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Integrating Knowledge Across Disciplines with Academic Excellence and Ethical Values

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DECLARATION

This is the inaugural issue (Volume 1, Issue 1, 2026) of *St. Francis Journal of Multidisciplinary Research*, published as an online academic journal. The ISSN registration has been applied for and will be updated in subsequent issues upon allotment.

CONTENTS

INFERENTIAL STATISTICS IN MEASURING THE IMPACT OF ENTREPRENEURIAL TRAINING PROGRAMMES

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Abstract

Entrepreneurial training programmes are increasingly emphasised as a key mechanism to enhance entrepreneurial competencies among students. This study investigates the impact of such programmes on entrepreneurial competence using inferential statistical techniques. A sample of 200 students aged 18-25 across different academic years was evaluated before and after participation in a structured training programme. Paired t-tests, ANOVA, and multiple linear regression analyses were conducted to examine differences in pre- and post-training scores and the influence of demographic factors. Results indicate a significant improvement in post-training entrepreneurial scores (mean difference = 7.85, $p < 0.001$), with no significant variations across academic years. Regression analysis identified pre-training scores as a significant predictor of post-training performance ($\beta = 0.940$, $p < 0.001$). These findings support the effectiveness of entrepreneurial training programmes in enhancing student competencies and provide guidance for future programme design.

Keywords: Entrepreneurial training, inferential statistics, paired t-test, ANOVA, regression analysis, skill development.

1. Introduction

Entrepreneurship has emerged as a critical driver of economic growth and innovation. Educational institutions play a pivotal role in nurturing entrepreneurial skills among students through structured training programmes. Assessing the effectiveness of these programmes requires rigorous evaluation using inferential statistical techniques to determine whether observed improvements are statistically significant. While previous studies have largely focused on descriptive outcomes, this research employs paired t-tests, ANOVA, and regression models to provide a quantitative assessment of programme impact across diverse student demographics.

2. Research Design and Methodology

2.1 Sample

The study included 200 students aged 18-25, enrolled in various academic years (1st- 4th year).

2.2 Data Collection

Entrepreneurial competence was measured using a standardised assessment administered before and after the training programme.

2.3 Statistical Tools

The following statistical analyses were performed:

Paired t-test: To compare pre- and post-training scores.

ANOVA: To assess differences in post-training scores across academic years.

Multiple linear regression: To evaluate the influence of pre-training scores, age, and academic year on post-training scores.

Data visualisation: Histograms, boxplots, and scatterplots were used to illustrate score distributions and relationships.

3. Statistical Analysis and Results

3.1 Descriptive Statistics

Variable	Min	1st Qu.	Median	Mean	3rd Qu.	Max
Pre-training	35	53	60	60.06	67	89
Post-training	47	61	67	67.91	75	98

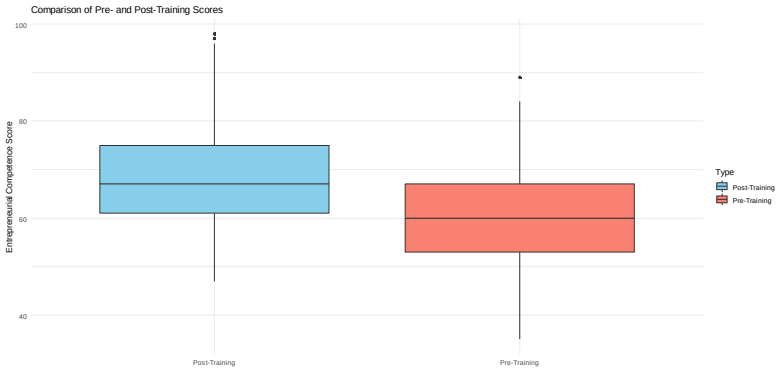
3.2 Paired t-test

A paired t-test was conducted to assess the impact of the training programme on student scores.

Statistic	Value
t-value	22.662
df	199
p-value	< 0.001
Mean difference	7.85

95% CI	7.17 – 8.53

The post-training scores were significantly higher than pre-training scores, indicating the effectiveness of the programme.



3.3 ANOVA for Academic Year

An ANOVA tested whether post-training scores differed across academic years.

Source	Df	Sum Sq	Mean Sq	F value	Pr(>F)
Academic Year	3	169	56.32	0.517	0.671
Residuals	196	21357	108.97		

There were no significant differences in post-training scores among different academic years ($p > 0.05$).

3.4 Multiple Linear Regression

Post-training scores were regressed on pre-training scores, age, and academic year.

Predictor	Estimate	Std. Error	t value	p-value
Intercept	14.246	3.726	3.824	0.000177
Pre-training score	0.94	0.035	26.967	<0.001
Age	-0.149	0.15	-0.99	0.324
2nd Year	-0.729	0.969	-0.752	0.453
3rd Year	1.811	0.92	1.969	0.05
4th Year	0.169	0.992	0.17	0.865

Model Fit:

$R^2 = 0.792$

Adjusted $R^2 = 0.787$

$F(5,194) = 147.7$, $p < 0.001$

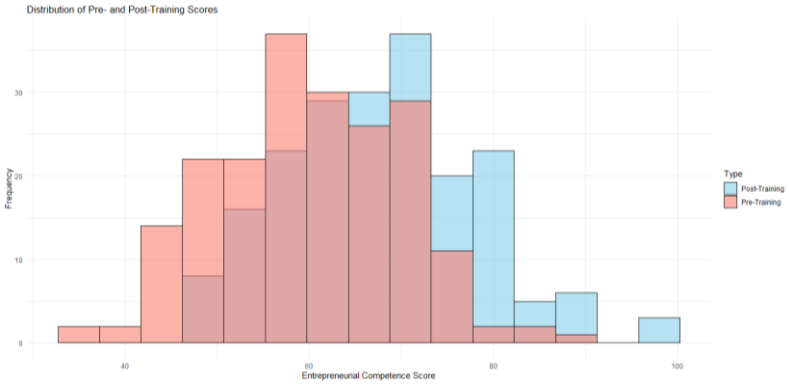
Pre-training scores strongly predicted post-training scores. Age and academic year did not significantly influence outcomes.

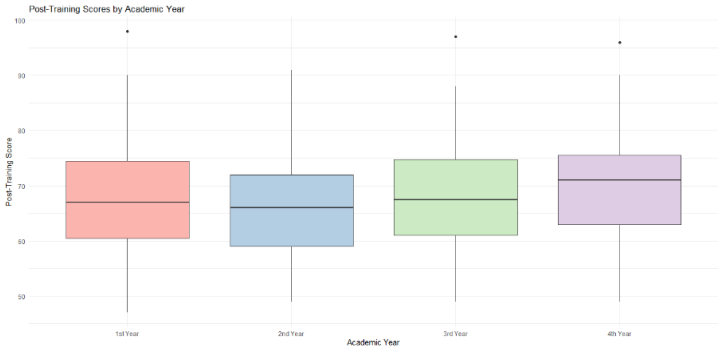
3.5 Data Visualisation

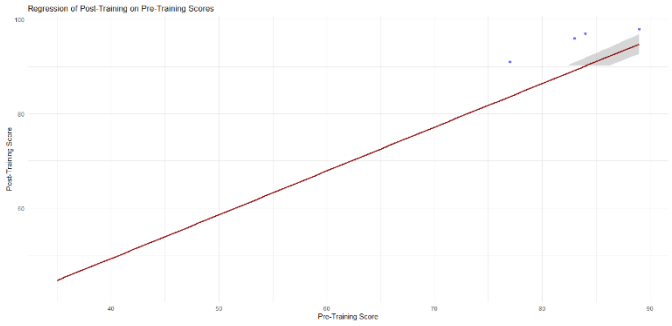
Histograms and boxplots show clear improvement in post-training scores.

Scatterplots confirm a positive linear relationship between pre- and post-training scores.

Regression line illustrates the predictive effect of pre-training scores on post-training outcomes.







4. Conclusion

The study demonstrates that entrepreneurial training programmes significantly improve student competence. Pre-training scores are a robust predictor of post-training performance, while age and academic year have minimal influence. These findings highlight the value of structured entrepreneurial education and provide evidence to guide programme implementation and evaluation.

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BUSINESS CREATION INTENTION AMONG WOMEN STUDENTS: A TPB-BASED STRUCTURAL MODEL WITH MEDIATION AND MODERATION EFFECTS

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Abstract

Entrepreneurial intention (EI) is a critical precursor of new venture creation, particularly among women students who represent an emerging force in economic development. This study investigates the psychological antecedents of EI by developing a structural model based on the Theory of Planned Behaviour (TPB). Dataset of 300 observations was generated to represent key latent constructs: Attitude toward Entrepreneurship (ATT), Subjective Norms (SN), Self-Efficacy (SE), Entrepreneurial Education (EE), Perceived Behavioural Control (PBC) and EI. Multiple regression analysis was applied to test direct effects, while a mediation model examined the indirect influence of SN on EI through PBC, and a moderation term captured the interaction of SE and EE. Results indicate significant positive effects of ATT, PBC, SE, and the SE×EE interaction on EI, explaining 28% of the variance. Mediation analysis revealed that PBC partially mediates the relationship between SN and EI, accounting for approximately 75% of the total effect. These findings demonstrate the utility of statistical modelling and R-based simulation for exploring entrepreneurial drivers among women students.

Keywords: Entrepreneurial intention, women students, Theory of Planned Behaviour, mediation, moderation.

1. Introduction

Entrepreneurship plays a pivotal role in economic growth and employment generation. Among young women students, entrepreneurial intention reflects not only individual career choice but also the broader societal shift toward gender inclusivity in business creation. Guided by the Theory of Planned Behaviour (Ajzen, 1991), entrepreneurial intention is determined by three primary antecedents: attitude toward entrepreneurship, subjective norms, and perceived behavioural control. Previous studies highlight the importance of entrepreneurial education and self-efficacy as enabling factors (Linan & Chen, 2009). This paper develops a statistical model that integrates these constructs to explore direct, indirect and interactive effects on women students' entrepreneurial intentions. Employed to simulate a realistic dataset, allowing rigorous statistical analysis of mediation and moderation effects.

2. Research Design and Methodology

2.1 Framework

A sample of **n = 300** to ensure reproducibility. Latent variables ATT, SN, SE, and EE were simulated as standard normal distributions.

Mediator: PBC was modelled as a linear combination of SN (0.5) and ATT (0.3) plus random error (`sd = 0.8`).

Outcome: EI was expressed as

$$EI = 0.4\,ATT + 0.3\,PBC + 0.4\,SE + 0.2\,(SE \times EE) + \varepsilon$$

2.2 Statistical Methods

1. **Descriptive Analysis & Correlation:** Means, standard deviations and Pearson correlations examined basic relationships.
2. **Multiple Regression:** EI was regressed on ATT, SN, PBC, SE and the interaction SE×EE to test direct and moderating effects.
3. **Mediation Analysis:** The `mediation` package estimated the indirect effect of SN on EI through PBC with 1,000 bootstrap samples.

3. Statistical Analysis and Results

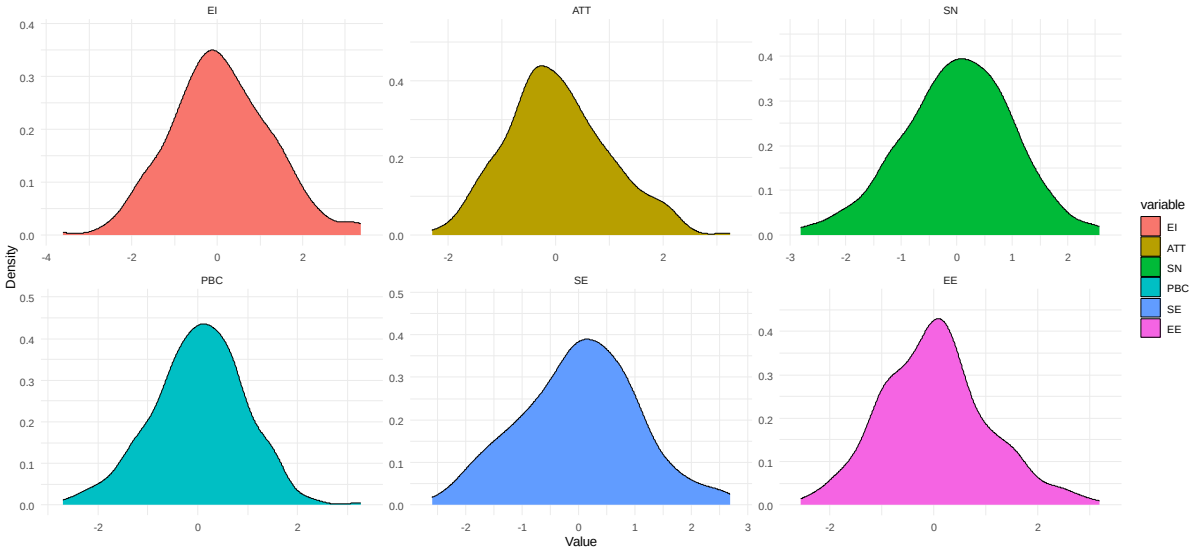
3.1 Descriptive Statistics

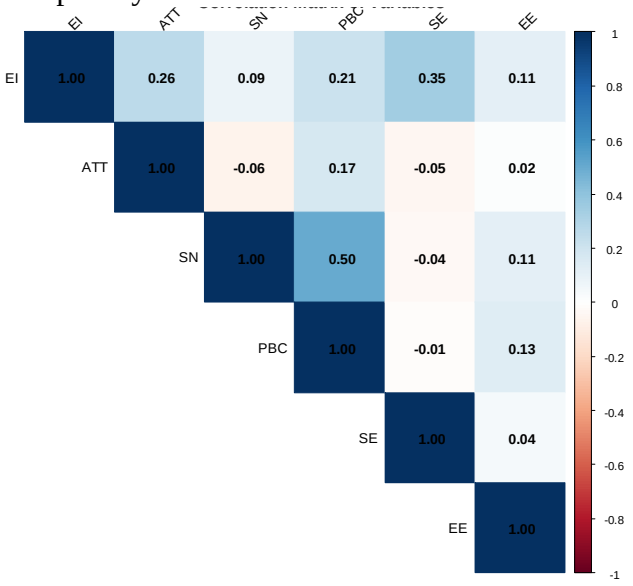
Variable	Mean	SD	Min	Q1	Median	Q3	Max
EI	0.088	1.02	-3.62	-0.718	0.013	0.727	3.368
ATT	0.034	0.97	-2.31	-0.576	-0.044	0.718	3.241
SN	0.009	0.93	-2.81	-0.604	0.045	0.718	2.571
PBC	0.023	0.92	-2.71	-0.536	0.063	0.724	3.272

SE	0.017	0.98	-2.6	-0.682	0.044	0.719	2.692
EE	0.027	0.94	-2.55	-0.688	-0.011	0.586	3.184

	EI	**ATT**	**SN**	**PBC**	**SE**	**EE**
EI	1	0.26	0.087	0.213	0.349	0.114
ATT	0.26	1	-0.061	0.173	-0.045	0.016
SN	0.087	-0.061	1	0.505	-0.04	0.112
PBC	0.213	0.173	0.505	1	-0.012	0.131
SE	0.349	-0.045	-0.04	-0.012	1	0.04
EE	0.114	0.016	0.112	0.131	0.04	1

Variables were approximately standard normal (mean ≈ 0). Correlations showed positive associations of EI with ATT (r = 0.26), PBC (r = 0.21) and SE (r = 0.35).





3.2 Multiple Regression

Predictor	Estimate	Std. Error	t value	p value
(Intercept)	0.052	0.058	0.902	0.368
ATT	0.336	0.064	5.277	<0.001 ***
SN	0.037	0.069	0.527	0.598
PBC	0.225	0.075	2.989	0.003 **
SE	0.418	0.056	7.425	<0.001 ***
SE:EE	0.263	0.056	4.675	<0.001 ***

SE	EE	Predicted_EI
-1	-1	-0.546
-1	0	-0.39
-1	1	-0.234
0	-1	-0.128
0	0	0.028
0	1	0.184

The model was significant ($F(5,294) = 23.13$, $p < 0.001$) with **Adjusted R^2 = 0.27**. Significant predictors included:

Predictor	Estimate	p-value
ATT	0.336	<0.001

PBC	0.225	0.003
SE	0.418	<0.001
SE×EE	0.263	<0.001
Subjective Norms were non-significant (p = 0.60).		

3.3 Mediation

Effect	**Estimate**	**95% CI Lower**	**95% CI Upper**	**p value**
ACME (Indirect)	0.109	0.025	0.193	0.020 *
ADE (Direct)	0.037	-0.096	0.177	0.62
Total Effect	0.145	0.025	0.264	0.028 *
Proportion Mediated	0.749	0.105	2.564	0.048 *

Bootstrap analysis indicated a significant **Average Causal Mediation Effect (ACME)** of SN on EI via PBC (Estimate = 0.109, 95% CI [0.025, 0.193], p = 0.020). Approximately **74.9% of the total effect** of SN on EI was mediated by PBC.

4. Discussion

The findings align with TPB predictions, showing that attitude, perceived behavioural control, and self-efficacy are key drivers of entrepreneurial intentions. The significant interaction of self-efficacy and entrepreneurial education suggests that education strengthens the impact of self-belief on intention formation. The mediation results highlight the importance of enhancing women students' control perceptions to convert social norms into entrepreneurial motivation.

5. Conclusion

This study demonstrates that entrepreneurial intention among women students can be effectively modelled statistical methods. Key implications include the need for targeted educational interventions that enhance self-efficacy and perceived control, thereby strengthening entrepreneurial drive.

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A PREDICTIVE ANALYTICS APPROACH TO STARTUP SUCCESS: EVIDENCE FROM MACHINE LEARNING MODELS

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Abstract:

The study investigates factors influencing startup success among women entrepreneurs using predictive analytics techniques. A simulated dataset of 500 women entrepreneurs was generated, including variables such as age, education, location, industry, experience, initial capital, loans, grants, mentorship, and network size. Logistic regression, decision tree, and random forest models were applied to identify the most influential predictors of success. Results indicated that none of the predictors were statistically significant in the logistic regression, suggesting complex interactions between factors. Random forest importance scores highlighted initial capital, network size, and experience as key contributors to startup success. The findings provide insights for policymakers and support organizations to design tailored interventions to enhance women led startup success.

Keywords: Predictive Analytics, Women Entrepreneurs, Startup Success, Logistic Regression, Random Forest, Decision Tree

1. Introduction:

Women entrepreneurship has gained global attention due to its potential to drive economic growth and social development. Despite increased participation, women-led startups often face challenges such as limited access to capital, mentorship, and networks. Predictive analytics offers data-driven approaches to understand and forecast startup success by examining multiple factors simultaneously. This study aims to evaluate the impact of demographic, financial, and professional variables on the success of startups led by women using advanced statistical techniques including logistic regression, decision trees, and random forests.

2. Research Design and Methodology

2.1 Research Design

A quantitative, predictive research design was adopted using simulated survey data representing 500 women entrepreneurs across diverse industries and locations.

Startup success refers to the ability of a newly established business to achieve sustainability, profitability, and growth over time. It is influenced by multiple factors including financial resources, managerial capabilities, market conditions, and support systems. In modern research, success is often measured as a binary outcome (successful or not), allowing statistical and predictive models to analyse influencing variables effectively. Predictive analytics involves the use of statistical techniques and machine learning algorithms to forecast outcomes based on historical or simulated data. It helps in identifying patterns, relationships, and key drivers that influence startup success. By integrating multiple

variables, predictive analytics provides a data-driven approach to decision-making and policy formulation, especially in uncertain and complex environments. Demographic variables such as age, education, and location play a significant role in shaping business outcomes. These factors influence access to opportunities, knowledge, and resources. For instance, higher education may enhance decision-making ability, while location determines exposure to markets and infrastructure. However, their impact may not always be directly significant due to interactions with other variables.

2.2 Variables

Variable	Type	Description
Age	Continuous	Entrepreneur's age in years
Education	Categorical	Undergraduate, Graduate, Postgraduate
Location	Categorical	Urban, Semi-Urban, Rural
Industry	Categorical	Tech, Retail, Services, Manufacturing
Experience	Continuous	Years of entrepreneurial experience
InitialCapital	Continuous	Initial investment in INR
Loans	Binary	Received loan (1 = Yes, 0 = No)
Grants	Binary	Received grant (1 = Yes, 0 = No)
Mentorship	Binary	Received mentorship (1 = Yes, 0 = No)
NetworkSize	Continuous	Size of professional network
Success	Binary	Startup success (1 = Yes, 0 = No)

3. Statistical Analysis

Experience and network size significantly contribute to business success. Experience improves managerial skills, decision-making, and problem-solving abilities. Professional networks provide access to information, mentorship, and business opportunities. Strong networks also facilitate collaboration and resource sharing, making them a crucial factor in achieving sustainable success.

3.1 Logistic Regression

Logistic regression is a statistical technique used to model binary outcomes. It estimates the probability of success based on predictor variables. However, in complex real-world scenarios, logistic regression may fail to capture non-linear relationships and interactions among variables, leading to non-significant results despite the presence of underlying patterns. Decision trees are non-parametric models that split data into branches based on important variables. They help in identifying key decision rules and interactions. In startup analysis, decision trees highlight critical factors such as capital and experience, providing a visual and interpretable structure for understanding success pathways.

A logistic regression model was fitted to identify significant predictors of startup success.

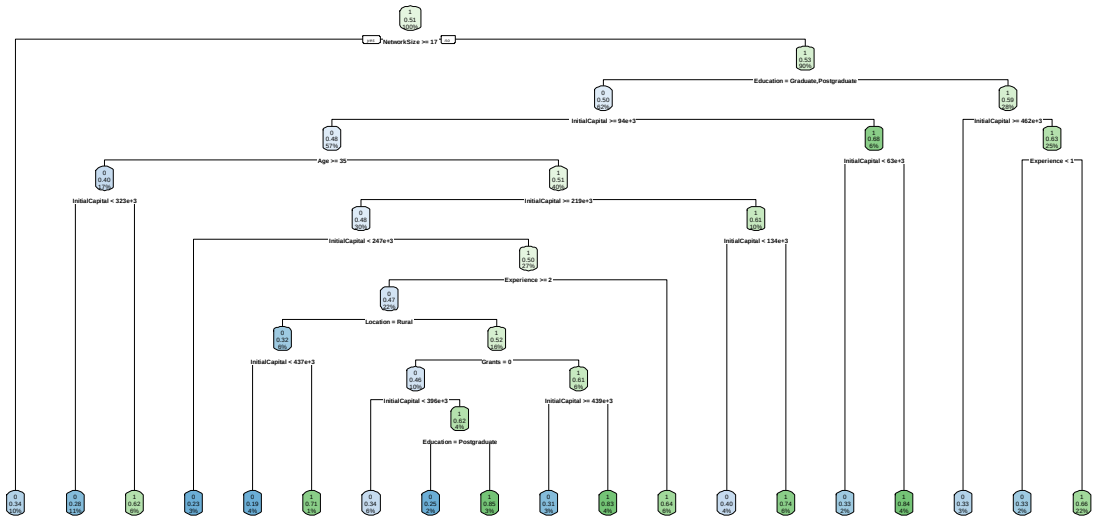
Predictor	Estimate	Std. Error	z value	p-value
(Intercept)	0.7548	0.7637	0.988	0.323
Age	-0.0122	0.01897	-0.641	0.522
EducationPostgraduate	-0.1589	0.2206	-0.72	0.471
EducationUndergraduate	0.3439	0.2278	1.51	0.131
LocationSemi-Urban	0.2842	0.2267	1.254	0.21
LocationUrban	0.1182	0.224	0.528	0.598
IndustryRetail	-0.1036	0.2615	-0.396	0.692
IndustryServices	-0.3369	0.2533	-1.33	0.184
IndustryTech	-0.146	0.2558	-0.571	0.568
Experience	-0.0345	0.05365	-0.642	0.521
InitialCapital	-4.23E-07	7.01E-07	-0.603	0.546
Loans	0.0264	0.1902	0.139	0.89
Grants	0.1336	0.2003	0.667	0.505
Mentorship	-0.0425	0.1837	-0.231	0.817
NetworkSize	-0.0177	0.01825	-0.967	0.333

None of the predictors were statistically significant ($p > 0.05$), suggesting a complex interplay among factors influencing startup success.

3.2 Decision Tree Analysis

A decision tree was fitted using `rpart` to identify important splits for predicting success.

Key splits were observed on `InitialCapital`, `NetworkSize`, and `Experience`.



3.3 Random Forest Analysis

Random forest is an advanced ensemble learning method that combines multiple decision trees to improve prediction accuracy. It identifies variable importance and captures complex, non-linear relationships. This method provides more reliable insights compared to traditional models, especially when dealing with high-dimensional and interactive data.

A random forest model with 500 trees was fitted.

Variable importance (MeanDecreaseGini) indicated:

Predictor	Importance (Gini)
InitialCapital	58.96
NetworkSize	44.05
Age	42.03
Experience	28.84
Industry	18.71
Location	14.23
Education	13.91
Mentorship	8.8
Loans	8.29
Grants	7.86

Initial capital, network size, and experience are the most influential factors in predicting startup success. The study highlights that startup success is not determined by a single factor but by the interaction of multiple variables. The absence of significant predictors in logistic regression indicates that success depends on combined effects rather than isolated variables. Machine learning models help uncover these complex relationships more effectively.

4. Conclusion

The predictive analytics approach highlighted that financial resources, professional networks, and entrepreneurial experience are critical for the success of women led startups. Logistic regression alone may fail to capture complex interactions, while machine learning methods such as random forests provide more nuanced insights. These findings can guide policymakers, incubators, and mentors in designing targeted interventions to enhance startup success among women entrepreneurs.

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WORK LIFE BAL ANCE AND STRESS MANAGEMENT

A CASE STUDY ON HEALTH CENTRE

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Abstract

The pandemic has shattered human lives to a greater extent. The most affected is the Medical profession, as to save guard the lives of the people the doctors, nurses and pharmacist has struggled during the pandemic. As Covid 19 warriors they have helped the patients fight for their lives till their last breath. But at the same time their profession has led to problems such as work life balance and increased level of stress among them. .They were experiencing anxiety attacks as well as frustration due to a lack of knowledge, environmental changes, and fear of infection both by themselves and by their family members This study helps us in identifying the problems faced by them during pandemic and the effects of such on their health by considering the initiatives taken by the hospitals or health centres to overcome such issues.

The objectives of the study focus on

1. To examine the problems faced by the employees in maintain work life balance.
2. To assess the Impact or effects working in health sector in times of pandemic.
3. To analyse the initiatives taken up by the health centres to cope up with the situation.
4. To offer suggestions based on the outcome of the study

Key words: Health sector, COVID 19, Stress, wellbeing, Work life balance.

Introduction

The pandemic has shattered human lives to a greater extent. It has a huge impact not only on our work but also on our health. The most affected is the Medical profession, as to save guard the lives of the people the doctors, nurses and pharmacist has struggled during the pandemic. The untiring services rendered by the medical professionals are tremendous and applaud able. As Covid warriors they have helped the patients fight for their lives till their last breath. But at the same time their profession has led to problems such as work life balance and increased level of stress among them. Healthcare professionals also suffered from insomnia, loneliness, sleep disorder, and mental depression as a result of the workload and related stress .They were experiencing anxiety

attacks as well as frustration due to a lack of knowledge, environmental changes, and fear of infection both by themselves and by their family members This study helps us in identifying the problems faced by them during pandemic and the effects of such on their health by considering the initiatives taken by the hospitals or health centres to overcome such issues.

Aim of the Study

The study aims at Understanding the present situation and the challenges witnessed in balancing the work and family life & also the stress levels of a person. It also focuses on analysing the impact of pandemic as well as the steps taken to overcome the stress levels in this pandemic by suggesting suitable means.

Need for the Study

Exploring and showcasing the ill effects of pandemic on work life balance and stress management helps in developing suitable methods in delivering the best. Health centres and family should be made aware that it is the not the one man show but extreme support and guidance is required from all spheres. The study needs to focus on how this pandemic has brought considerable change in their lives.

Statement of the Problem

Due to pandemic the Socio, Economic & Psychological life of a person is hampered at a greater extent which led to stress, anger, inefficiency etc. Most of the studies have concentrated on the Ill effects of pandemic on I.T Sector and others. Since the Health care professionals forms an integral part of a healthy society, it is important for us to know the challenges faced by them in managing work and life as well as the stress prevailing among them.

The objectives of the study focus on

5. To examine the problems faced by the employees in maintain work life balance.
6. To assess the Impact or effects working in health sector in times of pandemic.
7. To analyse the initiatives taken up by the health centres to cope up with the situation.
8. To offer suggestions based on the outcome of the study.

Review of Literature

Shanafelt et al, (2012). As stated by Lawrence et al (1985), "Patients who are suffering every day observing and solving several kinds of sickness would definitely add additional stress and pressure upon the medical professionals". For gaining expertise knowledge in their domain, medical professionals work excessively often lead to professional life taking a priority upon personal life. Increase in number of patients would impact the medical professionals by increasing stress and prompt them not to spend time with family. It has been already identified that severe work pressure leading to less time for personal life would further affect work life balance.

Kristie Keeton et al, (2007). With this background the study focuses on work life balance of medical professionals especially doctors, because their physical, psychological and social health is also important. Understanding work life balance Work life balance could be defined as achieving equilibrium between work and personal life. The term work life balance was coined in 1986, although its usage in everyday language was sporadic for a number of years. Rosabeth Moss kanter's seminal book (1977), titled "work and family in united states" was one of the first initiatives towards bringing work life balance to the forefront of research in organizational setting. The consequence was evident when few companies in 1980's and 1990's started work life programs initially for women with children and slowly became applicable to all.

It is felt relevant to state at this juncture that burnout is more common among physicians than among other professions. **Tait D Shanafelt et al (2012**). Physicians were more likely to have symptoms of burnout and to be dissatisfied with work life balance. The average private doctor had slightly longer but comparable work hour with that of other professionals. **(Fanny Y F Young 2012).** Forty percent of the doctors reported a disturbed work life balance, dramatically reduced productivity or work quality and prolonged fatigue level, sleepiness and extreme tiredness. Flexible working time, five day work week and frequent vacations were considered useful to alleviate the situation.

Kristie Keeton et al (2007) tried to explain the factors associated with the physician career satisfaction, work life balance, and burnout focussing on differences across age, gender and speciality. The critical issues of work life balance found are decrease in productivity, absenteeism etc and the author focussed on the significance of applying or implementing work life programs such as flexible working hours, options to work from home, frequent vacation programs etc would yield better results in achieving

work life balance (Nancy R Lockwood 2003).

Research Methodology

The research objective for this study includes exploration and description. The research design used in this study is descriptive research design. Primary data is collected & the pilot study was conducted with the help of the structured questionnaire which was administered among a sample of 100 respondents. The questionnaire is valid and reliable. The data collected is organised, classified and analysed using a wide range of appropriate statistical tools like mean, standard deviation & correlation.

Research Instrumentation

The questionnaire of the survey consists of 4 parts. The first part aims to find out the personal information of respondents. The second part aims to find out the problems by employees in maintaining work life balance. The third part is To assess the impact or effects of working in health sector in times of pandemic. The fourth part is to analyze the initiatives taken by the health centers to cope up with the situation.

Sample Selection

The population is considered infinite and the samples are selected on infinite basis using the Demerger's sample size estimator. Two stage random sampling has been used to select samples. A total of 110 responses were received through online questionnaire.

Variables of the study

In the current study the researcher has identified the problems faced by the employees in maintaining work life balance. To assess the Impact or effects working in health sector in times of pandemic. To analyse the initiatives taken up by the health centres to cope up with the situation specifically with regard to Bangalore city.

Limitations of the Study

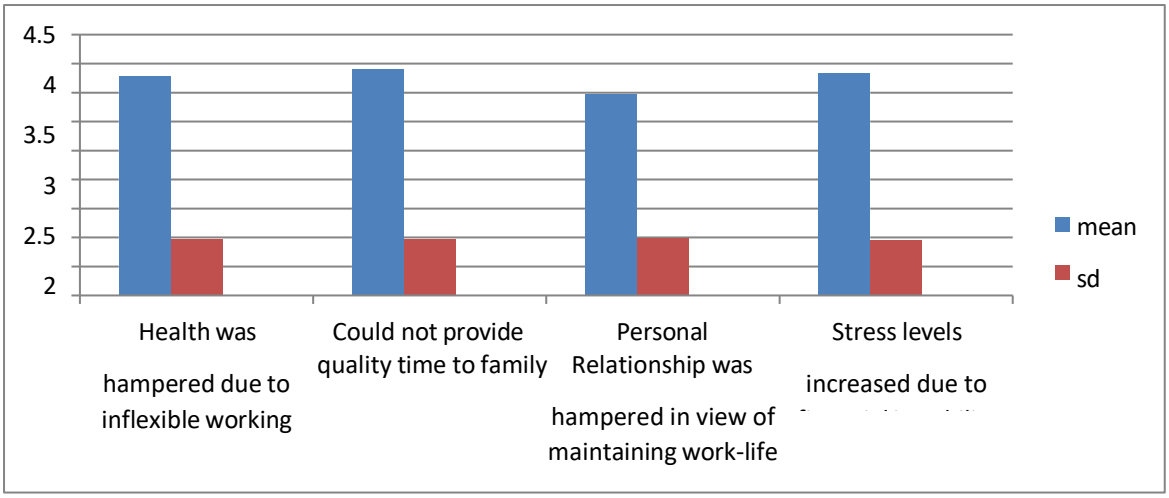
The study is restricted to Health sector of Bangalore city only and may not be applicable to other areas. The opinion of the respondents may be based on the primary source of data only.

Analysis and Interpretation

The analysis is carried out to examine the problems faced by the employees in health sector. The measures of central tendency, measures of dispersion & correlation, have been used to draw the results from the studying variables and the analysis is as follows:

Table 1.1 Mean and Standard Deviation of the problems faced by the employees in maintaining work-life balance

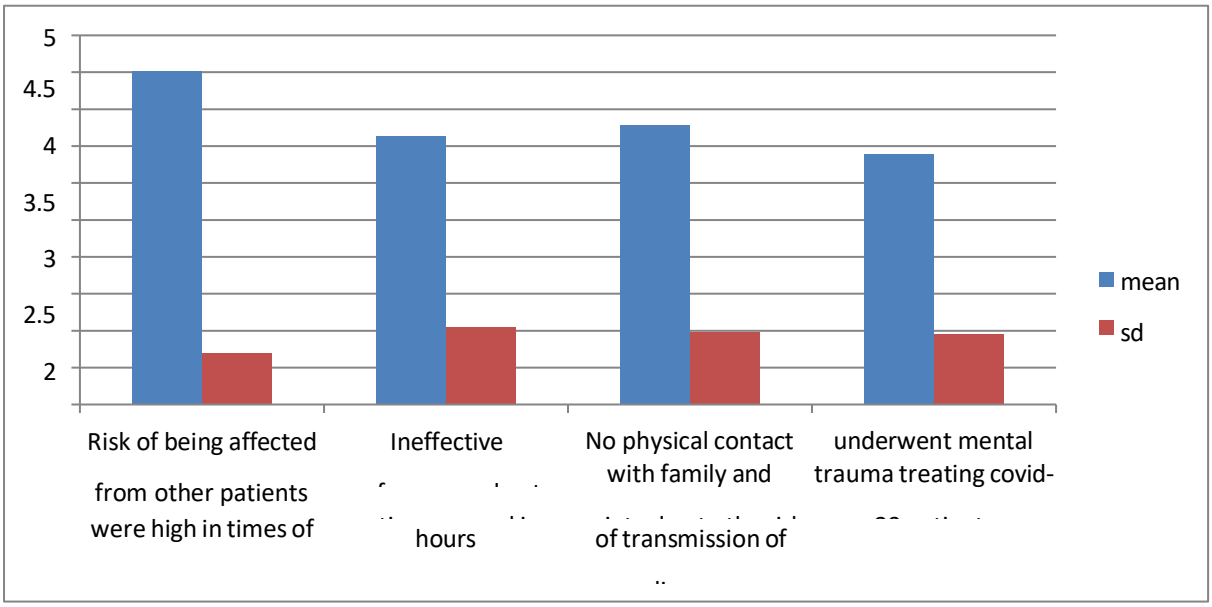
Measuring Values	Mean	Std. Deviation
Health was hampered due to inflexible working hours	3.73	.967
Could not provide quality time to family	3.91	.970
Personal Relationship was hampered in view of maintaining work-life balance	3.48	.993
Stress levels increased due to financial instability	3.85	.962



From the mean score of the respondents in table 1.1, it is clear that respondents could not provide quality time to family, which is the main factor with a mean value of 3.91and a standard deviation of 0.970, followed by stress levels increased due to financial instability with a mean of 3.85and a standard deviation of 0.926. The least factor considered was personal relationship being hampered in view of maintaining work-life balance with a mean score of 3.48 and standard deviation of 0.993.

Table 1.2 Mean and Standard Deviation to assess the impact/effects of working in Health Sector in times of Pandemic

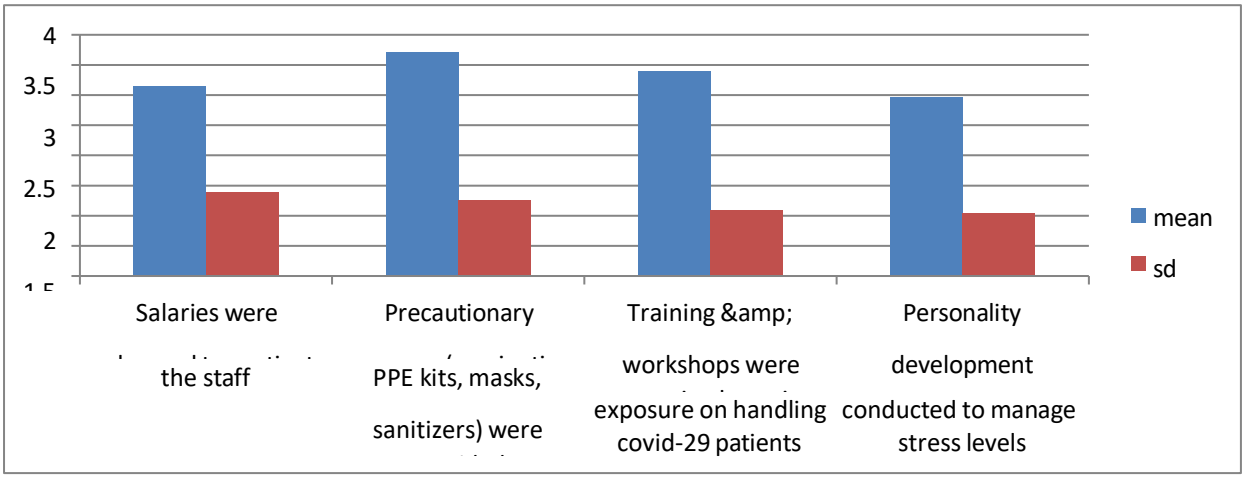
Measuring Variables	Mean	Std. Deviation
Risk of being affected from other patients were high in times of pandemic	4.52	.705
Ineffective performance due to continuous working hours	3.64	1.044
No physical contact with family and society due to the risk of transmission of diseases	3.79	.982
underwent mental trauma treating covid-19 patients	3.39	.956



From the mean score of the respondents in Table 1.2 it is clear that the risk of being affected from other patients were in times of pandemic with a mean score of 4.52 and standard deviation of 0.705, followed by no physical contact with family and society due to the risk of transmission of diseases with a mean score of 3.79 and standard deviation of 0.982. The least factor considered was underwent mental trauma treating covid-19 patients with a mean score of 3.39 and standard deviation of 0.956.

Table 1.3 Mean and Standard Deviation to analyze the initiatives taken by the Health Centre to cope up with the situation

Measuring Variables	Mean	Std. Deviation
Salaries were enhanced to motivate the staff	3.15	1.380
Precautionary measures (vaccination, PPE kits, masks, sanitizers) were provided	3.70	1.249
Training & workshops were organized to gain exposure on handling covid-29 patients	3.39	1.077
Personality development programs were conducted to manage stress levels	2.97	1.035



From the mean score of the respondents in Table 1.3 it is clear precautionary measures such as vaccination, PPE kits, masks, sanitizers etc. were provided with a mean score of 3.70 and standard deviation of 1.249, followed by workshops were organized to gain exposure on handling covid-19 patients with a mean score of 3.39 and standard deviation 1.077. The least factor considered was personality development programs were conducted to manage stress levels with a mean score of 2.97 and standard deviation of 1.035

BIVARIATE CORRELATION

H0: There is no significant correlation among the variables ofthe problems faced by the employees in maintaining work-life balance

H0: There is no significant correlation among the variables ofassess the impact/effects of working in Health Sector in times of Pandemic

H0: There is no significant correlation among the initiatives taken by the Health Centre to

cope up with the situation

Table 1.4 Karl Pearson's Correlation of co-efficient on the problems faced by the employees in maintaining work-life balance

VARIABLES	Health was hampered	Could not provide quality	Personal Relationship was hampered in view of maintaining	Stress levels
Health was hampered due to inflexible	1	.659**	.426**	.317**
Could not provide	.659**	1	.555**	.379**
Personal Relationship	.426**	.555**	1	.366**
Stress levels increased	.317**	.379**	.366**	1

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

The correlation coefficient level between health was hampered due to inflexible working hours and could not provide quality time to family which is 0.659 which indicates 65.9% has highest positive correlation and its significant, followed by personal relationship was hampered in view of maintaining work-life balance and could not provide quality time to family which is 0.555 which indicates 55.5% positive correlation and its significant. Therefore null hypothesis is rejected.

Table 1.5 Karl Pearson's Correlation of co-efficient to assess the impact/effects of working in Health Sector in times of Pandemic

VARIABLES	Risk of being affected from other patients were high in times of pandemic	Ineffective performance due to continuous working hours	No physical contact with family and society due to the risk of transmission of diseases	undertwent mental trauma treating covid-19 patients

Risk of being affected from other patients were high in times of pandemic	1	.257*	.115	.105
Ineffective performance due to continuous working hours	.257*	1	.252*	.451**
No physical contact with family and society due to the risk of transmission of diseases	.115	.252*	1	.579**
underwent mental trauma treating covid-19 patients	.105	.451**	.579**	1
*. Correlation is significant at the 0.05 level (2-tailed).				
**. Correlation is significant at the 0.01 level (2-tailed).				

The correlation coefficient level between no physical contact with family and friends and society due to risk of transmission of diseases and underwent mental trauma treating covid-19 patients which is 0.579 which indicates 57.9% has highest positive correlation and its significant, followed by ineffective performance due to continuous working hours and underwent mental trauma treating covid-19 patients is 0.451 which indicates 45.1% has positive correlation and it is significant. Therefore null hypothesis is rejected. The correlation coefficient level between workshops were organized to gain exposure on handling covid-19 patients and personality development programs were conducted to manage stress levels which is 0.533 which indicates 53.3% has highest positive correlation and its significant, followed by precautionary measures (vaccination, PPE kits, masks, sanitizers) were provided and workshops were organized to gain exposure on handling covid-19 patients is 0.340 which indicates 34% positive correlation which is significant. Therefore null hypothesis is rejected.

FINDINGS

1. From Table1.1 it is clear that respondents could not provide quality time to family during covid-19 situation
2. Table 1.2 depicts that the majority of the respondents agree that that the risk of being affected from other patients were in times of pandemic
3. Table 1.3 clearly explains that respondents totally agree that the health Centre provided precautionary measures such as vaccination, PPE kits, masks, sanitizers etc.
4. From table 1.4 we understand that health of respondents was hampered due to inflexible working hours and they could not provide quality time to family.

5. Table 1.5 indicates that respondents had no physical contact with family and friends and society due to risk of transmission of diseases and underwent mental trauma treating covid-19 patients
6. Table 1.6 shows workshops were organized for respondents to gain exposure on handling covid-19 patients and personality development programs were conducted to manage stress levels.
7. The study clearly shows that the majority of the respondents agree that the pandemic has affected the health sector and its associates largely. They were afraid of getting affected and spreading the virus to their family and friends. In spite of workshops and personality development courses they had trauma treating covid-19 patients.

SUGGESTIONS

1. Training should be given to staff on work life balance during stressful situations Yoga and meditation sessions can be conducted to carry achieve work life balance. Holistic approach should be followed.
2. Proper education or training programs regarding pandemic needs to be given to every individual.
3. Allowance should be enhanced by the Government to the health sector employees for risking and losing life in serving COVID cases
4. Ground level social awareness programs, realistic statistics , sincere commitment of health care personnel in dealing with the COVID patients and holistic approach by the Government is very much required
5. Need to improve workplace environment and provide favourable conditions to employees that improves the work efficiency of employees.
6. Reduce negativity in and around the medical staff for better mental and physical well-being.

Conclusion:

The above study has been taken up to study the work life balance & stress management in health sector. We could analyse that respondents are not only impacted financially but also emotionally and socially. If the employees wish to maintain work life balance and manage stress they should adopt different strategies to overcome the scenario. Hence the study gives scope for further research

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A STUDY ON CUSTOMER EXPERIENCE AND CHALLENGES FACED IN DIGITAL BANKING

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ABSTRACT

*In the history of banking industry, Digital Banking is one of the most significant developments. It involves the digitization of all traditional banking products, processes and activities to serve customers through internet. Over the past year and a half, many bank customers got a lot more comfortable with digital interactions, and spent less time in branches. As of now 2.5 billion users across the world use banking services digitally, 68% of Indian consumers are using online or mobile banking to conduct financial transactions. Digital Banking is fast, effective and efficient. It is convenient means of transferring funds between accounts, easy payment of bills, money deposits, withdrawals, loan management and account services etc. It is available 24*7 for easy access of banking services. However, despite of these benefits there are various challenges like security threat & identity theft, potential to over-spend technical issue, traditional banking habits, lack of internet facility, no relationship with personal banker, and lack of knowledge in digital banking. Emerging trends and paradigm shift towards banking industry has made banking simpler.*

Objectives of the study

- To assess customer experience of digital banking services
- To examine the challenges faced while using digital banking
- To analyze the initiatives taken by customers to access digital banking services
- To offer suggestions based on outcome of the study
-

Key words

Banking, digitization, internet, mobile banking

Introduction

Digitalization is an innovative tool to improve the efficiency of a given process. Digitalization in Banking process lead to fewer system errors, faster response rates to customer services inquiries, and quicker on boarding for and payment of loans. Digital Banking is the process by which a customer may perform banking transactions through electronic medium, use of internet, mobile phones in order to access traditional services such as balance enquiry, fund transfer to other accounts, bills payment etc. without visiting a bank. The invention of Automated Teller Machine (ATM) and implementation of computerization has paved the way

for the digitalization of the banking sector. All the banks started working with the different channels such as debit cards, credit cards, internet banking, ATM, mobile banking , NEFT, IMPS, RTGS, ECS etc. Digital Banking is convenient method to customers rather than personally visiting the banks. It has become a prominent source of customer acquisition. Customers' prefer quick and efficient service which makes their life easier with just one click instead of visiting banks and waiting in a long queue.

However, despite of these benefits, customers still find it hard to resolve some banking issues regardless of the channel they are using to transact. There are various challenges like security threats, identity theft, potential to over spend technical issue etc. Security is the major challenge faced by the customers while engaged in the digital banking. The first thing that comes in the mind of customers while transacting online is the security issue. However it is sad to say that hackers are still making financial institution to run behind foe their money. Therefore, some customers are not willing to take any risk.

Aim of the Study

The study aims at Understanding the experience witnessed by customers while using Digital Banking services. It also focuses on analyzing the challenges faced by the customers while accessing Digital Banking services, as well as the steps taken to overcome the challenges faced, by suggesting suitable means.

Need for the Study

In this digital era, the digital world is engaging the people towards the technology. Both the educated as well as uneducated people are expected to have knowledge about digital banking. The study focuses on exploring and showcasing the customers experience and challenges while using digital banking services.

Statement of Problem

Today, people have 24*7 access to bank due to online banking. Digital banking is fast, effective and efficient. It has made life easy. However, despite of this benefits there are various issues faced by the customers such as banking transactions can go wrong due to variety of reason, many a time without any fault of customers, hacking passwords by hackers, image of hacked, identity theft, lack of security, inadequate laws on digital payments are vague, less awareness among people.

The objectives of the study focus on

1. To assess customer experience of digital banking services.
2. To examine the challenges faced while using digital banking.
3. To analyze the initiative taken by customers to access digital banking service
4. To offer suggestions based on outcome of the study.

LITERATURE REVIEW

Vichuda Nui Potaloglu and Serap Ekin(1-1-2001, International journal of Bank) "An empirical investigation of the Turkish consumers acceptance of internet banking services" – reported that users of the internet banking were satisfied with the cost saving factor. Since 1997 several Leading banks were offering internet banking services and were successful

Bodo Lang and Mark Colgate (21-1-2003, International journal of Bank Marketing) "Relationship quality, online banking and the Information Technology gap" – found that customer who has IT gap, find difficult to use internet banking than the one who don't have IT gap. An IT gap is caused by 3 firm related factors (i) Lack of channels to allow its customers to interact in ways that they would like.(ii) Infrastructure may not provide all of the functionality that the customer wants.(iii) Functionality of infrastructure may be cumbersome to use. Mathew Joseph and George Stone (1-4-2001, International Journal of Retail and Distribution Management) "Evaluated the US customer perception of the impact of technology on service delivery in the banking sector". According to the findings of the study, delivering services with the use of technology results in high level of satisfaction among customers. Thus, availability of internet banking services is important for banks in order to retain customers by providing high satisfaction. However, only the availability of different channels to access banking services is not sufficient. User friendly applications of internet banking services appear to be an important factor for customer's satisfaction and retention. Kumbhar (2011) the study showed that the customer satisfaction and adaption of e- banking services depends on the customer demographics. The young generation with high education and high income prefer the e-banking services. The study also indicated the difference between the customer satisfaction level of public and private bank which showed that the private banks provide fast and good quality services to customers.

.Research Methodology

The research objective for this study includes exploration and description. The research design used in this study is descriptive research design. Primary data is collected & the pilot study was conducted with the help of the structured questionnaire which was administered among a sample of 100 respondents. The questionnaire is valid and reliable. The data collected is organized, classified and analyzed using a wide range of appropriate statistical tools like mean, standard deviation & correlation.

Research Instrumentation

The questionnaire of the survey consists of 4 parts. The first part aims to find out the personal information of respondents. The second part aims to find out the customer experience of digital banking. The third part is to examine the challenges faced by using digital banking. The fourth part is to analyze the initiatives taken by customers to access digital banking services.

Sample Selection

The population is considered infinite and the samples are selected on infinite basis using the Demerger's sample size estimator. Two stage random sampling has been used to select samples. A total of 120 responses were received through online questionnaire.

Variables of the study

In the current study the researcher has identified the challenges faced in digital banking. To assess customer experience of digital banking. To analyze the initiatives taken by customers to access digital banking services.

Limitations of the Study

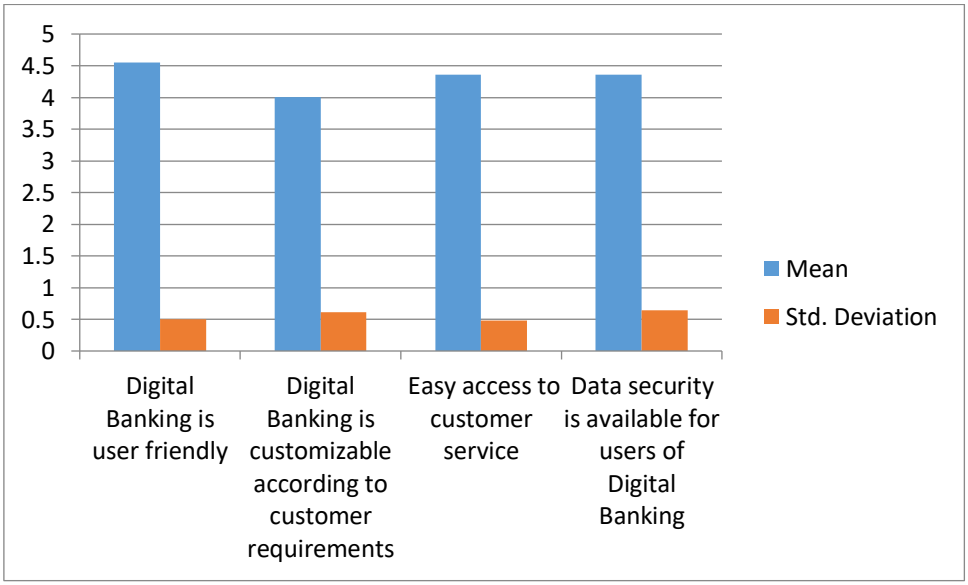
- The study is restricted to Banking sector of Bangalore city only and may not be applicable to other areas.
- The opinion of the respondents may be based on the primary source of data only.
- Due to time constraints the sample size is restricted to 120 respondents.

Analysis and Interpretation

The analysis is carried out to examine the customer experience and challenges faced in digital banking. The measures of central tendency, measures of dispersion & correlation, have been used to draw the results from the studying variables and the analysis is as follows.

Table 1.1 Mean and Standard Deviation of Customer Experience of Digital Banking Services.

VARIABLES	Mean	Std. Deviation
Digital Banking is user friendly	4.55	.500
Digital Banking is customizable according to customer requirements	4.01	.612
Easy access to customer service	4.36	.483
Data security is available for users of Digital Banking	4.36	.645

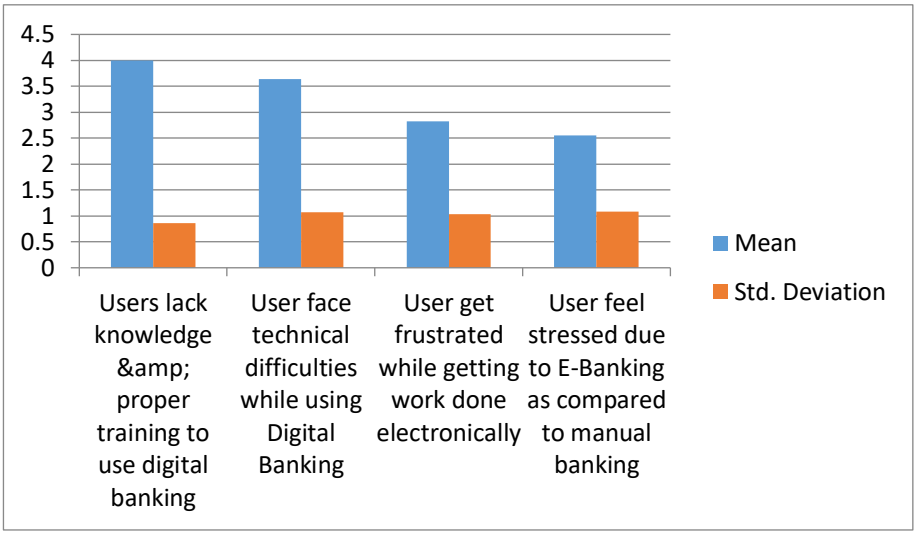


From the mean score of the respondents in table 1.1, it is clear that Digital Banking is user friendly, which is the main factor with a mean value of 4.55and a standard deviation of 0.500, followed by easy access to customer service and data security is available for users of digital banking with a mean of 4.36 and a standard deviation 0.645. The least factor considered was data security is available for users of digital banking, which has mean value of 2.46 and standard deviation of 1.20.

Table 1.2 Mean and Standard Deviation of the challenges faced while using digital banking.

VARIABLES	Mean	Std. Deviation
Users lack knowledge & proper training to use digital banking	4.00	.856

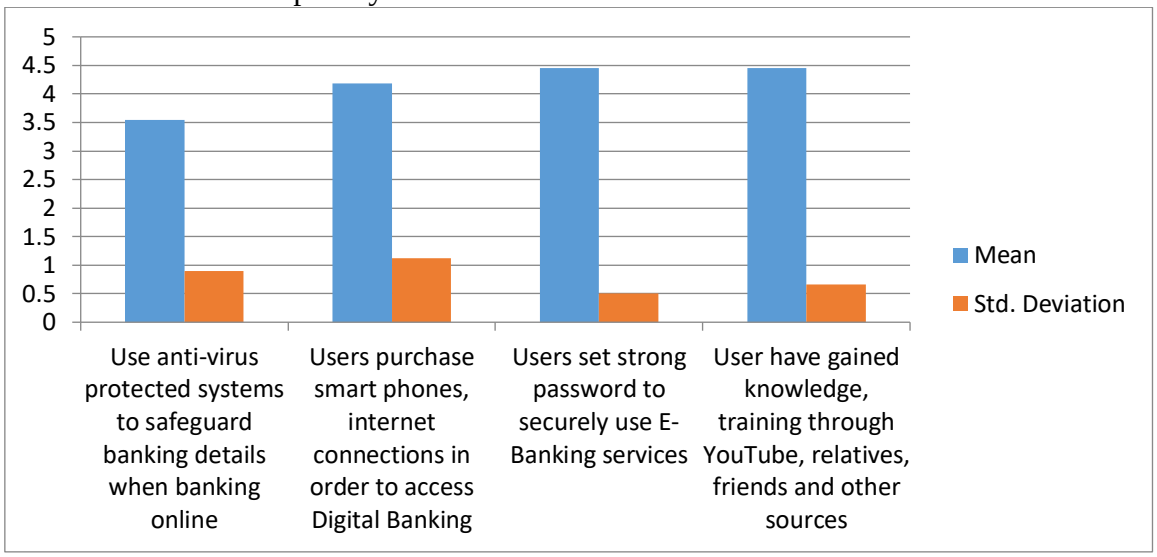
User face technical difficulties while using Digital Banking	3.64	1.072
User get frustrated while getting work done electronically	2.82	1.033
User feel stressed due to E-Banking as compared to manual banking	2.55	1.080



From the mean score of the respondents in Table 1.2 it is clear that users lack knowledge and amp: proper training to use digital banking with a mean 4.00 and standard deviation of 0.856, followed by users face technical difficulties while using Digital Banking with a mean of 3.64and a standard deviation of 1.072. The least factor considered was user feel stressed due to E-Banking as compared to manual banking with a mean of 2.55 and a standard deviation of 1.080.

Table 1.3 Mean and Standard Deviation the initiative taken by customers to access digital banking service

VARIABLES	Mean	Std. Deviation
Use anti-virus protected systems to safeguard banking details when banking online	3.55	.894
Users purchase smart phones, internet connections in order to access Digital Banking	4.18	1.118
Users set strong password to securely use E-Banking services	4.45	.500
User have gained knowledge, training through YouTube, relatives, friends and other sources	4.45	.658



From the mean score of the respondents in Table 1.3 it is clear that users set strong password to securely use E-Banking services with a mean 4.45 and standard deviation of 0.500, followed by users have gained knowledge, training through YouTube, relatives, friends and other sources with a mean 4.45 and standard deviation 0.658. The least factor considered was the use of anti-virus protected system to safeguard banking details when banking online with a mean of 3.55 and a standard deviation of 0.894.

BIVARIATE CORRELATION

H_0: There is no significant correlation among the variables customer experience of digital banking services.

H_0: There is no significant correlation among the variables of challenges faced while using digital banking.

H_0: There is no significant difference between initiatives taken by customers to access digital banking service

Table 1.4 Karl Pearson's Correlation of co-efficient on challenges faced while using digital banking.

VARIABLES	Users lack knowledge ∧ proper training to use digital banking		User face technical difficulties while using Digital Banking	User get frustrated while getting work done electronically	User feel stressed due to E-Banking as compared to manual banking
Users lack knowledge ∧ proper training to use digital banking		1	.699**	.415**	.496**
User face technical difficulties while using Digital Banking		.699**	1	.519**	.489**

User get frustrated while getting work done electronically		.415**	.519**	1	.829**
C		.496**	.489**	.829**	1
**. Correlation is significant at the 0.01 level (2-tailed).					

The correlation coefficient level between user get frustrated while getting work done electronically and the users feel stressed due to e-banking as compared to manual banking which indicates highest positive correlation at 0.829 which indicates 82.9% and it's significant. Followed by relation between user face technical difficulties while using Digital Banking & Users lack knowledge; proper training to use digital banking, there is positive correlation which is 0.699 which indicates 69.9% and its significant. Therefore null hypothesis is rejected.

Table 1.5. Karl Pearson's Correlation of co-efficient on customer experience of digital banking services

VARIABLES		Digital Banking is user friendly	Digital Banking is customizable according to customer requirements	Easy access to customer service	Data security is available for users of Digital Banking
Digital Banking is user friendly		1	-.287**	.311**	-.052
Digital Banking is customizable according to customer requirements		-.287**	1	.638**	.245**
Easy access to customer service		.311**	.638**	1	.454**
Data security is available for users of Digital Banking		-.052	.245**	.454**	1
**. Correlation is significant at the 0.01 level (2-tailed).					

The correlation coefficient level between Data security is available for users of Digital Banking & Digital Banking is user friendly is -0.052 indicates negative relation, whereas there is highest positive correlation

between Digital Banking is customizable according to customer requirements & easy access to customer service which is 0.638 which indicates 63.8% and its significant. Therefore null hypothesis is rejected.

Table 1.6 Karl Pearson's Correlation of co-efficient on initiative taken by customers to access digital banking service

VARIABLES	Use anti-virus protected systems to safeguard banking details when banking online	Users purchase smart phones, internet connections in order to access Digital Banking	Users set strong password to securely use E-Banking services	User have gained knowledge, training through YouTube, relatives, friends and other sources
Use anti-virus protected systems to safeguard banking details when banking online	1	.817**	.261**	-.580**
Users purchase smart phones, internet connections in order to access Digital Banking	.817**	1	.179*	-.238**
Users set strong password to securely use E-Banking services	.261**	.179*	1	-.076
User have gained knowledge, training through YouTube, relatives, friends and other sources	-.580**	-.238**	-.076	1
**. Correlation is significant at the 0.01 level (2-tailed).				
*. Correlation is significant at the 0.05 level (2-tailed).				

The correlation coefficient between user have gained knowledge, training through YouTube, relatives, friends and other sources & Users set strong password to securely use E-Banking services which shows a negative correlation whereas The correlation coefficient between users purchase smart phones, internet connections in order to access Digital Banking & Use anti-virus protected systems to safeguard banking details when banking online is 0.817 which indicates 81.7%i.e, highest positive relationship, and it is significant. Therefore null hypothesis is rejected.

FINDINGS

1. From Table1.1 it is clear that users feel digital banking user friendly and the least factor considered was data security.

2. Table 1.2 depicts that the majority of the users lack knowledge and proper training to use digital banking and the least factor considered was stress while using digital banking .

3. Table 1.3 clearly explains that users set strong passwords to secure their accounts and also gain knowledge, training through YouTube, relatives, friends, and other sources and the least factor considered was use of anti-virus protected systems to safeguard banking details when banking online.

4. From table 1.4 We learn that82.9% respondents get frustrated while getting work done electronically and the users feel stressed due to e-banking as compared to manual banking and 69.9% feel they face technical difficulties while using Digital Banking & lack knowledge.

5. Table 1.5 indicates that 63.8% respondents Digital Banking is customizable according to customer requirements & easy access to customer service.

6. Table 1.6 shows respondents have gained knowledge to use digital banking services through YouTube, relatives, friends and other sources

7. The study clearly shows that the 81.7% of the respondents purchase smart phones, internet connections in order to access Digital Banking & Use anti-virus protected systems to safeguard banking details when banking online

SUGGESTIONS

- The banks can promote Digital Banking literacy among the elderly and those living in rural areas, as mostly the young and urban people access Digital Banking Services.
- The customer service of the banks should be more prominent to access.
- The Digital Banking services should help users with automated savings.
- Loan procedures should be made easier on Digital platforms

- ❖ Follow-up with the customers to make it user-friendly.

CONCLUSION

The research begins with presenting answers to the research questions. Majority of the respondents have felt that Digital banking is convenient and user friendly, whereas many face problems in using Digital banking due to lack of knowledge, training etc. therefore, it is recommended that banking sector should create more awareness towards the use of Digital Banking at grass root level.

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