent variables are within the acceptable range.

Table 3: correlation matrix

Correlations

		LNDE	TA	LNROA	LNTANG	LNGROW	LNCR	LNNDTS	LNSD
LNDE	Pearson Correlation	1	.474**	-.581**	-.100	.101	-.696**	-.251	-.318*
	Sig. (2-tailed)		.000	.000	.449	.445	.000	.056	.014
	N	59	59	59	59	59	59	59	59
TA	Pearson Correlation	.474**	1	-.477**	.028	-.213	-.493**	-.126	-.384**
	Sig. (2-tailed)	.000		.000	.836	.105	.000	.342	.003
	N	59	59	59	59	59	59	59	59
LNROA	Pearson Correlation	-.581**	-.477**	1	-.149	.260*	.511**	-.060	.206
	Sig. (2-tailed)	.000	.000		.261	.047	.000	.654	.117
	N	59	59	59	59	59	59	59	59
LNTANG	Pearson Correlation	-.100	.028	-.149	1	-.103	.222	.897**	.165
	Sig. (2-tailed)	.449	.836	.261		.438	.091	.000	.212
	N	59	59	59	59	59	59	59	59
LNGROW	Pearson Correlation	.101	-.213	.260*	-.103	1	-.145	-.082	.072
	Sig. (2-tailed)	.445	.105	.047	.438		.274	.538	.590
	N	59	59	59	59	59	59	59	59
LNCR	Pearson Correlation	-.696**	-.493**	.511**	.222	-.145	1	.357**	.352**
	Sig. (2-tailed)	.000	.000	.000	.091	.274		.005	.006
	N	59	59	59	59	59	59	59	59
LNNDTS	Pearson Correlation	-.251	-.126	-.060	.897**	-.082	.357**	1	.232
	Sig. (2-tailed)	.056	.342	.654	.000	.538	.005		.077
	N	59	59	59	59	59	59	59	59
LNSD	Pearson Correlation	-.318*	-.384**	.206	.165	.072	.352**	.232	1

Sig. (2-tailed)	.014	.003	.117	.212	.590	.006	.077	
N	59	59	59	59	59	59	59	59

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Another key assumption of using the multiple regression is the data should be free from the autocorrelation. It is defined as the degree of similarity or correlation between the given time series data and the previous periods data. It is conceptually similar to the correlation between two time period but autocorrelation use the same time series data twice. Autocorrelation of error violates the assumption of Ordinary Least Squares (OLS) that the errors terms are uncorrelated. This means that OLS estimators no longer provided the Best Linear Unbiased Estimators (BLUE).

Durbin –Watson statistics is widely recognized as a tool to detect the presence and degree of autocorrelation. D-W score of 2 indicates no presence of autocorrelation. The result of D-W test can vary between 0 to 4. A score less than 2 indicates a positive autocorrelation and score close to 0 indicates a very strong case of autocorrelation. D – W result more than 2 is considered as negative autocorrelation. In general, score between 1.5 to 2.5 is widely acceptable as the fulfillment of assumption. Any result beyond this range indicates the positive or negative autocorrelation. Which means that the present time series data is seriously affected by the previous time series data positively or negatively. Autocorrelation can also be tested using Breusch-Godfrey Serial Correlation LM Test in Eviews. In the current study the p value of B-G serial correlation test is 0.7821 which is more than 0.05. Hence, the alternate hypothesis is rejected and null hypothesis is accepted. The null hypothesis of Breusch-Godfrey Serial Correlation LM Test is that there is no auto-correlation.

Breusch-Godfrey Serial Correlation LM Test: (Eviews output)

F-statistic	0.205855	Prob. F(2,49)	0.8147
Obs*R-squared	0.491602	Prob. Chi-Square(2)	0.7821

Homoscedasticity or homogeneity of variance is the last major assumption for applying the multiple regression. Homoscedasticity refers to the equal or similar variance in different groups. Put differently, homoscedasticity describes a situation when the error term of regression model is same across all values of independent variable. Opposite to homoscedasticity is heteroscedasticity which means that the error terms differs across values of independent variables. Remember that ordinary least-squares (OLS) regression seeks to minimize the values of residuals and in turn gives the smallest possible standard errors. Heteroscedasticity means "differently scattered"; this is opposite to homoscedastic, which means "same scatter." If this assumption is violated, the regression analysis cannot be used.
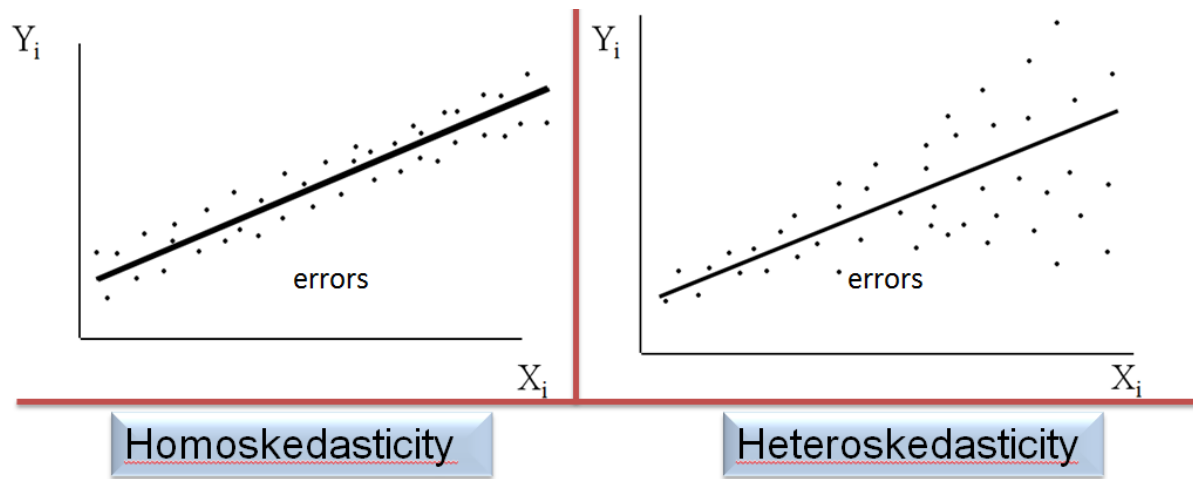
The Breusch-Pagan-Godfrey Test is a widely used test for heteroscedasticity of errors in regression. The null hypothesis for this test is that the error variances are all equal. The alternate hypothesis is that the error variances are not equal. More specifically, as Y increases, the variances increase (or decrease). If the test statistic has a p-value below an appropriate threshold (e.g. $p < 0.05$) then the null hypothesis of homoskedasticity is rejected and heteroskedasticity assumed. In the present study, the p value of the Breusch-Pagan-Godfrey Test is 0.9934 which is below the threshold level of 0.05. Hence, the null hypothesis stands true that the errors terms are scattered equally and the assumption of homoscedasticity is satisfied.

Heteroskedasticity Test: Breusch-Pagan-Godfrey (Eviews output)

F-statistic	0.135891	Prob. F(7,51)	0.9950
Obs*R-squared	1.080302	Prob. Chi-Square(7)	0.9934
Scaled explained SS	0.574631	Prob. Chi-Square(7)	0.9991

After satisfying the important conditions and assumptions of linear multiple regression, the regression model is run and the following output is obtained. The table 4 indicates the model summary, the table 5 shows the ANOVA statistics and third table highlights the summary of variables. The R and R Square values are 0.773 and 0.597 respectively with the significance f value is 0.000. This shows that the model is fit and 0.597 or around 60% variation in the dependent variable "Leverage" is explained by the independent or explanatory variables and remaining 40% variation is caused by other factors which can be studied further.

Table 4: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.773[a]	.597	.542	1.42716	.597	10.794	7	51	.000	1.894

a. Predictors: (Constant), LNSD, LNGROW, LNTANG, LNROA, TA, LNCR, LNNDTS

b. Dependent Variable: LNDE

Table 5: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	153.895	7	21.985	10.794	.000[b]
	Residual	103.876	51	2.037		
	Total	257.772	58			

a. Dependent Variable: LNDE

b. Predictors: (Constant), LNSD, LNGROW, LNTANG, LNROA, TA, LNCR, LNNDTS

The below table of coefficient explains the individual impact of the independent variable on the dependent variable and their direction. It also shows whether the impact is significant or insignificant. The result shows that Size, Tangibility and growth opportunity have positive relationship with the debt level but the impact is insignificant. It can be said that firms with bigger size, more tangible assets and higher growth potential tend to have a higher level of leverage.

On the other hand, Profitability, liquidity, non-debt tax shield and risk have a negative impact on the leverage level of the firm. Out of these, profitability and liquidity have a significant influence on the leverage while non-debt tax shield and risk are insignificant to the debt-equity ratio. It can be said that firms with higher Profitability, liquidity, non-debt tax shield and risk prefer to keep the leverage level low and vise-a versa.

From the below table of coefficient, the multiple regression equation can be written as:

Leverage or debt-equity ratio = (-2.412) + 0.145 (size) + (-1.033) (profitability) + (0.395) (tangibility) + (0.415) (growth opportunity) + (-1.053) (liquidity) + (-0.615) (non-debt tax benefit) + (-0.158) (risk)

Table 6: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.412	2.920		-.826	.413
	TA	.145	.194	.087	.749	.458
	LNROA	-1.033	.335	-.372	-3.085	.003
	LNTANG	.395	.375	.225	1.054	.297
	LNGROW	.415	.252	.167	1.650	.105
	LNCR	-1.053	.393	-.357	-2.679	.010
	LNNDTS	-.615	.443	-.309	-1.390	.171
	LNSD	-.158	.265	-.060	-.598	.552

a. Dependent Variable: LNDE

Below table shows the expected relationship versus observed relationship between the dependent and independent variables. The theoretical relationship between variables was tested by various researchers in their respective study. Khaki, A. R., & Akin, A. (2020), Guner (2015), Malinić et. al (2013), etc.

Table 7

Variable	Expected Relationship		Observed relationship
	Pecking order theory	Trade-off theory	
Size	Negative	Positive	Positive
Tangibility	Positive	Positive	Negative

Profitability	Negative	Positive	Positive
Growth opportunity	Positive	Negative	Positive
Liquidity	Negative	Positive	Negative
NDTS	Negative	Negative	Negative
Risk	Negative	Negative	Negative

The result of the study is consistent with majority of the studies done earlier. As explained by previous researches, the findings do not show a clear inclination towards a particular theory. Some explanatory variables follow Pecking order theory and others follow Trade-off theory. The relationship and impact of the independent variables in terms of direction and strength vary significantly across the studies. And hence, it would be inappropriate to generalize the impact and findings of these variables.

The study is limited to the large cap companies listed in India for the duration chosen for the study. The results may deviate if the same is conducted on a different sample based on geography, time period, horizon, etc. The research can be extended to the Mid cap and Small cap firms and the comparative analysis can be done on the results obtained in such research. Further, similar study can be undertaken by selecting a wider time period to see whether the results of a broader time horizon is different from the shorter time horizon. There is a scope of studying the determinants based on the nature of business to examine whether the determinants have same impact on manufacturing firms verses service sector firms.

Conclusion

The present study helps to understand the determinants of large cap companies listed in India. It provides the insights into factors most important while deciding the debt equity ratio. Large cap firms have their unique characteristics in terms of size, assets, profit, liquidity, etc. However the present study is confined to the time duration of only 5 years. The longer period may provide a different result than the currently obtained one. Further, other explanatory variables may also be included in the study to provide the better and wider understanding on the determinants of the capital structure. The time period of 5 years other than the chosen one may lead to different results. The sample of other geography can also provide a different perspective as compared to Indian context.

References

1. Mahfuzah Salim, Raj Yadav, Capital Structure and Firm Performance: Evidence from Malaysian Listed Companies, Procedia - Social and Behavioral Sciences, Volume 65, 2012, Pages 156-166, ISSN 1877-0428, https://doi.org/10.1016/j.sbspro.2012.11.105.

2. Cuevas-Vargas, Héctor & Cortes Palacios, Hector & Lozano-García, Jeffrey. (2022). Impact of capital structure and innovation on firm performance. Direct and indirect effects of capital structure. Procedia Computer Science. 199. 1082-1089. 10.1016/j.procs.2022.01.137.

3. Modugu, Prince Kennedy. (2013), Capital Structure Decision: An Overview. Journal of Finance and Bank Management, 1(1), pp. 14-27.

4. Faris Nasif AL-SHUBIRI, 2010. "Capital structure and value firm: an empirical analysis of abnormal returns," Economia. Seria Management, Faculty of Management, Academy of Economic Studies, Bucharest, Romania, vol. 13(2), pages 240-253, December.

5. Birru, M.W. (2016). The Impact of Capital Structure on Financial Performance of Commercial Banks in Ethiopia. Global Journal of Management and Business Research, Volume 16, Issue 8, Version 1.0,

6. Azhagaiah, Ramachandran & Gavoury, Candasamy. (2011). The Impact of Capital Structure on Profitability with Special Reference to IT Industry in India vs. Domestic Products. Managing Global Transitions. 9. 371-392.

7. Samuel, Antwi & Atta Mills, E. & Zhao, Xicang. (2012). Capital structure and firm value: Empirical evidence from Ghana. International Journal of Humanities and Social Science. 3. 103-111.

8. Das, Chandrika Prasad & Swain, Rabindra. (2018). Influence of Capital Structure on Financial Performance. Parikalpana: KIIT Journal of Management. 14. 10.23862/kiit-parikalpana/2018/v14/i1/173256.

9. Moksidul Hoque (2019), Literature Review on Capital Structure and Firm Performance, Journal of Advanced Research in Business and Management Studies 17, Issue 1 (2019) 1-9.

10. Modigliani, F., & Miller, M. H. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. The American Economic Review, 48(3), 261–297.

11. Modigliani, F., & Miller, M. H. (1963). Dividend Policy and Market Valuation: A Reply. The Journal of Business, 36(1), 116–119.

12. Myers, S. C. (1984). The Capital Structure Puzzle. The Journal of Finance, 39(3), 575–592.

13. Myers, S. C. (2001). Capital Structures. The Journal of Economic PErspective, 15(2), 81–102.

14. Myers, S. C., & Majluf, N. S. (1984). Corporate Financing And Investment Decisions When Firms Have Information that Investors Do Not Have. Journal of Financial Economics, 13, 187–221

15. Tiwari, Aviral & Krishnankutty, Raveesh. (2015). Determinants of Capital Structure: A Quantile Regression Analysis. Studies in Business and Economics. 10. 16-34. 10.1515/sbe-2015-0002.

16. Khaki, A. R., & Akin, A. (2020). Factors affecting the capital structure: New evidence from GCC countries. Journal of International Studies, 13(1), 9-27. doi:10.14254/2071-8330.2020/13-1/1

17. Pornpen Thippayana, (2014), Determinants of Capital Structure in Thailand, Procedia - Social and Behavioral Sciences, Volume 143, 2014, Pages 1074-1077, ISSN 1877-0428, https://doi.org/10.1016/j.sbspro.2014.07.558.

18. Ayşegül Güner (2016), The Determinants of Capital Structure Decisions: New Evidence from Turkish Companies, Procedia Economics and Finance, Volume 38, 2016, Pages 84-89, ISSN 2212-5671, https://doi.org/10.1016/S2212-5671(16)30180-0.

19. Pal, Shrabanti. (2014). A Study On Capital Structure Determinants Of Indian Steel Companies. International Journal of Business Management & Research (IJBMR), Vol. 4, Issue 4, August 2014, pp. 89-98.

20. Pervez Akhtar & Sabeen Masood (2013), "Analysis of Capital Structure Determinant: A case from Pakistan's chemical sector companies listed at Karachi stock exchange," International Journal of Business and Social Research, MIR Center for Socio-Economic Research, vol. 3(5), pages 43-49, May.

21. Baral, K. J. (2006). Determinants of Capital Structure: A Case Study of Listed Companies of Nepal. Journal of Nepalese Business Studies, 1(1), 1–13. https://doi.org/10.3126/jnbs.v1i1.34

22. Poddar, N., & Mittal, M. (2014). A Research Paper Capital Structure Determinants Of Steel Companies In India: A Panel Data Analysis. GALAXY International Interdisciplinary Research Journal, GIIRJ, Vol.2 (1), January 2014, pp. 144 – 158.

23. Nidar, Sulaeman & Utomo, Rizki. (2017). Company Life Cycle and Capital Structure of Manufacturing Sector In the Consumer Goods Industry. Jurnal Bisnis dan Manajemen. 18. 46-54. 10.24198/jbm.v18i1.43.

24. Hussain, Siti & Miras, Hassan. (2015). The Determinants of Capital Structure for Malaysian Food Producing Companies. International Journal of Accounting and Business Management. 4. 138-161. 10.24924/ijabm/2015.04/v3.iss1/138.161.

25. Aviral Kumar Tiwari And Raveesh Krishnankutty (2014), Determinants of capital structure: comparison of empirical evidence for the use of different estimators, Theoretical and Applied Economics, Volume XXI (2014), No. 12(601), pp. 63-82.

26. Singh, D. (2016). A Panel Data Analysis of Capital Structure Determinants: An Empirical Study of Non-Financial Firms in Oman. International Journal of Economics and Financial Issues, 6(4), 1650–1656. Retrieved from https://www.econjournals.com/index.php/ijefi/article/view/2998

E-Banking Payment Products and Systems in Gujarat State: From E-Customers' Perspectives

Dr. Anand D. Mehta

Head, P&GA, PRL, Ahmedabad, Gujarat, India

anandreiki1008@yahoo.com

Prof. (Dr.) Vasudev A. Modi **

Professor, Department of Commerce, M.K. Bhavnagar University, Bhavnagar, Gujarat, India

mybkschool@gmail.com

Abstract

E- Banking Payment systems has created plenty of opportunities for players in banking sector. While the new entrants have the advantage of latest technology, the goodwill of the established banks gives them special opportunity to lead online world. But merely putting existing services online won't help the banks in holding their customer close. Instead, banks must learn to capitalize their customers' different online financial services relationships. The research effort on the part of the researcher includes the collection of the opinions of the 400 e-customers each using E-Banking payment systems across Ahmedabad, Baroda, Bhavnagar, Surat and Rajkot city of the Gujarat State. Their perspectives are measured in context of information systems success quality. Further *"Will the Banks be able to capitalize opportunities presented by the E-Banking Payment Products and Systems and harness the technology to improve the products and efficiency"*, thereby making e- banking payment systems prospective? An attempt is made to answer the aforesaid question through our study.

Keywords - E- Banking Payment Products, E- Banking Payment Systems, E- Customers, Information System Success Quality, Garret Ranking Technique, Prospectiveness.

Introduction

Bankers' Perspectives on E- Banking Payment Systems from an operational perspective, indicated that banks with web-based banking realized significant benefits. First, e-transactions significantly lower the cost per transaction and thus contribute to the bottom line of the bank. Second, Internet banking allows banks to offer ancillary services such as insurance, brokerage services, and mortgage payments through their web site. Such services are offered either directly or through a partner firm. Revenues generated from these services are an added bonus to the bank. Third, successful launch of an e-commerce site improves service quality as the customer is presented with several options (Internet, in person, ATM, phone, interactive voice response, etc.) to transact with the bank. These options can result in an increased number of customer accounts. E-banking payment systems allows customers to conduct certain transactions (e.g., checking balances, funds transfers, bill payment, etc.) online at any time and thus it reduces the number of physical visits to a bank. This added convenience to the customer lowers transaction costs to the bank—a win-win proposition for the bank and its customers. Compounding this issue is the fact that there is a dearth of qualified technology and business savvy individuals to run e-commerce operations. Such paucity hinders the ability of many banks to launch web-banking unless they decide to outsource these operations. Moreover, banks are embracing e-commerce albeit slowly. They appear to realize the potential of this profound change and do not want to be left behind. Banks are cognizant of the strategic operational value of the Internet as an effective channel and seem to realize that the benefits outweigh the costs. However, they have a variety of concerns ranging from security to the integration of the Internet channel with existing business processes and systems. Despite these concerns, in the future, banks will have to include web-based services in their portfolio of offerings to customers or else risk losing customers to banks that do consider e-banking payment systems as one shop stop for satisfying all the diverse financial needs of the e-customers.

Literature Review

A literature review discusses published information in a particular subject area, and sometimes information in a particular subject area within a certain time period. The literature review for the study purpose is stated in the tabulated manner which states the name of the author, the location, type of research, concept explained, constructs researched and results obtained. Thereafter the research gap developed by the researcher to substantiate the research work. The work done in the past decade in form of literature reviews are as under:

Allen H (2012) in the paper titled Innovations in E-Payments made a study based on the responses of 768 customers of public sector bank, Private Sector Bank & Foreign Bank (each one from these groups) operating in Amritsar district of Punjab and in case of fully E- bank, (three banks, one from each bank group) have been taken into consideration. He inferred that E-banking payment systems are more efficient in regards to time factor.

Kaur Navneet (2013) in the paper titled E-Banking Service Quality and Customer Loyalty: Changing Dynamics of Public, Private and Foreign Bank Consumers in India conducted factor analysis and ANOVA on the survey results derived from 415 respondents. The factor analysis and ANOVA, which indicated the service quality and customer loyalty in e-banking payments system being successful in India.

Craig B (2014) in the paper titled Resisting Electronic Payment Systems infers that E-payment systems are important mechanisms used by individual and organizations as a secured and convenient way of making payments over the internet and at the same time a gateway to technological advancement in the field of world economy

Yousafzai L. (2015) in the paper titled Defining the E- Banking Payment Systems Impact has highlighted the importance of reliability in the success of E-banking payment systems. Consumers are of no interest to preserve their financial works from one website to another. So, wining customer trust, services based on international electronic network must be more accessible and easier to use.

McHugh T (2016) in the paper titled The Growth of Person-to-Person Electronic Payments stated that E- payment systems has also become the major facilitating engine in ecommerce through which electronic business success relied upon. Electronic payment system had also brought about efficiency, fraud reduction and innovativeness in the world payment system.

Manon Arcand (2017) in the paper titled E-banking service quality and customer relationships states that age and gender quotas unquestionably enhance sample representativeness, the use of an online panel could indicate that respondents may have been more at ease with mobile and internet use than average consumers. Other limitations include the lack of discrimination between satisfaction and commitment, and conduct in the specific context of E-Banking industry in Canada.

Chaudhary (2018) in the paper titled How Companies use Internet Payment Systems opines that E-payment system tends to bring many electronic modes of payments through which financial institutions offer different e-payment opportunities and services to their customers such as the credit cards, debit cards, on-line E-Banking and mobile banking.

Hammoud Jamil (2019) in the paper titled The Impact of E-Banking Service Quality on Customer Satisfaction: Evidence from the Lebanese E-Banking Sector conducted SEM analysis on survey resulted by 258 respondents. The SEM analysis indicated customer satisfaction, service quality and reliability of E-banking payment scenario in banking sector.

Junadi, Sfenrianto (2019) in the paper titled The Future of E-commerce Payments opines that E-commerce became an opportunity for company to increase their selling. Electronic payment (e-payment) was developed to facilitate e-commerce transactions between consumer and seller. The consumer's intention to use e-payment with the by extending the unified theory of acceptance and use of technology (UTAUT) with culture and perceived

security into the model, in order to determine the significance factors that influence acceptance of e-payment technology.

Rani Malika (2020) in the paper titled A Study on the Customer Perception towards E-banking in Ferozepur district conducted ANOVA and Percentage method analysis on survey resulted by 300 respondents. The ANOVA and Percentage method analysis indicated that female customer were dominant in accepting E-Banking payments system.

Jayawardhena C. (2020) in the paper titled Overcoming constraints on Electronic Commerce – Internet Payment Systems explained about the main drivers for the and intention to use e- banking payment services with the help of research model for information processing view and it is a quantitative study with 400 respondents among e-customers using the electronic banking services.

Enos L (2021) in the paper titled Success Factors in E- Channels, identified several success factors about E-banking payment systems as perceived by e-customers: 1- improving reliability and security; 2- simplifying and merging initial services; such as having a bank account and loaning, insurance, financial investment and premiums; 3- privatizing and customizing capabilities in order to provide each customer with exclusive contributions.

Research Gap

A review of the various studies on prospectiveness of e-banking payment services revealed that the empirical research on E-Banking payment system's prospectiveness in Gujarat State, particularly from view point of information system success quality parameters is not yet attempted. The present study on "E-BANKING PAYMENT PRODUCTS AND SYSTEMS IN GUJARAT STATE: FROM E-CUSTOMERS' PERSPECTIVES" attempts to fill this gap.

Research Objective

To assess the perspectives of e-customers relative to E-Banking payment systems on the basis of information systems success quality, thereby indicating its prospectiveness in Gujarat State.

Research Hypothesis

The perspectives of e-customers relative to E-Banking payment systems on the basis of information systems success quality indicates its prospectiveness in Ahmedabad City.

The perspectives of e-customers relative to E-Banking payment systems on the basis of information systems success quality indicates its prospectiveness in Baroda City.

The perspectives of e-customers relative to E-Banking payment systems on the basis of information systems success quality indicates its prospectiveness in Bhavnagar City.

The perspectives of e-customers relative to E-Banking payment systems on the basis of information systems success quality indicates its prospectiveness in Rajkot City.

The perspectives of e-customers relative to E-Banking payment systems on the basis of information systems success quality indicates its prospectiveness in Surat City.

Research Methodology

The methodology of a particular research clarifies the type of research conducted, the type of method used and the research techniques adopted for the collection and analysis of the collected relevant information. A structured questionnaire is prepared to collect the data and in our study 2000 e-customers from Gujarat State that is 400 e-customers from each respective cities viz Ahmedabad, Baroda, Bhavnagar, Rajkot and Surat have been surveyed. The non-probability convenience sampling method is used to reach the respondents. The survey of 2000 e-customers was carried out for the one year time frame ie. Year 2021-2022. The Value of Cronbach's Alpha for assessment of the perceptions regarding information system success quality of selected e-customers shows that there is *good level* of internal consistency for Ahmedabad City, Baroda City, Bhavnagar City, Rajkot City and Surat City as suggested by Reliability Statistics viz 0.918, 0.872, 0.722, 0.853 and 0.808

Results - Hypothesis Testing - Comparative Assessment Of E-Customer's Perceptions:

The perspectives of the e-customers are analysed with the help of Henry Garret Rating & Ranking Method. To identify which statement is the most vital one to the researcher has used Garret's Ranking Test. It is calculated as percentage score and the scale value is obtained by employing Scale Conversion Table given by Henry Garrett. The Percentage Score is calculated as **Percentage Score = 100 (Rij – 0.50) / Nij.** Rij is Rank given for ith item jth individual and Nij is Number of items ranked by jth individual. The percentage score for each rank from 1 to 5 are calculated. The percentage score thus obtained for all the five ranks are converted into scale values using Scale Conversion Table given by Henry Garrett. The scale values for first rank to fifth rank are 75, 60, 50, 40 and 25 respectively. The methodology of a particular research clarifies the type of research conducted, the type of method used and the research techniques adopted for the collection and analysis of the collected relevant information. For literature review, mainly an exploratory type of method was used. But for policy research and secondary data collection, mainly the descriptive and historical method was adopted. While, field research was done for collecting primary data. For data analysis, suitable analysis techniques were used. The perspectives of the e-customers are analysed with the help of Henry Garret Rating & Ranking Method. To identify which statement is the most vital one to the researcher has used Garret's Ranking Test. It is calculated as percentage score and the scale value is obtained by employing Scale Conversion Table given by Henry Garrett. The Percentage Score is calculated as Percentage Score = 100 (Rij – 0.50) / Nij. Rij is Rank given for ith item jth individual and Nij is Number of items ranked by jth individual. The percentage score for each rank from 1 to 5 are calculated. The percentage score thus obtained for all the

five ranks are converted into scale values using Scale Conversion Table given by Henry Garrett. The scale values for first rank to fifth rank are 75, 60, 50, 40 and 25 respectively. The score value (fx) is calculated for each statement by multiplying the number of respondents (f) with respective scale values (x). The total scores are found by adding the score values (fx) of each rank for every statement. The mean score is then calculated to know the order of preference given by the respondents for the perceptions. Based on the mean score, the overall ranks are assigned for each.

Table 1: Rank Analysis of the of Perceptions with respect to Information Success Quality Which Considers E- Banking Payment System Prospective through Garret Ranking Technique for Ahmedabad City

No.	Perceptions with respect to Information Success Quality Which Considers E-Banking Payment System Prospective	Garret's Score	Mean Score	Rank
1	The distribution function about e-banking payment services helps banks to serve e-customers in a better way as they are distributed to the e-customers at a very cheap rate.	21600	54	2
2	The multiple action function about e-banking payment services helps banks to serve e-customers in a better way as multiple payment gateways can be used very easily.	24100	60.25	1
3	The dissemination function about e-banking payment services helps banks to serve e-customers in a better way as banks disseminates the information to e- customers as per their requirement	20500	51.25	3
4	The transaction function about e-banking payment services helps banks serve e-customers in a better way as they can carry out manifold transactions as per their requirement.	17200	43	4

Source – *Survey Results*

Table 2: Rank Analysis of the of Perceptions with respect to Information Success Quality Which Considers E- Banking Payment System Prospective through Garret Ranking Technique for Baroda City

No.	Perceptions with respect to Information Success Quality Which Considers E-Banking Payment System Prospective	Garret's Score	Mean Score	Rank
1	The distribution function about e-banking payment services helps banks to serve e-customers in a better way as they are distributed to the e-customers at a very cheap rate.	20020	50.05	3

2	The multiple action function about e-banking payment services helps banks to serve e-customers in a better way as multiple payment gateways can be used very easily.	22885	57.21	1
3	The dissemination function about e-banking payment services helps banks to serve e-customers in a better way as banks disseminates the information to e-customers as per their requirement	21380	53.45	2
4	The transaction function about e-banking payment services helps banks serve e- customers in a better way as they can carry out manifold transactions as per their requirement.	18170	45.43	4

Source – *Survey Results*

Table 3: Rank Analysis of the of Perceptions with respect to Information Success Quality Which Considers E- Banking Payment System Prospective through Garret Ranking Technique for Bhavnagar City

No.	Perceptions with respect to Information Success Quality Which Considers E-Banking Payment System Prospective	Garret's Score	Mean Score	Rank
1	The distribution function about e-banking payment services helps banks to serve e-customers in a better way as they are distributed to the e-customers at a very cheap rate.	25110	62.78	1
2	The multiple action function about e-banking payment services helps banks to serve e-customers in a better way as multiple payment gateways can be used very easily.	23305	58.26	2
3	The dissemination function about e-banking payment services helps banks to serve e-customers in a better way as banks disseminates the information to e- customers as per their requirement	21445	53.61	3
4	The transaction function about e-banking payment services helps banks serve e-customers in a better way as they can carry out manifold transactions as per their requirement.	20920	50.73	4

Source – *Survey Results*

Table 4: Rank Analysis of the of Perceptions with respect to Information Success Quality Which Considers E- Banking Payment System Prospective through Garret Ranking Technique for Rajkot City

No.	Perceptions with respect to Information Success Quality Which Considers E-Banking Payment System Prospective	Garret's Score	Mean Score	Rank

1	The distribution function about e-banking payment services helps banks to serve e-customers in a better way as they are distributed to the e-customers at a very cheap rate.	23170	57.93	2
2	The multiple action function about e-banking payment services helps banks to serve e-customers in a better way as multiple payment gateways can be used very easily.	22335	55.59	4
3	The dissemination function about e-banking payment services helps banks to serve e-customers in a better way as banks disseminates the information to e- customers as per their requirement	23260	58.15	1
4	The transaction function about e-banking payment services helps banks serve e- customers in a better way as they can carry out manifold transactions as per their requirement.	22865	57.16	3

Source – *Survey Results*

Table 5: Rank Analysis of the of Perceptions with respect to Information Success Quality Which Considers E- Banking Payment System Prospective through Garret Ranking Technique for Surat City

No.	Perceptions with respect to Information Success Quality Which Considers E-Banking Payment System Prospective	Garret's Score	Mean Score	Rank
1	The distribution function about e-banking payment services helps banks to serve e-customers in a better way as they are distributed to the e-customers at a very cheap rate.	21625	54.06	2
2	The multiple action function about e-banking payment services helps banks to serve e-customers in a better way as multiple payment gateways can be used very easily.	20970	52.43	4
3	The dissemination function about e-banking payment services helps banks to serve e-customers in a better way as banks disseminates the information to e- customers as per their requirement	21565	53.91	3
4	The transaction function about e-banking payment services helps banks serve e- customers in a better way as they can carry out manifold transactions as per their requirement.	22810	57.02	1

Source – *Survey Results*

Policy Implications City Wise

Ahmedabad City

The e-customers believe that the multiple action function about e-banking payment services helps banks to serve e-customers in a better way as multiple payment gateways can be used very easily, is the most meaningful and vital statement about information system success quality as suggested by Garret's Highest Mean Score (60.25). Therefore e-banking payments scenario can be considered to be prospective.

Baroda City

The e-customers believe that the multiple action function about e-banking payment services helps banks to serve e-customers in a better way as multiple payment gateways can be used very easily, is the most meaningful and vital statement about information system success quality as suggested by Garret's Highest Mean Score (57.21). Therefore e-banking payments scenario can be considered to be prospective.

Bhavnagar City

The e-customers believe that the distribution function about e-banking payment services helps banks to serve e-customers in a better way as they are distributed to the e-customers at a very cheap rate, is the most meaningful and vital statement about information system success quality as suggested by Garret's Highest Mean Score (62.78). Therefore e-banking payments scenario can be considered to be prospective.

Rajkot City

The e-customers believe that the dissemination function about e-banking payment services helps banks to serve e-customers in a better way as banks disseminates the information to e-customers as per their requirement, is the most meaningful and vital statement about information system success quality as suggested by Garret's Highest Mean Score (58.15). Therefore e-banking payments scenario can be considered to be prospective.

Surat City

The e-customers believe that the transaction function about e-banking payment services helps banks serve e-customers in a better way as they can carry out manifold transactions as per their requirement, is the most meaningful and vital statement about information system success quality as suggested by Garret's Highest Mean Score (57.02). Therefore e-banking payments scenario can be considered to be prospective.

Conclusion

E- Banking Payment systems has created plenty of opportunities for players in banking sector. While the new entrants have the advantage of latest technology, the goodwill of the established banks gives them special opportunity to lead online world. But merely putting existing services online won't help the banks in holding their customer close. Instead, banks must learn to capitalize their customers' different online financial services relationships. The e-customers experiences in form of their perspectives with respect to Information Success Quality will definitely help the modern banks to increase their revenues manifold as the E-banking Payment Systems will be established in proper shape through these parameters thereby contributing to the Digitalization of the Banks as well as ensuring more usage of the technology to be used by banks leading to the efficient operations. In nutshell all the hypothesis framed city wise indicated the prospectiveness of E-banking payment systems on the basis of information systems success quality in Gujarat State.

References

1. Allen H (2012). Innovations in E-Payments, *Journal of Information Technology Theory and Application*, 2012. 4(4).

2. Kaur Navneet (2013), E-Banking Service Quality and Customer Loyalty: Changing Dynamics of Public, Private and Foreign Bank Consumers in India, *Global Business & Management Research*, 7 (1).

3. Craig B (2014). Resisting Electronic Payment Systems, for e-Business. *Logistics Information Management*, 2016. 14(1/2).

4. ⁴Yousafzai L. (2015), Defining the E- Banking Payment Systems Impact, *The Journal of Internet Banking and Commerce*, 21(1).

5. McHugh T (2016). The Growth of Person-to-Person Electronic Payments, *International Journal of Management, Technology, and Social Sciences* (IJMTS).

6. Manon Arcand (2017), E-banking service quality and customer relationships, *International Journal of Bank Marketing, Emerald Insight*, Vol. 35 Issue: 7, pp.1068-1089.

7. Chaudhry (2018). How Companies use Internet Payment Systems Communications of the ACM, 29(3), 293-298.

8. Hammoud Jamil (2019), The Impact of E-Banking Service Quality on Customer Satisfaction: Evidence from the Lebanese E-Banking Sector, Evidence from the Lebanese E-Banking sector. SAGE Open, 8(3), 2158244018790633

9. Junadi, Sfenrianto (2019). The Future of E-commerce Payments, *Journal of management information systems*, 19(4), 39-50.

10. Rani Malika (2020), A Study on the Customer Perception towards E-banking in Ferozepur district, *Zenith International Journal of Multidisciplinary Research*, 2(1), 108-118

11. Jayawardhena C. (2020). Overcoming constraints on Electronic Commerce – Internet Payment Systems*, Information systems research*, 20(3), 196-215.

12. Enos L (2021), Success Factors in E- Channels, International *journal of electronic Banking*, 1(1), 73-94.

13. Marketing Research Concept and Cases by Donald R. Cooper, Pamela S. Schindler, *Tata Mcgraw   Hill, ISBN-13: 978-0-07-060091*

14. Research Methodology (Methods and Techniques) by C.R. Kothari, *New Age International (P) Limited, Publishers, ISBN (13): 978-81-224-2488-12.*

Corporate Social Responsibility and Funding Practices for Sustainable Development

Dr. Vijay Pithadia

GTU PhD Guide

pithadia_vijay@gtu.edu.in

Hima Jethva

GTU PhD Scholar

himajethva96@gmail.com

Abstract

In the era of fast developing 21st century for the any organization, it is very important to have a good market reputation among media, shareholders, employees, customers, competitors, government, industry etc. And for that it is very important to fulfil certain corporate social responsibilities by any organization or firm. This paper has included basic concept of Corporate Social Responsibility of any organization towards various internal as well as external drives which things can be included in corporate social responsibility is also discussed like as gender equality, education etc. CSR activity is not only important for external drives it is also important for employees within an organization comprehensive CSR model is also explained that how CSR activities affect to the various drivers. After that the meaning of sustainable development growth and goals are discussed which are decided by United Nations for upcoming years. There is a very strong and positive relationship between CSR and SD that we can say both are two sides of coins.

Keywords: Corporate Social Responsibility, Sustainable growth, relationship, CSR activity, SD goals.

Introduction

In this continuously developing and competitive era every company has to do something new to develop and sustain in the market. And it is become necessary for the any organization to take internal as well as external responsibilities of the organization. In the internal responsibilities we can say employees and as an external responsibility we can say stake holders, investors and suppliers. In the development of the organization there is also very good

contribution of the society. So, in return it is responsibility of the organization to give something to the society in various types like as environmental responsibility, ethical responsibility, economic responsibility and philanthropic responsibility.

Literature Review

1. **Pranjali Bhagwat (2011)**
2. [1] presented a paper on **"Corporate Social Responsibility and sustainable development"** The main discussion point of this paper is all about sustainable development and Corporate Social Responsibility that how corporate social responsibility and sustainable development is related to each other. There are certain strategies for the implantation for CSR activities in the organization for the sustainable development like towards employees, stake holders, investors, competitors, suppliers etc. In short, we can say that CSR activities within an organization and sustainable development are two sides of coins. CSR is basically all about company core values.

3. **Raluca Andreea Popa (2014)**[2] reviewed a paper on **"The corporate social responsibility practices in the context of sustainable development – the case of Romania"** Corporate Social Responsibility is become a central topic for the scholars now a days in terms of corporate governance studies, business ethics and laws. The concept of CSR is actively become wider due to changing point of view of doing business and increasing market competition. Initially this paper has explained all about corporate social responsibility and sustainable development how started in Romania that whole the history is explained like the **Awakening phase (1950-1960), Regulation phase (1970-1980), Contribution Phase (1990-2000) and transformation phase (2010+).** Certain CSR practices are also very well explained in Romania in this paper. And at the end, strengths, weakness, opportunities and threats of CSR activities and development in Romania is also mentioned.

4. **Dr. Michael Hopkins (2018)**[3] published a paper on **"what is corporate social responsibility all about?"** This paper has explained certain definitions of corporate social responsibility given by various authors in detail that particular definition and author is what trying to say and how it can be implemented at corporate level. In this paper Carroll's CSR pyramid is also explained which has argued about various responsibilities of the company as a CSR activity i.e., ethical responsibilities, legal responsibilities, economic responsibilities etc. CSR activity is mentioned in many ways like as corporate social responsibility, corporate responsibilities, corporate sustainability, corporate citizenship, good corporate governance etc.
5. **Niloufar Fallah, Shayan Nasrin, Mohabbati Kalejahi, Sepideh Alavi and Mohmmad Ali Zahed (2022)**[4], prepared a paper on **"Sustainable development goals as a framework for corporate social responsibility"** The various CSR activities are explained in this paper

like as media shareholders, board, managers, stakeholders, employees, customers, competitors, governments, industry, NGOs etc. What should be the responsibilities of the organization in many ways like it enhances a corporation's image and brand reputation and recognition, public trust and identification, customer satisfaction and loyalty etc. CSR model is also explained in this paper which includes integrating drivers, implementation target, vision, scope and outcome.

6. **Business Insights** published an article on **April 2021[5],** on the types of corporate social responsibility to be aware of. It has discussed basic concept of CSR activities like as Environmental responsibility, ethical responsibility, economic responsibility etc. There are also many benefits of CSR activities which probably increase market reputation of the company.

What is Corporate Social Responsibility?

Corporate Social Responsibility that basically we can understand that any organization contribute something to the society from its profit as society has contributed in growth of business in various terms. Corporate Social Responsibility relates to the social and environmental initiatives that an organisation incorporates into its 'business operations and interactions with its stakeholders' to build a sustainable future[6]. CSR activities includes so many things like as,

- Eradicating hunger, poverty and malnutrition
- Promoting education
- Promoting gender equality
- CSR initiatives related to the environment
- Protection of National Heritage, art and culture
- Measures can be taken towards the benefit and support of armed forces veterans, war widows and families
- Contribution to the prime minister's National Relief Fund or any other fund set up by the central government for welfare development and relief of the schedule caste, tribes, other backward classes, women and minorities.
- Contribution or funds provided to the development of technology located within the central government approved academic institutions.
- Contributions can be made towards rural development projects and slum area development

There is a no any particular description which define Corporate Social Responsibility activities in the organization. Still to understand and define it properly it is defined under the CSR rules which is as follows,

- Programs or projects which are relating to activities specified in the Schedule 7; or
- Programs or projects which relating to activities that are undertaken by the Board in that have been recommendations of the **CSR Committee** as per the declared CSR

policy. This would be subject to the condition that such policy covers subjects enumerated in the Schedule.

This definition of CSR suggests that it allows companies to engage in projects or programs relating to activities enlisted under the Schedule. While qualifying **listed companies** must engage in **CSR activities in India,** flexibility has been given to the company and **CSR committee** to decide which areas of development they want to contribute in. The activities taken up must be compulsorily displayed on the company website (if any)[7].

Common CSR policies includes,

- Adoption of internal control reform management teams that view employees as assets rather than costs.
- Commitment to diversity in hiring business employees and barring discrimination.
- Adoption of operating policies that exceed compliance with social and environmental laws.
- Taking responsibility for conditions under which goods are produced directly or by contract employees domestically or abroad.
- Advanced resources productivity, focused on the use of natural resources in a more productive, efficient and profitable fashion, such as recycled content and product cycling.
- Management teams that view employees as assets rather then costs.
- High performance workplace that integrates the views of line employees into decision making processes.

Types of CSR

Basically, Corporate Social Responsibility can be divided into four categories i.e., environmental, philanthropic, ethical and economic responsibility.

1. Environmental responsibility

Environmental responsibility of the organisation says that organization should behave with keeping in mind that activities of the organisation should not be harmful to the environment in any way. For that such companies use the word **"Environmental Stewardship"** to refer such initiatives. Certain environmental responsibilities taken by an organisation are as below,

 Reducing pollution, the use of single use plastic, water consumption, greenhouse gas emissions, increasing reliance on renewable energy, recycled or partially recycles materials, sustainable resources, offsetting negative environmental impact e.g. – by planting trees, funding research and donating to related causes.

2. Ethical responsibility

Organisation should never forget its certain ethical responsibilities like as fair treatment of all stock holders, including leadership, investors, employees, suppliers and customers. For example, a business might set its own, higher minimum wage if the one mandated by the state or federal government doesn't constitute a "liveable wage." Likewise, a business might require that products, ingredients, materials, or components be sourced according to free trade standards. In this regard, many firms have processes to ensure they're not purchasing products resulting from slavery or child labour[8].

3. Philanthropic responsibility

Philanthropic responsibility includes the funda of making the world and society a better place. As per philanthropic responsibility organisation dedicate some part of its earning to the society. Some firms donate money to the charities and non-profits organisation that align with their guiding missions.

4. Economic responsibility

Economic responsibility includes all the other three responsibilities i.e., the firm should not keep only the goal of profit but positive impact on the environment, people and the society.

Importance of CSR

CSR is not a legal requirement for the any company, but it is a basic responsibility of the firm. It can be seen as a good practice to take into account social and environmental issues. Certain social and ethical practices become useful to the organization to become successful. It improves reputation of the company in a market. The 2015 Cone Communications/Ubiquity Global CSR study found that a staggering **91%** of global consumers expect businesses to operate responsibly to address social and environmental issues. Furthermore, **84%** say they seek out responsible products wherever possible[9]. CSR activities of the organization creates trust and loyalty among the stake holders, investors and customers by making a promise to sustainably generate profits. Customers are becoming more aware of environmental issues. Reports show that 59% of consumers expect businesses to consider the climate and environment within their business practices[10].

Benefits of CSR

Certain benefits of CSR activities are as below,

- Improved public image
- Increased brand awareness and recognition
- Cost savings

- An advantage over competitors
- Increased customer engagement
- More benefits for employees
- Better brand recognition
- Operational costs savings
- Greater ability to attract talent and retain staff
- Easier access to capital
- Costs savings
- Easy to access finance
- Identify new business opportunities
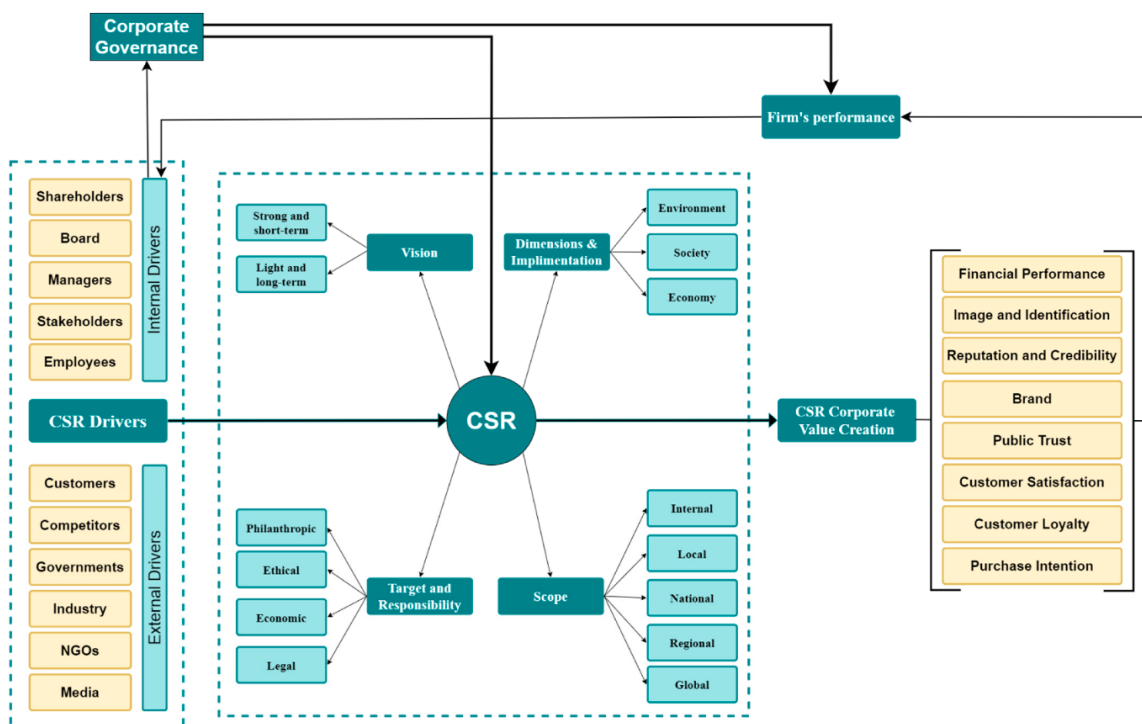- Reduce regulatory burden

Comprehensive CSR Model

Image 1[11]

- As discussed, it is very important for the any organization which adds value to the company. It creates trust among the investors and stakeholders due to which it become easy to have good financial stability within an organization.
- The main vision of CSR activity can be divided into two parts 1. Strong and short term 2. Light and long term.
- There are various dimensions and implementations like environment, society and economy.
- The target and responsibility are Philanthrope, ethical, economic, legal and scops are internal, local, national, regional, global.

- CSR drivers can be divided into two parts i.e., Internal drivers and external drivers. Internal drivers include stake holders, board, managers, stakeholders, employees etc. while external drivers include customers, competitors, governments, industry, NGOs, Media.
- All these CSR drivers will create CSR corporate values like as financial performance, image and identification, reputation and credibility, brand, public trust, customer satisfaction and purchase intention.
- All these values will increase the performance level of the firm and which will be beneficial to all the drivers.

What is Sustainable development growth

SDG is outlined by the United Nations that its objective is 'To advance a better and more sustainable future for all' The different challenges include in SDG are as below image,

Image 2[12]

SDG was established in 2015 for all members states of the United Nations. The plan is to achieve goals included by 2030.

Sustainable Development Goals

Every year, the UN Secretary General presents an annual SDG Progress report, which is developed in cooperation with the UN System, and based on the global indicator framework and data produced by national statistical systems and information collected at the regional level[13].

The Goals are as below,

1. No Poverty
2. Zero Hunger

3. Good Health and well being
4. Quality Education
5. Gender equality
6. Clean water and sanitation
7. Affordable and Clean energy
8. Decent work and economic growth
9. Industry, innovation and infrastructure
10. Reduced inequality
11. Sustainable cities and communities
12. Responsible production and consumption
13. Climate Action
14. Life Blow water
15. Life on Land
16. Peace, justice and strong institutions
17. Partnerships for the goals

Relation between CSR & sustainable development

- In 1987, the World Commission on Environment and Development published a landmark action plan for environmental sustainability. The commission, named after former Norwegian Prime Minister Gro Harlen Brundtland, defined sustainability as "meeting the needs of the present without compromising the ability of future generations to meet their needs."[14]

- So, now companies are focusing more on customers, employees, investors etc. to develop a blueprint to develop a sustainable growth and prosperity while taking care of their employees and environment.

- Sustainable development has its various types of interpretations, that's why we can say that CSR is an integral part of sustainable development. To know and understand more let's see below diagram,
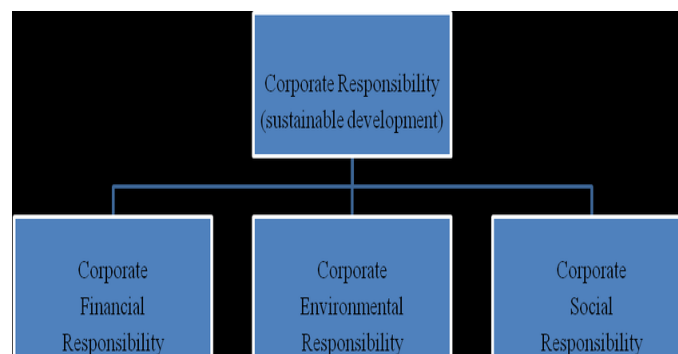
Relationship between SD and CSR images[15]

- The main goal of the company is to sustain in the market of full of competition. There are many internal as well as external factors which affects to the company and its policies and so it is become compulsory for the any organisation to save the environment as an outside factor. CSR is that thing which continue realise the company its such social responsibilities.
- So, in short CSR activity is actually become a compulsory for the any organisation for sustainable growth in the market in terms of corporate financial responsibility, corporate environmental responsibility, corporate social responsibility.

Conclusion

So, as discussed in this paper that CSR activity is a contribution of the any organization towards the society from earned profit. The CSR activity includes Eradicating hunger, poverty and malnutrition, promoting education, promoting gender equality, certain activities related to environment etc. Vice versa we have also discussed that what is sustainable development growth and also certain goals decided by United Nations i.e., no poverty, zero hunger, quality education, gender equality etc. So, with comparing certain CSR activities with sustainable development goals decided by UN, we can say there is a very strong relationship between CSR activity and SD. Because ultimately the direction of the both is the same. So, we can say that for any organization for the sustainable growth CSR activity within and outside the organization is very important.

References

1. Bhagwat, P. (2011). CORPORATE SOCIAL RESPONSIBILITY AND SUSTAINABLE DEVELOPMENT.

2. Popa, R.A. (2015). The Corporate Social Responsibility Practices in The Context of Sustainable Development. The Case of Romania. Procedia. Economics and finance, 23, 1279-1285.

3. Hopkins, M. (2006). What is corporate social responsibility all about? Journal of Public Affairs, 6(3-4), 298–306. https://doi.org/10.1002/PA.238

4. Fallah Shayan, N., Mohabbati-Kalejahi, N., Alavi, S., & Zahed, M. A. (2022). Sustainable Development Goals (SDGs) as a Framework for Corporate Social Responsibility (CSR). Sustainability, 14(3), 1222. https://doi.org/10.3390/su14031222

5. Stobierski, T. (2021). Types of Corporate Social Responsibility to Be Aware Of. Business in Society Strategy Sustainable Business Strategy. https://online.hbs.edu/blog/post/types-of-corporate-social-responsibility

6. Moore, H. (2020). Corporate Social Responsibility and sustainable development goals: What does it all mean? Social Connect Good. https://socialgoodconnect.org/corporate-social-responsibility-sustainable-development-goals/

7. Chandra, A. (2019). List of CSR Activities in India of Indian Companies. https://www.avinashchandra.com/list-of-csr-activities-in-india

8. Stobierski, T. (2021). Types of Corporate Social Responsibility to Be Aware Of. Business in Society Strategy Sustainable Business Strategy. https://online.hbs.edu/blog/post/types-of-corporate-social-responsibility

9. Collier, E. (2018). The Importance of Corporate Social Responsibility for Your Business. High Speed Training. https://www.highspeedtraining.co.uk/hub/importance-of-corporate-social-responsibility/

10. Moore, H. (2020). Corporate Social Responsibility and sustainable development goals: What does it all mean? Social Connect Good. https://socialgoodconnect.org/corporate-social-responsibility-sustainable-development-goals/

11. Niloufar Fallah Shayan, Nasrin Mohabbati-Kalejahi, Sepideh Alavi and Mohammad Ali Zahed. (2022). Sustainable Development Goals (SDGs) as a Framework for Corporate Social Responsibility (CSR). https://www.mdpi.com/2071-1050/14/3/1222/htm

12. Moore, H. (2020). Corporate Social Responsibility and sustainable development goals: What does it all mean? Social Connect Good. https://socialgoodconnect.org/corporate-social-responsibility-sustainable-development-goals/

13. Department of Economic and Social Affairs. (n.d.). Do you know all 17 SDGs? United Nations. https://sdgs.un.org/goals

14. Bhagwat, P. (2011). CORPORATE SOCIAL RESPONSIBILITY AND SUSTAINABLE DEVELOPMENT.

15. Bhagwat, P. (2011). CORPORATE SOCIAL RESPONSIBILITY AND SUSTAINABLE DEVELOPMENT.

Assessing the Impact of COVID-19 Pandemic on the Grocery Shopping Behaviors of Indian Customer

Mr. Vihaan Tandon

Student

Ahmedabad International School, Ahmedabad

Gujarat, India

Dr. Pravin Chavan

Associate Professor, St. Kabir Institute of Professional Studies

Ahmedabad, Gujarat, India

Abstract

The Covid-19 pandemic, the lockdown, and social distancing mandates have disrupted consumer buying and shopping habits. The immediate response to the Covid-19 spread and lockdown was the hoarding demand generated by the household for consumer goods. The study has assessed the impact of Covid-19 on the Grocery Shopping behavior of Indian consumers. The result shows that Rice, Cooking Oil, Sugar, hand wash, tea powder, vegetables, flour, fruits, Cereals, Pulses, and biscuits were the higher preferred items for hoarding. Two-step cluster analysis re-groups the respondents into low hoarding tendency, medium hoarding, and high hoarding tendency. Hoarding tendency is associated with the level of urbanization and income of the respondents but is independent of Covid-19 infection in the family. Furthermore, consumers shopped less often and visited shopping malls less frequently in favor of buying from local sellers. Further Covid-19 Pandemic induced the adoption of digital payment modes by the consumer. The study has important implications regarding adopting e-commerce and e-payments for retailers and surfaced research opportunities for social scientists to monitor the changes in consumer buying behaviour after the pandemic.

Keywords: Covid-19, Change in Consumer Buying Behaviour, Hoarding tendency, Shopping frequency, Shopping destination & Online payment.

Introduction

The global community faced a new and unique challenge with the Covid-19 pandemic. China was the first nation to see the massive spread of a new Coronavirus. (Zhu et al., 2020) Moreover, the virus quickly began to spread around the world. The WHO labeled the coronavirus outbreak as a "pandemic" on March 11, 2020 (WHO, 2020). In its early phase, the

form and nature of the virus were a mystery; the only thing which was recognized was that the virus spread through human contact (Morens & Fauci, 2020). Medical practitioners were also unknown of the course of medication; there was no sign of immediate vaccine availability. Without proven medical treatment, the challenge was to curb the spread of the highly contagious virus Covid-19 (Sharma et al., 2020).

To control the spread of the virus, China used the weapon of lockdown. As China was the first country to tackle the Covid-19 situation rest of the world followed Chine's path to control the spread of the virus by declaring country-wide lockdowns and imposing strict social distancing norms (Kaplan Juliana, 2020). Due to restrictions on cross-border travel and manufacturing, the global supply chain was disrupted. (Magableh Ghazim, 2021). The first Covid-19 infection was reported in India on January 27, 2020(Andrews et al., 2020). However, after a month's lag, the number of cases started to surge, affecting more states and union territories by the beginning of March(Siddiqui et al., 2020). On March 22, Janata Curfew was called in the country, which was further extended into the nationwide lockdown. On March 24, 2020, the Prime Minister of India declared a 21-days lockdown to safeguard the country's 1.3 billion people from infection. The decision was made on March 22, 2020, after a 14-hour voluntary public curfew known as the Janata (people) Curfew (The Economic Times, 2020).

The outbreak of the pandemic and subsequent lockdown imposed in the country was a sudden shock to the citizen of the country. The lockdown had an omnipresent impact across sectors of the economy. The immediate effect was uncertainties, mass unemployment, and recession. In addition, the economic downturn made Indians apprehensive about losing their employment (Aneja & Ahuja, 2021; Ganesh, 2020). Halt on all production activities most adversely impacted sections working in the formal and informal sectors of the economy(Chaudhary et al., 2020). In 2019–2020, India had 86.1 million salaried employees overall. (Vyas, 2020). This number decreased to 68.4 million in April 2020. It increased to 73.8 million by August 2020, but it was still 12.7 million less than in February 2020. (Ramakumar et al., 2021; Vyas, 2020). Products and services' output decreased as temporary industries and offices closed. Supply networks suffered significant disruptions. A concurrent contraction occurred on the demand side, independent of the supply shock. When economic units closed down, people lost their employment and salaries, and aggregate effective demand decreased. (Ramakumar et al., 2021).

The Covid-19 Pandemic, the lockdown, and social distancing mandates have disrupted consumer buying and shopping habits (Sheth, 2020). Consumers embraced newer technology that makes work, study, and consumption more convenient as they were forced to live under house arrest for an extended period (Sheth, 2020). The lockdown imposed on the economy brought a sudden change in consumer behavior. The change is mainly attributed to three reasons. Firstly, the constraints imposed by the government on the social movement. Henceforth it was a government-imposed behavioral change. As there were movement restrictions, households preferred to select the most convenient shops for purchasing, and proximity played a significant for shopping destinations. Hence, impulse buying shifted to

planned buying. Secondly, it was an outcome of the economic consequences of the lockdown that attributed to a sudden fall in income and uncertainties. As a result, customers were stockpiling up necessities for everyday usage.

The usual trend is to delay the acquisition and use of discretionary goods and services during times of crisis and uncertainty. Consumers classified goods into essential and non-essential items; preference was given to only essentials for shopping, and there was less demand for lifestyle products (Enormous, 2020). Thirdly the health consciousness, wherein individuals take safety measures to reduce the perceived risk during pandemic situations. The pandemic triggered health consciousness as one of the crucial influencers in making the purchasing decision. Mask and sanitizer were the new products added to the consumer purchasing basket.

Furthermore, with immunity booster medicines, households traditionally tried Ayurvedic Herbs and Spices to safeguard against infection. Technology adaptation was another positive change observed in the pandemic. To avoid infection, consumers shifted to an online model of ordering and payment. Small vendors facilitated ordering using SMS and WhatsApp messages. UPI-based payment apps surged as consumers intended to conduct contactless transactions. Whereas out of sheer necessity, the education sector shifted to an online teaching-learning model.

A McKinsey and Company study claims, "The contagious, isolated, and unstable economic climate have altered consumer behavior." These new consumer behaviors span all spheres of life, including how people work, learn, communicate, travel, shop and consume, live at home, entertain themselves, and deal with health and well-being (Sajal Kohli et al., 2020). A PWC survey, Covid-19 quickly changed consumer behavior, leading people to purchase more non-perishable goods, cleaning products, frozen meals, and other necessities while also taking advantage of internet shopping(Kate Ploy, 2020).

The present paper has empirically analyzed the changes in consumer behavior, its nature dimension, and its magnitude. The paper is mainly divided into the following parts.

1. The research question answered in the paper is mainly classified into the following parts.
    a. **Understanding the hoarding tendency**: Under the study item-wise, consumer preference for hoarding was evaluated. Further, using a two-step cluster analysis, the respondents were classified into different profiles based on their item hoarding behavior. Finally, an association between item hoarding preference and the demographics of the respondents was analyzed.
    b. **Change in consumer Purchasing Pattern:** Change in consumer purchasing pattern was evaluated for Cereals & Pulses and Groceries. In addition, the change was evaluated regarding the frequency of purchasing, shopping destination, and mode of payment method.

Review of Literature

The impact of Covid-19 on consumer buying behavior was a thrust area for researchers. As a result, numerous studies have been conducted to assess the impact of Covid-19 on consumer

behavior. The research on Hoarding Tendency, Changes in Shopping frequency, Changing in Shopping destination, and Changes in Payment methods is reviewed.

Hoarding:

The general public has experienced unprecedented levels of worry and dreads as a consequence of the Covid-19 pandemic (Islam et al., 2021; Xiong et al., 2020). As the Covid-19 pandemic spreads, people began hoarding supplies, including food, masks, toilet paper, and disinfectants (Laguna et al., 2020; Sim et al., 2020). It was a panic-buying outcome of anxiety, fear, and agitation. Panic buying is "a circumstance in which many individuals immediately purchase as much food and fuel as they can out of fear for the worse" (Cambridge Dictionary, 2022). The studies have identified the Covid-19 pandemic panic buying infused by numerous factors. Better knowledge of the Covid-19 pandemic increases vigilance toward the Covid-19 pandemic, and a stronger external health locus of control enhances Covid-19 -induced hoarding intention (Syahrivar et al., 2021). Further several psychological factors such as scarcity cues (e.g., loss of income), distress (e.g., depression), and neuroticism facilitated over-purchasing(Bentall Id et al., 2021). A snow-balling effect stimulated the Panic Buying behavior, as a small group of customers, out of fear, engage in panic buying; it spreads to other customers, enhanced by extensive social media sharing of pictures and videos of bare shelves in shops(Arafat et al., 2020; Taylor, 2021). Additionally, the news reporting analysis revealed that panic purchasing is influenced by media coverage (Yasir Arafat et al., 2020)

Psychopathic personality traits also motivate selfish over-purchasing (Taylor, 2021). Health belief model dimensions reveal perceived susceptibility and severity of contracting Covid-19, outcome expectation, i.e., the positive utility they place on panic buying, cues to action, and perceived in protecting themselves against Covid-19 influence on panic buying, and further partially mediated by the consumers' perceived scarcity of products(Chua et al., 2021). It was discovered that a broad range of variables impacted Covid-19 pandemic panic purchasing behavior, including primary crisis/disease-related, secondary psychological, informational, and socio-political, and third supply chain-related (Rajkumar & Yasir Arafat, 2021).

Further, media report analysis reveals that economic factors such as scarcity, increased demand, the importance of the product, and anticipation of price hikes (Bryan Lufkin, 2020) contributed to hoarding behavior. Other factors were a rumor, psychological factors (safety-seeking behavior, uncertainty, anxiety reduction, and taking control), social learning, lack of trust, government action, and experience were also responsible for panic buying(Arafat et al., 2020).

Noteworthy, Panic purchasing and hoarding were common human behaviors during times of Covid-19 crises across all economic classes, including low-income people (Yoshizaki et al., 2020). Furthermore, the population across cultures and national boundaries has shown a panic purchasing tendency at each step of the Covid-19 pandemic. India's fast-moving consumer goods companies are under pressure to raise output to satisfy demand in the Covid-19 pandemic (Kaur & Malik, 2020). The perceived threat of Covid-19, high intolerance of uncertainty, and

a great extent of information gathering about Covid-19 induced the reduction in purchasing frequency and contributed to increased purchasing quantity(Schmidt et al., 2021). Food products have the highest level of shopping expenditures and grow within the commodities assessed for the developed economy(Rossolov et al., 2022).

Frequency of Purchase:

According to Nielsen research, shoppers decreased their frequency of visits to physical shops when Covid-19 happened in March 2020 (Janssen et al., 2021), reduced their occasions of out-of-home consumption bought more frequently from online shopping channels(Nguyen et al., 2021; Pham et al., 2020). The study conducted by McKinsey and Company further reinforced consumers' reduction in shopping frequency (Sajal Kohli et al., 2020). Instead of making many trips to the store, the customer sought to make all of their purchases in one trip, increasing the volume and decreasing the diversity of their purchases (Vázquez-Martínez et al., 2021).

The reduction in the frequency of purchases is attributed to multiple reasons, including high levels of a perceived threat of Covid-19. Furthermore, a higher frequency of information gathering (media exposure) was positively associated with higher Perceived Threat. Lowering the frequency of shopping is attributed to the perception of an increased risk of Covid-19 infection while shopping and more items purchased during each visit (Schmidt et al., 2021). Further, reduction in shopping frequency is associated with gender, wherein women reduced their shopping visits. Level of education also contributed to lowering the shopping frequency; comparatively, higher-educated individual reduced their shopping visits more than those lesser educated(Schmidt et al., 2021). The comparative study of different nations revealed that the reduction in shopping frequency revealed more significant in developed countries(Rossolov et al., 2022). The reduced shopping visits to stores increased online shopping frequency during social distancing(Nguyen et al., 2021).

Shopping Destination:

One of the "pivotal" changes in buying patterns following Covid-19 is a trend away from malls and toward small stores. (Thau Barbara, 2021). Customers shop at local retailers or buy locally sourced products(Ha et al., 2021). Consumers were becoming increasingly concerned about Covid-19's impact from a health and financial perspective. They embraced internet shopping, concentrated on fundamental necessities, and shopped more carefully for local goods. (Accenture, 2020). Customers prefer to phone their neighborhood retail businesses and request home delivery. (Grashuis et al., 2020).Additionally, consumers offset fewer mall trips with increased internet buying (Denise Lee Yohn, 2020).

Mode of payment:

During the lockdown period, usage of eWallet increased(Undale et al., 2021). Using mobile-based payments for transactions facilitated social distancing, preventing the spread of the Covid-19 virus(Nugrahini & Alfian, 2021). Performance expectancy, perceived usefulness,

perceived security, and perceived ease of use enhanced the use of online payment (Abushamleh et al., 2021). Perceived utility and usability substantially impact behavioral intention to use e-wallets beyond the perceived risk of Covid-19 infection(Candy et al., 2022). Digital payments' flexibility makes it simpler for businesses to adjust to interruptions. Businesses with online payment facilities fared better during the pandemic because internet payments enabled them to do business in lockdown and in social isolation(GPFI, 2021; Muzi et al., 2021).

Research Methodology

Data Collection Instrument:

The study collected data using a structured questionnaire to satisfy the stated objectives. Therefore, the developed instrument mainly contains the following subparts:

Demographic information: The first part intends to collect the respondent's demographic information. It includes gender, location (rural/urban), Family Income, occupation, and whether any family member is infected with Covid-19.

Hoarding Tendency: To understand the hoarding tendency initially list of Grocery Items was prepared using a literature review. Further, the list of also firmed with the household women and retailers, and the final 24 items were retained in the list; one open-ended response option was also provided to mention if any other item was purchased with a hoarding intention.

Change in Purchasing Behaviour: the study intends to understand the change in purchasing behavior in terms of Frequency of Purchasing, Shopping Destination, and mode of payment. The study has used the before/after approach to evaluate the change in Purchasing Behaviour.

- **Frequency of Purchase** To understand the change in purchase frequency, respondents were asked to indicate the frequency of purchase generally followed before Covid-19 and after Covid-19 . The response options were, Daily, Twice in Week, Once in Week, Twice in a Month, Once in Month, and Not specific (As per need).
- **Shopping Destination:** Consumers purchase the requisite Grocery items from multiple shopping destinations. These shopping destinations can be generally classified as Nearby Vendor shops, Super Market Shopping, and Shopping malls**.** Respondents were requested to indicate how frequently they were purchasing Grocery items from specified shopping destination before Covid-19 and after Covid-19 . The response options were Always, Very Often, Some of the Time, Rarely, and Never.
- **Payment Mode:** It is evaluated whether the use of Online-UPI payment has been stimulated due to Covid-19 . Respondents were requested to indicate the payment method. Generally, they followed before Covid-19 and after Covid-19 . The response options were Always, Very Often, Some of the Time, Rarely, and Never.

Sampling design: Data were collected during the pandemic; social media was used to collect the data. The Google form questionnaire link was circulated on social media to solicit a response. A total of 735 responses were selected for the study after data cleaning.

Data Analysis: Data cleaning operations were performed on the collected responses to ensure the data was suitable for further statistical procedures. The respondents with higher missing variables were excluded from the study, and 735 responses were used for the analysis.

The data analysis is primarily divided into two sections: analyzing the hoarding tendency. To understand the hoarding behavior, respondents were presented with a list of Grocery items and asked to select the item they purchased to ensure the stock during the pandemic. Then, the percentage of people who purchased the item to ensure the stock in the lockdown is computed. The Pareto chart presents the order of the percentage of people who purchased the item to ensure the stock in the lockdown. Further two-step cluster analysis was performed to profile the respondents based on their item stocking behavior. The Chi-square test is used to identify the association between the demographics of the respondents and the hoarding tendency profile.

The second data analysis section analyzes changes in consumer purchasing behavior in terms of Frequency of Purchasing, Shopping Destination, and Payment Mode. To assess the change in Purchasing Behavior Wilcoxon paired signed rank test is used.

Result:

Data analysis was mainly divided into two sections. One is understanding the hoarding behavior, and the second is evaluating the respondents' purchasing patterns change.

Hoarding Behavior:

Respondents were presented with a list of Grocery, food, and vegetable items to understand the hoarding behavior and asked to select items they purchased to ensure the stock during the pandemic. Table No.1 shows the percentage of people who purchased the item to ensure the stock in the lockdown. The Pareto chart reveals that rice, cooking oil, and sugar were the most purchased items to ensure stock. In addition, people also ensured the stock of hand wash and sanitizer.

Graph. No.1: Order of Preference for Stocking Items in Covid-19
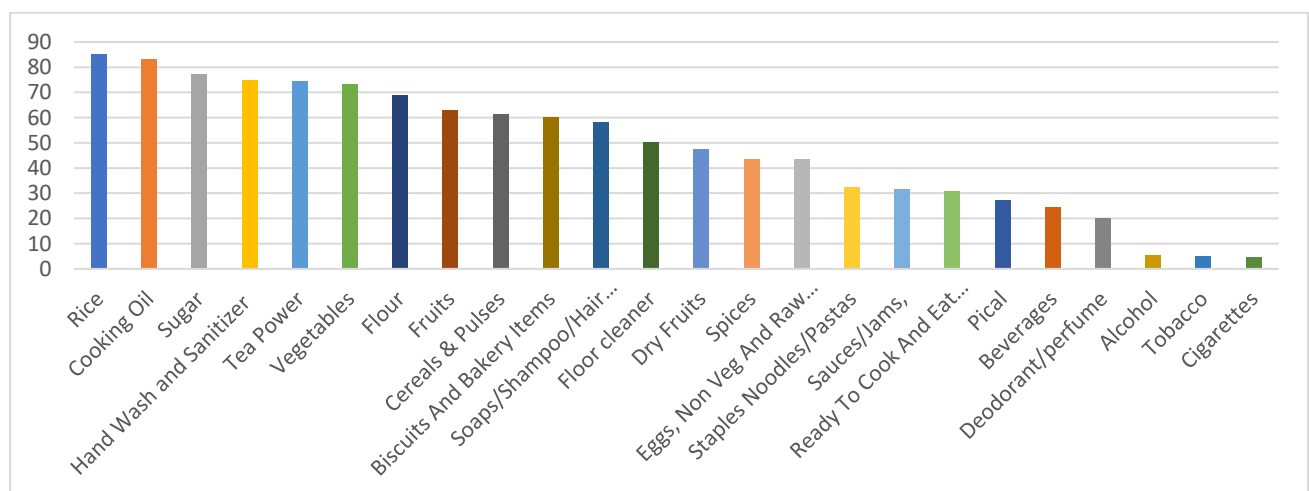
Source: Survey Data

Figure 1 Cluster Analysis Model Summary

Source: Survey Data

Further cluster analysis was performed to profile the respondents based on their item stocking behavior. Two-step cluster analysis re-groups the respondents into three significant clusters. The clusters were named 1. Low hoarding tendency, 2. Medium hoarding tendency 3. High hoarding tendency.

Cluster Profiles Further cluster analysis was performed to profile the respondents based on their item stocking behavior. Two-step cluster analysis re-groups the respondents into three significant clusters. The clusters were named 1. Low hoarding tendency, 2. Medium hoarding tendency 3. High hoarding tendency. The "silhouette measure of cohesion and separation," which measures the overall goodness-of-fit of the cluster structure, specifies the fair structure (Van den Berge et al., 2017). The silhouette ranges from −1 to +1, and a high number implies that the object is highly matched to its Cluster and poorly matched to surrounding clusters(Battaglia et al., 2016; Protopapadakis et al., 2017). A detailed discussion of the Cluster is presented below.

Cluster-1: Low Hoarding Tendency:

This group has shown a low hoarding tendency compared to the two prior groups. The group accounts for 21.5 percent of the respondents. Out of the total respondents under the group, 61 percent of respondents indicated they stocked rice, and 51.5 percent of respondents stated they were insured cooking oil. For all other items, a comparatively less percentage of individuals stated that they hoarded the goods. This group's further decline in respondents hoarding luxurious food items is evident.

Cluster-2: Medium Hoarding Tendency:

This Cluster represents the groups of individuals having a comparatively high hoarding tendency for necessity items and a comparatively low hoarding tendency for luxurious food items. The group is the biggest, accounting for 47 percent of the respondents. More than 90 percent of respondents ensured the inventory of necessary food items like Rice, Cooking Oil, Sugar, Handwash, and a sanitizer, furthermore hoarding preferences for the items like Tea Powder, Vegetables, Flour, Fruits and Cereals & Pulses were also seen as more than 70 percent respondents keep the inventory of these items. Whereas high hoarding tendency was not seen for luxurious items like Biscuits and Bakery Items, Soaps/Shampoo/Hair oil/Cosmetics, Floor

cleaner, Dry Fruits, Spices, Eggs, Non-Veg and Raw Meat, Staples, Noodles/Pasta and Sauces/Jams.

Cluster-3: High Hoarding Tendency:

This Cluster represents the group of individuals with the highest hoarding tendency. The group accounts for 21.5 percent of respondents. Moreover, the group has shown a higher inclination toward storing the goods. For example, all the respondents (100 percent) have ensured the stock of Rice, Cooking oil, and tea powder. Additionally, a comparatively high percentage of respondents have stored Hand wash & sanitizer, vegetables, fruits, and flour. Along with necessary food items, the group was also bullish on ensuring the availability of luxurious items such as biscuits and bakery items, noodles, sauces & jams, and spices. This shows the change in lifestyle of a specific section of society, for whom bakery items have become part of their regular consumption basket.

Table 1: Cluster Wise Item Hoarding Percentage

Item	Cluster 1	Cluster 2	Cluster 3	Percentage
Rice	140 (61.1)	323 (93.9)	157 (100)	84.93
Cooking Oil	118 (51.5)	331 (96.2)	157 (100)	83.01
Sugar	92 (40.2)	321 (93.3)	151 (96.2)	77.26
Hand Wash & Sanitizer	81 (35.4)	311 (90.4)	154 (98.1)	74.79
Tea Power	82 (35.8)	303 (88.1)	157 (100)	74.25
Vegetables	103 (45)	276 (80.2)	154 (98.1)	73.01
Flour	85 (37.1)	274 (79.7)	143 (91.1)	68.77
Fruits	63 (27.5)	241 (70.1)	155 (98.7)	62.88
Cereals & Pulses	73 (31.9)	240 (69.8)	133 (84.7)	61.1
Biscuits And Bakery Items	59 (25.8)	225 (65.4)	154 (98.1)	60
Soaps/Shampoo/Hair oil/Cosmetics	34 (14.8)	236 (68.6)	153 (97.5)	57.95
Floor cleaner	13 (5.7)	210 (61)	142 (90.4)	50
Dry Fruits	25 (10.9)	180 (52.3)	141 (89.8)	47.4
Spices	19 (8.3)	152 (44.2)	147 (93.6)	43.56
Eggs, Non Veg And Raw Meat	37 (16.2)	161 (46.8)	119 (75.8)	43.42
Staples Noodles/Pastas	18 (7.9)	68 (19.8)	150 (95.5)	32.33
Sauces/Jams,	7 (3.1)	81 (23.5)	143 (91.1)	31.64
Ready To Cook And Eat Products Idli/Dosa/Khaman Mix	31 (13.5)	79 (23)	113 (72)	30.55
Pical	4 (1.7)	77 (22.4)	117 (74.5)	27.12
Beverages	19 (8.3)	53 (15.4)	105 (66.9)	24.25
Deodorant/perfume	7 (3.1)	42 (12.2)	96 (61.1)	19.86
Alcohol	8 (3.5)	12 (3.5)	18 (11.5)	5.21
Tobacco	5 (2.2)	10 (2.9)	20 (12.7)	4.79
Cigarettes	3 (1.3)	6 (1.7)	23 (14.6)	4.38

Source: Survey Data

Location:

Table No. 2 shows the assessment association between hoarding tendency and demographics of the respondents using the chi-square test. The study reveals a significant association between the location of the respondents and hoarding habits (χ^2= 15.258, P value=0.004). Rural India was not spared from spreading the virus, and the lockdown was imposed in villages. It is seen that urban and rural households ensured the inventory by hoarding the necessary items. At the same time, a more intensive hoarding tendency was seen in Urban and Semi-urban areas than in rural areas. The percentage analysis shows that 25 percent of respondents from Semi Urban areas and 22 percent from Urban areas show a high hoarding tendency, whereas for rural areas, comparatively less (18.8 percent) of households fall high tendency cluster. Conversely, relatively higher proportionate (39.9 percent) rural respondents accounted for the low hoarding tendency cluster than semi-urban (25.2 percent) and Urban (26.6 percent).

Family Income

Furthermore, the study enforced the association between income and hoarding tendency ($\chi2$= 18.786, P value=0.016). Out of the respondents under the below 2.5 lakh income, 35.6 percent accounts for low hoarding tendency, whereas 43.5 percent for medium tendency and 20 percent for high hoarding tendency. Besides, for 10 lakh and above income, the percentage of respondents belonging to high hoarding tendency rises to 30.20 percent, and for 7.5 lakh to 10 lakh, it is 37.90 percent.

Table 2: Association between Hoarding Tendency and Demographics of theRespondents:

Dimensions	Indicators	Count / Percent	Hoarding Tendency			Total	Chi-square	P-Value
			Low Hoarding Tendency	Medium Hoarding Tendency	High Hoarding Tendency			
Location	Rural	Count	110	114	52	276	15.25	0.00
		Percent	39.90	41.30	18.80	100		
	Semi Urban	Count	30	59	30	119		
		Percent	25.20	49.60	25.20	100		
	Urban	Count	89	171	75	335		
		Percent	26.60	51.00	22.40	100		
Family Income	Below 2.5 Lakh	Count	148	181	87	416	18.78	0.01
		Percent	35.60	43.50	20.90	100		
	2.5 Lakh - 5 Lakh	Count	48	88	29	165		
		Percent	29.10	53.30	17.60	100		
	5 Lakh - 7.5 Lakh	Count	15	45	17	77		
		Percent	19.50	58.40	22.10	100		
	7.5 Lakh -10 Lakh	Count	6	12	11	29		
		Percent	20.70	41.40	37.90	100		
	10 Lakh above	Count	12	18	13	43		
		Percent	27.90	41.90	30.20	100		

Dimensions	Indicators	Count / Percent	Hoarding Tendency			Total	Chi-square	P-Value
			Low Hoarding Tendency	Medium Hoarding Tendency	High Hoarding Tendency			
Family member tested Covid-19 positive	Yes	Count	65	87	49	201	2.014	0.36
		Percent	32.30	43.30	24.40	100		
	No	Count	164	257	108	529		
		Percent	31.00	48.60	20.40	100		

Source: Survey Data

Family member tested Covid-19 positive:

Moreover, the hoarding tendency is independent of the family members' Covid-19 infection (χ^2= 2.014 P value = 0.365). Of the total respondents contacted, 62.50 percent or their family members were Covid-19, infected respondents. The analysis reveals that irrespective of Covid-19 infection, there was a general fear, anxiety a panic about the Covid-19 pandemic.

Change in Purchasing Behavior:

Further, this study has assessed the purchasing behavior for Cereals, Pulses & Grocery items, and Vegetables & fruits. The behavior change is assessed using parameters such as a change in purchase frequency, preference for shopping destination, and packaging preference. A further change in the mode of payment method is also assessed. To assess the behavior, a change pre-post method was adopted. On the given parameter, respondents were asked to indicate their behavior before Covid-19 and their purchasing behavior after Covid-19. Henceforth, the data collected was ordinal to evaluate whether any significant change occurred. Wilcoxon paired signed rank test is used.

Table 3: Descriptive Statistics of Consumer Shopping Behaviors Before/After Covid-19

Criteria	Response Option	Before Count	Percentage Before	After Count	After Percentage
Shopping Frequency					
Cereals, Pulses & Grocery items	Not specific	108	14.80%	133	18.20%
	once in Month	214	29.30%	234	32.00%
	Twice in Month	107	14.60%	115	15.70%
	Once in Week	144	19.70%	135	18.50%
	Twice	106	14.50%	86	11.80%
	Daily	52	7.10%	28	3.80%
Shopping Destination					
Nearby Vendor shop	Never	26	3.60%	31	4.20%
	Rarely	81	11.10%	113	15.50%
	Some of the time	216	29.50%	215	29.40%
	Very Often	188	25.70%	176	24.10%
	Always	220	30.10%	196	26.80%

Criteria	Response Option	Before Count	Percentage Before	After Count	After Percentage
Super Market	Never	78	10.70%	139	19.00%
	Rarely	91	12.40%	197	26.90%
	Some of the time	238	32.60%	220	30.10%
	Very Often	164	22.40%	113	15.50%
	Always	160	21.90%	62	8.50%
Shopping Mall	Never	161	22.00%	290	39.70%
	Rarely	152	20.80%	203	27.80%
	Some of the time	210	28.70%	141	19.30%
	Very Often	115	15.70%	56	7.70%
	Always	93	12.70%	41	5.60%
Payment Method					
Cash Payment	Never	21	2.90%	47	6.40%
	Rarely	48	6.60%	153	20.90%
	Some of the time	133	18.20%	200	27.40%
	Very Often	155	21.20%	142	19.40%
	Always	374	51.20%	189	25.90%
Online UPI	Never	66	9.00%	45	6.20%
	Rarely	106	14.50%	70	9.60%
	Some of the time	230	31.50%	155	21.20%
	Very Often	169	23.10%	200	27.40%
	Always	160	21.90%	261	35.70%

Source: Survey Data

Table 4: The hypotheses Test result of Before/After Analysis

After/Before	Criteria	Ranking	N	Mean Rank	Sum of Ranks	Z Score	P Value
Frequency of Purchasing	Cereals, Pulses & Grocery items	Negative Ranks	271	203.11	55041.5	-5.58	.00
		Positive Ranks	139	210.17	29213.5		
		Ties	325				
Shopping Destination	Nearby Vendor shop	Negative Ranks	234	198.61	46475.5	-3.26	.00
		Positive Ranks	162	198.34	32130.5		
		Ties	339				
	Super Market Shopping	Negative Ranks	319	185.58	59201	-13.05	.00
		Positive Ranks	46	165.09	7594		
		Ties	369				
	Shopping Mall	Negative Ranks	302	175.08	52873	-12.95	.00
		Positive Ranks	41	149.34	6123		
		Ties	391				

Payment Mode	Cash Payment	Negative Ranks	325	191	62074	-13.87	.00
		Positive Ranks	44	140.7	6191		
		Ties	368				
	Online-UPI	Negative Ranks	71	154.98	11003.5	-9.70	0.00
		Positive Ranks	260	169.01	43942.5		
		Ties	404				

Source: Survey Data

Change in Purchasing Frequency: The study has evaluated whether there was any significant change in purchasing frequency for Cereals, Pulses, and Grocery items. Respondents generally indicated their purchase frequency for Cereals, Pulses, and Grocery items before and after the pandemic. It is evident from the results that, generally, purchase frequency has reduced after the outbreak of the Coivd-19 pandemic. The most crucial change is visible in reducing people's number of purchases the items daily. It has reduced from 7 percent to 3.8 percent.

**Graph No.2: Change in Purchasing Frequency: (Percentage)**
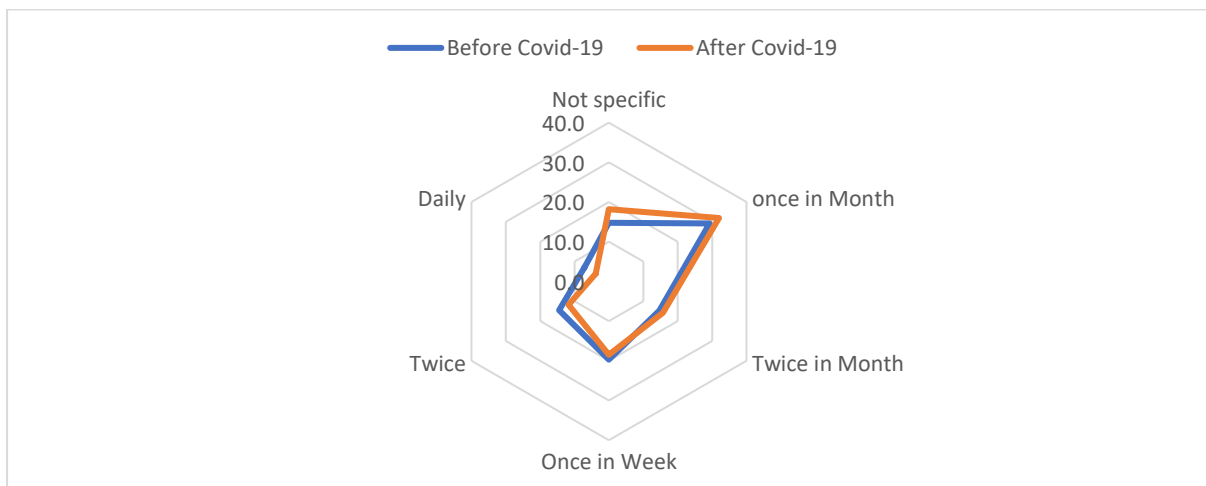
Additionally, respondents indicated they were purchasing twice a week, reduced from 14.5 percent to 11.8 percent. The percentage of people indicating they are purchasing twice a month has slightly increased from 14.6 percent to 15.7 percent after the pandemic. Comparatively, more respondents have indicated that they shifted to purchasing once a month after the pandemic. Before the pandemic, 29 percent of respondents said they purchased Cereals, Pulses, and Grocery items monthly. Whereas after Covid-19, the same has gone slightly up to 32 percent. The household following unscheduled purchase frequency was 14.8 percent before the pandemic, which has surged to 18.2 percent after the pandemic. Wilcoxon paired signed rank test result (Z = -5.584 P value = 0.00) indicates a significant difference in purchase frequency after the outbreak of the Covid-19 pandemic. As a result of the lockdown and social restrictions, the government's measures generally reduced household purchasing frequency.

Shopping Destination:

Further, it was evaluated whether there is any significant change in purchasing destination followed by the consumer for purchasing Cereals, Pulses & Grocery items. Customers visit different destinations such as nearby vendor shops, supermarkets, and shopping malls for these items. Respondents were asked how often they visited the specified shopping destination before the pandemic and the change in the shopping selected by the respondents after the pandemic.

Graph No.3: Change in Shopping Destination: (Percentage)
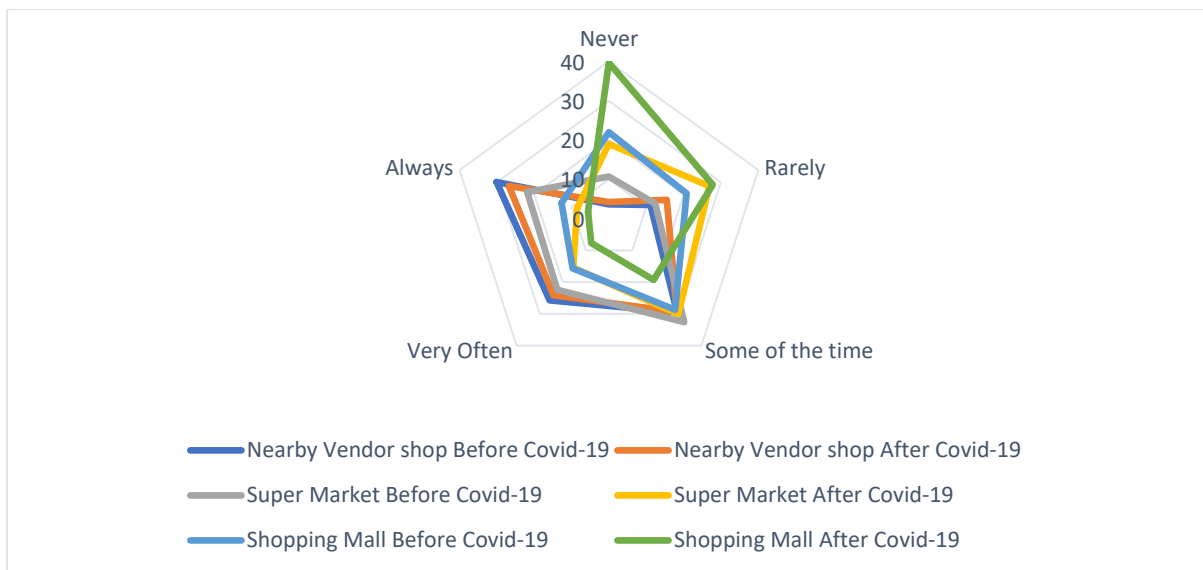
The analysis shows that in terms of visiting nearby vendor shops for shopping destinations, there was not a very significant change. However, it reveals that comparatively, visits to nearby destinations have reduced. The respondents said they rarely visit vendor shops slightly increased from 11.1 percent to 15.5 percent. The percentage of respondents stating they always visit decreased from 30.1 percent to 26.8 percent after the pandemic. It reveals, in general, there was a reduction in the frequency of customers visiting nearby shops.

Furthermore, the change is more evident in the visit to the supermarket. Before the pandemic, 10.7 percent of respondents stated they had never visited the supermarket, whereas, during the pandemic, the same number surged to 19 percent. The respondents' percentage of rarely visited went up to 26.9 percent from 12.4 percent. Furthermore, the respondents stating they were visiting Very often also reduced from 22.4 percent to 15.5 percent. Most importantly, the respondents stating they always visit supermarkets reduced to 8.5 percent from 21.9 percent.

Comparatively, the highest shift is visible in terms of a shopping mall. Out of the total respondents contacted, 22 percent said they had never visited a shopping mall to purchase before Covid-19. The percentage of respondents stating they never visited shopping malls surged to 39.7 percent after Covid-19. Furthermore, before Covid-19, 20.8 percent of respondents said they rarely visited shopping malls. Whereas after Covid-19, the same

percentage has increased to 27.8 percent. In addition, there is declainment in the percentage of people visiting the shopping mall. Before Covid-19, 28.7 percent of respondents said they used to visit shopping malls sometimes, and the same percentage has reduced to 19.3 percent after Covid-19. Whereas 15.7 percent mentioned they often visited shopping malls before Covid-19, the same percentage has reduced after Covid-19 , and merely 7.7 percent of respondents said they often visit shopping malls. The number of people visiting shopping malls has also significantly reduced after Covid-19. Here, 12.7 percent of respondents have stated they always visit shopping malls before Covid-19, whereas those saying they always visit shopping malls reduced to merely 5.60 percent after Covid-19.

Wilcoxon paired signed rank test result for Nearby Vendor shop (Z = -3.26 P value = 0.00), Super Market Shopping (Z = -13.05, P value = 0.00) and Shopping Mall (Z = -12.95, P value = 0.00) indicates that there is significant difference for shopping destination selected by after outbreak of Covid-19 pandemic. The analysis reveals that consumers preferred nearby vendor shops over the shopping mall.

Payment Method: Along with various behavioral changes impacting Covid-19, it is argued that Covid has stimulated the digitalization process. Here the role of Covid is evaluated in adapting digital payment methods.

Graph No.4: Change in Payment Method: (Percentage)
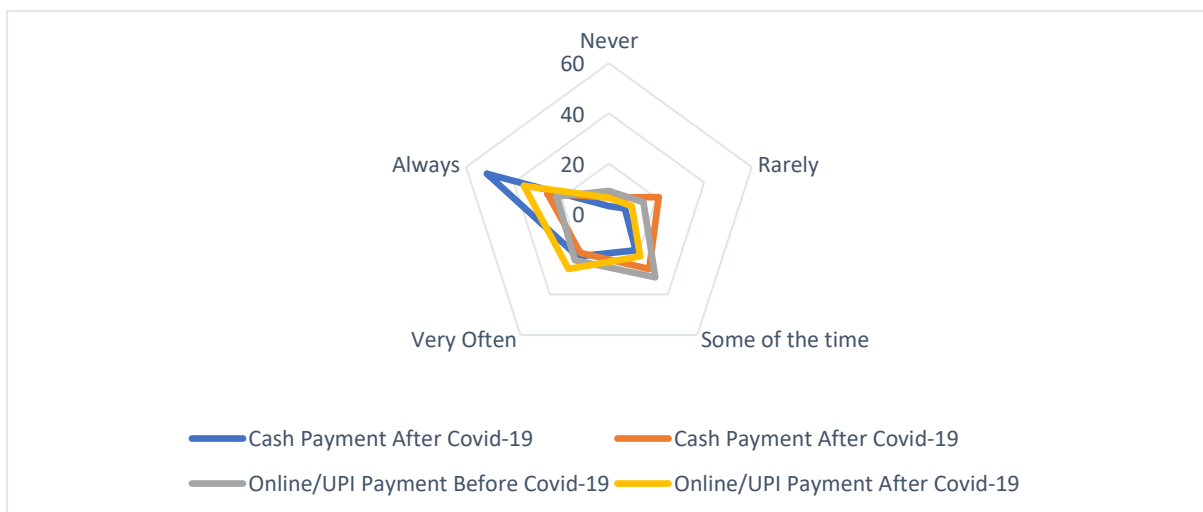
When asked how often they used cast payment, around 51 percent said they used cash before Covid-19. The same percentage has reduced significantly to 25.9 percent after Covid. Further, when asked about how often they used online or UPI payment methods before Covid, 31.5 percent said some of the time, 23.1 percent said very often, and 21.9 percent always said. In contrast, after Covid, people said they always use Online/UPI payment has surged to 35.7 percent, and 27.4 percent said they use online payment very often. Wilcoxon signed paired sign rank test result (Z = -13.87, P value =.00) reveals a significant change in an individual's payment method. The analysis shows that the percentage of people who adopted the online payment method increased significantly after Covid-19. The spread of smartphones and

payment apps facilitated the online payment system. Additionally, the Covid-19 pandemic stimulated the process as buyers and sellers wanted to avoid physical contact. UPI and QR code payment assisted in completing the transaction without handling the cash.

Discussion

All around the globe, the Covid-19 pandemic impacted consumer behavior. The Covid-19 pandemic has posed unprecedented difficulties for the whole world. Most countries declared a lockdown to contain the virus, resulting in unemployment, uncertainties, and economic recession. The pandemic brought significant changes in consumer buying behavior. Consumer behavior has considerably diverged from the norm since the first Covid-19 outbreak started in early 2020. There has been an immediate and significant surge in demand due to shop closings and customers' concern for their health. The immediate response to the Covid-19 spread and lockdown was the hoarding demand generated by the household for consumer goods. Rice, Cooking Oil, Sugar, hand wash, tea powder, vegetables, flour, fruits, Cereals, Pulses, and biscuits were the higher preferred items for hoarding. Two-step cluster analysis re-groups the respondents into three significant clusters. The clusters were named Low hoarding tendency, Medium hoarding tendency, and High hoarding tendency. The high hoarding tendency cluster represents the group of individuals with the highest hoarding tendency. The group has shown a higher inclination toward storing the goods. All the respondents in this Cluster (100 percent) have ensured the stock of Rice, Cooking oil, and tea powder; additionally, comparatively high percentage of respondents have stored Hand wash & sanitizer, vegetables, fruits, and flour. The hoarding preferences show the change in lifestyle of a certain section of society, for whom bakery items have become part of their regular consumption basket. Medium hoarding tendency represents the groups of individuals having a comparatively high hoarding tendency for necessity items and a relatively low hoarding tendency for luxurious food items. The group ensured the inventory of necessary food items like Rice, Cooking Oil, Sugar, Handwash, and Sanitizer. The hoarding preferences for the items like Tea Powder, Vegetables, Flour, Fruits, Cereals & Pulses were also evident. Whereas by Medium hoarding tendency group clusters has not shown high hoarding tendency for luxurious items like Biscuits and Bakery products, Soaps/Shampoo/Hair oil/Cosmetics, Floor cleaner, Dry Fruits, Spices, Eggs, Non-Veg and Raw Meat, Staples, Noodles/Pasta and Sauces/Jams. The Cluster with a low hoarding tendency has shown a low hoarding tendency compared to the two prior groups. The group stocked items such as rice cooking oil, sugar, vegetables, hand-wash Cereals, and Pulses. For all other items, a comparatively less percentage of individuals stated that they hoarded the goods in the Covid-19 pandemic.

Further, the Low hoarding tendency group has shown a lesser hoarding tendency for luxurious food items such as bakery products. The study reveals the significant association between the location of the respondents and hoarding habits. Rural India was not spared from the virus's spread, and the lockdown was even imposed in villages as well. It is seen that urban and rural households ensured the inventory by hoarding the necessary items.

In contrast, Urban and Semi-urban areas saw a more intensive hoarding tendency than rural areas. Additionally, the hoarding tendency was associated with income. Therefore, a higher income group indicates a higher preference to hoard and vice versa. Besides, it is noteworthy that hoarding tendency is independent of Covid-19 infection in the family.

Subsequently, a significant change in consumer buying behavior is observed in terms of Purchase frequency, Shopping destination, and Payment method. To avoid infection, the customer reduced the purchasing frequency and increased the purchased quantity per visit. Beyond lowering the purchase frequency, it is evident that consumer visits to the shopping mall also declined, and they prefer shopping from nearby vendors. The most important and positive change was consumer adoption of digital payment methods. As buyers and sellers intend to conduct contactless transactions, they embraced the digital payment method. The Covid-19 pandemic stimulated the use of digital payment.

Conclusion

According to research, the Covid-19 pandemic has altered typical consumer behaviour, established new shopping norms, and compelled consumers to spend more time deliberating over their choices, weigh their needs carefully before making purchases, concentrate only on necessities, and cut back on their frequency of shopping. The results indicate changes in consumer behaviour as a consequence location of the consumer and income of the consumer. It also identifies the change in consumer behaviour regarding purchasing frequency and destination. Consumers reduced their shopping frequency and preferred the local shops more than visiting the supermall during the pandemic. Furthermore, the pandemic has stimulated digitalization, and society is adopting the digital mode of payment.

It is also expected that most habits will return to normal. However, some habits the consumer learns will inevitably continue after the new normal. It surfaced an excellent research opportunity for social scientists to monitor the changes in consumer buying behaviour after the pandemic.

References

1. Abushamleh, H., Al-Hiyari, N., & Qusef, A. (2021). The Intention to Use E-wallet during Covid-19 Pandemic in Developing Country. *2021 12th International Conference on Information and Communication Systems, ICICS 2021*, 310–316. https://doi.org/10.1109/ICICS52457.2021.9464554

2. Accenture. (2020). *Covid-19 : Impact on Consumer Behavior Trends | Accenture*. https://www.accenture.com/fi-en/insights/consumer-goods-services/coronavirus-consumer-behavior-research

3. Andrews, M. A., Areekal, B., Rajesh, K., Krishnan, J., Suryakala, R., Krishnan, B., Muraly, C., & Santhosh, P. (2020). First confirmed case of Covid-19 infection in India: A case report.

The Indian Journal of Medical Research, *151*(5), 490.
https://doi.org/10.4103/IJMR.IJMR_2131_20

4. Aneja, R., & Ahuja, V. (2021). An assessment of socioeconomic impact of COVID-19 Pandemic in India. *Journal of Public Affairs*, *21*(2). https://doi.org/10.1002/PA.2266

5. Arafat, S. M. Y., Kar, S. K., Menon, V., Alradie-Mohamed, A., Mukherjee, S., Kaliamoorthy, C., & Kabir, R. (2020). Responsible Factors of Panic Buying: An Observation From Online Media Reports. *Frontiers in Public Health*, *8*.
    https://doi.org/10.3389/FPUBH.2020.603894/PDF

6. Bentall Id, R. P., Lloyd Id, A., Id, K. B., Mckay Id, R., Mason, L., Murphy, J., Mcbride, O., Hartman, T. K., Gibson-Miller, J., Levita, L., Martinez, A. P., Stocks, T. V. A., Butter, S., Dé Rique Vallières, F., Hyland, P., Karatzias, T., & Shevlin, M. (2021). *Pandemic buying: Testing a psychological model of over-purchasing and panic buying using data from the United Kingdom and the Republic of Ireland during the early phase of the Covid-19 pandemic*. https://doi.org/10.1371/journal.pone.0246339

7. Bryan Lufkin. (2020). *Coronavirus: The psychology of panic buying - BBC Worklife*. https://www.bbc.com/worklife/article/20200304-coronavirus-Covid-19 -update-why-people-are-stockpiling

8. Cambridge Dictionary. (2022). *PANIC BUYING | meaning, definition in Cambridge English Dictionary*. https://dictionary.cambridge.org/dictionary/english/panic-buying

9. Candy, C., Shellyna, S., Justyanita, J., & Kristiani, K. (2022). E-wallet Adoption: Technology Acceptance Model and Covid-19 . *Jurnal Inovasi Ekonomi*, *7*(02), 91–100.
    https://doi.org/10.22219/JIKO.V7I02.20385

10. Chaudhary, M., Sodani, P. R., & Das, S. (2020). Effect of Covid-19 on Economy in India: Some Reflections for Policy and Programme. *Journal of Health Management*, *22*(2), 169–180.
    https://doi.org/10.1177/0972063420935541/ASSET/IMAGES/LARGE/10.1177_0972063420935541-FIG1.JPEG

11. Chua, G., Yuen, K. F., Wang, X., Wong, Y. D., Foroudi, P., & Qi, J. (2021). *The Determinants of Panic Buying during Covid-19* . https://doi.org/10.3390/ijerph18063247

12. Denise Lee Yohn. (2020). *The Pandemic Is Rewriting the Rules of Retail*.
    https://hbr.org/2020/07/the-pandemic-is-rewriting-the-rules-of-retail

13. Ganesh. (2020). *View: Covid - Is not China legally accountable to the world? - The Economic Times*. https://economictimes.indiatimes.com/news/international/world-news/view-covid-is-not-china-legally-accountable-to-the-world/articleshow/75552110.cms?from=mdr

14. GPFI. (2021). *The impact of Covid-19 on digital financial inclusion.*

15. Grashuis, J., Skevas, T., & Segovia, M. S. (2020). Grocery shopping preferences during the Covid-19 pandemic. *Sustainability (Switzerland)*, *12*(13). https://doi.org/10.3390/su12135369

16. Ha, S., Childs, M., Sneed, C. T., & Berry, A. (2021). Consumer sustainable shopping practices for small business during Covid-19 . *Sustainability (Switzerland)*, *13*(22). https://doi.org/10.3390/su132212451

17. Islam, T., Pitafi, A. H., Arya, V., Wang, Y., Akhtar, N., Mubarik, S., & Xiaobei, L. (2021). Panic buying in the Covid-19 Pandemic: A multi-country examination. *Journal of Retailing and Consumer Services*, *59*, 102357. https://doi.org/10.1016/J.JRETCONSER.2020.102357

18. Janssen, M., Chang, B. P. I., Hristov, H., Pravst, I., Profeta, A., & Millard, J. (2021). Changes in Food Consumption During the Covid-19 Pandemic: Analysis of Consumer Survey Data From the First Lockdown Period in Denmark, Germany, and Slovenia. *Frontiers in Nutrition*, *8*, 60. https://doi.org/10.3389/FNUT.2021.635859/BIBTEX

19. Kaplan Juliana. (2020). *A third of the global population is on coronavirus lockdown — here's our constantly updated list of countries and restrictions | BusinessInsider India*. https://www.businessinsider.in/international/news/a-third-of-the-global-population-is-on-coronavirus-lockdown-x2014-hereaposs-our-constantly-updated-list-of-countries-and-restrictions/slidelist/75208623.cms

20. Kate Ploy. (2020). *Covid-19 rapidly reshapes consumer behavior, PwC's Strategy& says*. https://www.pwc.com/th/en/press-room/press-release/2020/press-release-30-04-20-en.html

21. Kaur, A., & Malik, G. (2020). *Understanding the Psychology Behind Panic Buying: A Grounded Theory Approach*. https://doi.org/10.1177/0972150920973504

22. Laguna, L., Fiszman, S., Puerta, P., Chaya, C., & Tárrega, A. (2020). The impact of Covid-19 lockdown on food priorities. Results from a preliminary study using social media and an online survey with Spanish consumers. *Food Quality and Preference*, *86*, 104028. https://doi.org/10.1016/J.FOODQUAL.2020.104028

23. Magableh Ghazim. (2021). *Supply Chains and the COVID-19 Pandemic_ A Comprehensive Framework _ Enhanced Reader*.

24. Morens, D. M., & Fauci, A. S. (2020). Emerging Pandemic Diseases: How We Got to Covid-19 . *Cell*, *182*(5), 1077–1092. https://doi.org/10.1016/J.CELL.2020.08.021

25. Muzi, S., Jolevski, F., Ueda, K., & Viganola, D. (2021). *Productivity and Firm Exit during the Covid-19 Crisis*. https://doi.org/10.1596/1813-9450-9671

26. Nguyen, M. H., Armoogum, J., & Thi, B. N. (2021). Factors affecting the growth of e-shopping over the Covid-19 era in hanoi, vietnam. *Sustainability (Switzerland)*, *13*(16). https://doi.org/10.3390/su13169205

27. Nugrahini, D. E., & Alfian, A. H. (2021). The Impact of Covid-19 Pandemic on Continuance Adoption of Mobile Payments: A Conceptual Framework. *Lecture Notes in Networks and Systems*, *278*, 338–346. https://doi.org/10.1007/978-3-030-79725-6_33/COVER

28. Pham, V. K., do Thi, T. H., & Ha Le, T. H. (2020). A study on the COVID-19 awareness affecting the consumer perceived benefits of online shopping in Vietnam. *Cogent Business and Management*, *7*(1). https://doi.org/10.1080/23311975.2020.1846882

29. Rajkumar, R. P., & Yasir Arafat, S. M. (2021). *Model Driven Causal Factors of Panic Buying and Their Implications for Prevention: A Systematic Review*. https://doi.org/10.3390/psychiatryint2030025

30. Ramakumar, R., Kanitkar, T., Ramakumar, R., & Kanitkar, T. (2021). Impact of Covid-19 pandemic on the Indian economy: a critical analysis. *Investigación Económica*, *80*(315), 3–32. https://doi.org/10.22201/FE.01851667P.2021.315.76845

31. Rossolov, A., Aloshynskyi, Y., & Lobashov, O. (2022). How COVID-19 Has Influenced the Purchase Patterns of Young Adults in Developed and Developing Economies: Factor Analysis of Shopping Behavior Roots. *Sustainability (Switzerland)*, *14*(2). https://doi.org/10.3390/su14020941

32. Sajal Kohli, Björn Timelin, Victor Fabius, & Sofia Moulvad Veranen. (2020). *How COVID-19 is changing consumer behavior-now and forever*.

33. Schmidt, S., Benke, C., & Pané-Farre, C. A. (2021). Purchasing under threat: Changes in shopping patterns during the COVID-19 pandemic. *PLoS ONE*, *16*(June 6). https://doi.org/10.1371/journal.pone.0253231

34. Sharma, A., Tiwari, S., Deb, M. K., & Marty, J. L. (2020). Severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2): a global pandemic and treatment strategies. *International Journal of Antimicrobial Agents*, *56*(2). https://doi.org/10.1016/J.IJANTIMICAG.2020.106054

35. Sheth, J. (2020). Impact of Covid-19 on consumer behavior: Will the old habits return or die? *Journal of Business Research*, *117*, 280–283. https://doi.org/10.1016/J.JBUSRES.2020.05.059

36. Siddiqui, F., Salam, R. A., Lassi, Z. S., & Das, J. K. (2020). The Intertwined Relationship Between Malnutrition and Poverty. *Frontiers in Public Health*, *8*. https://doi.org/10.3389/FPUBH.2020.00453

37. Sim, K., Chua, H. C., Vieta, E., & Fernandez, G. (2020). The anatomy of panic buying related to the current COVID-19 pandemic. *Psychiatry Research*, *288*, 113015. https://doi.org/10.1016/J.PSYCHRES.2020.113015

38. Syahrivar, J., Genoveva, G., Chairy, C., & Manurung, S. P. (2021). COVID-19 -Induced Hoarding Intention Among the Educated Segment in Indonesia: *Https://Doi.Org/10.1177/21582440211016904*, *11*(2). https://doi.org/10.1177/21582440211016904

39. Taylor, S. (2021). Understanding and managing pandemic-related panic buying. *Journal of Anxiety Disorders*, *78*, 102364. https://doi.org/10.1016/J.JANXDIS.2021.102364

40. Thau Barbara. (2021). *Pandemic Consumer Trends: Hyper-Local Commerce & Small Brands*. https://www.uschamber.com/co/good-company/launch-pad/post-pandemic-consumers-demand-smaller-brands

41. The Economic Times. (2020). *India Lockdown news: India to be under complete lockdown for 21 days starting midnight: Narendra Modi*.

https://economictimes.indiatimes.com/news/politics-and-nation/india-will-be-under-complete-lockdown-starting-midnight-narendra-modi/articleshow/74796908.cms

42. Undale, S., Kulkarni, A., & Patil, H. (2021). Perceived eWallet security: impact of COVID-19 pandemic. *Vilakshan - XIMB Journal of Management*, *18*(1), 89–104. https://doi.org/10.1108/XJM-07-2020-0022

43. Vázquez-Martínez, U. J., Morales-Mediano, J., & Leal-Rodríguez, A. L. (2021). The impact of the COVID-19 crisis on consumer purchasing motivation and behavior. *European Research on Management and Business Economics*, *27*(3). https://doi.org/10.1016/j.iedeen.2021.100166

44. Vyas. (2020). *CMIE*. https://www.cmie.com/kommon/bin/sr.php?kall=warticle&dt=20220505124252&msec=676

45. WHO. (2020). *WHO Director-General's opening remarks at the media briefing on COVID-19 - March 11 2020*. https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-Covid-19 ---11-march-2020

46. Xiong, J., Lipsitz, O., Nasri, F., Lui, L. M. W., Gill, H., Phan, L., Chen-Li, D., Iacobucci, M., Ho, R., Majeed, A., & McIntyre, R. S. (2020). Impact of COVID-19 Pandemic on mental health in the general population: A systematic review. *Journal of Affective Disorders*, *277*, 55. https://doi.org/10.1016/J.JAD.2020.08.001

47. Yasir Arafat, S. M., Kar, S. K., Menon, V., Marthoenis, M., Sharma, P., Alradie-Mohamed, A., Mukherjee, S., Kaliamoorthy, C., & Kabir, R. (2020). Media portrayal of panic buying: A content analysis of online news portals. *Global Psychiatry*, *0*(0). https://doi.org/10.2478/gp-2020-0022

48. Yoshizaki, H. T. Y., Junior, I. de B., Hino, C. M., Aguiar, L. L., & Pinheiro, M. C. R. (2020). Relationship between Panic Buying and Per Capita Income during COVID-19 . *Undefined*, *12*(23), 1–14. https://doi.org/10.3390/SU12239968

49. Zhu, H., Wei, L., & Niu, P. (2020). The novel coronavirus outbreak in Wuhan, China. *Global Health Research and Policy*, *5*(1), 1–3. https://doi.org/10.1186/S41256-020-00135-6/METRICS