# LESSONS TO BE LEARNT FROM COVID PANDEMIC: SIGNIFICANCE OF INCORPORATING INEVITABLE CHANGES IN DIVERSE SECTORS

(Book Chapter)



**Editor** 

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# A 361 DEGREE TRANSMOGRIFY OF EDUCATION WITH SPECIAL REFERENCE TO PEDAGOGY OF COMMERCE & MANAGEMENT ACADEMICIANS OF PUNJAB

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Abstract - Management and Commerce Education is a vital part of business. The quality teaching is the need of the hour, in order to develop not only commercial and business growth but also economical and overall nation's growth depends upon commerce and management A teacher has the ability to turn a student's abilities, education. understanding, and potential into 361 degree development. The instructional approaches have a significant impact on students' learning. The content of the course, methodology of the teaching and techniques of involving and socializing the students are the main elements of the pedagogy. It is the responsibility of the academicians to adopt the creative pedagogy as per the capability of the students. metamorphosis refers to the transformation in the education which is one step extra to the overall development of the students and the academicians. It is the growth and development beyond the expectations in reference to students, academicians and education system. The research is intended to investigate the pedagogy assessment, training of academicians related to pedagogy, the different methods and styles of pedagogy styles adopted by academicians, pedagogy related ideologies, the academicians views regarding the faculty exchange program, collaborate teaching, internships apart from summer internship, skill based programmes beyond syllabus, research oriented education, learning environment, use of ICT, multimedia and contemporary issues in teaching and career guidance and counselling to the students. The study is based on one online questionnaire designed for Commerce and Management Academicians of Punjab.

Keywords: Pedagogy, ICT, Skill based learning.

#### 1 INTRODUCTION

Education is the instrument of progress. Pedagogy refers to educational schools of thought or philosophies concerning how individuals can be trained and how teachers should support in that learning. Pedagogy is the art and science of teaching and it encompasses both theoretical and practical components of the subject. A great pedagogy should be designed to help pupils develop their talents. Pedagogy must mould the minds of the young. In fact, curriculum, pedagogy, and assessment are the three pillars on which a student's learning is built. Creating positive learning environment and catering to individual differences are significant aspects of the teaching. Peer learning, simulation exercises, problem solving techniques along with case study, audio visual techniques and

presentations can make the teaching pedagogy more effective. Learning should not be confined to course studies, but should also include the development of behavioural and technical skills, as well as creative and critical thinking abilities. The problem is determining the difference between the planned, taught, and learned curriculum (Peter Ewell).

#### **2 REVIEW OF LITERATURE**

Taylor (2002) Describes e-learning is ideal for courses that need cognitive learning. Distinctions in student attitude, on the other hand, do not perform well in the e-learning environment for teachers coping with cultural boundaries. Academic staffs that are better trained will bear the fruits of higher student learning. However if the teaching staff is not trained in using the e-learning technology and do not have a strong grasp of the operation of the technology then student learning is likely to suffer. The researchers of this study proposed model by consolidating model with model. The experts also developed their model based on a survey of numerous models and discoveries that resulted in audits and investigations supervised by them, despite the fact that the ideas were made in Saudi Arabia. The specialists led their investigations dependent on the substance examination strategy and the style of (focus group). The (focus group) has received the proposed structure given by the scientists.

Research by Davies (2004), According to the findings, teacher efficacy is a major predictor of dedication to teaching, adoption of innovation, and better levels of planning and organisation.

The paper studies the students' perceptions of service quality in the present educational environment, using the modified service quality (SERVQUAL) instrument to measure five constructs: tangibles, reliability, responsiveness, assurance, and empathy. A significantly negative gap is observed in the expectations and perceptions of the service quality of higher education, indicating a sense of dissatisfaction among the students.

Innovative and research-based teaching methodologies, learning tools, and real-world applications are required in twenty-first-century pedagogy. (Saavedra and Opfer, 2012)

Yu (2001) examined the effect of competition in computer-assisted co-operative learning situations on pupils' cognitive, affective and social outcomes, in a study of 192 5th-grade students (aged 11–12 years) in six classes in one Taiwanese school. The results showed that co-operation without competition engendered better attitudes towards the subject matter and promoted more interpersonal relationships.

Ideas, procedures, and technology that disrupt the status quo bring about disruptive change. Adaptability and flexibility are the most critical intellectual and mental traits required to build such technologies and master the change brought on by these technologies.

The teacher's competence and the quality of the lesson much transcend the difficult circumstances that some of our students bring to class. (Callins, 2006; Willis & Harris, 2000)

MOOCs (Massive Open Online Courses) are a relatively new phenomenon in the field of education. It's being viewed as a disruptive technology advance in the field of education.

Ball and Hill (2009) looked at some of the more recent research on the links between teacher certification, qualifications, and degree of study and student learning, and concluded that the findings were often inconsistent and difficult to understand.

#### **3 RESEARCH METHODOLOGY**

#### 3.1 Objectives of the study

- To study the existing assessment of pedagogy in colleges.
- To know the pedagogical methods used by academicians.
- To study the teachers views related to Faculty exchange program, Collaborative teaching, Research oriented study and strategies for improvement of the students.
- To examine the teachers' perspectives related to different pedagogy related tools & techniques.

#### 3.2 Motivation of the research

- Pedagogy is the crucial element in the learning of the students and it directly affects development of the students.
- Pedagogy is related to teaching and it is the most imperative job in the world.
- India lacks practical education.
- The change in pedagogy is not in proportional to change in recent development in business, commerce and industry.

**Target Group & Target Area:** Management and Commerce Academicians of Punjab.

Sample Size: 500

Sampling Method: Convenience Sampling

**Data Collection Method** 

#### 3.3 Primary Method

- An online questionnaire was constructed to collect data from academics in the fields of commerce and management.
- Online questionnaire link sent to E-mail Ids of the target groups.
- In this study, LinkedIn is also used to collect the data as links were sent to the target group straightforwardly.
- Snowball technique is also used to collect the data.
- Experience and observation of researchers.

#### 3.4 Secondary Method

Journals, Magazines & Internet

#### 4 METAMORPHOSIS IN COMMERCE AND MANAGEMENT EDUCATION

In the words of Nelson Mandela, "Education is the most powerful weapon which you can use to change the world. Education in commerce and management is critical to the nation's prosperity. The backbone of the nation's growth and development is a combination of commerce and management education. The liberalization, privatization and globalization have influenced the trade as well as the market. LPG policies have also pressurized the development of management and commerce students. Due to this, skill, attitude and personality development are the main aspects of the students learning. It is essential for a teacher to use a situational leadership style in pedagogy so that he or she can adapt to changing student and industry needs. The teacher's pedagogy should be

such that pupils understand how to best utilise resources for economic and societal good. Mahajan and Shah (2000) concluded that global competition and proliferation of business educational institutions across the world possess stiff challenges to the business schools in India to produce quality products that could cater to the needs of the corporate world and hold out the expectation of different stakeholders of business education.

#### **5 DATA ANALYSIS**

#### 5.1 Assessment of pedagogy in Colleges

Table 5.1 Distribution of assessment and training of pedagogy in Colleges

Sr.No.	Statements	Yes	No
1	Pedagogy Assessment time to time	45%	57%
2	Pedagogy Training Provided by College/	35%	65%
	Institute/University		

Table 5.1 represents the distribution of assessment and training of pedagogy in colleges. It was found that the 45% academicians agree that there pedagogy is being assessed while 57 % academicians agree that there pedagogy is not being assessed by the management. 35% academicians agree that they are been provided pedagogy training by the institute and according to 65% academicians, College/Institute/University is provided them pedagogy training.

Figure 5.1 Proportion of assessment & training of Academicians in Colleges

#### 5.2 Pedagogical methods used by the Academicians

Predominant language of Instruction of lecture delivery

Table 5.2 Distribution of predominant language of instruction of lecture delivery

Language	Percentage (%)
English	25
Hindi	10
Local/ Regional Language	10
Combination of English plus Hindi / Local/	55
Regional language	

Table 5.2 depicts the predominant language of instruction of lecture delivery. 55% of the academicians are using combined instruction of languages like English plus hindi/local/regional language. 25% academicians prefer English, 10% for Hindi and 10% for Local/regional language.

Figure 5.2 Proportion of predominant language of instruction of lecture delivery

Most significant pedagogy related ideology for Commerce and Management students.

Table 5.3 Distribution of Significant pedagogy related ideology for Commerce and Management students.

Statements	Percentage (%)
Completion of Course	13
Understanding of the subject	22
Students development	30
Motivation to the students to face personal as well as	35
professional challenges	

Table 5.3 shows that the significant pedagogy related ideology for Commerce and Management students is the motivation to the students to face personal as well as professional challenges as 35% academicians agree to this statement. 13% believe to complete the course, 22% academicians have the ideology of the understanding of the subject by the students and 30% academicians wants to focus on the student development.

Figure 5.3 Proportion of Significant pedagogy related ideology for Commerce and Management students.

#### 5.3 Method you like the most in teaching

Table 5.4 Distribution of the Methods used in teaching

S.No.	Methods	Almost never	Occasi onally	About half the time	Most of the time	Most always	Mean	Rank
1	Case study	4%	4.2%	12.2%	50.2%	29.4%	2.032	R7
2	Audio Visual Aids	4.6%	7.6%	9.6%	49%	29.2%	2.094	R6
3	PPT presentation							
	by teacher	1.2%	10.4%	13.4%	25.2%	49.8%	1.88	R8
4	PPT Presentation							
	by students	11.2%	13.8%	9.6%	27%	38.4%	2.324	R5
5	Assignment							
	Method	12.2%	12.4%	11.8%	34%	29.6%	2.436	R3
6	Lecture Method	1.2%	10.2%	12.6%	26.4%	49.6%	1.87	R9
7	Quiz Method	8.6%	14.6%	22.6%	33.8%	20.4%	2.572	R2
8	Class room							
	discussion	12.4%	15.6%	11.8%	46.6%	13.6%	2.666	R1
9	Educational							
	Games	15.6%	9.2%	8.2%	35.6%	31.4%	2.42	R4

Table 5.4 depicts the methods used by Academicians for teaching on the basis of priority is as follows:

- 1. PPT presentation by teacher
- 2. Lecture Method
- 3. Audio Visual Aids
- 4. Case Study
- 5. Assignment Method
- 6. Class room Discussion
- 7. PPT presentation by the students
- 8. Educational Games
- 9. Quiz Method

Figure 5.4 Proportion of the methods used in teaching

Views related to faculty exchange program, collaborative teaching and research oriented study.

# 5.4 Faculty exchange program is a great initiative for development of teacher's pedagogy

Table 5.5 Faculty exchange program is a great initiative for development of teacher's pedagogy

Yes	<b>73</b> %
No	27%

Table 5.5 represents the belief of the academicians regarding the faculty exchange program. 73% agree that faculty exchange program is a great initiative and 27% agree that it is not a great initiative for the development of teacher's pedagogy.

Figure: 5.5 Proportion of Faculty exchange program is a great initiative for development of teacher's pedagogy

#### 5.5 Collaborative Teaching

# Table 5.6 Distribution of statements related to Collaborative teaching

S. No.	Statement	Yes	No
1	Collaborative teaching (multiple	73 %	27%
	teachers at a time) is beneficial for		
	students		
2	Collaborative teaching (multiple	67 %	33 %
	teachers at a time) is beneficial for		
	the growth of academicians		
3	Colleges provides Collaborative	15%	85%
	teaching		

Table 5.6 describes distribution of 3 statements:

First statement refers to the view of the academicians regarding the Collaborative teaching. 73% academicians agree that Collaborative teaching is beneficial and 27% disagree to the fact that Collaborative teaching is beneficial to the students.

Second statement refers to the view of the academicians regarding the Collaborative Teaching is beneficial for the growth of the academicians. 67% agree and 33% disagree with this statement.

Third statement refers to the fact that Colleges are arranging Collaborative teaching or not? So, 15% agree that their Colleges are arranging and 85% agree with the fact that Colleges are not arranging Collaborative teaching.

Figure 5.6: Proportion of statements related to Collaborative teaching

#### 5.6 Strategies for improvement of students

#### Table 5.7 Distribution of strategies for improvement of the students

S.N.	Statement	Yes	No
1	College arrange internship trainings or	14%	86%
	any industrial connection programme		
	apart from summer internship		
2	Skill based programmes beyond	45%	55%
	syllabus		

Table 5.7 shows two aspects. Firstly, the fact that Colleges are arranging internship trainings or any industrial connection programme apart from summer internship. Only 14% agree while 86% disagree with the fact that the colleges are providing summer internship.

Secondly, the skill based programmes beyond syllabus. 45% agree that Colleges are providing skill based programmes beyond syllabus and 55% are denying that colleges are providing skill based programmes.

Figure 5.7 Proportion of strategies for improvement of the students

#### 5.7 Research oriented study

Table 5.8 Distribution of statements related to research

S. No.	Statements	Yes	No
1	My Institution is well known for its research	42%	58%
2	My department is well known for its research	51%	49%
3	I am well known for research	29%	71%
4	I used to help my colleagues in writing research papers	12%	88%
5	I used to assist my students to conduct research & write research papers.	15%	85%

Table 5.8 shows the distribution of statements related to research. According to 1st statement, 42% academicians agree that their institution is well known for its research while remaining academicians have denied. According to 51% academicians, their department is well known for the research and 49% were not given their consent regarding this point. As per 29% respondents, they are well known for the research and as per 71% respondents, they are not well known for the research. 12% believe that their colleagues help them in writing research papers and 88% believe that their colleagues are not helping them in writing the research papers. Only 15% believe that they used to assist the students to conduct research and write research papers.

Figure: 5.8 Proportion of statements related to research

# 5.7 The teacher's perspectives related to different pedagogy related tools & techniques

Table 5.9 Distribution of the teacher's perspectives related to different pedagogy related tools & techniques

S.No.	Statements	Yes	No
1	As a lecturer, one of my principal aims is to provide an	55%	45%
	environment in which students are helped to learn themselves		
	rather than be taught.		
2	ICT is a catalyst to support in my teaching	90%	10%
3	Best teachers in your college receive rewards & recognition	72%	28%
4	I provide proper notes to students.	25%	75%
5	I use peer review method of evaluation in class where students		
	can assess each other's performance.	7%	93%
6	Use of Multimedia is important in teaching	74%	26%
7	Evaluation of students plays great role to develop them	82%	18%
8	Solving MCQ's is best way to clear the concepts of students.	72%	28%
9	I provide latest information to students	84%	16%
10	I provide career guidance & counselling to students	80%	20%
11	I used to deliver contemporary issues in management,	72%	28%
	commerce and business		
12	I feel summer as well as winter internship training for 1 month	84%	16%
	each should be provide to +2, bachelors & master level		
	commerce & management students for developing employability		
	& to connect institute to industry		

As per 55% academicians, principal aim is to provide an environment in which students are helped to learn for themselves rather than be taught while 45% doesn't think so. 90% believe that the ICT is a catalyst to support in teaching and 10% believe that ICT is not a catalyst to support in teaching. According to 72% academicians, best teachers in their college receive rewards & recognition and 28% were opposing the fact. Only 25% academicians provide notes to students while 75% were not providing notes to students. 7% were using peer review evaluation in

class where students can assess each other's performance and 93% are not using. 74% academicians believe that use of multimedia is important in teaching and 26% believe that multimedia is not important in teaching. 82% academicians believe that evaluation of students plays great role to develop the students while others not. 72% believe that Solving MCO's is best way to clear the concepts of students while 28% academicians doesn't believe in this 84% academicians provide latest information to the students while 16% are not providing latest information to students. 84% are providing career guidance counselling to the students while 16% are not providing career guidance and counselling to the students. 72% academicians used to deliver contemporary issues in management, commerce and business while remaining academicians are not delivering contemporary issues in management. 84% academicians believe that summer as well as winter internship training for 1 month each should be provide to +2, bachelors & master level commerce & management students for developing employability & to connect institute to industry while remaining 16% were not agree with this statement.

Figure 5.9 Proportion of the teacher's perspectives related to different pedagogy related tools & techniques

#### 6 FINDINGS

#### 6.1 Regarding the Assessment & training of pedagogy in Colleges

- 1. 45% of academicians agree that their pedagogy is assessed from time to time.
- 2. According to 35% academicians, their college/institute/ university is providing them pedagogical training.

#### 6.2 Pedagogical methods used by the Academicians

55% Faculty members are using combined language of instruction in the class room like English plus hindi/local/regional language. 25% academicians are using only English, 10% prefer Hindi and 10% prefer Local/regional language.

As far as significant pedagogy related ideology for Commerce and Management students is concerned, 35% academicians' ideology is motivation to the students to face personal as well as professional challenges, 13% academicians want to complete the course, 22% academicians want to make the student to understand their subject and student development is the main ideology of 30% academicians.

The methods used by Academicians for teaching on the basis of importance and order: First is classroom discussion, second is Quiz Method, Third is Assignment method, Fourth is Educational games, Fifth is PPT presentation by students, Sixth is Audio Visual aids, Seventh is Case study, eighth is PPT presentation by teacher and ninth is Lecture Method.

# 6.3 Views related to faculty exchange program, collaborative teaching and research oriented study.

Faculty exchange program is a great initiative for development of teacher's pedagogy by 73% academicians while remaining academicians were in against of the fact.

73% academicians think that Collaborative teaching is useful to the students, Collaborative teaching (many teachers at a time) is beneficial for the growth of academicians is agreed by 67% academicians and 15% academicians believe that the college offers them Collaborative Teaching.

In terms of student development plans, just 14% of academicians agree with the idea that colleges organise internship trainings or any other industrial connection programme aside from summer internships, while the remaining 86% disagree. Academicians believe that they are giving skill-based programmes beyond the syllabus in 45% of cases.

Institution is well known for the research is agreed by 42% academicians, the department is well known for the research is agreed by 51% academicians, the academician itself is well known for the research is agreed by 29% academicians, the colleagues are helping in writing the research papers is agreed by 12% academicians, the assistance to the students in the field of the research is provided by 15% academicians.

# 6.4 Regarding the teacher's perspectives related to different pedagogy related tools & techniques.

- 1. 55% academicians agree that their principal aims is to provide an environment in which students are helped to learn for themselves rather than be taught while remaining are not agree with this statement.
- 2. 72% academicians believe that best teachers in your college receive rewards & recognition while remaining 28% have against views related to this statement.
- 3. 90% academicians agree that ICT is a catalyst to support in their teaching while remaining 10% are not satisfied with ICT as a catalyst.
- 4. 25% academicians provide proper notes to students while other faculty members not.
- 5. 7% academicians use peer review method evaluation in class where students can assess each other's performance while others 93% faculties are not using it.
- 6. "Solving MCQ's is best way to clear the concepts of students" is agreed by 72% academicians while others are not thinking in favour of this statement.
- 7. 74% academicians are using multimedia in teaching while 26% are not using multimedia in teaching.
- 8. 82% academicians believe that evaluation of students plays great role to develop students while 18% academicians are not conducting any evaluation.
- 9. 84% academicians are providing latest information to the students while other academicians are not providing.
- 10.80% academicians are providing career guidance & counselling to students while remaining 20% academicians are not providing.
- 11.72% academicians used to deliver contemporary issues in management, commerce and business
- 12. 84% academicians felt that summer as well as winter internship training for 1 month should be provided to +2, bachelors & master level commerce & management students for developing employability & to connect institute to industry while remaining were not agree with this statement.

#### 7 RECOMMENDATIONS

- 1. Teachers pedagogy should be evaluated on a regular basis..
- 2. Winter Internship Training should also be provided to the students.
- 3. English should be more used as a medium of communication for pedagogy as in this globalized world, English is the best way to face the competition.
- 4. All specialised and significant subjects must not be introduced in the last semester because students rarely attend in the last semester due to placements.
- 5. College should provide proper pedagogy training.
- 6. A teacher has to use multiple teaching styles as one particular teaching style is not best in each & every situation & to each & every student.
- 7. Excellent academicians will nurture great students. As a result, a teacher's pedagogy should become increasingly important.
- 8. Emphasis should be provided to faculty exchange programme or student development program.
- 9. Teaching is satisfying, stimulating, and ever-changing. So, it is really vital that a teacher should change its pedagogy with the change in recent developments of commerce, business, management and IT.
- 10. Multiple sources of knowledge can also be beneficial for academicians like television, newspapers, magazines, internet etc.
- 11. Not only the completion of the syllabus should be the pedagogy related ideology for the academicians but motivation to the students to face personal as well as professional challenges is also an important aspect to be taken care of.
- 12. More focus should be on educational games, audio visual aids, case studies, quiz test and assignment methods.
- 13. Collaborative teaching is beneficial for the growth of the students as well as for the development of faculty members. So, management must arrange collaborative teaching.

#### 8 CONCLUSION

Effective teaching resembles to the achievement of the learning objectives by the students. Pedagogy should not only develop academic enrichment but it should be overall development of the students. In terms of 361 degree metamorphosis, a student's development should include an additional degree of enthusiasm to build morals, values, perspective, attitude, and, most importantly, a teacher should focus on making the student a decent person in society. In terms of academicians, 361 degree refers to the development of teachers and its pedagogy which should be more than just completion of course. New aspects like alternative assessment, brain research, character education, Critical thinking and global education should be incorporated to the teacher's pedagogy. Students' growth and development should go beyond what is expected of them, and they should constantly be one step ahead of what is expected of them. Individual students, educators, society, and the nation as a whole all require a 361 degree transformation.

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## GREEN ACCOUNTING- AN ESSENTIAL TOOL FOR MANAGING THE ENVIRONMENT TURBULENCE

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Abstract- Green accounting is a path for social & environment expansion. By using this as a tool, many of the environmental costs can be reduced by proper decision making and also by implementing greener technologies and therefore, environmental accounting practices need to be emerged in order to ensure sustainable development. This paper is a broad body of literature with environmental accounting (green accounting) and sustainability, to understand how it has been studied and evaluated by different authors who are working in this area. It also aims to find out how important it is for a company to implement green accounting and keep a track of what is receiving from the environment and what it is giving back in return. This would help in the efficient use of resources and it would also help in reducing pollution to an extent. Hence, green accounting concept helps in reducing the cost of production and provides appropriate information for decision making which leads to preservation of the environment. The responsibility towards the environment has become one of the most essential elements and therefore, Corporate Social Responsibility (CSR) & Social and Environmental Accounting (SEA) concepts are emerging among the corporates, investors, government, policymakers, environmentalists, public with an awareness to create value for the society and world. This paper also focused at insight view about the green accounting effects and its practices and cost benefit analysis and also to explorethe roots and the tendencies of the development of Green Accounting.

**Keywords:** Environmental Accounting, Green GDP, Sustainability, Corporate Social Responsibility.

#### 1. INTRODUCTION

Environmental accounting is a wide-ranging aspect of accounting. Environmental accounting generates reports for both internal uses, providing environmental information to help make management decisions on controlling overhead, capital budgeting and pricing, and external use, disclosing environmental information of interest to the government, public and to the financial community. Industrial revolution has brought economic improvement for most people in industrialized societies. Many enjoy greater prosperity and improved health however, it involves costs. Industrialization has brought factory pollutants and greater land use, which have harmed the natural environment. The application of machinery and science to agriculture has led to greater land use and therefore, extensive loss of habitat for animals and plants. These factors, in turn, have caused many species to become extinct or endangered.

Initially, Corporate Social Responsibility emerged as a necessity for the corporates to attain sustainability and now concept of environmental accounting has arisen for the corporates to endure in this competitive market. Environmental Accounting is an imperative device for understanding and highlighting both the influence of businessenterprises to economic wellbeing and the costs levied in the form of pollution or resource degradation. Recently many laws have been enacted and amended so that the corporates can contribute towards the development of the economy by fulfilling their social responsibility. Thus, the green accounting is a type of accounting that attempts to factor environmental costs into the financial results of operations.

The Green accounting is not only the step towards strong sustainability but also helps businesses in understanding the compatibility required between traditional economics goals and environmental goals. A trade-off between environmental protection & development is required as we have already made enormous damage to the environment in fulfilling our desires by using the limited resources available in the environment. The policy makers need to revise the model to evaluate the Gross Domestic Product, as present model ignores the most important aspect of environmental cost i.e., green accounting.

The Green Gross Domestic Product, or Green GDP for short, is an indicator of economic growth with environmental factors taken into consideration along with the standard GDP of a country. Green GDP factors biodiversity losses and costs attributed to climate change. Physical indicators like "carbon dioxide per year or "waste per capita" may be aggregated to indices like the "Sustainable Development Index".

The standard GDP measurement has limitations on account of being indicators of economic growth and desirable standards of living. The standard GDP measures only the total economic output and does not have any means to identify wealthy and assets that arise because of the economic output.

Traditional indicators of economic growth have many flaws with how they address the environment. GDP accounts for environmental resources through their use as factors of production as long as these factors of production have market prices.GDP is flawed because it does not include environmental resources that do not have a marketprice.GDP also may not include the depletion of natural capital and the pollution of resources caused by environmental externalities. For all these reasons, traditional indicators of economic growth do not reflect the sustainable use of environmental resources.

The normal GDP also does not have any way of knowing whether the level of income created in a country will be sustainable or not. To overcome this limitation the green GDP is sought after.

National Capital is poorly described in GDP as they are not considered relevant. With relations to their costs, policymakers and economic planners do not give sufficient importance to benefits that protective environmental project might give in the future. The positive benefits that may arise out of any forest or agricultural land are not taken into account due to the operational difficulties around measuring and assessing such assets. Also, the impact that depletion of natural resources needed to run the economy is accounted for in standard GDP measurements.

A need for a comprehensive macroeconomic indicator is in tandem with the need for sustainable development. GDP is falsely believed to be an indicator of social well-being and thus it's used heavily in the analysis of political and economic policy. The Green GDP will be a suitable alternative in this regard.

Green accounting is a growing field that identifies resource use, measures and communicates costs of a company or the national economy actual or potential impact on the environment. Green accounting is also referred to as environmental accounting which incorporate environmental assets and their source and sink function into national and corporate accounts.

#### 2. REVIEW OF LITERATURE

**Alka Solanki (2016),** They focused to study and analyses the available literature based on the green accounting and to understand how it has been studied and evaluated by different authors who are working on it.

Shavita Deshwal (2015), She thrown light on opinions for green accounting and reporting practices of selected companies. For opinion on Green Accounting they selected 27 manufacturing and 23 nonmanufacturing companies and framed questionnaire on 15 key issues such as environmental policy, health safety and environment, energy corporate sustainability, environmental conservation, initiative, sustainability reporting, water management, waste management, renewable energy sources, environmental information environmental disclosure practices, environmental targets, environmental reporting indicator, environmental costs and benefits, environmental liabilities and environmental assets were considered factors for Green accounting with yes or no options. They found from the "F" test that, there is a significant difference between manufacturing and nonmanufacturing companies in relation to green practices adopted.

**Dr. Preeti Malik and Dr. Alka Mittal (2015),** They concentrated on stages to be followed by the corporate for green accounting in India, such as identification of environmental reporting parameters, defining the environmental reporting parameters, specify the environmental reporting targets to be achieved, developing the environmental performance indicators, report the environmental performance results. They also touched the legal framework for environmental accounting in India. At the end of their study, they found that environmental accounting is in preliminary stage in India.

**Heba Y M & Yousuf (2010)** examined the concepts of environmental accounting by exploring the techniques to develop the environmental reporting that enables the government to utilize and making businesses more responsible for their externalities. Moreover, as the consideration for the environmental accounting increases, there is a parallel increase in measuring the environment performance.

Harazin, (2011) has tried to establish 'Relationship between environmental accounting and pillars of sustainability' explains the challenges regarding sustainable development. The objective of this study was to find out and come to a conclusion whether the social and integration point of view is outside of the environmental accounting concept. At the end of the study, after various literature reviews and primer researches, the author was able to come to a conclusion that environmental accounting cannot be beyond social and integration challenge of sustainability and so, it can be related to pillars of sustainability.

#### 3. RESEARCH METHODOLOGY

Being descriptive and exploratory in nature this research paper is based on the secondary data collected from various journals, books, articles, government reports and publications from various websites.

#### 4. OBJECTIVES:

- Perception of green accounting/Methods of Evaluation
- Relevance of Green Accounting
- Legal framework adopted in India for environmental practices
- Challenges in Environmental Accounting and Reporting

#### 4.1 Perception of Green Accounting

The concept of green accounting emerged in the late 1980's and focused majorly on the environmental sustainability. Its emphasis is to place value on environmental resources that do not have a market price and incorporate these resources into the national accounts and into economic growth measure. Economic development and wealth creation at the cost of damage to the Environmental aspects can lead to difficult times for any country in referenceto their sustainability. Green accounting is the need of the hour not only for companies but also countries should actively adopt this concept in order to minimise the environmental cost. It systematically records all the environmental cost in respect to their operations, as a bearing in damage or depletion of the natural resources. Hence, it is considered to be an important tool for understanding the influential aspects of natural resources with respect to the economy. The lead to the corporates in taking the inventiveness for environmental accounting is that as it provides skill to regulate& create the mindfulness regarding the environmental costs which in turn helps in recognizing the techniques and procedures to reduce such type of cost & expenses and also helps in evaluating the actual outcome of their operational performance.

#### 4.2 Forms of Green Accounting (Environmental accounting)

- Environmental Management Accounting: It is process of identification, collection, estimation, analysis, internal reporting and use of materials and energy flow information, which is further utilized by the managers for the corporate activities that affect the environment, as well as environment-related impacts on the corporation.
- **Environmental Financial Accounting:** EFA is majorly governed by the accounting standards and focuses on reporting environmental liability costs and other significant environmental costs which also embraces environmental and financial benefits.
- **Environmental National Accounting:** It involves the collection and processing of financial information regarding the national resource's stocks and externality costs or the cost for ecological challenges or opportunities for nations or countries.

#### 4.2 Method of Evaluation

A method to measure green growth of green accounting requires the identification and monetary measurement of the traditional private internal costs and externalities such as social and economic environmental costs that impact the external environment must also be

taken into account. Although often ignored, their inclusion as internal items in corporate accounts could mean that scarce resources are more efficiently allocated.

- Natural Resource Accounts
- Emission Accounting
- Disaggregation of Conventional National accounts
- Value Of non-marketed environmental goods and services
- Green GDP

**Natural Resource Accounts-** Stocks of natural resources and changes in them caused by either natural processes or human use. They are of two types Physical asset account and monetary asset account

Evaluation in Value of Resources when goods are sold in Market.

Value of Stock/ goods that are not sold in Market

- i) Physical changes in Resources
- ii) Fluctuation in Market Price.

**Emissions Accounting-** Developed by the Dutch, the National Accounting Matrix including Environmental Accounts (NAMEA) structures the accounts in a matrix, which categorizes pollutant emissions by economic sector. The physical data in the NAMEA system are used to assess the impact of different growth strategies on environmental quality.

**Disaggregation of conventional national accounts-** 'Sometimes data in the conservative accounts are taken apart to recognize expenditures precisely related to the environment, such as amount of expenses incurred to prevent or moderate harm, to buy and install protection equipment and Pay for charges and subsidies.

Value of non-marketed environmental goods and services- Whether to include the assigned value of non-marketed environmental goods and services and value of these items is crucial if the accounts are to be used to assess tradeoffs between economic and environmental goals. The accounts can end up reflecting the costs of protecting the environment without in anyway reflecting the benefits.

**Green GDP** -Developing a gross domestic product that includes the environment. Actively involved in building environmental accounts minimize its importance because environmental accounting methods are not standardized. A green GDP can draw attention to policy problems; it is not useful for figuring out how to resolve them.

#### 4.3 Relevance of Environmental Accounting

The leading responsibility of the corporates which provides an edge in determining their success is Environmental performance i.e., making profits in an organization by discharging their responsibilities towards the environment.

The Management adhere to Environmental costs and performance due to the following reasons:

- a) Better management decisions based on environmental cost can result into elimination of many environmental issues, effective reduction of cost, and can also result in improved environmental performance in a way significant benefit to the society.
- b) More accurate costing and pricing with properunderstanding of environmental cost associated with manufacturing of products &

- services which will ultimately aid the organizations in producing better quality & eco-friendly products & services.
- c) Environmental costs(such as the waste of raw materials may provide no additional value to the product or system) may be obscured in overhead accounts and can be written off by generating revenues through sale of waste by products or transferable pollution allowances such as carbon credits.
- d) Organizations achieve operational & material efficiency gains by taking into consideration the aspects of environmental accounting. It also provides wide environmental awareness & reduction in damage to the environment.

#### 4.4 Legal Framework for Environmental Accounting in India-

Ecological balance is getting disturbed with the rapid industrialization. Industrialization has a major role to play in the economic development of any country, but growing waste of resources through industries is emerging the threat for the environment. Due to increase of pollution in environment, it has become the global concern over the protection and India too has setup a Union Ministry of Environment under which various laws relevant to Environmental Protection has been incorporated. The Union Ministry of Environment and Forests has issued various instructions in to prepare environment statements and it is also obligatory to get an environmental clearance for all new projects that concerns both the Union Ministry of Environment and Forests and the corresponding State Government department of environment. The set of information mainly being disclosed consist of following:

- A. Installation of devices to control pollution and decomposition of waste.
- B. Measures adopted in order to improve product quality and optimum utilization of resources
- C. Methods undertaken for energy conservation
- D. Measures taken to ensure proper consumption of water and raw material consumption and environment protection by keeping check on pollution generated.
- E. Procedures and policies to popularize the benefits of environmental accounting

The announcement regarding the concept of green accounting was made in the year 1991, in which the Ministry of Environment and Forests has proposed that "Every company in the Report of its Board of Directors should evidently reveal briefly the steps taken or proposed to be taken for the environmental conservation."

#### 4.5 Challenges in Environmental Accounting and Reporting

Integration of environmental accounting & existing framework of GAAP involves major challenges and obstacles. Current corporate reporting comprises of measures adopted by the corporates to safe guard the interest of shareholders and society in the form of the non-financial nature but its actual impact on the financial results is missing. Hence it becomes indispensable for integrating this information with financial accounting and also restricts the scope of further comparability and verifiability.

In financial accounting every aspect (cost & benefit both ) has to be recorded in monetary terms but there is constraint that every aspect of

environmental cost & benefit cannot be measured in monetary terms like soil erosion, loss of bio diversity, air pollution, water pollution, noise pollution, problem of solid waste, depletion of non-renewable natural resources i.e. loss emerged due to over exploitation of non-renewable natural resources like minerals, water, gas, deforestation, etc. and the environmental assets created by business, like a forestation, biodiversity conservation, water preservation etc cannot be suitably measured in monetary terms.

Environmental accounting lacks economic value and at the same time there is no standard method of estimating the social value of environmental goods and services nor any accounting standard for environmental accounting. Environmental accounting involves inapplicable assumptions and is not a legal obligation except for few industries in India.

#### 5. CONCLUSION

In this research paper various literature associated with environmental accounting and sustainable practices has been identified with an aim to present varying views associated with environmental management and accounting measures which helps in arriving at a decision-making instrument for companies to implement sustainable accounting measures and thereby present improved environmental performance. It can be concluded from the study that most of the study in this area is qualitative in nature as majority of the author's present qualitatively possible development measures for arriving at indices related to lifecycle production and organizational sustainability related factors whereas empirical research his relatively less in the field of green accounting. Environmental accounting and reporting practices provides the data in terms of benefit received from the usage of the natural resources for the well-being of the society as well as the cost occurred for the same. In modern economics, the concept of welfare is an important aspect of national income, and actual economic development of any country cannot calculated accurately without taking into consideration the environmental cost. So now the government authorities have to take certain actions and need to frame the rules and regulations in regard to the environmental policy, so that corporates can adopt appropriate accounting procedures in order to account the environmental aspects in the annual reports which in turn can ensure sustainable development for the corporates as well as for the country.

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#### DIGITAL PAYMENTS THE FUTURE OF INDIA

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Abstract- Digital payments have changed our lives over the years. In India, Digital payments came more into effect during the demonetization and vast growth has been seen in the trends of digital payments since then. The Digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. "Faceless, Paperless, Cashless" is one of professed role of Digital India. With the introduction of the "Digital India program", there has been a boom in digital payments. Over the years, digital payments have improved in their technology and security with the aim to reduce cybercrime. It's good that the companies are constantly improving their digital security measures to ensure the safety of the customers. The Digital Payment technique has acted as a safeguard to the economy. During the pandemic, cashless transactions were promoted to stop the people from physically moving out of their houses to purchase goods and thereby making physical payments. This indirectly helped to curb the spread of Covid-19. Digital Payments not only helps a smooth flow of the currency but also transparency about the transactions. As per the Money control Record, digital payments have increased by 10 times. This Study is to gather the opinions of the people on digital payments and getting their views about digital payments being the future in India. The study will also focus on the cybersecurity provided by the platforms to ensure consumer's privacy.

Keywords: Digital Payment, Covid-19, Cybersec.

#### 1 INTRODUCTION

What could an Economy with a good Digital Banking behaviour be? Coronavirus is spread over more than 190 countries and India is one of the countries which is badly affected by the virus. The very first case of COVID-19 in India was reported on 30th January 2020. The nationwide lockdown for 21 days was announced in March 2020. Lockdown was extended to more days, as the cases were rising at a skyrocketing speed.

The COVID-19 pandemic has caught organizations off guard and banks are no exception. To survive this unprecedented crisis, most financial services' firms worldwide are working to ensure business continuity. Clearly, COVID-19 impacted the consumers' behaviour also as many consumers were forced to work from home and financial institutions closed their lobbies for the public. This paved the way for Digital banking to emerge as the most practical channel to counter the COVID-19 impact on retail banking.

The shift to digital banking by both consumers and financial institutions were already taking place even before COVID-19. Digital payments were on the rise before the pandemic, with more consumers using mobile wallets each month. As the direct impact of the pandemic enters the third wave, there are several trends that provide a strong indication of banking and payment behaviour going forward.

Indians mainly rely on cash rather than digital payments but demonstisation and the pandemic has shown the digital transformation. The first surge for digit payments was seen after the  $\Box 500$  and  $\Box 1000$ 

were demonetised in 2016. Since then, the digital payments have been continuously increasing over the years. There has been a huge development in technology, communication and security to serve the people by the Formal Institutional sector, and by the digital platforms to give the best service to the customers. Pandemic had fuelled digital payments by 44% in 2020. Increase in Digital payments have also led to the increase in cybercrime during this period. Cyber Crime increased by 86% during the months of march and April as many were new to the digital world especially the senior citizens. The rate of absorbing the digital payments was slow and the cyber-crime was on the increase. The systems (servers) were continuously being modified to protect the customers from Cyber-crimes which made the Digital payments companies more efficient.

#### 1.1 Importance of The Study

- 1. There is a spike in Digital Payments by 44% in India during the pandemic. This is to avoid passing the virus through physical cash flows.
- 2. The research study will focus on the shift from the conventional way to the digital payments
- 3. The research study will throw light on the cyber- crime which has increased during the pandemic as many shifted to digital payments.
- 4. The research will make an attempt to study about the cyber security taken by the banks to reduce cyber -crimes.
- 5. The research study will focus on the future opportunities and challenges of digital payments.

#### 1.2 Research Objectives

The following objectives were taken for my study

- 1. To analyse the reasons for the digital transformation during the pandemic and not before it.
- 2. To analyse the cybercrimes rate in India.
- 3. To study about the cyber security taken by the banks and government.
- 4. To Suggest measures to reduce cybercrimes and help the customers.

#### 2. CONCEPTS

**Covid 19:** It is a disease caused by a new strain of Coronavirus. 'Co' stands for corona, 'VI' for viruses and 'D' for Disease. (https://www.who.int)

Coronavirus: Any of a group RNA virus that cause a variety of respiratory, gastrointestinal and neurological diseases in humans and other animals. It is an infectious disease (https://www.who.int)

**Digital Payments:** A digital payment, sometimes called an electronic payment, is the transfer of value from one payment account to another using a digital device such as a mobile phone, POS (Point of Sales) or computer, a digital channel communication such as mobile wireless data or SWIFT (Society for the Worldwide Interbank Financial Telecommunication). This includes payments made with bank transfers, mobile money, and payment cards including credit, debit and prepaid

cards {UNCDF} (https://www.betterthancash.org/define-digital-payments).

**Cyber Crimes:** In general, cybercrime is defined as either a crime involving computing against a digital target or a crime in which a computing system is used to commit criminal offenses. As a broad category of crime, cybercrime includes such disparate sorts of activities as illegal access of data, use of computer communications to commit fraud, or the ransoming of systems via digital means. (https://www.techopedia.com/definition/2387/cybercrime)

#### 2.1 Review of Literature

- 1. Rajendra Kumar Tolety and Goodwin D R: In their research article "Digitalize or Die The Road Ahead for Indian Banking" explains about the evolution of digital Banking over the years. The article also explains how the digital transformation was slow as the customers where not adopting the digital change. The research article elaborates the problems that are faced in digital banking (hacking, fraud, cyber- crime, etc). The article also explains about the future opportunities or developments in the banking system to improve the digital payments. Digital banking is improving day by day, security is getting better and the services to the customers are improving which leads to a strong financial system in the country.
- 2. Rajbir Saha: In his research article "Digital Payments usage during Covid-19 Pandemic with Special reference to E-wallet users in Guwahati city" explains how there was an increase in the volume of the digital payments, increase of new users and there a leap seen in active users in the state of Assam (Guwahati). The research article explains how the e wallets, digital payments were promoted during the lockdown to avoid the spread of virus. The research article studies about the adoption of digital payments by the people, increase in new users to the digital world these data were collected through an online survey in Guwahati City.
- 3. P Venkat Kamesh: In his research article "Covid-19 Digital Transformation and Digital Competency" discusses about the Fintech companies which played a major role during the Covid-19 Pandemic by developing Digital application for finance, payment, banking and many more. The research paper also elaborates that how there was a surge in cyber -crime due to increase of Digital payments during the pandemic. Due the development of apps by the Fintech Companies the efficiency of the Indian Financial System Has Increased during the pandemic as there was continuously upgrading the servers and increasing the cyber security. The research paper explains the digital transformation and the affects due to the cybercrime on the digital payments.
- 4. **K.M Siby:** In his research article "A Study on Consumer Perception of Digital Payment Methods in times of Covid Pandemic" studies the digital payments from the year (2016), demonetization time where the first surge for digital payment was seen. The primary data was taken to see the surge of the digital payment in Ernakulam district from Kerala. The research article explained how the consumer think about the digital payment, will

- they continue to use the digital mode in future, how comfortable they are with the digital payment gateways and will the consumers encourage others to use the digital payments.
- 5. Dr. Anil Jain, Dr. Apurva Sarupria and Ankita Kothari: In their research paper "The Impact of Covid-19 on E-wallet's Payments in Indian Economy" the research paper explains how E -wallet was spiked during the pandemic. Covid-19 pandemic has disrupted many businesses which hampered the Indian Economy. E-wallets were safe than cash as there is no need of any physical contact. The pandemic gave a boost to digital payment and the ecommerce market. The Fintech companies really boosted the financial flow to certain extent. The research paper shows the rate of increase of digital payments during the pandemic and also explains their future opportunities.
- **6. Dr. S. Padman and Dr. R. Mahesvari:** In their research article **"Impact of Digital payments On Retailers Across Tamil Nadu"** explains the movement by the people of the digital payments. Covid-19 pandemic had spiked the digital payments not only in the urban regions, but has also spiked in rural regions. The research article shows how the cash flow was discouraged in Tamil Nadu and the encourage the digital payments. The research article even talks about the villages which had transformed during the pandemic for reducing the virus. The research article highlights the issues faced by the people adopting the digital world.
- 7. Vinod Mohite, Rachana Shikhare, Swapnil Kharde and Praful Sarangdhar in their research paper "Digital payment Saga: Pandemic Impact on ATM Usage in India" highlights that in India People mainly hold and rely on cash, though during the pandemic the digital payments have increased still people hold more liquid cash just to be safe. Many people shifted to digital mode but still were relying on cash for security purpose. This is one of the reasons for the spread of the virus as many contacts during the transfers or using the ATM's machines. The research paper shows how ATM's were over used during the pandemic.
- 8. Ashish Baghla in his research paper "A STUDY ON THE FUTURE OF DIGITAL PAYMENTS IN INDIA" has mentioned the attitude of the people towards digital payments. He has stated that though a considerable part of society has started using Digital mode of Payments, people still are apprehensive about using Internet Banking, debit cards, e-cash etc. He has even stated that to attract the consumers towards digital payments, the Government, initially, had provided considerable incentives for digital payments but now there is a decline in such incentives. The researcher clearly points out that the biggest challenge in front of government is the lack of knowledge and awareness among people and fear of loss of money by use of digital payment methods. The Risk of being hacked is another serious issue to be tackled. The government needs to tackle these challenges to have cashless economy and to give a boost to digital payments to provide sustainable economic development to the country in the long run.

- 9. Ashutosh D. Gaur and Jasmin Padiya in their research paper, "From Demonetisation to Digitization of Indian Economy: The Road Ahead" have analysed the after effects of Demonetisation on the digitisation of the Economy. The paper clearly explains how Demonetisation opens the way to the cashless economy which is through digital payments. The paper has examined the huge surge in the usage of E-wallet and mobile payments and has suggested that the Government of India should issue guidelines through the Reserve Bank for the security concerns of E- wallets. They have suggested that the Digitization should percolate to grass root levels i.e. villages and to farmers so that real transformation of the economy will take place.
- 10. Dr. Amar Latta and Debjani Sarkar in their paper "Imperative Role of Digitalization in the Indian Economy During COVID-19" have analysed how Digital revolution has changed the efficiency and speed of the operations in the economy especially during and after the pandemic which caused the whole world's economy slowdown. The researchers have mentioned that to avoid any kind of breakdown in near future, the world economy has revolutionised with internet and digital devices. Even developing Economy like India has not been left untouched causing its economy to go through a very unsteady phase due to the problems aroused during lockdown and even after the pandemic. The research paper has analysed how the Indian government has taken many initiatives to overcome the slow-moving economy through Digital India Programme like Digital India, mobile banking to promote cashless transaction, boosting e-commerce to minimise contacts among people during COVID19. But, the researchers even mention, in their paper, about the dark side of digitisation which is also of great concern that includes privacy concerns, social disconnect, complexity, data security, etc.

#### **3 RESEARCH METHODOLOGY**

Research Methodology is the path through which researchers need to conduct their research. They are specific procedures for collecting and analyzing the data.

Primary data is the original information that the researcher collects for the purpose of data collection, whereas Secondary data is the information that has already been collected by other researchers.

In this research paper, I have adopted both, Primary data collection and Secondary Data collection.

**Primary Method:** The data collection was through a Questionnaire.

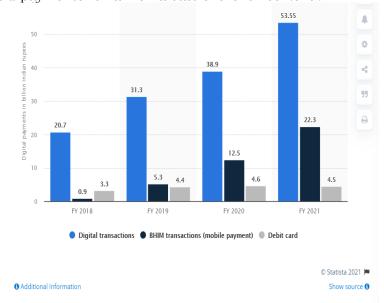
I have Collected the data from 81 respondents, out of which, 68 Responses from the customers and collected 13 responses from the bankers. To get the insights from both the sides- as to How digital payments have changed the financial system during the pandemic.

**Secondary Method:** The data collected was through various Newspaper articles, official website, Research papers and research articles.

Sampling Framework	68 Consumer Responses		
	13 Bankers Responses		
Source Of Collecting Data 1.Primary Data Method: Questionnaire			
	2.Secondary Data Method: Research		
	articles, Newspapers, etc		
Area of Study	Mumbai		
Time of Study	Early 2020 to the present		

#### 4 DATA ANALYSES AND INTERPRETATION

In financial year 2021, digital payments in India reached a total of over 53 billion Indian rupees. This marks a significant increase from 20.7 billion Indian rupees in financial year 2018. Among the cashless payment options the mobile payment app BHIM (Bharat Interface for Money) overtook debit card payments since 2018. The value of BHIM transactions increased significantly between 2018 and 2021, whereas debit card payments remain on a stable level since 2019.



As per data by Ernst & Young, Unified Payments Interface(UPI)-based digital transactions have increased by 110% in volume and 109% in value, from June, 2020 till June, 2021.

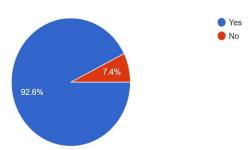
In this chapter, to study about the digital payments use, and to see how convenient it is for the customers, I have gathered information from 68 consumer respondents who have given their views on the digital payments.

#### 4.1 Why Shift now?

The main reason for not shifting from the conventional way to digital way was no proper guidance to use the medium, which made the people worry about their money if anything goes wrong. The second reason for not preferring the digital way was concern of privacy and for not having proper cyber security in India. In 2016 the first spike of digital payments was seen, in the same year the cyber crime increased. In a day more than 1500 cases were registered from India.

#### 4.2 Responses from Consumers

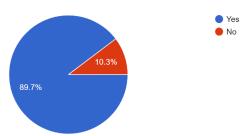
Do you have a bank account? 68 responses



The above pie chart shows how many people have a bank account (68 respondents). It shows that 92.6% (63) have a bank account and 7.4% (5) do not have a bank account because they are ignorant.

#### 4.3 Responses from Consumers

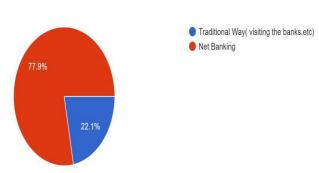
Do you make Online Transaction ? 68 responses



The above pie chart shows about the online transaction made by the people. 89.7% (61) people do online transactions and 10.3% (7) people do not use digital transactions.

#### 4.4 Responses from Consumers

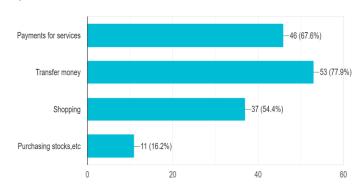
Preferable way of banking 68 responses



In the above pie chart, it represents the preferred way of banking by the people during pandemic. It shows that 77.9% (53) have shifted and prefer Digital Banking and 22.1% (15) preferred the conventional way.

#### 4.5 Responses from Consumers

Mostly net-banking is used for? 68 responses

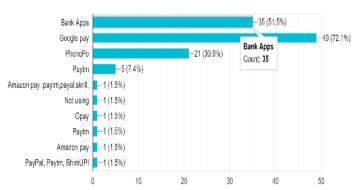


People mostly use digital payments for transferring the money to others 77.9% (53). 67.6% (46) Second reason for using digital payments are for paying for the services, 54.4% (37) people use digital payments for shopping and 16.2% (11) people use digital payments for purchasing stocks.

#### 4.6 Responses from Consumers

Which Apps do you use for online transactions?

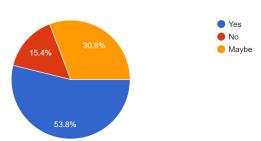
68 responses



The above table shows that the most used app for digital transactions. 73.6% (50) prefer G-Pay/Google pay. 51.5% (35) prefer bank apps, 30.9% (21) prefer PhonePe, 7.4% (5) prefer Paytm for transactions and many people prefer other apps like Amazon pay, airtel pay, BHIM, etc.

#### 4.7 Responses from the Bankers

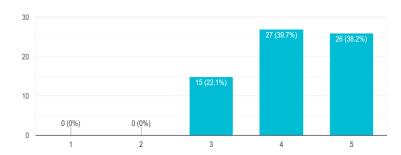
Have the customers adapted for Online payment 13 responses



53.8% (7) Bankers feels that customers have adopted the digital payments. 30.8% (4) feel that maybe they have adapted and 2 bankers feel that people have not adapted the digital payments.

#### 4.8 Responses from Consumers

How comfortable you are with Online banking 68 responses



4.9 Rating Scale:

Rating 1 - Very	Rating 2 –	Rating 3 –	Rating 4	Rating 5-
uncomfortable	Comfortable	Neutral	- Easy	Very Easy

The above chart shows how comfortable are digital payments for the people. 53 people have given high scores as 39.7% (27) gave 4 rating and 38.2% (26) gave 5 rating which means a favourable one for people. 22.1(15) people still have a mixed rating for the digital payments.

#### 4.10 Major Findings

Major findings from the above charts show why people have transformed, preferred digital payments and are using it.

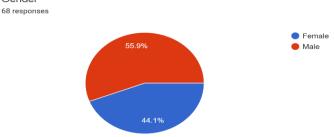
It is very sad that many above the age of 20years, though, do not have a bank account in 2021, are still aware of how to use the digital payment system which is a good sign. Many parents in India are guided by their children for making Digital payments and hence there is an increase in the use of digital payments.

People prefer digital payments after transforming from conventional mode of payments to digital payments as it has become convenient for them. Technology has made life easier for them and people mainly use to transfer their money, and for paying bills. Google pay/G-pay is most used app for these purposes. Even many bankers think that people now have adopted digital payments as they save a lot of time and also get 24hour services.

#### 4.11 Cyber- crime Threat to Digital Payment

A total of over 3.17 lakh cybercrimes and 5,771 FIRs were registered online through the National Cyber Crime Reporting Portal in the last 18 months -- a sizeable number of them in Maharashtra and Karnataka. A total of 1145005 (30%) of cyber -crime cases rise was seen during the March to April 2020.

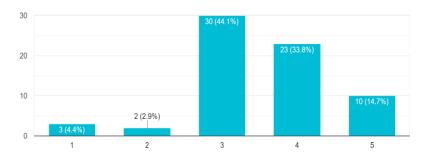
### **4.12 Responses from Consumers**Gender



The above pie chart shows the gender of the 68 respondents which consists of 55.9% (38) males and 44.1% (30) females.

#### 4.13 Responses from Consumers

Rate the precautions taken by the bank for the Cybercrime <sup>68</sup> responses



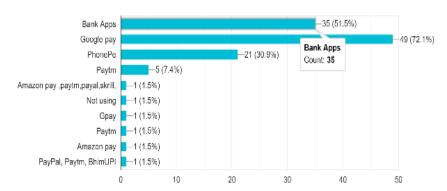
#### 4.14 Rating Scale:

Rating 1 –	Rating 2	Rating 3	Rating 4	Rating 5-
Poor	– Fair	<ul> <li>Neutral</li> </ul>	- Good	Excellent

The chart shows people are not very safe with digital payments as many rate the banks of not taking precautions against the cyber -crime. 44.1% (30) give a rating of not so good and not so bad. 33.8% (23) think good security is given, 14.7% (10) think that bank is giving best security against cybercrime. 7.35% (5) people feel bank is not giving good security against cyber- crime.

#### 4.15 Responses from Consumers

Which Apps do you use for online transactions?
68 responses



The above table shows that the most used app for digital transactions. 73.6% (50) prefer G-Pay/Google pay. 51.5% (35) prefer bank apps, 30.9% (21) prefer PhonePe, 7.4% (5) prefer Paytm for transactions and many people prefer other apps like Amazon pay, airtel pay, BHIM, etc.

#### 4.16 Major Findings

Females are more conscious than male during the digital transactions. The survey and the charts show that many females are concerned about the cyber security when it comes to money. Female not only save many but want their money to be in safe position.

People prefer the third-party application over bank apps because the third- party apps is more secure and also provide better services than the banks apps. The third- party apps attract a lot of customers by various coupons, vouchers, gift cards, and also provides better deal than the bank apps. One of the disadvantages of bank app is that it can be directly hacked to bank account where as these third- party apps go through different portals which makes it difficult to hack compared to bank apps but not impossible to hack.

Most of the people are not happy with the cyber security provided as many accounts are still hacked. No proper security bridge is available to secure the details and money kept with the banks, thus it may lead to people going back to the conventional method (cash flow).

#### 5. SUGGESTIONS

The government has played a major role for boosting the digital world through the 'Digital India programme' making people aware of the benefits of the Digital payments.

The present government initiatives are as follows:

- Cyber Surakshit Bharat Initiative.
- Cyber Swachhta Kendra.
- Online cybercrime reporting portal.
- Indian Cyber Crime Coordination Centre (I4C).
- National Critical Information Infrastructure Protection Centre (NCIIPC).

- Information Technology Act, 2000.
- National Cyber Policy, 2013.

Unfortunately, a major loophole in this initiative is that, these schemes only make the customers aware of the cybercrimes. Though, The steps are taught to protect the personal account by the Government, there is no concrete measure taken for actually protecting the customers from the cyber- crimes.

Suggestions from my side to reduce cyber- crime are as follows:

- 1. Banks can tie up with Antivirus Companies like Quick Heal, Nortan, MC. Afee, etc. to provide an extra security against cyber- crime. "Prevention is better than cure" as the old saying goes, the customer can avail this facility by paying a minimal fee charged for the service, rather than their accounts being hacked.
- 2. There should be a better privacy system made for Android users as Android phones are easy to hack compared to IOS devices.
- 3. Though calls are made by the banks to check the transactions and OTP is also sent, Photo verification, which would be a better way, should be added, so that only the user can capture current photo and should not have access from gallery, before the OTP is sent for any payment. This enables the bank in assessing the true user of the account. The photo should read face (no blank pic, blur or any pic with mask should not the pic).

#### **6 CONCLUSION**

India is growing in the digital world. As per the daily newspaper, "The Hindu "It is estimated that by the year of 2025, there will be a growth of 71.7% of all digital payment transactions. This clearly shows that people will shift from convention ways of payments to the digital payments.

By the growth of digital payments, the banks have to constantly upgrade the technology and security in order to attract more customers. Digital India program is also encouraging the rural sector to transform. The internet services should reach to the core of the India enabling even the remotest villages to access transactions through the digital. Rural sector is slowing absorbing the digital payment system. The government has to give incentives by not levying transaction charges so that the country can be transformed to the digital world.

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