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## MESSAGE FROM THE DESK OF EDITOR IN CHIEF

The Chief Editor and Editors of the advanced research journal of Management, Engineering, Law, Paramedical Science, Nursing, Basic Science, Education, Physical Education and Yoga, Special Education, Clinical psychology and Liberal Arts i.e. IUT Journal of Advanced Research and Development (JARD) would take it as their duty to express the deep gratefulness to the contributors and readers of current volume.

We feel proud to bring the present issue of the online IUT Journal of Advanced Research and Development. We consider that the contribution in this multidisciplinary will help in the inclusive and sustainable growth process. Keeping in tune with this dignified idea, the current issue of IUT-JARD has addressed some current issues covering diversified field.

This issue needs an integrative and a holistic approach to the solution. Finally, the information contains in this journal volume has been published by the IUT obtains by its authors from various sources believed to be reliable and correct to the best of their knowledge, and publisher is not responsible for any kind of plagiarism and opinion related issues.



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# ATM-ORIENTED MONEY MANAGEMENT SKILL ENHANCEMENT AMONG ADULTS WITH VISUAL IMPAIRMENT

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## ABSTRACT

*A study on ATM-oriented Money Management Skills was conducted with thirty-two (N=32) individuals with visual impairment to explore their challenges in money management skills related to ATMs. In this era of technology, training in money management skills, which can be learned by various software and applications through smartphones, is required for the independent living. The study samples were selected using the purposive sampling method, and the aim was to determine the difficulties related to money management skills, specifically related to the use of ATMs. A pre-test was conducted to elicit the prior knowledge of the samples. Checklists were prepared with four domains and ten statements to gather the data. An intervention package containing information about banking-related activities was prepared and implemented for 60 days. Post-test data were collected through the Interview method and analyzed with an Independent t-test. Results of the study revealed that the intervention package was adequate for the participants in gaining knowledge on money management skills related to using ATMs.*

**KEYWORDS: Banking, Independent Living, Money Management, Visual Impairment**

## INTRODUCTION

Independent living is the fundamental right of every human being. One of the key elements of being independent is being well-educated and financially established, which is necessary for the youth. After getting a job or being self-employed, making money is essential, which is also true across the banking world. Money-making involves budgeting, wise spending and saving, banking systems, investing, and using Debit and Credit cards. Technology simplifies our lives, and people can learn these things by observing others and from day-to-day experience. Unlike ordinary people, individuals with visual impairments cannot learn anything through hands-on experience or observing others. However, individuals with visual impairment need to know how to live independently like ordinary people. Independent living skills include many components; they need to learn such things specifically

to live independently. Money Management Skills are one of the most essential parts of independent living. It is essential for a person with legal blindness (i) who has visual acuity of 20/200 or less in the better eye even with correction, or (ii) whose field of vision is so restricted that it subtends an angle of 20° or less in the better eye after correction to develop the skills required in independent living.

### Components of an ATM (Automated Teller Machine)

The ATM is widely used by people regularly for money transactions from a Bank account. The primary purpose of using an ATM is to dispense money using software. An ATM has so many specialized functions and parts of an ATM needed to operate it– Card Reader, Keypad, Display Screen, Speaker, Receipt Printer, Cash Dispenser, etc. Debit Cards or Credit Cards typically look almost identical with 16-digit card numbers, personal identification numbers, and expiry dates. A debit card allows the customer to spend money directly from their account, and a credit card will enable them to borrow money from the bank with a certain limit.

### Objectives

- Develop a rating scale to assess knowledge of money management skills of adults with visual impairments.
- Prepare an intervention package for money management skills based on the rules of using an ATM.
- Analyze the training effectiveness in Money Management skill enhancement after the training.

### Review of Literature

A case study design was adopted to explore the barriers to using computer-assisted technology among students with visual impairment. The purposive sampling technique was used to investigate the obstacles to the study. Qualitative data was collected and analyzed thematically. The study's findings indicated that challenges limiting the effective use of computer-assistive technology in the school were more personal than external influences (Ampratwum et al. 2016).

Koweru et al. (2015) sought to establish the role of assistive technologies on the quality of educational outcomes of students with visual impairments in Kisumu Country, Kenya. The study adopted a mixed methods research design. The study revealed that most students with visual impairments were taught by SNE teachers who were highly qualified and teachers with long teaching experience. Most students with VI primarily relied on using obsolete assistive technologies such as Braille and mirror magnifiers.

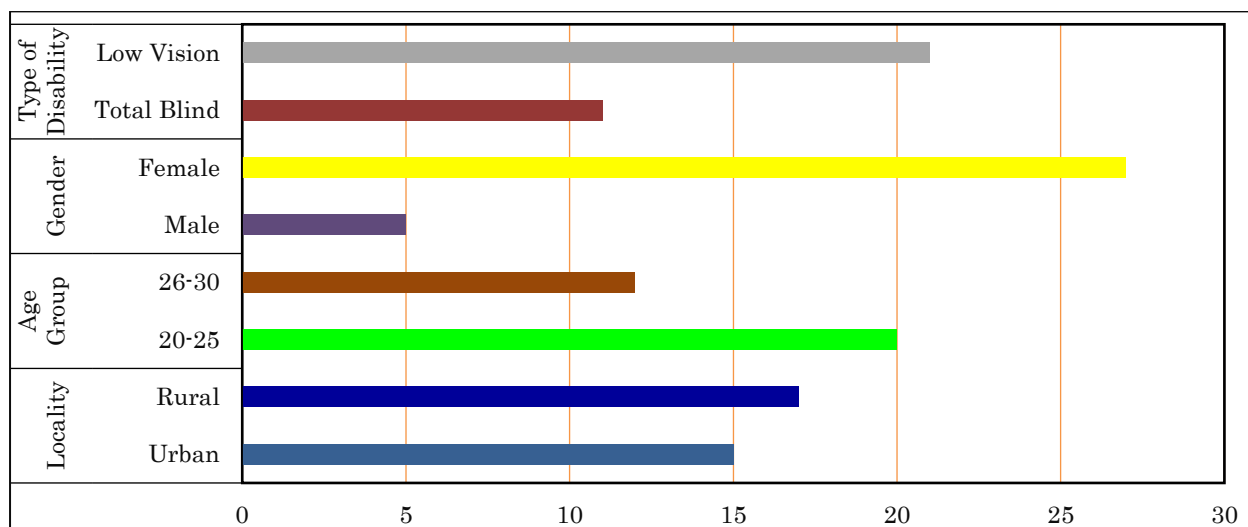
Jeamwathanachai et al. (2019) studied the sufferings of adults with a visual impairment from navigation-related activities. A total number of 30 adults with visual impairment and 15 experts were

recruited to give an interview about the behavior and the strategies used to navigate indoor spaces, especially public spaces, for example, universities, hospitals, malls, museums, and airports. The study's findings revealed that navigating inside buildings and public places full of unfamiliar features is too difficult to attempt the first time for several reasons, reducing their confidence in independent navigation. The performance standard on the validity of the Orientation and Mobility Career, College, and Community Readiness Standards (O&M CCCRS) of the students with visual impairments was determined by using Delphi survey methods. The findings of the study revealed that the Round – 1 survey established the validity of five O&M Domains (1) Concept development, (2) Sensory Development, (3) Orientation and Mapping, (4) Travel Techniques, (5) Communication, Personal Safety and Advocacy of the 13 domains participants reached 100% agreement on the inclusion of all item; except for one: Standard 2: Sensory Development – Domain: Touch (Tellefson et al., (2019).

## Method

Since the study's objective was to find out the difficulties faced by Individuals with visual impairments in Money Management skills related to the use of ATMs, an 'Interview Schedule' was used by the investigator for primary data collection, the Pre-test was piloted before the application of the intervention and the Post-test was carried out at the end. The investigator developed an intervention package in a booklet format regarding basic knowledge about "Money Management Skills," consisting of three headings with ten items each. The intervention package provided the primary information about banking, including the Rules and Guidelines of ATMs, Details of Debit & Credit Cards, and rules for Deposit /Withdrawal of Money through ATMs. Each heading consists of 10 simple instructions to make the students understand the concept easily. Braille materials, a recorded version, oral instruction, and soft copy ("Text-to-Speech" Software used) were used for the persons with Total Blindness and Large Print Booklets for Low Vision to provide intervention. Each statement was explained to the participants individually, covering the basic information regarding money management related to ATMs. The intervention was given for 60 days. A post-test was conducted among the persons to collect the data using the same tool used in the pre-test. The result was analyzed both qualitatively and quantitatively after gathering the data. The Students' Independent 't' test was used to recognize the effectiveness of the intervention package in terms of money management skills.

## Result and Discussion



**Figure 1. Background details of the participants**

**Table 1. Pre- and post-test mean scores of individuals with visual impairments learning the rules of using an ATM.**

Variables	Levels	N	Testing	DF	Mean	S.D.	t-value
Locality	Rural	17	Pre-test	30	0.667	0.219	0.402*
			Post-test	30	1.161	0.237	
	Urban	15	Pre-test	29	0.576	0.223	0.631*
			Post-test	29	1.148	0.203	
Gender	Male	5	Pre-test	5	0.360	0.220	0.449*
			Post-test	6	0.978	0.166	
	Female	27	Pre-test	30	0.673	0.198	0.939*
			Post-test	30	1.188	0.204	
Age	20-25	20	Pre-test	30	0.657	0.236	0.964*
			Post-test	30	1.186	0.247	
	26-30	12	Pre-test	25	0.570	0.214	0.004**
			Post-test	29	1.103	0.123	
Type of Disability	Total Blind	11	Pre-test	19	0.605	0.073	0.503*
			Post-test	19	1.169	0.222	
	Low Vision	21	Pre-test	30	0.634	0.226	0.531*
			Post-test	30	1.148	0.210	

\*Significant at  $p < 0.05$  level, \*\*Significant at  $p > 0.05$  level.

Figure 1. shows that 47% of the selected participants were from urban areas, while 53% belonged to rural areas. Analyzing the age group-wise distribution of the chosen individual with visual

impairments, 63% were from the age group 20-25, while 37% belonged to the age group 26-30. The figure revealed that 16% of the individuals with visual impairments were male, while 84% were female. The figure indicates that 34% of the individuals with visual impairments belonged to the total blindness category; however, 66% had low vision.

Table 1. shows that the 't' value for the selected samples in connection with the background variables is significant at  $p < 0.05$ . Hence, it is denoted that the intervention enhanced knowledge about the rules of using an ATM. On the other hand, no significant difference was observed in connection with the age group of the participants. So, it may be concluded that individuals with visual impairment who belong to this particular age group (26-30 years) have basic knowledge about the rules of using an ATM.

Table 2 indicated that there is a significant difference in the pre and post-test mean scores of the selected samples for Locality [Rural ( $t=0.387$ ) and Urban ( $t=0.233$ )]; Gender [Male ( $t=0.173$ ) and Female ( $t=0.179$ )]; Age group, [20-25 years ( $t=0.241$ ) and 26-30 years ( $t=0.658$ )]; and Type of Disability [Total Blind ( $t=0.122$ ) and Low Vision ( $t=0.297$ )] is significant at  $p < 0.05$  level. Therefore, it is denoted that the intervention had an effect on knowledge enhancement regarding the details of debit and credit cards.

**Table 2. Pre and Post-test Mean scores of the Individuals with visual impairments Learning the Details of Debit & Credit Cards.**

Variables	Levels	N	Testing	DF	Mean	S. D.	t-value
Locality	Rural	17	Pre-test	30	0.754	0.233	0.387*
			Post-test	30	1.085	0.224	
	Urban	15	Pre-test	30	0.720	0.206	0.233*
			Post-test	30	1.062	0.194	
Gender	Male	5	Pre-test	5	0.758	0.298	0.173*

	Female	27	Post-test	5	0.900	0.256	0.179*
			Pre-test	30	0.734	0.207	
			Post-test	30	1.107	0.185	
Age	20-25	20	Pre-test	30	0.767	0.203	0.241*
			Post-test	30	1.105	0.205	
	26-30	12	Pre-test	20	0.690	0.242	0.658*
			Post-test	20	1.025	0.211	
Type of Disability	Total Blind	11	Pre-test	26	0.721	0.180	0.122*
			Post-test	26	1.135	0.166	
	Low Vision	21	Pre-test	30	0.747	0.239	0.297*
			Post-test	30	1.043	0.223	

\*Significant at  $p < 0.05$  level.

Considering the pre and post-test mean scores of the selected samples in learning the rules to deposit and withdraw money via ATMs, it is significant at  $p < 0.05$  level based on the Locality [Rural ( $t = 0.749$ ) and Urban ( $t = 0.383$ )]; Gender [Male ( $t = 0.633$ ) and Female ( $t = 0.584$ )]; Age group, [20-25 years ( $t = 0.183$ ) and 26-30 years ( $t = 0.514$ )]; and Type of Disability [Total Blind ( $t = 0.810$ ) and Low Vision ( $t = 0.167$ )]. Hence, it can be noted that the intervention affected the knowledge gained about the rules for depositing and withdrawing money via ATMs.

**Table 3. Pre- and post-test mean scores of individuals with visual impairments learning the rules to deposit and withdraw money via ATM.**

Variables	Levels	N	Testing	DF	Mean	S.D.	t-value
Locality	Rural	17	Pre-test	29	0.732	0.236	0.749*
			Post-test	25	1.22	0.042	
	Urban	15	Pre-test	30	0.696	0.049	0.383*
			Post-test	30	1.04	0.062	
Gender	Male	5	Pre-test	5	0.758	0.270	0.633*
			Post-test	5	1.158	0.246	
	Female	27	Pre-test	30	0.707	0.207	0.584*
			Post-test	30	1.141	0.225	
Age	20-25	20	Pre-test	30	0.722	0.243	0.183*

			Post-test	30	1.095	0.240	
	26-30	12	Pre-test	29	0.705	0.162	0.514*
			Post-test	28	1.224	0.175	
Type of Disability	Total Blind	11	Pre-test	28	0.753	0.159	0.810*
			Post-test	21	1.26	0.199	
	Low Vision	21	Pre-test	30	0.695	0.239	0.167*
			Post-test	30	1.07	0.212	

\*Significant at  $p < 0.05$  level.

## CONCLUSION

Training in independent living skills, including self-care, such as bathing and eating, and other skills, such as home management, laundry, money management, etc., is essential for individuals with visual impairments to live their lives with the optimum level of independence. Since we live in the era of technology, everyone needs to be updated to get along successfully in society. Hence, this study has attempted to provide training and awareness on using ATMs and concerned money management skills. The informative intervention package instilled confidence and courage and paved the way for social inclusion.

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# A STUDY ON THE IMPACT OF MOBILE BANKING ON CONSUMER SATISFACTION IN EMERGING MARKET

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## ABSTRACT

*This study examines customer fulfilment with mobile banking services by surveying 250 participants and utilizing regression analysis to evaluate the influence of different factors on overall satisfaction. The study looks at important factors like user-friendliness, security, speed of transitions, and incorporation into everyday financial activities to assess their impact on the user's experience. The research was carried out to control the main factor which impact the acceptance and Mobile banking satisfaction.*

*Findings showed that ease of use, speed and integration show a significant character in satisfaction, while safety and user interface design do not have strong impact. The result emphasizes the need to develop the user understanding and efficiency of the mobile banking in order to increase customer satisfaction and trust.*

**KEYWORDS:** Mobile Banking, User Satisfaction, Regression Analysis, Security Concern, Speed and efficiency, control over personal finance, user interface rating, frequency of use, ease of use, user experiences, Managing finance.

## INTRODUCTION

Mobile banking involves using a mobile device is used to accessing the banking services and financial offerings provided by banks. It allows clients to view their bank account balance, complete online transaction, move money, settle bills., without having to go to a physical bank.

Clients utilize mobile through SMS, USSD, or a bank-provided app installed on their mobile device. It provides customer with the convenience of accessing banking facilities at any period and from any place. However, it reduced banks' costs and expand their clientele. Nevertheless, it does have its drawbacks. Less tech-savvy customer avoids it due to security vulnerabilities.

History of banking on mobile devices- Today, individuals are so used to using their phones that is difficult for them to envision life without it. Even though mobile banking may appear to be a recent advancement, the initial efforts to conduct banking transition on mobile device actually occurred in the previous century, slightly trailing the emergence of online lending. Mobile banking originated in last 1990s and initial 2000s and closely tied to the rise of the internet.

## Advantages and points of using Mobile banking.

- a. Ease of use- The m-payment application should be easily understood by the customer, requiring minimal or no learning curve. The consumer should also have the ability to customize the app to meet their needs.
- b. M- payments service need to allow transitions among customer (C2C), from businesses to customers (B2C), or between business(B2B) in a universal manner. Reporting should encompass national, district, and worldwide environments. Expenditures need to be feasible for both small worth micro-paymentsalso large rate macro payments.
- c. Safety, confidentiality, and confidence: A consumer should have confidence in mobile expense app worker their credit or debit card details will nonbe abused. In addition, customer privacy should be maintained when these transactions are documented, ensuring that credit histories and spending habits remain confidential and not easily accessible for public review. Mobile payments need to provide the same level of anonymity as money transactions. next, the system must be resistant to attacks from hackers and terrorist, foolproof. This could be offered through the integration of biometrics, passwords, and infrastructure of public key security in phone transaction system designs.
- d. Expense- the cost of m-payment should not exceed that of current payment methods as much as chances. The mobilepayment key needs to rival different payment methods in terms of both expenses and convenience.
- e. Velocity: velocity at which themobile-payment is processed should be satisfactory for both customers and traders.
- f. For cross border payments to make profit widespread acceptance, the mobile-payment application needs to be accessible on a global scale, worldwide.

## Feature of mobile banking

1. Access to account details- It helps clients to gain information on bank, mini statements balance transitions history checks on deposits, loan and known card information. It also helps to access investment statements and manage policies.
2. Financial Activities- It provides services to transact money from one bank to another it might be self-transaction or through third parties. It also includes payments through partnership with apps or certain companies.
3. Financiers' requirements- It allows investors to check on their portfolio or get updates on information that is required on their improvements of investment decision making.
4. Services that provide assistance and aid- This service provides information to clients on their progress on loan, credit facilities, card applications and ATM.
5. Updates on required information- Certain articles provides information on present financial requirements, News, recent trends of a particular bank.

## Issues related to Mobile banking

(A few of the difficulties inked with mobile banking include (but are not restricted to):

- Accessibility depends on the type of device being utilized.
- Concerns about safety and protection.
- Dependability and capacity for growth.
- Capacity for personalisation.
- Distribution of applications.
- Enhance synchronization skills.

### **Advantages and Disadvantages of mobile Banking.**

#### Advantages

- Provides banking services around the 24 hours.
- Reduces the amount of time needed.
- Offers a simple method for transferring funds and making payments.
- Facilities simple tracking and monitoring of bank accounts.
- Allows for prompt reporting of any illicit transactions or fraudulent behaviour.

#### Disadvantages

- Creates difficulties for account holders with limited technology skills.
- Eliminates the personal element in banking operations.
- Heightens worries about security and cyber fraud.
- Delays or losses may occur in transitions as a result of errors.
- Leads to understanding difficulties because of the complicated app interface.

### **Literature Review**

(Deshwal, 2015)- Technology is playing an increasingly role in the banking sector. It changed banking from a conventional physical model to a contemporary, convenient one. Technology has played a crucial role in improving customer service and stimulating industry growth.

(rautela, 2013)- Mobile banking enables customers to perform banking transaction with their mobile services. It provides ease and adaptability in contract to conventional banking techniques. Public banks in India have encountered difficulties in enticing customers towards mobile banking in comparison to private banks.

(Cleveland, 2016)- The research explores how mobile banking affects the banking sectors.it explores the impact of mobile banking on financial performance, customer acquisition, and retention. The study examines elements like mobile banking functionalities, technological progress, population characteristics, data protection, and staff competencies. In general, the data indicates that effective implementation of mobile banking can enhance both bank performance and customer engagement.

(Joshi, 2020)- The mobile provides customer with convenience and flexibility. It enables them to perform different banking activities through their smartphones. However, there are customers who my worry about security and their lack of technical expertise.

(Corbitt, 2003)- The integration of the internet and smartphone has result in the growth of mobile data services. Mobile banking is service that permits customers to utilize banking services via their mobile

devices. This paper explores that strategic impact of mobile banking and its possibilities in diverse markets.

(Lauronen, 2005)- This article examines the generation of consumer value in mobile banking services. It recognises the value customers see and drawbacks of using mobile phone for banking, offering ideas for enhancing services and marketing tactics.

(DRIGA, 2015)- Electronic banking services are more in demand because of their convenience and efficiency. Mobile banking has become increasingly popular because it provides a variety of advantages for both clients and financial institutions. This article presents an outline of mobile banking and its importance as a primary method of distributing banking services.

(Aijaz A. Shaikh, 2015)- The article examination studies on mobile banking adoption and highlight crucial factors that impact consumer intentions. It emphasizes the importance of conducting additional research on the impacts of smartphone and tablet applications.

(Asha Sahu, 2020)- The research examines the study of the adapting of the mobile banking 2010 and 2018. It pinpoints factors that impact adoption and underscores that necessity for more research to advance mobile banking technologies in emerging markets.

(Radhakrishna Nayak, 2024)- The research examines the utilization of mobile banking in nationalised banks within barkur village. It discovers that individual have greater knowledge of e-wallets and are not happy with software problems, bank reaction times, security, and service levels.

### Objectives of Study

- Assess customer contentment with mobile banking offerings.
- Examine the significance of safety in the acceptance of E-banking.
- Analyse how mobile banking affects financial management.
- Analysing the main features that impact selection of application in M-banking.

## Research Methodology

### - Research Design-

This research uses a quantitative, expressive research design to assess user satisfaction, trust in security, financial management impact, and factors affecting the selection of M-banking applications. This study will use a survey to gather information from individuals who use mobile banking.

### - Sample size-

A study was conducted with 250 participants who regularly use M-banking services. The size of the sample is extensive to give statistically important observations while also guaranteeing a variety of responses.

### - Data collection

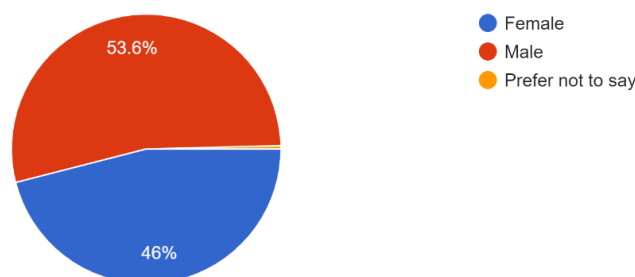
**Primary Data Collection-** Information was gathered through a Google Form questionnaire aimed at obtaining users' thoughts and interactions with mobile banking. This survey includes 15 structured questions, mainly utilizing Likert scale and multiple-choice layouts, focusing on important factors such as frequency of use, satisfaction, confidence in security, and feature preferences.

### Scope of the study

The research concentrates on 250 individuals who have used mobile banking services in the last three months, representing a wide range of demographics. It analyses important variables like how often it is used, user satisfaction, trust in security, and its influence on financial management to regulate the issues influencing the acceptance of mobile banking and user satisfaction. The study investigates user experience, security problems, also probability of suggesting mobile banking to others. Data was collected directly from users' experiences and preferences in mobile banking through a survey on Google Form.

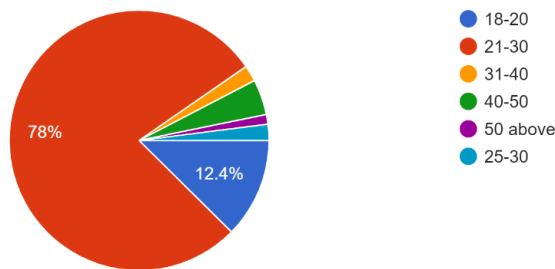
## Data Analysis and Interpretation

Gender  
250 responses



The above chart represents 250 respondents in that 53.6% are male and 46% are female.

Age  
250 responses

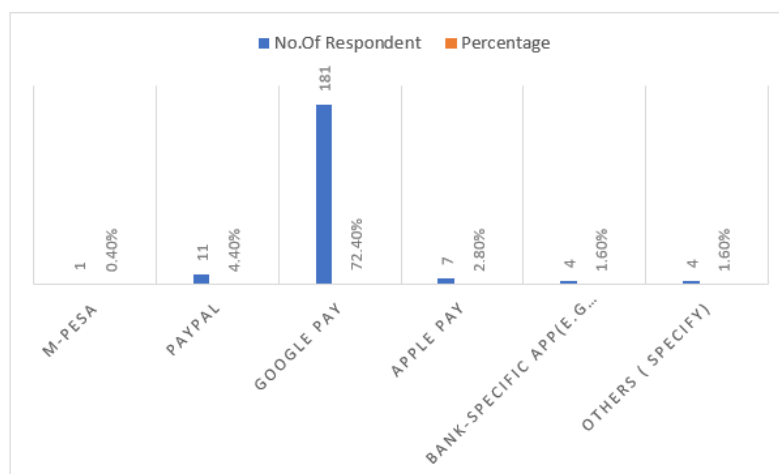


The above chart represents 250 respondents, of age group where 12.4% are between 18-20, 78% are between 21-30 of the age group, 2% are between 31-40 age group, 4.4% are between 40-50 age group, 1.2% are above 50 years.

1. Which Mobile Banking app do you prefer for your daily financial needs?

Particular	No. Of Respondent	Percentage
M-Pesa	1	0.40%
PayPal	11	4.40%
Google Pay	181	72.40%
Apple Pay	7	2.80%
Bank-Specific app (e.g. Chase Mobile, Wells Fargo Mobile)	4	1.60%
Others (Specify)	4	1.60%

The above table represents 250 respondents prefer to use 0.40% of M-Pesa, 4.40% respondent use PayPal, 72.40% respondent use Google Pay, 2.80% respondent use Apple pay, 1.60% respondent use Bank-specific app (e.g. Chase Mobile, Wells Fargo mobile), 1.60% respondent use Other (Specifically)- Phone pay. The majority of respondent prefer Google pay for daily financial needs.

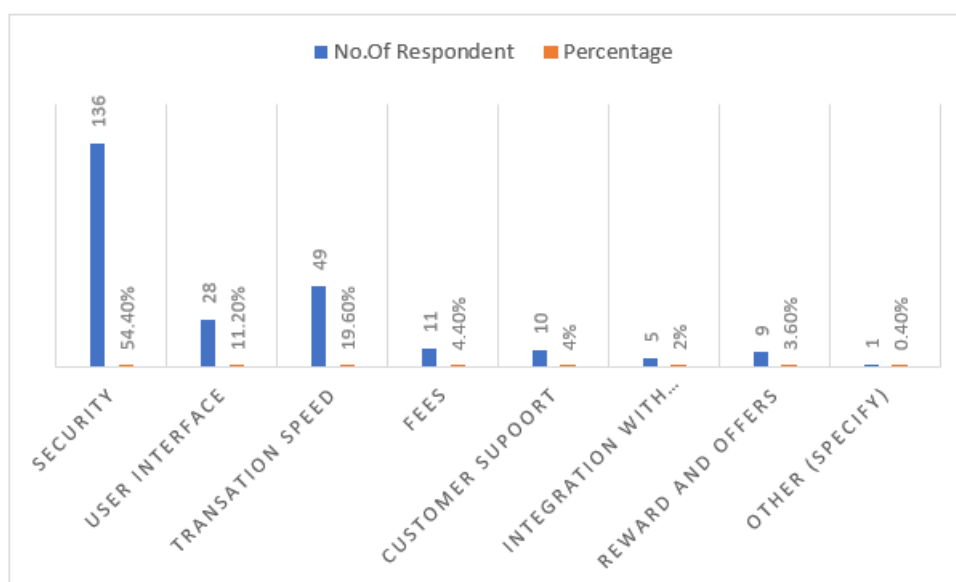


2. Which feature is most important to you when choosing a mobile app?

Particular	No. Of Respondent	Percentage
Security	136	54.40%
User interface	28	11.20%
Transition speed	49	19.60%
Fees	11	4.40%
Customer Support	10	4%
Integration with Other Services	5	2%
Reward And offers	9	3.60%
Other (Specify)	1	0.40%

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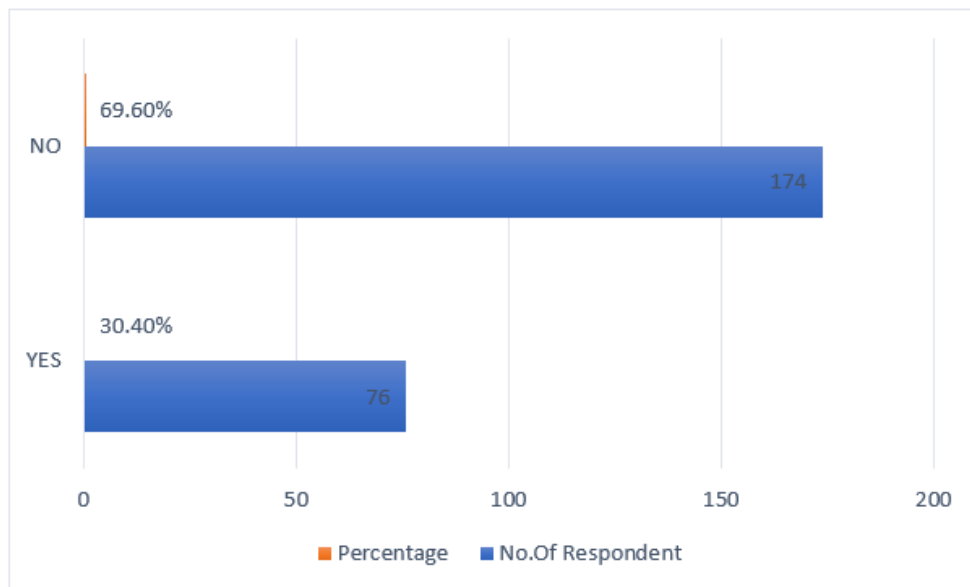
above table represents 250 respondent which 54.40% respondent give important to Security, 11.20% respondent choose User interface, 19.60% respondent choose Transition Speed, 4.40% respondent choose Fees, 4% respondent choose Customer Support, 2% respondent choose Integration with Other securities, 3.60% respondent choose reward and offers. 0.40% respondent choose other (specifically) – All of the above. Thus, majority respondent choose Security as a feature is the most important.



3. Have you experienced any financial losses due to mobile errors?

Particular	No. Of Respondent	Percentage
YES	76	30.40%
NO	174	69.60%

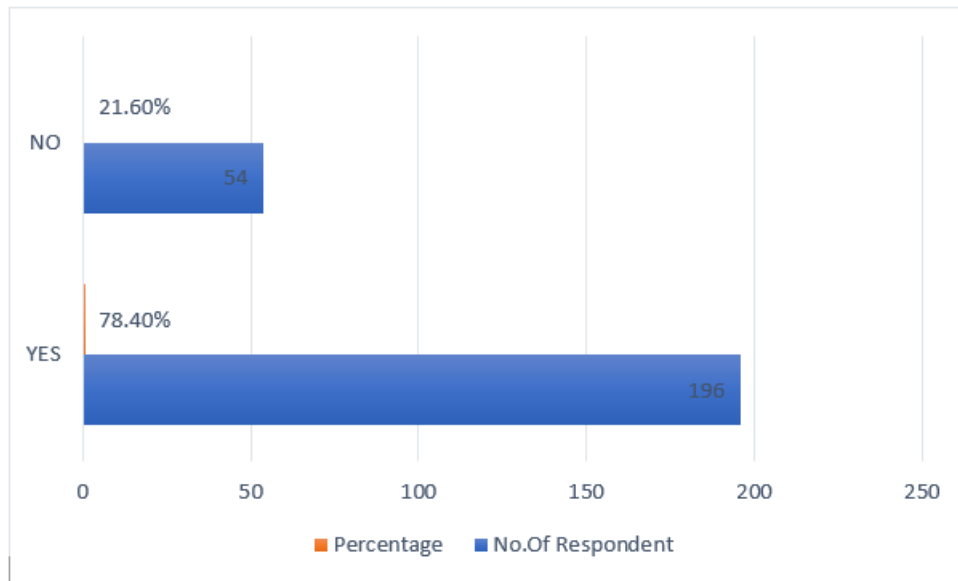
The above table represents 250 respondents, where 30.40% respondent say YES, 69.60% respondent say NO that they experienced any financial losses due to mobile errors.



#### 4. Do you use mobile banking for Bill payment?

Particular	No. Of Respondent	Percentage
YES	196	78.40%
NO	54	21.60%

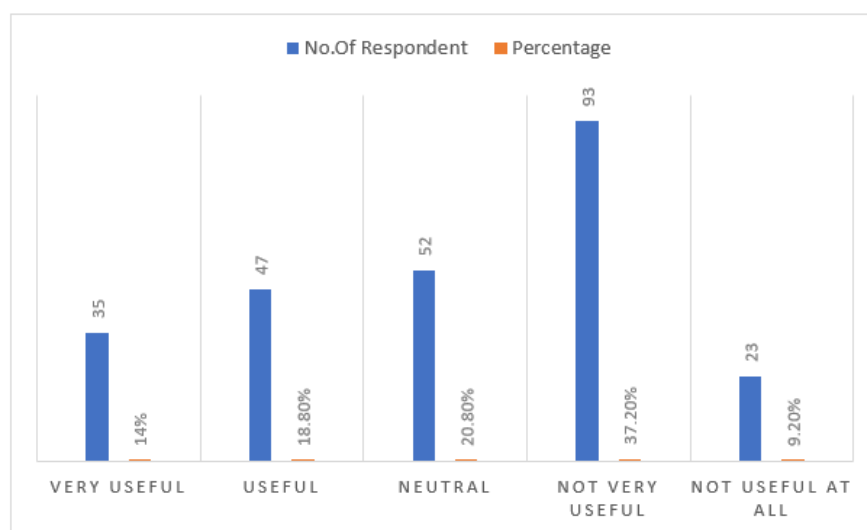
The above table represents 250 respondents, where 78.40% respondent say YES, 21.60% respondent say NO that use mobile banking for Bill payment.



5. How useful do you find mobile banking for managing finance?

Particular	No. Of Respondent	Percentage
Very Useful	35	14%
Useful	47	18.80%
Neutral	52	20.80%
Not Very Useful	93	37.20%
Not Useful at All	23	9.20%

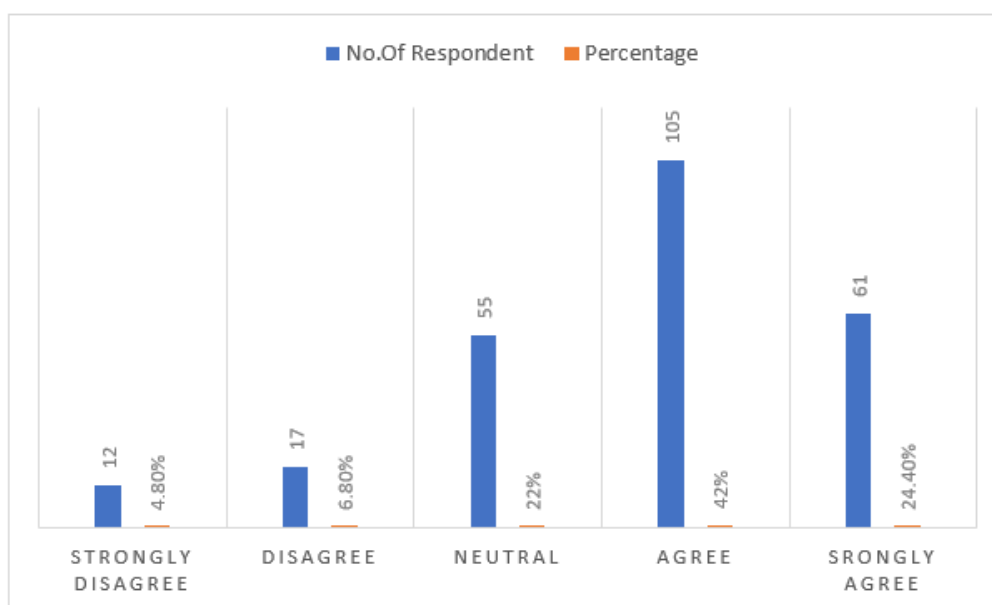
The above table represents 250 respondents where 14% respondent say Very Useful, 18.8% respondent say useful, 20.80% say Neutral, 37.20% respondent say not very useful, 9.20% respondent say not useful at all. Thus, majority respondents' states that it is not very useful to mobile banking for managing finance.



6. Rate your agreement with the statement: "I would recommend mobile banking to others based on the experience."

Particular	No. Of Respondent	Percentage
Strongly Disagree	12	4.80%
Disagree	17	6.80%
Neutral	55	22%
Agree	105	42%
Strongly Agree	61	24.40%

The above table represents 250 respondents where 4.8% respondent state Strongly Disagree, 6.80% respondent tell Disagree, 22% of respondent say Neutral, 42% respondent states Agree, 24.40% respondent state strongly Agree. Thus, majority of respondents states that they would suggest mobile banking to other after hearing about their experiences.





## Regression Analysis

Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	User Interface Rating (X), frequency of use (X), Control over personal finances (X), Concern about security (X), Integral part of financial routine (X), Speed and efficiency (X), Trust in Security (X), Ease of use (X) <sup>b</sup>		Enter

a. Dependent Variable: Overall Satisfaction (Y)

b. All requested variables entered.

Descriptive Statistics

	Mean	Std. Deviation	N
Overall Satisfaction (Y)	3.78	1.053	250
frequency of use (X)	3.87	1.075	250
Ease of use (X)	3.84	1.038	250
Trust in Security (X)	3.60	1.006	250
Integral part of financial routine (X)	3.86	1.048	250
Speed and efficiency (X)	3.84	.946	250
Control over personal finances (X)	3.57	.984	250
Concern about security (X)	3.72	1.069	250
User Interface Rating (X)	3.44	1.140	250

Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.732 <sup>a</sup>	.535	.520	.730	1.829

a. Predictors: (Constant), User Interface Rating (X), frequency of use (X), Control over personal finances (X), Concern about security (X), Integral part of financial routine (X), Speed and efficiency (X), Trust in Security (X), Ease of use (X)

b. Dependent Variable: Overall Satisfaction (Y)

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	147.945	8	18.493	34.713	.000 <sup>b</sup>
	Residual	128.391	241	.533		
	Total	276.336	249			

a. Dependent Variable: Overall Satisfaction (Y)

b. Predictors: (Constant), User Interface Rating (X), frequency of use (X), Control over personal finances (X), Concern about security (X), Integral part of financial routine (X), Speed and efficiency (X), Trust in Security (X), Ease of use (X)

**Coefficients<sup>a</sup>**

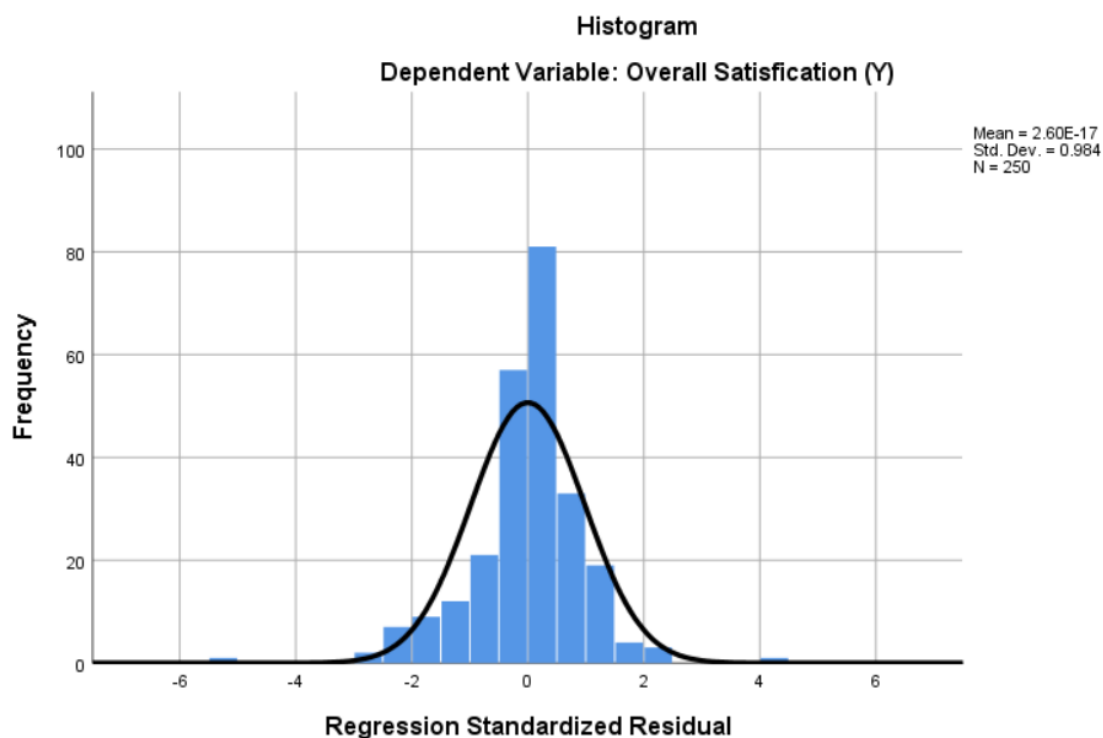
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.183	.235		.780	.436	-.280	.646
	frequency of use (X)	.092	.060	.094	1.521	.129	-.027	.211
	Ease of use (X)	.156	.073	.154	2.132	.034	.012	.300
	Trust in Security (X)	.041	.069	.039	.590	.556	-.095	.176
	Integral part of financial routine (X)	.239	.067	.238	3.565	.000	.107	.372
	Speed and efficiency (X)	.312	.071	.280	4.371	.000	.171	.453
	Control over personal finances (X)	.042	.062	.039	.679	.498	-.080	.165
	Concern anout security (X)	.046	.053	.047	.867	.387	-.059	.151
	User Interface Rating (X)	.015	.046	.017	.336	.737	-.075	.106

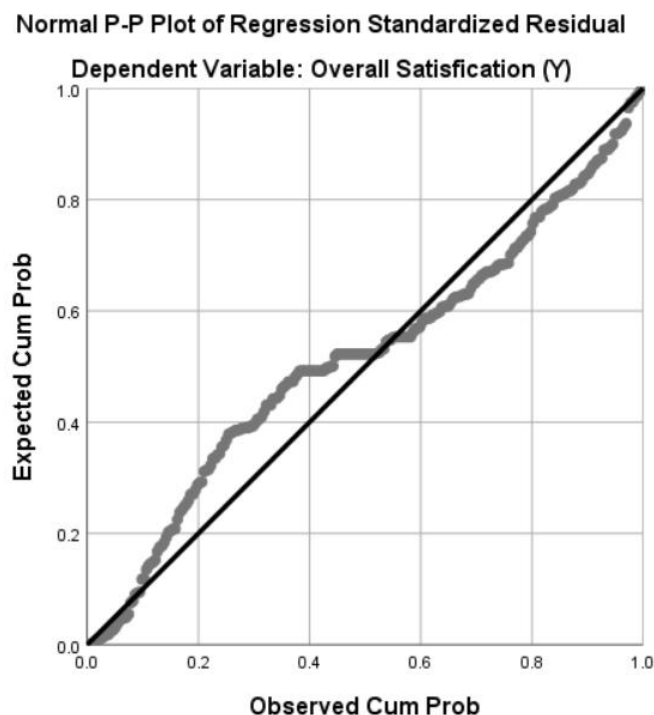
a. Dependent Variable: Overall Satisfaction (Y)

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.13	4.90	3.78	.771	250
Residual	-3.902	2.999	.000	.718	250
Std. Predicted Value	-3.447	1.451	.000	1.000	250
Std. Residual	-5.346	4.109	.000	.984	250

a. Dependent Variable: Overall Satisfaction (Y)

**Charts**



## Interpretation

### 1. Assess the overall Model Fitting

- The R<sup>2</sup> Value 0.535 indicates that 53.5% of the variability in the dependent variable can be accounted for by the independent variable.
- An Adjusted R square value of 0.520 indicates that 52% of the changes in the dependent variable (overall satisfaction) can be accounted for by the independent variables. This shows that the model is a good fit.
- Durbin- Watson equals 1.829, which examines residual for autocorrelation. A value near 2 indicates lack of notable autocorrelation in the model, which is positive.

### 2. The significant of the overall model.

- The significance of ANOVA table is 0.000 which means that the model is acceptable.
- F-stat is 34.713, and the p-value is 0.000: with a value below 0.05, it shows the model perfect is statistically important, suggesting that at least one predictor variable is able to accurately forecast the outcome variable.

### 3. Examine the Regression Model's Coefficients.

- Ease of use(X)- The P- value is 0.034, lower than 0.05, suggesting a important positive parallel between this variable and overall satisfaction. Beat Coefficient of 0.154 indicates a moderate, positive impact on satisfaction.

- Integral part of financial routine(X)- P-value= 0.000, representing a extremely significant positive parallel with overall satisfaction, is below 0.05. beta of 0.238 indicates a significant positive impact on satisfaction.
- Speed and efficiency(X)- P-value of 0.000 indicates significance. Beta value of 0.0280 shows the most significant positive effect on overall satisfaction.
- Predictors that do not have a Significant impact- Trust security(X), User Interface rating (X0, Control over Personal Finance(X), and Concern about security(X) have p-value beyond 0.05, representing they are not statistically substantial in forecasting overall satisfaction.
- Analysing the coefficient table, we conclude that Constant, Ease of use with the Integral part of financial routine and the Speed and Efficiency are the significant variable. The regression equation will be shown below:

**(The overall Satisfaction = 0.183+0.156\*Ease of use + 0.239\* Integral part of financial routine+0.312\* Speed and Efficiency).**

#### 4. **Examining the hypothesis**

- Null Hypothesis (H0)- There is no significant correlation between user satisfaction with mobile banking and factor such as ease of use, security, and frequency of use.
- Alternative Hypothesis (H1)- There is a significant correlation between user satisfaction with mobile banking and factor such as ease of use, security and frequency of use.

#### According to the result of regression analysis

- Reject the Null Hypothesis (H0)- the overall model is statistically with an ANOVA p-value of 0.000, suggesting a important associated between user satisfaction and several independent variables (ease of use, speed and efficiency, essential part of fiscal routine)
- Accept the Alternative Hypothesis (H1) - factor like comfort of use, speed and efficiency, and combination into financial routine affect user satisfaction, according to statistical analysis.

Therefore, As the regression model shows significance and statistical significance of key factor (Ease of use, Speed, Integration into Financial Routine), we reject the Null Hypothesis (H0) and Accept the Alternative Hypothesis (H1). This indicates a strong correlation between user satisfaction and theses variable in mobile banking.

**(Reject-H0 and Accept -H1).**

#### 5. **Analyse the Charts**

- Standard distribution: the Histogram and P-P plot show that the standardized residuals of the regression follow a normal distribution, which is crucial for validity of liner regression.

- **Centring Residual:** the average of the residual is almost zero, indicating minimal bias in the model's predictions.
- **Consistency in Standard Deviation:** A Standard Deviation of 0.984 for the residual suggest that the majority of residual are close to the mean, showing a dependable model fit.
- **Existence of outliers:** The presence of outliers is evident in both visuals, particularly in the lower end, suggesting data concerns demanding additional analysis.
- **Result Confidence:** The data points closely aligning in the P-P plot indicate the statistical tests for regression coefficients are valid, thus confirming the model assumptions.

## Findings and Suggestions

- Most users (72.45%) show a strong preference for google pay for their daily financial activities, making it the top choice among the mobile banking apps used by respondents.
- Security is the top priority- over half of survey participants (54.4%) prioritized security when selecting a mobile banking application. This emphasises the important role of trust in ensuring the security of mobile financial transitions.
- Most respondents (69.6%) experienced no financial losses from mobile errors, suggesting that mobile banking platforms are generally dependable in preventing significant financial losses.
- Regularly using mobile banking for bill payments in common among 78.4% of respondents, indicating that this service is a crucial feature offered by theses platform.
- Improve security features- Due to security being the main concern for users, mobile banking services should keep investing in advanced security features such as biometrics, encryption, and two- factor authentication to uphold user confidence.
- Options for customization – Providing personalized interfaces and interfaces and customizable feature may enhance user experience by allowing user to customize the app based on their unique preferences and financial habits.

## CONCLUSION

The study emphasizes the crucial importance of mobile banking in increasing consumer satisfaction in developing markets. The shows that factors like user-friendliness, speed of transitions, and incorporation of mobile banking into everyday financial habit s greatly impact user satisfaction. Despite ongoing security doubts, users generally view the reliability of mobile baking positively. A large majority of respondents have not experienced any financial losses from mobile banking errors. These findings imply that mobile banking services need to prioritize enhancing features and speed in order to enhance user satisfaction and promote wider usage.

Moreover, the results highlight the important of ongoing investment in advanced security feature and customization options to tackle user worries and improve the overall experience. By giving important to these factors, bank can establish strong trust and dedication from their clients or customers, ultimately positioning mobile banking as the preferred choice in the financial services industry.

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# INVESTOR BEHAVIOR: THE ROLE OF BIASES IN FINANCIAL DECISION MAKING

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## ABSTRACT

*This research paper is on “Investor Behavior.” This paper helps us to explore behavioral biases influencing investor mainly in decision making in the investment sector. The study mainly highly the two types of biases such as cognitive and behavioral biases that mainly influences the decisions of individuals which leads them to imperfect decision making. The research method used is primary information in the form of questionnaire. The survey of 300 respondents, mainly students, employee and few investors’ prevalence of biases. This has too much of impact on financial choices. The findings tell that Self-control bias, endowment bias, loss aversion, herding behavior, anchoring, recency bias and experimental bias, having significant impact, which is affecting decision making of investors. This research also provides the importance of campaigns, advisory training, educational initiatives and strategic interventions which helps them to eliminate major effects of biases on investments. By implementing all these awareness, it can enhance the decision-making process and get long term outcomes.*

**KEYWORDS:** Investor Behavior, biases, cognitive biases, emotional biases, overconfidence, investment, decision making, Anchoring, experimental biases, educational programs, training, investment portfolio, financial advisors, traditional finance, rational decisions, risk, uncertainty etc.

## INTRODUCTION

Studying human behavior is difficult and also complicated, since each and every person is unique mainly in their behavior, personality, emotions, societal norms and it is impossible to predict human decisions. It is always uncertain.

Financial decisions are impacted by emotional and intellectual factors that come as a part of behavioral biases. Behavioral finance helps us to study cognitive, emotional influences, emotionalelements, that largely have more effect on decisions of the financiers. Individuals and group of people’s emotions are also a segment of decision making. (Ms.Vyshnavi A, 2024).

Over a period of time finance has started developing its own importance and it is considered as one of the significant factors while decision making. Investment can be done when there is step taken

towards savings, if not the value will decrease when money is not invested. Main factor for depreciation of money is time. (P.Veni, 2020)

The process of securing funds is called investment, it might be through operations, or bonds, securities, stocks or annuities. The process mainly helps us to know more about the problems, evaluate on options, finds some alternatives or solutions so that they can basically prepare a portfolio. When a decision is made there will always be uncertainty and risk.

### ♦ Evolution of Behavioral finance concepts

Financial decisions are made based on behavioral finance terms which follow certain principles basically from psychology, finance and economics. It's not only the behavioral bias that influences decisions, but right now irrationalities of human behavior and biases make an impact on the decisions.

The development of behavioral finance happened in the earlier days of 1970s and 1980s. It was due to market conditions which provided information on stock prices providing complete information. This briefed the different behaviors of investors that affected the market ineffectiveness.

Father of Behavioral Finance: Daniel Kahneman and Amos Tversky, In 1980's they developed Prospect theory. Theory defines - people made decisions on gains or losses based on a specific action other than overall result. This theory stated the phase of uncertain behavior of investors. (Singh, 2019)

In 1990's major reasons behind behavioral bias were identified. The decisions harmed investor's financial outcomes.

Limits of arbitrage were identified in the year 2000s, that tells market inefficiencies cannot be corrected by any constraints, transaction costs etc.

At present situation behavioral finance is used in many practical situations such as making investment strategy, wealth management and financial planning. Few precautions are taken from behavioral aspects which shows rational decisions taken by investors leading to avoiding mistakes in behavioral biases. (Singh, 2019)

## ♦ Comparison of Traditional finance and Behavioral Finance

Traditional finance defines rational behavior of individuals where decisions are made logically and are goal oriented which leads them to wealth maximization. They consider actual facts and information to make decisions and they are not random. It tries to comprehend what investors want like risk recognition and asset opting. It does not involve any market situations effect their decisions, it's all about investor's decision. (Gupta, 2023)

In behavioral finance investors decisions are irrational, it's only about why of investor decision making. This mainly tries to interpret the factors that influence investors decisions like emotional, social, psychological etc. They focus on emotions and thoughts of the investors while decisions are taken. They play a major role to finalize decisions. (Jhandir, 2014), (Gupta, 2023)

## ♦ Common behavioral bias in investment decision making company

### Cognitive Biases

#### 1. Over confidence Bias:

It is defined as a psychosomatic trait in the sector behavioral finance, that impacts individuals' thoughts and decisions. This trait in the market will show ineffectiveness that causes mispricing. This is all due to overconfidence which leads to variability and volatility in the market. By all this the factor overconfidence is considered as pervasive since they cannot find more importance as it has rational agents. (Etse Nkukporu, 2020)

#### 2. Herding behavior:

This mainly occurs in the financial market. It expresses the tendency of human to witness and repeat same behavior of investors probably while the market conditions related to financial conditions are irregular. At this state the behavior and choices are not rational in the investments. (Singh, 2019)

#### 3. Anchoring:

It is one of the psychological biases that is most examined. It has affected the results of the financiers in most of the situations since it provides certain information on the tendency of people to consider the primary news that they obtain during their decision formulating. It has both positive and negative impact on the investors. They can gain profits in the market at most of the uncertain situations. (Singh, 2019)

#### 4. Recency Bias:

This is a cognitive bias which provides importance for all the recent events or the latest experiences. The decisions are made based on the present events rather than earlier events. They tend to believe that present events will provide better outcomes based on the current trends rather than past events. They will overestimate the importance of earlier events. (Bansal, 2017)

## **5. Regret Aversion bias:**

In this case the decision maker would prefer to make choices that would lead him to regret less. So, they avoid any critical actions. This will cause them less emotional pain even though their results of decision making are poor or leading to unfavorable outcomes. (Aigbovo O, 2019)

## **6. Experimental Bias:**

This refers to errors in an experiment that can misrepresent the results which might lead to wrong conclusions. This situation occurs when researchers influence the major study by their own desires, emotions and biases. This might occur at the initial stage or final stage of the results.

### **Emotional Bias:**

#### **1. Status Quo Bias:**

These are referred to people who prefer to keep things as per the present situation and as of currently. They do not try to make any kind of changes even if it is considered to be necessary. This results in major missing of chances, opportunities and take up new steps or move forward based on the situations.

#### **2. Optimism Bias:**

This bias overvalues the possibility of progressive outcomes and underestimates the chance of negative ones even when they face risks that are realistic. They tend to believe that positive things are more likely to happen associated to the negative events. They know that problems are unavoidable in life.

#### **3. Self-Control bias:**

People struggle to prioritize their short-term desires over long-term goals. They always prefer immediate indulgence even though it impacts them negatively and is against their long-term goal. (Aigbovo O, 2019)

#### **4. Endowment Bias:**

This bias explains that people value items that they own more and not the items that they don't own. Based on this bias people over value their personal possessions and won't be able to depart or detach from them is difficult for them. (Bansal, 2017)

## 5. Loss Aversion:

It explains the situations and level of investors not accepting their losses. This is an unfavorable situation. The loss that is faced is more when compared to gains of the similar scale. (Verma, 2016)

## 6. Confirmation Bias:

This defines habit of humans who only prefer information that ropes a specific idea or interests. This mainly gives importance to one's belief and values. Selective data is collected and it rejects other data which supports other preferred priorities. (Bansal, 2017)

## LITERATURE REVIEW

**(P.Veni, 2020)-** This paper emphasis the evolution and growth of behavioral finance. The fields were modern portfolio and market situations. This study specifies the restrictions on explaining market variances based on standard finance, and how gaps have evolved between traditional and real market situations and how behavioral theory is important such as prospect theory.

**(Aigbovo O, 2019) –** this research paper compares the behavioral bias and traditional bias and important are these theories in case of investment decisions in Nigeria. This is on the analysis of individual behavioral. This research also provides insights on what kind of educational training to be given for better decision making. This research Is done with 70 respondents and primary research.

**(Bansal, 2017)–**this paper explains several biases that are affecting decisions based on the appraisal of the objects focused on the behavioral investment. Over the years the data is analyzed and on some functional work. It explains the progress and how it has helped to study specific sector.

**(Etse Nkukporu, 2020) –** this paper explains the connection between behavioral and investoer decisions mainly in developing of a country. It also explains the effect on decision making the statistical method analyzed is descriptive and also multiple liner regression to examine the relationship. It also states that 4 biases are significant in case of decision making.

**(Jhandir, 2014) –** this is related to Karachi Stock Exchange and the investor decision making based on behavioral biases.in this research paper two basic concepts are explained traditional and behavioral finance. It specifies behavioral finance disagrees about the perfect rationality and factors affecting during decision making. Sample of 348 responses with convenience sampling.

**(Ms. Vyshnavi A, 2024)** – investment decision making is not exclusively based on the rationality factor it is also influenced by the behavioral biases. This gives information related to biases on retail investors. The biases analyzed are over confidence, loss aversion, herd mentality which has helped them in decision making.

**(Singh, 2019)** – this research paper explains about self-control towards behavior finance on various bias. This analysis is on study of behavioral bias impact on national stock Exchange. This is primary data with 243 investors. This also explains about over confidence, herding had positive impact and are substantial impact on making decisions. This helps to advice clients and further analysis.

**(Dr. Taqqadus Bashir, 2013)** - This study aims to provide information on decisions made by scholars and employees which are influenced by behavioral biases. They have analyzed the data built on the survey and they have composed information from students based on their opinions. Correlation is the method to analyze the facts. The study tells there is no difference between female and male choices when it's related to biases.

**(Vaishnavi Seth, 2020)** - This research is conducted in the city of Mumbai. The study discovers the behavioral factors that are influencing investors. The three bias Hindsight, Regret Aversion and Representatives showed significant correlation with the decisions of the investors. The factor that was negatively correlated was self-attribution bias when it was an individual factor.

**(Dr. C.S. Joshi, 2022)**- This research paper completely provides information on the origin of behavioral finance. it also involves short-lived history of new unconventional theories in this topic.

**(Shrivastava, 2021)** - this study is on the decisions made by retail investors mainly while investing in the sector of pharmaceutical and stocks of insurance sector. The factors significantly affecting decisions are prospect theory and heuristics and herd behavior had no impact. This is the hypothesis between biases and investment decisions.

## **OBJECTIVES:**

- ⇒ To recognize the biases that are verified by investors in the system of making decisions in financial investments.
- ⇒ To study on various behavioral biases - cognitive and emotional biases.
- ⇒ To know the significant influence of biases on the decisions related to investments.
- ⇒ To provide strategies or recommendations that can guide investors and help them eradicate the effects on their decisions of investments.

## **RESEARCH GAP**

The research gap is to examine strategies that help to reduce the behavioral biases that are affecting the decision making of investors. This research tends to provide information whether cognitive biases have greater impact on decision making or emotional biases. The behavioral bias has large impact on investors. When the risk element is more or increasing the chances of eliminating biases are too less. Certain precautionary measures are to be taken so that they can have appropriate suggestions and help investor to develop new strategies.

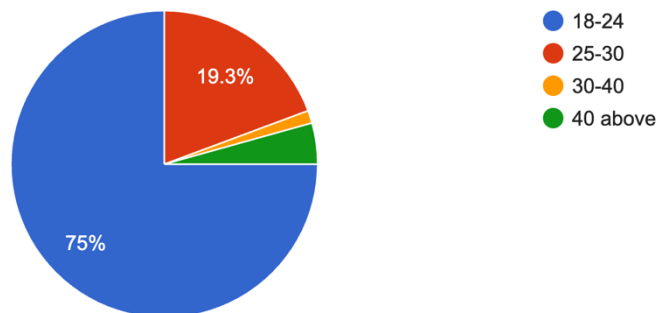
## **RESEARCH METHODOLOGY:**

Primary data is the research methodology used to evaluate the numbers. The survey are main source. Sample size of this research is 300 respondents, which is convenience sampling. The survey consists of behavioral biases, decision making, the performance and demographic area of the investment. The data is also represented in pie chart and interpreted.

## DATA AND INTERPRETATION:

### 1. Age:

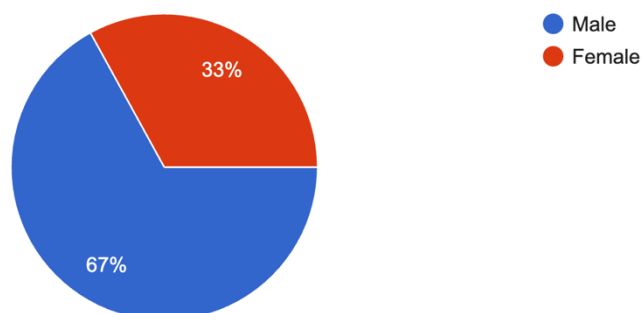
300 responses



**Age:** The sample size of this data is 300 respondents. The respondents were between the age group of 18 to 40 years above.

### 2. Gender:

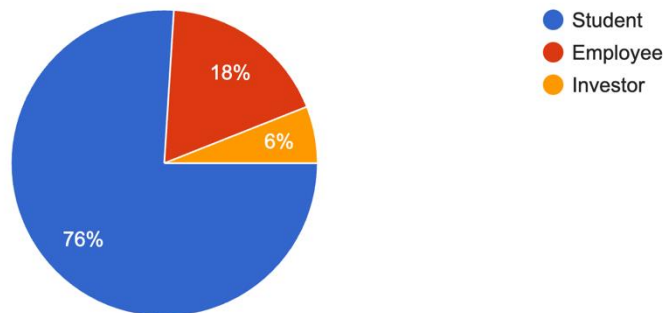
300 responses



**Gender distribution:** 67% of the respondents are male and 33% are female. It mainly signifies the gender disproportion which might affect the results in the survey that were implied.

### 3. Profession:

300 responses

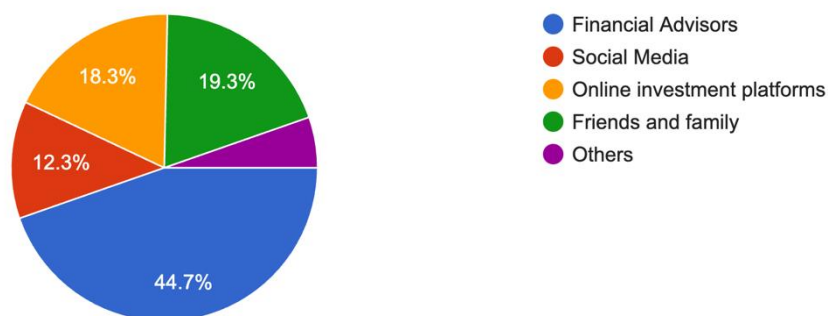


**Profession:** This data provides information that 76% of respondents were students who are investing. 18% of respondents were employees and 6% respondents are actual investors.

### ◆ Sources of Investment Advice

#### 1. What sources of investment advice do you consider most important?

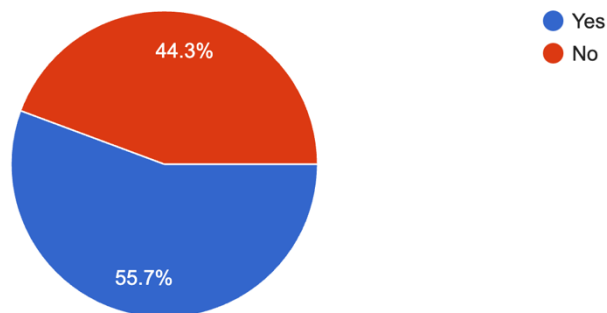
300 responses



**Sources of investment:** Frequently used source of information to gain data is financial advisors which is 44.7%, 19.3% advice is taken by friends and family, 18.3% of respondents refer to online investment platforms to gain information and 12.3% to social media.

2. Have you ever followed the investment decisions of friends or family without conducting your own research?

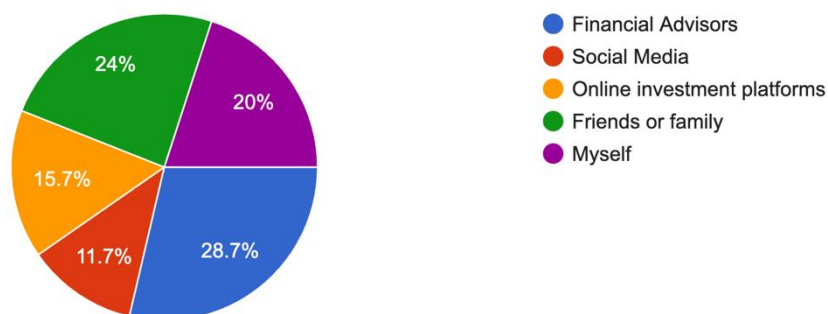
300 responses



**Advice for research:** 55.7% accepted that they followed the investment decisions of friends or family and 44.3% respondents do not blindly follow the information given by any member of family.

3. Who has the most significant influence in your investment decisions?

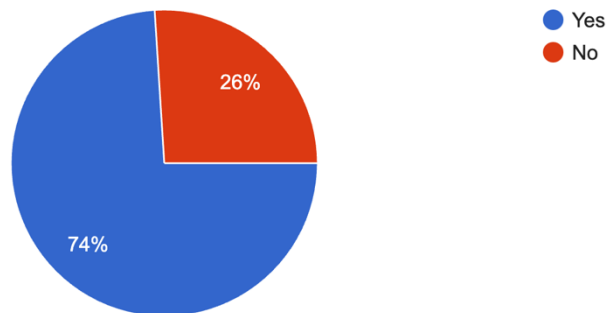
300 responses



**Significant Influence:** majority of respondents prefer advice from financial advisors with 28.7%, few respondents take advice from their friends and family about 24%. 24% of respondents had their own opinions and decisions on investment, 15.7% respondents consider online investment platforms to make their decisions.

#### 4. Do you ever tend to anchor your investment decisions to he past price or performance?

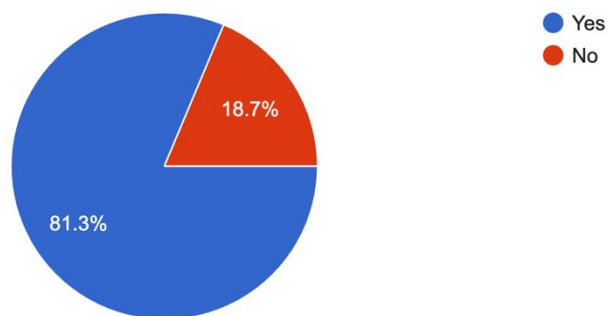
300 responses



75 percent of respondents normally address the cost and return on investment choices. And 28% of respondents don't respond to any historical data at all.

#### 5. Do you feel comfortable investing in familiar industries or companies?

300 responses

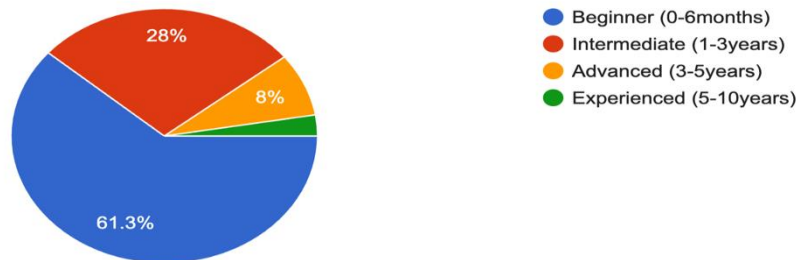


81.35% are majority pf respondents, approved conventional investing method. This might help them to gain confidence among all the financiers to invest in companies.

## ◆ Investors Experience:

### 1. How long have you been investing

300 responses



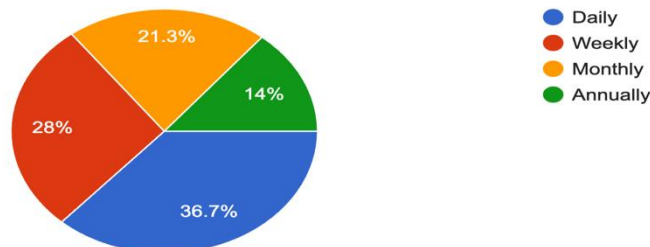
⇒ This data provides information on the experience of the investors in the field of investing.

⇒ 61.3% were beginners who had 0-6 months of experience since most of the respondents were students.

⇒ 2.7% respondents are experienced in investing with more than 5 years of experience up to 10 years.

### 2. How often do you check on investment portfolio?

300 responses



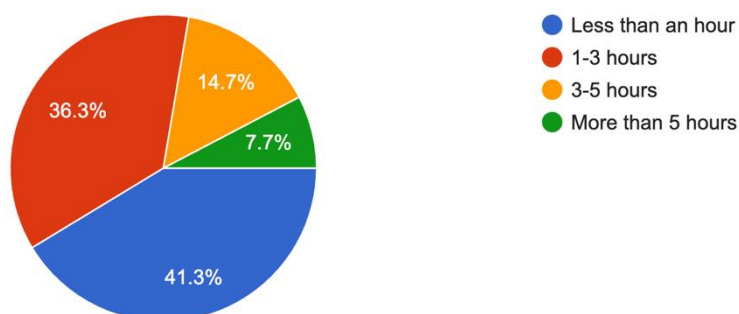
⇒ Highest number of respondents check their investment portfolio daily with 36.7%.

⇒ 28% of respondents check their portfolio weekly.

⇒ Less number of respondents about 14% check their portfolio annually.

### 3. How much do you spend on researching the potential investments before making decisions?

300 responses



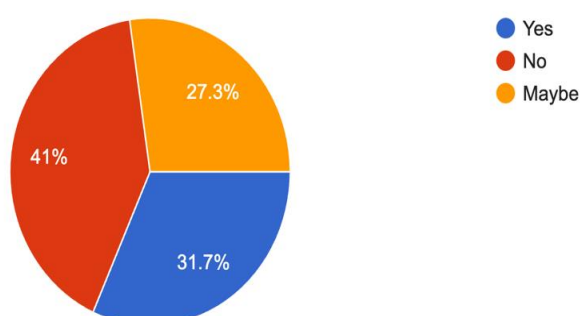
⇒ Investing requires some research to make so appropriate decisions.

⇒ 41.5% respondents spend less than an hour on research activities.

⇒ 14.7% spend 3-5 hours and 7.7% spend more than 5 hours on gaining information.

### 4. Do you consider yourself to be over confident about your investment decision?

300 responses

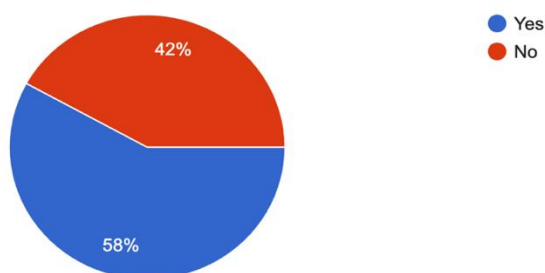


⇒ 31.7% respondents are confident mainly on their own decisions on investment which represent raise of risk.

⇒ 41% respondents don't feel overly confident about their investments.

## 5. Have you ever regretted making investment?

300 responses



⇒ 58% regret their decision of investing it might be because of their losses or no proper information.

### ◆ Investment Decision Making – Role of cognitive bias

**H<sub>0</sub>:** The cognitive biases do not significantly impact investment decision making.

**H<sub>1</sub>:** At least one of the cognitive biases significantly impacts investment decision making

### Descriptive Statistics

	Mean	Std. Deviation	N
Investment decisions Making	3.09	1.185	300
Over confidence biases	3.04	1.115	300
Herding Behavior	2.90	1.096	300
Anchoring	2.83	1.070	300
Recency Bias	3.12	1.119	300
Regret Aversion Bias	3.07	1.048	300
Experimental Bias	3.07	1.073	300

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	Experimental Bias, Over confidence biases, Anchoring, Regret Aversion Bias, Herding Behavior, Recency Bias <sup>b</sup>	.	Enter

a. Dependent Variable: Investment decisions Making

b. All requested variables entered.

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.475 <sup>a</sup>	.225	.209	1.053	2.125

a. Predictors: (Constant), Experimental Bias, Over confidence biases, Anchoring, Regret Aversion Bias, Herding Behavior, Recency Bias

b. Dependent Variable: Investment decisions Making

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	94.566	6	15.761	14.201	.000 <sup>b</sup>
	Residual	325.180	293	1.110		
	Total	419.747	299			

a. Dependent Variable: Investment decisions Making

b. Predictors: (Constant), Experimental Bias, Over confidence biases, Anchoring, Regret Aversion Bias, Herding Behavior, Recency Bias

**Coefficients<sup>a</sup>**

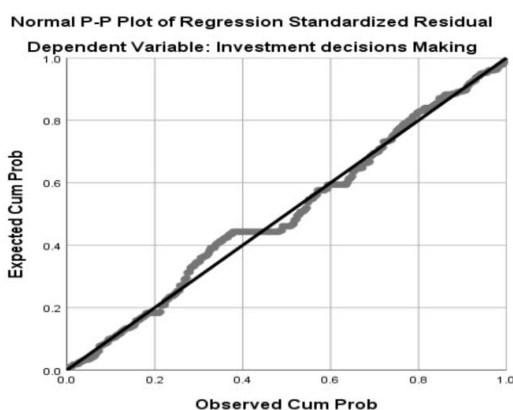
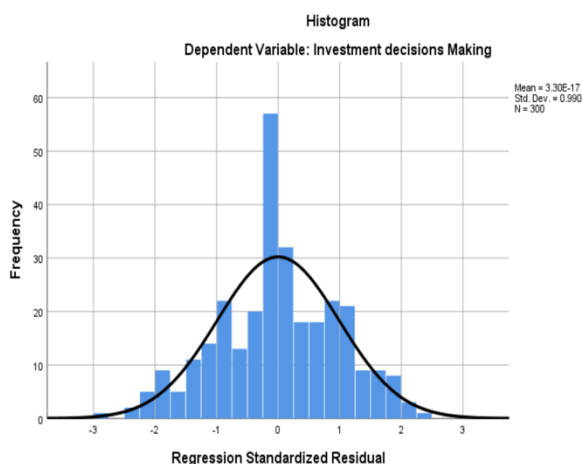
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.354	.234		5.800	.000	.895	1.814
	Over confidence biases	-.048	.067	-.046	-.720	.472	-.181	.084
	Herding Behavior	.188	.072	.173	2.595	.010	.045	.330
	Anchoring	.278	.073	.251	3.793	.000	.134	.422
	Recency Bias	-.178	.080	-.168	-2.235	.026	-.335	-.021
	Regret Aversion Bias	.115	.079	.102	1.461	.145	-.040	.270
	Experimental Bias	.245	.075	.222	3.240	.001	.096	.393

a. Dependent Variable: Investment decisions Making

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.68	4.35	3.09	.562	300
Residual	-3.028	2.399	.000	1.043	300
Std. Predicted Value	-2.504	2.244	.000	1.000	300
Std. Residual	-2.874	2.278	.000	.990	300

a. Dependent Variable: Investment decisions Making



## Interpretation:

- ⇒ The R value is 0.475 which measure the closeness of linear trend between the variables.
- ⇒ The R-square value, is 0.225 which means that 22.5%. It explains the variations in the dependent variable by the independent variable.
- ⇒ The Durbin-Watson value is 2.125 which should be between 1.5 to 2.5. There is autocorrelation between the variables
- ⇒ The significance value of ANOVA table is 0.000. This means that the model is acceptable.
- ⇒ By the above coefficient table, we can conclude about constant value and investment behavioral bias (cognitive bias) are significant variables.
- ⇒ The regression equation for the above data is given below:

**1.354+0.188\*Herding Behavior+0.278\*Anchoring+ (0.178) \*Recency Bias +0.245\*Experimental Bias.**

## ♦ Investment Decision Making – Role of Emotional bias

**H0:** The emotional biases do not significantly impact investment decision making.

**H1:** At least one of the emotional biases significantly impacts investment decision making

### Descriptive Statistics

	Mean	Std. Deviation	N
Investment decisions Making	3.09	1.185	300
Status Quo Bias	3.04	1.080	300
Optimism Bias	3.26	1.064	300
Self Control Bias	3.09	1.039	300
Endowment bias	3.10	1.041	300
Loss Aversion	3.20	1.090	300
Confirmation Bias	3.38	1.046	300

### Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	Confirmation Bias, Self Control Bias, Status Quo Bias, Endowment bias, Optimism Bias, Loss Aversion <sup>b</sup>	.	Enter

a. Dependent Variable: Investment decisions Making

b. All requested variables entered.

### Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.573 <sup>a</sup>	.329	.315	.981	1.986

a. Predictors: (Constant), Confirmation Bias, Self Control Bias, Status Quo Bias, Endowment bias, Optimism Bias, Loss Aversion

b. Dependent Variable: Investment decisions Making

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	137.995	6	22.999	23.917	.000 <sup>b</sup>
	Residual	281.751	293	.962		
	Total	419.747	299			

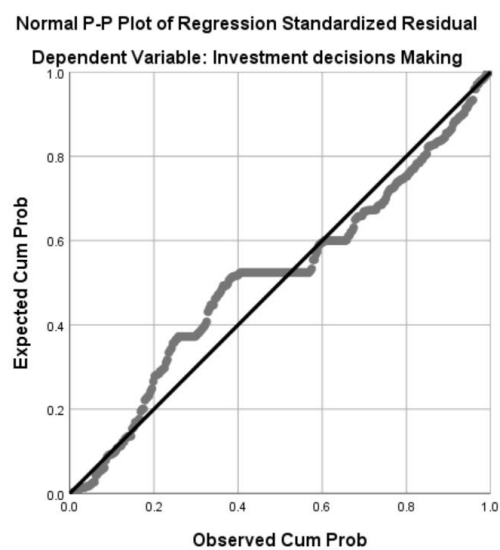
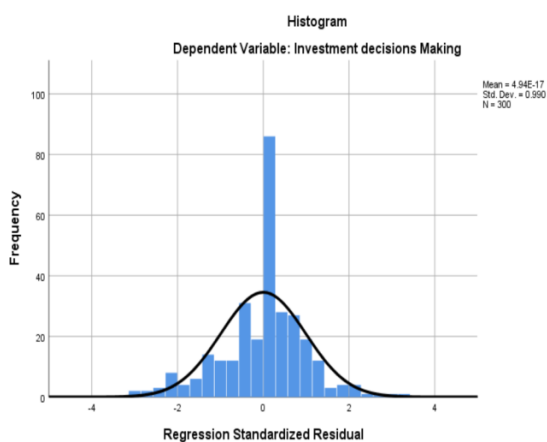
a. Dependent Variable: Investment decisions Making

b. Predictors: (Constant), Confirmation Bias, Self Control Bias, Status Quo Bias, Endowment bias, Optimism Bias, Loss Aversion

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.508	.237		2.141	.033	.041	.975
	Status Quo Bias	-.010	.067	-.009	-.149	.882	-.142	.122
	Optimism Bias	.076	.073	.068	1.040	.299	-.067	.219
	Self Control Bias	.149	.068	.131	2.196	.029	.015	.282
	Endowment bias	.193	.071	.170	2.721	.007	.053	.332
	Loss Aversion	.325	.072	.299	4.503	.000	.183	.468
	Confirmation Bias	.078	.077	.069	1.018	.310	-.073	.229

a. Dependent Variable: Investment decisions Making



## Interpretation:

- ⇒ The R value is 0.573 which measure the closeness of linear trend between the variables.
- ⇒ The R-square value is 0.329 which means that 32.9%. It explains the variations in the dependent variable by the independent variable.
- ⇒ The Durbin-Watson value is 1.986 which should be between 1.5 to 2.5. There is no autocorrelation between the variables since value is less than 2.
- ⇒ The significance value of ANOVA table is 0.000. This means that the model is acceptable.
- ⇒ By the above coefficient table, we can conclude about constant value and investment behavioral bias (emotional bias) are significant variables.
- ⇒ The regression equation for the above data is given below:

$$0.508 + 0.149 * \text{Self control bias} + 0.193 * \text{Endowment bias} + 0.325 * \text{Loss Aversion}.$$

## ◆ According to the result of the regression model:

The Null Hypothesis is rejected as the regression model shows significance and statistical significance of the variables (Self-control bias, endowment bias, loss aversion, herding behavior, anchoring,

recency bias and experimental bias) and we accept the alternative hypotheses(H1). This indicates moderate correlation between the biases and the investment decision making.

## **Findings:**

### **⇒ Variations in gender and experience levels:**

The sample provides information that most of respondents were students 76% and they were between age group of 18-24years, 75% and these respondents were all beginners in the field of investing. Since they lack experience and have no much information to rely on, they will face more problems.

### **⇒ Prevalence of Cognitive biases:**

Most of the respondents displayed that overconfidence is their decision while making investments. There were investors who relied on their initial and past data during their decisions. And also regret of respondents had impact on their decisions which was negative.

### ⇒ **Emotional biases:**

Some of the respondents had strong emotional reaction towards losses when compared to gain and few of them had their importance towards their own decisions compared more than their equivalent alternatives.

### ⇒ **The outward reasons that influence investors decisions:**

Majority of respondents prefer advice from financial advisors with 28.7% based on the financial matters. Few of them don't prefer anyone's guidance it is all owed to FOMO.

### ⇒ **Statistical Relationships:**

The R-squared value for cognitive biases is 36.6% and for emotional biases is 32.2%. this suggests that biases will explain very small substantial portion of the variance in the investment decision making. This mainly helps us understand biases are very much important in improvising the financial decisions of the investments.

## **Instructions or Suggestions:**

### **1. Investors should be provided educational programs.**

Guidance given to investors about the appropriate information that is necessary for the investment like knowledge, training and skills that is compulsory to get good progress in the investment system. This will help them to eliminate certain behavioral biases and take proper decisions in investment. (Ms.Vyshnavi A, 2024)

### **2. Provide Financial Advisory Training:**

Proper education should be provided to investors so that understanding of concept of investment can be explained in better way to the investors based on the cognitive biases and help them make proper decisions. information sharing should be done in various ways so that it can reach out to the investors in the form of webinars, workshop, sessions etc. (Ms.Vyshnavi A, 2024)

### **3. Behavioral biases impact on investment performances:**

Based on the historical, case studies, present data mainly focuses on understanding the biases like herding, over confidence and also loss aversion that will show effect on outcomes of the investor's decisions. (Ms.Vyshnavi A, 2024)

#### **4. Encourage the time spent on research:**

The researchers should allot certain time for their research on the data that they need and reflect for investment decision making, this can help then reach out to the bench mark based on their investment complexity. (Ms.Vyshnavi A, 2024)

#### **5. Eliminating behavioral biases:**

To eliminate this problem, it is necessary to get advice, new methods which will always support the investors to recognize and counterbalance biases. This can also be part of applied recommendations on investment. (Ms.Vyshnavi A, 2024)

### **CONCLUSION**

This research paper provides detailed information about the relation between the behavior of investor and the decision making which are mainly influenced by two features such as cognitive biases and emotional biases. This research specifies the complexity in financial aspect on the human psychology. This can be done by irrational choices and using factors that are beyond certain data analysis. To understand the above information certain biases are considered such as overconfidence, anchoring, loss aversion, regret biases, confirmation bias, loss aversion, self-control bias etc.

The data finds that there are significant proportion of investors mainly students who are of limited experience in the field of investment are mainly related to cognitive biases rather than emotional biases which are impacting the decisions related to finance in the sector. Certain information helps us to know that respondents do react to losses more when compared to the gains which has impact on their decisions and strategies that they make during investment process.

To eliminate these kinds of biases and improve decision making of the investors it is very much essential to implement educational programs that helps investors to improve and understand the behavioral finance. Additional to this they should even take proper training, change their research method and they should adopt to new decision aids so that it can help investors for their own choices. They should even adapt to regulatory measures that helps them to maintain transparency and save investors from falling into pitfalls or make wrong analysis during decision making.

Therefore, identifying and addressing the behavioral biases is not just related to academic purpose but it an important component of successful investing. It also helps them to make rational decisions even when there is market fluctuations and uncertainty.

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# DEVELOPMENT OF ISLAMIC EDUCATION IN NORTHERN NIGERIA: THE CONTRIBUTION OF SHEIKH ABUBAKAR MAHMUD GUMI.

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## ABSTRACT

*This paper seeks to explore and concisely highlights the contribution of a reknown Islamic scholar Sheikh Abubakar Mahmud Gumi toward the development of Islamic Education in Northern Nigeria. The paper explains the concept of Islamic Education, and further discusses the historical and educational background of Sheikh Gumi. It also highlights the factors responsible for making Sheikh Gumi the legend of his time in the field of Islamic Education. Finally the paper examines some of the ways Sheikh Gumi employed in developing Islamic Education in Northern Nigeria.*

**KEY WORDS:** scholar, Islam, education, north, Nigeria.

## 1.0 INTRODUCTION

‘Islamic education’ is a combination of two separate words ‘Islam’ and ‘education’

The word ‘Islam’ was derived from Arabic word ‘s l m’ or ‘salaam’ which means safe or peace. Religiously Islam means total submission to God (ALLAH) Islam can also be seen as a monotheistic religion that was revealed to prophet Muhammad [p.b.u.h] by God through angel Gabriel and many times before to prophets including Noah, Abraham, Moses, Ismael, Jesus among others. Wikitionary (2012)

Education is the process of imparting knowledge or skills. It can also be define as the process of helping an individual to become functional member in the society through training either formally or informally.

Islamic Education can be seen as a systematic way of nurturing an individual spiritually, economically and socially.

Kazeem and Bologun (2013) define Islamic Education as divinely revealed knowledge and thus prepares individual to be upright citizen on earth and to ultimately attain happiness in the life after death.

The sources of Islamic education are the Muslims’ holy book ‘Al-Qur’an’ and its interpretation,

the Hadith (saying, practice and silent approval of Prophet Muhammad [p.b.u.h]).

Islam came to Nigeria through Northern Nigeria as a result of its contact

With Arab traders.

The development of any knowledge relied largely on the works (writing) of its scholars, Islamic education is not an exception; the Usman Bn Fodio did not only fight to propagate Islamic religion, but also preached and wrote number of books and leaflets. In the same vein, Sheikh Gumi preached and wrote volumes of books and in addition to this, sheikh Gumi also translated other Arabic texts (including the holy Qur'an) into Hausa language, the dominant and most rapidly developing language in the region and the country at large. According to Maibeni (2011),

*“The development of Islamic education in Northern Nigeria could be attributed to the efforts of the early Muslim scholar. Many scholars exists in Borno thousands of years ago. The Arab traders poured into the Northern part of Nigeria as the first half of the 8<sup>th</sup> century. The kingdom of Kanem which included Borno becomes the first seat of rulers and a centre of Islamic learning. Islamic education spread into Hausa states comprising of Katsina, Kano, Daura, Zamfara, Gobir, Kebbi and Zazzau. The rulers of these areas became influenced by the Arab traders. Through contacts and teaching most of them were converted to Islam.”*

## OVERVIEW

Sheikh Abubakar Mahmud Gumi was a vocal and remarkable Islamic scholar and a former ‘Grand Khadi’ (chief judge of shari’ah court) of the then Northern region of Nigeria, a position which made him the zenith interpreter of shari’ah legal system in the region. Sheikh Gumi is the second to Usman Bn Fodio in terms of developing Islamic Education in Northern Nigeria. Sheikh Gumi was also the founder of Jama’atul Nasril Islam (J.N.I), the umbrella of Muslims in Nigeria. He is also considered as the father of JIBWIS (Society of removal of innovation and Re-establishment of Sunnah) in Nigeria which has now extended to neighboring countries such as Niger republic, Ghana, Benin republic, and cote d’voire.

Sheikh Gumi is the recipient of international prize of ‘King Faisal international prize’ from the Kingdom of Saudi Arabia for his translation of the holy Qur'an into Hausa language. He also received the National award of ‘The commander of the order of the Federal Republic’ from Nigerian government.

### 3.0 EARLY LIFE

Abubakar Mahmud Gumi was born in the town of Gumi in the then Sokoto province (now Kebbi state) into the family of Malam Mahmud, similarly Islamic scholar and ‘Alkali’ (Judge) of Gumi town. Sheikh Gumi was a closed companion of Sir Ahmadu Bello (Sardauna of Sokoto) the first premier of the Northern Region.

### 4.0 WORKS

Sheikh Gumi’s major contribution towards the development of Islamic education in Northern Nigeria was partly attributed to his position as religious adviser to the government of the Northern Region and also to many emirs in the region.

In 1955, Sheikh Gumi together with Sir Ahmadu Bello traveled for the first time to the holy land of Mecca for pilgrimage. In Saudi Arabia he was exposed to the world Muslim League due to his outstanding performance, with the support of Ahmadu Bello and king Fahad of Saudi Arabia he translated many Arabic books into Hausa language.

In 1957, Sheikh Gumi rose to the rank of translator of all matters concerning the kingdom of Saudi Arabia and the government of Northern Region. The following year, Sheikh Gumi embarked on mass teaching (non-formal) programme on Islamic knowledge (mostly in the mosque) and established a ‘*madrasah*’ within the Kaduna metropolis, which serve as nerve center of Hausa speaking area (the dominant language in West Africa).

The major focus of Sheikh Gumi’s teaching was to separate Islam from traditional practices and the understanding of fundamentals of Islamic ideology.

Sheikh Gumi left many literary works in the form of books, leaflets etcetera. He also wrote articles which were published in national dailies such as Triumph, New Nigeria and in ‘Gaskiya tafi kwabo’ the then popular Hausa news paper. Jangebe (2015).

Sheikh Gumi’s most popular work is his book ‘*Rad al-AzhanilaMaan al-Qur`an*’ (Intellectual return to the meaning of the Qur`an) which was accepted globally and use in educational institutions such as Islamic university Madina. Another famous work of Sheikh Gumi is the translation of the Holy Qur`an into Hausa language which earned him international recognition and was subsequently awarded international prize of ‘King Faisal international prize’ from the government of Saudi Arabia which lead him to his appointment as member governing council, Islamic University Madina. According to Jangebe (2015)

*“Sheikh Gumi’s most books published and circulated within and outside the frontiers of Nigeria include;*

- 1- *Rad al-AzhanilaMaani al-Qur`an (Intellectual return to the meaning of the Qur`an).*
- 2- *Al-Aqidah al-Sahiha bi Muwafaqat al-Shari`ah: (The Correct Belief in Line with the law).*
- 3- *Kitab al-Nasihaila Amir MantiqatKatsina (Book of Advice to the Emir of Katsina):*

- 4- *Where I stand, written in English with I. A. Tsiga.*
- 5- *Hal al-Niza` fi Mas`alatNuzul Isa alaih al-Salatwa al-Salam. (Resolve of the Dispute on the Issue Regarding the Second Coming of Prophet Isa -p.b.u.h-)*
- 6- *Musulunchi da AbindakeRushe Shi: (Islam and what invalidates it).*
- 7- *Zad al-Hajj, (The provision for a pilgrim)*
- 8- *KitabMaratib al-Islam, (A Book on the levels of Islam)*
- 9- *KitabManasik al-hajwa al-Umrah, (A Book on the Rituals of Hajj and Umrah).*
- 10- *TarjamarMa`anonin al-Kur`aniMaigirma: (The Meanings of the Holy Qur`an).*
- 11- *Tarjamarlittafin al-Arbain al-Nawawiyyah, (Translation of Forty Hadith).*
- 12- *TarjamarKitabNur al-Bab, (Translation of Nurul al-Bab).*
- 13- *TarjamarlittafinHidayat al-Tullab fiAhamMasail al-Din, (Translation of the students guide book on the most important religious issues). Moreover, besides these publications, Sheikh Gumi left several unprinted manuscripts, including, Qiyam fi al-Iqtisad al-Muasirwa al-Taamulmaa al-Bunuk (Values on the contemporary economy and dealing with Banks), and the translation of, KitabUsul al-Din (A Book on the Fundamentals of Din)”*

## 5.0 CONCLUSION

Islamic education as a field of knowledge, aims at directing and guiding people to live peacefully here and hereafter. The development of Islamic education in Northern Nigeria senseid on its scholars who help in one way or the other in developing the knowledge

Sheikh Gumi was the famous protagonist of his time in term of the of the development of the development of Islamic education, Gumi is a founder of many Islamic organization such as Jama`atul Nasril Islam (J.N.I), a publisher and powerful mobilizer of Nigerian Muslims.

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## COMPARATIVE ANALYSIS BETWEEN DÍA DE MUERTOS AND BHOOT CHATURDUSHI

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### ABSTRACT

*Día de Muertos, although many compare it with Halloween, is not equivalent to the Halloween people often see in Hollywood movies and series. Instead, it has many similarities with the Indian or the Bengali festival Bhoot Chaturdushi. For example, both these festivals are meant for the ancestors. In both these festivals, families pay tribute to their dead ancestors who visit the Earth as the door between the spiritual and the living world opens.*

*Apart from this particular similarity, another exciting and uncanny similarity between these two festivals includes the reference to the female authoritative Goddess figure. In the Aztec culture, it is the “Lady of the Dead.” On the other hand, according to Indian mythology, Ma Chaamunda visits the Earthly sphere with her fourteen ghosts or evil spirits during Bhoot Chaturdushi.*

*Not just that, in both these festivals, the food plays a pivotal role because they are not carved into something but instead savored by people on this specific day. The Aztec Pan De Muerto remembers the sacrifice of a noblewoman. On the other hand, the Bengali tradition of eating fourteen leaves, or the Choddo Shaak, symbolizes the purification of the human soul from the ward of evil. And even though there are differences in intention concerning food consumption in both cultures, the intentions are similar when it comes to lighting candles.*

*In both traditions, lighting candles would signify family directing the path to their deceased family members. It is fascinating that although one festival belongs to the Occidental culture, while the other is in the Oriental culture, stunning similarities are there between these two. The research paper here explores that, and while doing so, it has sought help from the Pixar movie Coco as it has a beautiful representation of Día de Muertos.*

**KEYWORD:** Día de Muertos, Bhoot Chaturdushi, Aztec, Bengali

## INTRODUCTION

Human existence has an intricate connection with the inevitability of death. Therefore, many cultures celebrate mortality with joy and vibrant hues instead of shadowing it with gloom. Día de Muertos and Bhoot Chaturdashi are almost two similar holidays from two distinct cultures, reflecting the relation between life and death.

Día de Muertos, originating from the rich Mexican and Latin American culture, embraces death as an integral part of life and is a remembrance of the departed loved ones. The festivity also recognizes the eternal bond between the living and the dead. On the other hand, Bhoot Chaturdashi, the celebration born in the cultural landscape of Bengal, is a festivity to pay reverence to the departed ancestors.

The vibrant cinematic masterpiece “Coco” celebrates the essence of Día de Muertos; as a tribute to Mexican culture, the film uses Día de Muertos as one of the themes. It also urges the audience to pay homage to loved ones who have left the world but live in their hearts. The movie also states, “One night of the year, our ancestors come to visit us.”

The Bhoot Chaturdashi revolves around a similar idea, as it centers around the idea that, on this day, the departed ancestors visit their families. Día de Muertos and Bhoot Chaturdashi have a long history, and the celebration rituals evolved with the time. But the essence of the celebration of life and its inevitable connection with death remains the same.

### A Short Introduction to Día de Muertos

Día de Muertos, the popular holiday in Mexico, celebrates the inevitability of death. Despite being associated with the dead, it is a festival of vibrant colors, laughter, music, and dance. It is a festival rooted deeply in the indigenous customs of paying homage to deceased loved ones by commemorating the coexistence of life and death. They did not consider death essentially as the end of life but as another stage of existence. The Aztec festival also honors the Lady of the Dead, Goddess Mictecacihuatl, who presides over the afterlife realm.

The history of Día de Muertos dates back some 3000 years when there was a tradition of revering dead people in pre-Columbian Meso-American culture. The Aztecs, Maya, Purepecha, Totonac, and Nahua people of Mexico see death as a part of life. People believed that dead people traveled to Chicunamictlán or the Land of the Dead. After several years of challenging journey, a person’s soul reaches Mictlán, the soul’s final resting.

Nahua people honor the dead on this day and offer them food and water for their journey. Therefore, the ritual involves leaving food and other offerings on the graves of their dear ones. They also prepare makeshift altars called “ofrendas” and decorate them with flowers, candles, papel picado (pieces of colorful paper), and incense.

The favorite food and beverages are placed on the altar to welcome the deceased back home. Calavera, or the sugar skull, is also an iconic part of Día de Muertos and is offered to the deceased. Calacas has some traditional association with the celebration, and based on that, people paint their faces to represent life and death. Families also take this day as an opportunity to introduce their younger generation to the older ones who died before the baby was born.

Based on the Aztec Calendar, Día de Muertos was celebrated at the end of July and the beginning of August. Later, the Spanish priests moved the celebration to coincide with All Hallows Eve. Therefore, at present, Día de Muertos is celebrated during the first two days of November. In recent years, Día de Muertos has gained popularity across the globe, and people from different cultural backgrounds are celebrating Día de Muertos in memory of their loved ones.

Though the nature of the celebration of this day has changed over the years, the essence has remained the same. While mourning brings a sense of isolation, celebration brings a community together and establishes a deeper connection among the people. Día de Muertos celebrates death as a transitional stage, keeping life in the center. Therefore, the Day of the Dead becomes a celebration of the beauty of life itself.

#### A Short Introduction to Bhoot Chaturdushi

The festival of Bhoot Chaturdashi, which embraces the intricate weaving of life and death, is deeply rooted in the rich soil of Bengali folklore and mythology. People believe that on the eve of the festival, the barrier between the material and spiritual world disappears, allowing the spirits to roam freely among the mortals. The tradition of offering food to the forefathers on this day is a symbol of reverence. In popular belief, the lamps are used to remove evil and show the path for the souls of departed ancestors. The celebration is also a way to address the mysterious realm of the dead and recognize the transience of human lives.

‘Bhoot’ stands for ghosts, and ‘Chaturdashi’ is the fourteenth day of the lunar fortnight (Gupta, 2023). The mythological narrative behind this festival is the defeat of Narakasur, a demon embodying darkness in Hindu mythology, by Lord Krishna on this day. Though this narrative may vary from place to place, the theme of the victory of Good over Evil remains the same.

This day also has significance in Bengali Folklore. According to these, forefathers come to their loving houses, seeing the Diyas (earthen lamps). They protect their family from negative energies and harm. Another popular belief associated with this day is that of Goddess Chamunda (a form of Goddess Kali) and her fourteen ghostly. Many Bengalis believe Goddess Chamunda ascends to the Earth with her ghosts, including *Dakini* and *Jogini*. Thus, fourteen lamps are lit at the entrance and dark corners of the house to protect oneself from these ghosts and other uncanny beings.

People believe that, on this day, evil entities are more powerful. Therefore, there is also the custom of a night-long guard to keep these dark forces away. Bhoot Chaturdashi is celebrated one day before Kali Puja, which has a separate religious and cultural significance. The following day is Kali Puja or a day to worship Goddess Kali, who protects the devotees from negative energies.

Eastern region of India, especially Bengal, celebrates Bhoot Chaturdashi or Narak Chaturdashi in the Hindu month of Kartik (Autumn). As per the Saka era calendar, this festival is celebrated on the 14th day of Krishna Paksha in Kartik(INC, 2021).Bengalis welcome the 14 generations of their ancestors (Choddo Shak) by lighting up 14 earthen lamps and having Choddo Shaak (a dish prepared by cooking 14 leafy greens together). This Choddo Shaak has Ayurvedic relevance as well. According to Choudhury (2024), in Charaka Samhita, in Autumn, Pitta imbalance is a common disorder seen in people, and these cooked herbs have all those medicinal properties that can keep these diseases away. People also consider it to ward off the evil forces from their houses and lives. The illuminated lamps remove the darkness with light, which signifies the triumph of “Good” over “Evil.”

#### Occident’s Lady of the Dead vs. Orient’s Ma Chaamunda and her 14 Ghosts

Across cultures, the mythological narratives and folklore derived from the ideas regarding death and the afterlife have certain similarities. Though Lady of the Dead and Maa Chamunda come from two different cultural landscapes separated by miles, they show the human perception of death and the idea of mortality as an essential part of life.

In Occidental tradition, Death is personified through several mythological characters, such as Persephone in Greek mythology and Hela from Norse Tales. The Lady of the Dead is one such figure portrayed as a mediator between the realm of the Dead and the Living, guiding the souls to their final resting place.

In Aztec mythology, Mictecacihuatl, also known as the Lady of the Dead, rules over the land of

Mictlan, the lowest level of the underworld, the resting place of the Deads. She presides over the festival Día de Muertos, guards the Deads in their resting place, and ensures the continuation of the cycle of life. According to Aztec culture, Mictecacihuatl has a skull face and wears a skirt made of serpents(Cline, 2018).

On the other hand, in Hindu mythology and particularly in Shakta tradition, Goddess Chamunda or Charchika is associated with the Ghost and Spirit realm. She is the Goddess of destruction and protection, symbolizes the triumph of Good over Evil, and is accompanied by 14 ghostly entities (or Bhootas) representing different stages of human lives. These “Bhootas” act as the guardians of the supernatural world and guide the souls navigating the afterlife.

The Devotees believe Maa Chamunda wards off evil and keeps the malevolent spirits away. She is “Shakti,” a supreme power that can create, protect and destroy the cosmos. Goddess Kali destroyed two Asuras (demonic figures), Chanda and Munda, which gave her the name Chamunda or Chamundeswari. She is the fierce female form of Yama, the God of Death(Khamesra, 2024). According to Matsya Purana, Yama created her to protect Devi Parvati. Therefore, she is the Matrika who destroys the Evil and protects the Good.

Though, like Maa Chamunda, the Lady of Dead governs the World of Death, which in Aztec culture is called Mictlan, the latter is not associated with guarding the good and warding off the evil. However, she looks over all three types of souls (one who died normal deaths, one who died heroic death, and the other non-heroic dead people) residing in the underworld. She collects their bones and sends them to the land of living. It makes her the guardian of the cycle of Death, Life, and everything in between, which is an integral part of the cosmos.

Coming from two different cultures, both the Lady of the Dead and Maa Chamunda show some similarities based on their respective cultures and mythologies. They both are associated with the transition of souls from one realm to another. Like Lady of the Dead, Goddess Chamunda also represents the theme of destruction and renewal that repetitively occurs in human life. This struggle between the creation and destruction maintains the cosmic balance.

In mythologies, both figures remain the constant reminder of the inevitability of Death and the understanding of the eternal narrative of death and life. Parallel analysis of the Lady of the Dead and Maa Chamunda also reveals the depth of the folklore of different cultures. Though they stem from varied cultural backgrounds, time-frames, and space, the narrative regarding the philosophy of death

and human perception of it stays the same.

### The Significance of Candles in Both Cultures

In many cultures, candles have spiritual and ritualistic significance. Hence, it plays a crucial role in ceremonies and religious practices. Though Aztec and Bengali cultures have different birthplaces, candles have a special place in their religious celebration.

In Aztec culture, the flickering light of candles represents life and warmth, and people often illuminate these during rituals to invoke the Sun God. Candles have also become inseparable in Aztec ceremonies, honoring death and the afterlife. People light candles to guide the souls departing for the underworld realm. It is also used for purification during the rituals to create a sacred atmosphere. While celebrating Día de Muertos, candles are placed on ofrendas, the altars made for a deceased person.

Candles represent the cardinal directions and are integral in altar decoration. People believe that as the representative of fire elements, candlelights guide the souls of the deceased to travel to the living world. The candles are generally used in a row that leads up to the ofrendas.

Día de Muertos is a celebration to pay homage to the ancestors, and candles represent the cherished memory of loved ones. Light as offerings give warmth to the souls of the deceased as candles are placed on the altars beside their favorite food, beverages, and souvenirs. People believe that the light attracts the souls to accept the offerings.

On the other hand, Choddo Pradip is an inseparable part of the Bengali celebration of Bhoot Chaturdashi. Fourteen earthen lamps are lit in the dark corners of the house and doors on the night before Kali Puja to ward off evil. Bengalis believe that each of the lamps represents generations of ancestors, as, on this day, reverence is paid to the fourteen generations of ancestors. The earthen lamps also invite the forefathers who come to bless their family members. People also believe that on the eve of Bhoot Chaturdashi, the evil powers get powerful, and the light can keep them away.

In Aztec and Bengali cultures, candles (or earthen lamps) guide the spirits to their homes. Hence, they also become a tool to form a connection between the living and the dead. Besides staying as a symbol of reverence, they also stand as a string connecting the past, present, and future generations.

### Aztec's Pan De Muerto and Bengal's Choddo Shaak

Pan de Muerto is a traditional bread that is said to come from the early 1500s. During Día de Muertos, the Aztec community prepares Pan De Muerto to show their Gods their dedication and gratefulness. Several versions narrate the preparation of the Day of the Dead Bread used in this ritual.

Many historians and scholars believe this Day of the Dead Bread includes amaranth, honey, and human blood (Cullen et al., 2021). According to one version, the Aztecs are said to have sacrificed a young woman and put her heart in a clay pot, mixing it with amaranth. The priest leading the ritual is then said to have eaten the offering to show their love and respect for the Gods. Aztecs have come a long way from there, and now Catholic priests use bread to make it look like the young woman's heart. Moreover, they also add some red sugar, which denotes her blood.

On the other hand, when the Bengalis celebrate the *choddo shak* ritual, they gather 14 different leafy vegetables to follow the ritual (Ganguly, 2023). Like Pan de Muerto, Bengalis consume choddo shaak on Bhoot choturdoshi, which has a direct link to death.

In both cultures, the bread made and eating the leafy vegetables are a part of a culture. Both cultures celebrate the days of remembering their loved ones. Bengalis believe Choddo shaak increases body immunity as this preparation has high health benefits, symbolizing that one can fight evil (or health issues) with this food preparation.

It is believed that the dead do not eat the offering but suck away the essence that helps them to recuperate after they have traveled such a long distance to come back home. Thus, through these celebrations, Aztecs try to show respect to their loved ones who have left and traveled to a completely different world.

On the other hand, Pan De Muerto is a celebratory dinner specially made for the dead. The living relatives of the dead can also have the bread, but not those offered to the dead who have traveled a long way and reached the land of the living.

### Conclusion

No matter the culture, the living always respect the concept of death. Thus, Bengalis and Aztecs celebrate the dead's return to the land of the living on a particular day. The Aztec community celebrates the Day of the Dead with Pan De Muerto and ofrendas.

On the other hand, Bengalis celebrate the day of the dead as Bhoot Chaturdoshi with *choddo shak* and diyas. Both cultures have the metaphor of death in the center, and the supreme authority maintaining

the balance in the cosmos is a woman, either alone or accompanied by her 14 ghostly followers or companions.

Candles play a significant role in both cultures as they help their dead loved ones find their way back home after not being here for such a long time. So, on both these occasions, the living tries to form a connection with the dead because it helps them to be in touch with their deceased loved ones and also learn the fact that death is inevitable and eternal truth.

Both traditions have come a long way and are living examples of how supernatural ideologies make up the majority of the traditions that people follow worldwide. But people still follow these traditions with utmost dedication and sincerity because both believe death is necessary to maintain a balance. Thus, one must not fear them but accept them and hope there is one day when the portal between the dead and the living opens, allowing each family's loved ones to travel home again.

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### ACCREDITATIONS

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- Tripura Nursing Council (TNC)
- Indian Nursing Council (INC)
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- Indo-Australian Chamber of Commerce
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### RANKING/ CERTIFICATES

- Ranked 1st among the Top Engineering Colleges of Excellence (State wise rank, Govt. & Pvt) by CSR GHRDC- Engineering Ranking 2022.
- ICFAI University Tripura is ranked 32 by India Today- MDRA Best Universities Survey 2020
- Ranked 27 in the Top 100 Engineering College ranking survey 2020 and ranked 3rd in the Top 10 Engineering colleges 2020 region wise ranking announced by Silicon India.
- Department of Chemistry of ICFAI University Tripura Nature Index ranked is 82nd in India as on 25th April, 2020.
- Established 'Institute Innovation Council (IIC) as per norms of Innovation Cell, Ministry of MHRD, Govt. of India
- Registered with NGO Darpan, Niti Ayog, Govt. Of India
- Certified by ISO 9001: 2015
- Best Universities & Colleges 2018-19 awarded to ICFAI University Tripura in the special category by Rubber Skill Development Council (RSDC).
- ICFAI University Tripura certified by Directorate of Social Welfare & Social Education.
- ICFAI University Tripura got AAA rating in Northeast India by Careers360 Magazine- India's Best Engineering Colleges 2020
- ICFAI Law School got AA+ rating by Careers360 Magazine among India's (East Zone) best law Colleges 2021
- ICFAI University Tripura is recognized in the band "BEGINNER" under the category "University & Deemed to be university(Private/Self Financed)(Technical)" in ARIIA 2021

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- M.Sc. Chemistry
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- M.A-(English)
- M.A-psychology



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- B.Sc. in Emergency Medical Technology
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- B.Sc. in Dialysis Therapy Technology
- Bachelor in Health Information Management
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- B.Sc. in Medical Laboratory Technology (BMLT) (*Lateral Entry*)
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Program	Duration	Eligibility	Career Prospects Employment Opportunities
B. Tech ( CE, CSE, ECE, ME, EE )	4 Years	Pass in 10 + 2 (Phy/Chem/Math) with minimum 45%, (40 % in case of SC/ST/ OBC) aggregate marks	IT,ITEs, Manufacturing,Companies, Corporates, Telecom, Banks, Govt. Services
B. Tech - Lateral Entry ( CE, CSE, ECE, ME, EE )	3 Years	Pass in 3 - year diploma course with minimum 45 % (40 % in case of SC/ ST/ OBC) aggregate marks	IT,ITEs, Manufacturing,Companies, Corporates, Telecom, Banks, Govt. Services
BCA	3 Years	Pass in 10 + 2 ( any Discipline) examination	IT,ITEs, Corporates, Banks,Govt. Services, NGO's.
Integrated MCA	5 Years	Pass in 10 + 2 ( any Discipline) examination	IT,ITEs, Corporates, Banks,Govt. Services, NGO's.
MCA	2 Years	Graduation in any discipline, with 40% and above aggregate marks.	IT,ITEs, Corporates, Banks, Govt. Services, NGO's,Research
M.Tech	2 Years	Valid GATE Scorer with B.Tech /B.E in Civil Engineering or B.Tech /B.E in Civil Engineering with 60% marks	Research, consultant to Pvt. Organization in the field of flood forecasting, flood inundation, flood disaster management, Entrepreneur.

### Basic Science

Program	Duration	Eligibility	Career Prospects Employment Opportunities
B.Sc. Physics (Hons.)	4 Years	Pass in 10 + 2 with 40 % marks in Physics & pass in maths	Teaching in Schools/ Colleges/ Educational Administrator/ Corporate
B.Sc. Chemistry (Hons.)	4 Years	Pass in 10 + 2 with 40 % marks in Chemistry	Teaching in Schools/ Colleges/ Educational Administrator/ Corporate
B.Sc. Mathematics (Hons.)	4 Years	Pass in 10 + 2 with 40 % marks in Mathematics	Teaching in Schools/ Colleges/ Educational Administrator/ Corporate
M.Sc. Physics	2 Years	Graduate with 45 %(40 % in case of SC/ST/ OBC) marks in Physics	Teaching in Schools/ Colleges/ Educational Administrator/ Corporate
M.Sc. Chemistry	2 Years	Graduate with 40 % marks in Chemistry from a recognized University	Teaching in Schools/ Colleges/ Educational Administrator/ Corporate
M.Sc. Mathematics	2 Years	Graduate with 40 % marks in Mathematics	Teaching in Schools/ Colleges/ Educational Administrator/ Corporate

### Liberal Arts

Program	Duration	Eligibility	Career Prospects Employment Opportunities
BA - English (Hons.)	4 Years	Pass in 10 + 2 (any Discipline) with 40 % marks in English	Jobs in Govt., Teaching in Schools/Educational Administrators/ Corporate, Banks, Telecom, Media, Journalism
MA - English	2 Years	Graduate in any Discipline with minimum 45 % (40% in case of SC/ST/ OBC) aggregate marks	Jobs in Govt., Teaching in Schools/Educational Administrators/ Corporate, Banks, Telecom, Media, Journalism/ Research
B.A - Psychology (Hons)	4 Years	Pass in 10 + 2 (any Discipline) with 50 % (45% in case of SC/ST/ OBC) marks	Teaching in Schools/ Colleges/ Educational Administrator/ Corporate
MA - Psychology	2 Years	Graduate with 45 %(40 % in case of SC/ST/ OBC) marks in Psychology	Teaching in Schools/ Colleges/ Educational Administrator/ Corporate
B.Sc.- Psychology (Hons)	4 Years	Pass in 10 + 2 (any Discipline, with Economics or Maths as a combination subject) with 50 % (45%in case of SC/ ST/ OBC) marks	Teaching in Schools/ Colleges/ Educational Administrator/ Corporate

### Law

Program	Duration	Eligibility	Career Prospects Employment Opportunities
BBA-LLB Integrated	5 Years	Pass in 10 + 2 with minimum 45 % (40 % in case of SC/ST, 42% in case of OBC) aggregate marks	Corporates, Banking, Judiciary, Legal Practice, NGO's IPR
BA-LLB Integrated	5 Years	Pass in 10 + 2 with minimum 45 % (40 % in case of SC/ST, 42% in case of OBC) aggregate marks	Corporates, Banking, Judiciary, Legal Practice, NGO's IPR
LLB	3 Years	Graduate in any Discipline with minimum 45 % (40 % in case of SC/ST, 42% in case of OBC) aggregate marks	Corporates, Banking, Judiciary, Legal Practice, NGO's IPR
LLM	2 Years	Graduate with LLB degree (Recognised by BCI)	Corporates, Banking, Judiciary, Legal Practice, NGO's IPR, Research

### Management & Commerce Studies

Program	Duration	Eligibility	Career Prospects Employment Opportunities
B.Com (Hons.)	4 Years	Pass in 10 + 2 examination in commerce or Science with 45% ( 40% in case of ST/ SC/OBC)-marks	Banks, Financial Services, Corporates

Program	Duration	Eligibility	Career Prospects Employment Opportunities
BBA	4 Years	Pass in 10 + 2 ( any Discipline) examination with minimum 40% marks	Banks, Financial Services, IT, Insurance, Telecom, Corporates, Consulting Companies.
MBA	2 Years	Graduate in any discipline with minimum 45 % (40 % in case of SC/ST/OBC) aggregate marks	Banks, Financial Services, IT, Insurance, Telecom, Corporates, Consulting Companies, Research
M.Com	2 Years	B.Com with 45%(40% in case of ST/SC/OBC) Marks	Banks, Financial Services, Corporates

### Allied Health Sciences

Program	Duration	Eligibility	Career Prospects Employment Opportunities
Bsc. in Emergency Medical Technology	4 Years	Pass in 10 + 2 (Science Discipline) with 45% marks in PCB (5% relaxation for SC/ST/OBC Candidates)	Opportunity in Government /Private hospital having ICU/ITU/Critical care unit, Demand in disaster management team for both state/central government, army/navy/airforce. Eligible for Post graduation courses.
Bsc. in Cardiac Care Technology	4 Years	Pass in 10 + 2 (Science Discipline) with 45 %marks in PCB (5% relaxation for SC/ST/OBC Candidates)	Opportunity in Government /Private Hospitals in cardiology department, different cath- labs or diagnostic centers. Eligible for postgraduate courses.
Bsc. in Dialysis Therapy Technology	4 Years	Pass in 10 + 2 (Science Discipline) with 45 % marks in PCB (5% relaxation for SC/ST/OBC Candidates)	Opportunity in Government /Private hospitals, NRHM, NUHM, NGO, clinics/ healthcare setup offering dialysis treatment. Eligible for Post Graduation courses in dialysis.
Bachelor in Health Information Management	4 Years	Pass in 10 + 2 (any Discipline) with 45 % marks (5% relaxation for SC/ST/OBC Candidates)	Opportunity in Government / Private hospitals, diagnostic centers, NRHM/ NUHM, legal firms, Healthcare consultancy .Eligible for Post Graduate courses.
B.Sc. Medical Lab Technology (BMLT)	4 Years	Pass in 10 + 2 (Science Discipline) with 45% marks in PCB (5% relaxation for SC/ST/OBC Candidates)	Opportunity in Government /Private hospital having ICU/ITU/Critical care unit, Demand in disaster management team for both state/central government, army/navy/airforce. Eligible for Post graduation courses.
B.Sc. Medical Lab Technology (BMLT) (LE)	3 Years	Pass in 3 years diploma with 45% marks in aggregate (5% relaxation for SC/ST/OBC Candidates)	Opportunity in Government /Private hospital having ICU/ITU/Critical care unit, Demand in disaster management team for both state/central government, army/navy/airforce. Eligible for Post graduation courses.
Master in Medical Lab Technology (MMLT)	2 Years	Candidate must have passed degree, e.g. B.Sc. MLT/ B.Sc. Physiology/ Microbiology/ Biotechnology/ Biochemistry or equivalent B.Sc. Biosciences from a recognized University	Opportunity in Government / Private sector, Lab Technician, Medical Lab Incharge, Research and Development Manager (Laboratory), Technical Officer etc. Can pursue research or can flourish in academics as well

### Education

Program	Duration	Eligibility	Career Prospects Employment Opportunities
B.Ed.	2 years	Graduate or post graduate in any discipline with minimum 50 % (45 % in case SC/ST/ OBC) aggregate marks	Teaching in Secondary level
MA - Education	2 years	Graduate in any discipline	Teaching in Schools/Educational Administrators/ Research
M.Ed.	2 years	B.Ed. (1/2 years)/ B.EL,ED/B.Sc.B.Ed./B.A B.Ed./ D.EL.Ed. /D.Ed. with a Bachelors degree. 50% marks at all the levels	Teaching in Teacher Education

### Physical Education

Program	Duration	Eligibility	Career Prospects Employment Opportunities
B.P.Ed	2 years	Graduate or post graduate in any discipline with minimum 50 % (45 % in case SC/ST/ OBC) aggregate marks	Jobs in School/ College/ University, Physical Trainer
D.P.Ed	2 years	Pass in 10+2 or equivalent with 50% of marks in any stream	Jobs in School/ College/ Physical Trainer
B.P.ES	3 years	Pass in 10 + 2 examination or equivalent from any recognised education Board/ University	Jobs in School/ College/ University, Physical Trainer
B.P.ES(LE)	1 year	Pass in two years diploma in Physical Education	Jobs in School/ College/ University, Physical Trainer
M.P.ES	2 years	Candidates must have passed with at least 50% marks for Gen/OBC and 45% for SC/ST category. B.P.E.D (4yr. integrated)/B.P.E.D (1yr. or 2yr.)/B.P.E (3yrs.)/ B.sc (Physical Education)/ B.P.E.S (3yrs.)	Jobs in School/ College/ University, Physical Trainer/Sports/ Job in Govt. and Private sector as teacher, instructor, coach etc.

## Yoga & Naturopathy

Program	Duration	Eligibility	Career Prospects Employment Opportunities
Post Graduate Diploma in Yoga Therapy	1 year	Any graduate	Yoga Teacher in Schools, Yoga Therapist/ Yoga Psychologist/ Yoga Inspector in MNC's, Health Club, Yoga Club

## Special Education

Program	Duration	Eligibility	Career Prospects Employment Opportunities
B.Ed.Spl.Ed. (ID)	2 years	Graduate or post graduate in any discipline with minimum 50 % (45% in case SC/ST/ OBC) aggregate marks	Teaching in Secondary level and at special schools
D.Ed.Spl.Edu (ID)	2 years	Pass in 10 + 2 (any Discipline) with minimum 50% (45 % in case SC/ ST/ OBC) aggregate marks.	Special schools, Sarva Siksha Abhiyan/ Resource teacher in General School/ Integrated/ Inclusive setup
M.Ed.Spl.Ed(ID)	2 years	B.Ed. Spl. Ed (ID) / B.Ed. General with D.Ed. Spl. Ed (ID) with 50% marks (RCI).	Professional preparation of teacher educators- engaged in continuous professional development of teachers
Integrated B.A/ B.Com /B.Sc/ B.Ed. Spl.Ed.	4 years	Pass in 10 + 2 with 50% marks	Teaching in Secondary level and at special schools

## Clinical Psychology

Program	Duration	Eligibility	Career Prospects Employment Opportunities
M. Phil in Clinical Psychology	2 years	M.A / M.Sc degree in the Psychology with 55% marks in aggregate, Preferably with special paper in Clinical Psychology .	Qualified professional & extensive inputs & widespread Clinical experience to acquire the necessary skills in the area of Clinical Psychology

## Library And Information Sciences

Program	Duration	Eligibility	Career Prospects Employment Opportunities
B.Lib.I.Sc	1 Year	Graduate in any discipline	School/ College/ University/ district/ State / National Libraries, Bank, Govt. Services, NGO's, Research
M.Lib.I.Sc- Integrated	2 Years	Graduate in any Discipline	School/ College/ University/ district/ State / National Libraries, Bank, Govt. Services, NGO's, Research
M.Lib.I.Sc	1 Year	Graduate with B.Lib.I.Sc	School/ College/ University/ district/ State / National Libraries, Bank, Govt. Services, NGO's, Research

## Nursing Science

Program	Duration	Eligibility	Career Prospects Employment Opportunities
GNM	3 years	10+2 with English and must have obtained a minimum aggregated score of 40% marks for the general candidates for any stream • 35% SC/St candidates marks required from any stream • Age should be 17-35 (and for SC/ST 5 years relaxation) • Boys & Girls both are eligible	Hospitals(Government /Private), NUHM, NRHM, NRLM, Healthcare consultancy firm, Hospitality industry, Medico-legal consultancy firm, Insurance sector (Government/ Private)

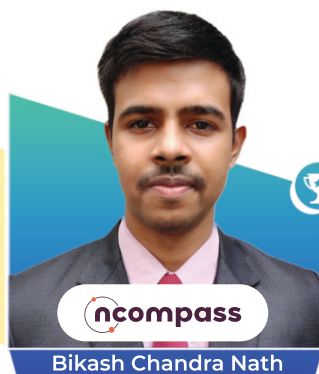
## P.hD

Program	Duration	Eligibility	Career Prospects Employment Opportunities
Ph.D	4 years	A two-year postgraduate degree or equivalent from a recognized Institution, with 55% marks or equivalent CGPA in concerned subject. or A regular, full time M.Phil degree from any recognized University	Faculty position, Scientist, Post-doc researcher

D\* = Domicile: Students from North East States (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura). ND\*\*= Non-Domicile: Students from states other than North East states.

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- Separate hostel for boys and girls
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- Medical center featuring on-site residential doctors and nurses.
- 24 x7 Ambulance service
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- ICFAI University Tripura is having its professional football club named ICFAI FC
- 24 Hours power generator back-up etc.
- Full campus is covered by JIO wifi, BSNL wifi, ICFAI wifi

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### CAMPUS AERIAL VIEW

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