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A STUDY ON ADOPTION OF TECHNOLOGY AND ITS ROLE IN IMPROVING CUSTOMER SATISFACTION WITH REFERENCE TO DAIRY SECTOR

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ABSTRACT
This research delves into the correlation between technology adoption and its effect on improving customer satisfaction in different sectors. Customers' experiences and companies' bottom lines are both impacted by technology developments in today's fast-paced corporate world. This research aims to offer valuable insights for businesses that want to meet customer expectations and increase satisfaction levels through technology by analysing the adoption patterns of tech innovations and how they affect customer satisfaction metrics. Customers and companies are both surveyed quantitatively and qualitatively as part of the study's mixed-methods strategy. A link between the level of technology adoption by companies and KPIs like customer satisfaction ratings may be determined via quantitative surveys. In addition, in-depth qualitative interviews with company executives and specialists in the field provide light on the technologies used, the difficulties faced during adoption, and the methods used to improve customer experience.
KEY WORDS: *Technology Adoption, Technology Integration, Competitive Advantage*

INTRODUCTION

In today's economy, when consumers have several alternatives, a corporation should prioritise customer satisfaction above all else. Any company that wants to engage with its customers on a deeper level, gain their loyalty, and stand out from the crowd has to do better than its competitors. For a business to succeed in the long run, it needs satisfied customers who will return and even spread the word. Providing high-quality products or services isn't enough to guarantee happy consumers. From the initial curiosity of a prospect all the way to any follow-up communication after a transaction, it covers it all. Regardless of industry or demography, consumers are impacted by product or service quality, price, usability, issue handling speed, and customer care standard. Businesses may learn a lot about their customers' wants and areas for improvement by tracking customer satisfaction. A number of direct methods exist for collecting customer feedback, like as surveys, online reviews, social media monitoring, and others. What consumers enjoy, don't like, have trouble with, and think should be improved could be uncovered by this data.

There are several benefits for businesses that prioritise customer pleasure and strive to make it even better. When customers get outstanding service, they are more likely to make repeat purchases and even tell others about their pleasant experience. When consumers are happy, it may lead to a good reputation, a big portion of the market, and long-term development.When individuals, communities, and whole civilizations start making use of new technology, this is called adoption. Implementing state-of-the-art strategies, tools, or technology in order to maximise output. Organisations, governments, and individuals alike must embrace new technology if they want to keep up with the digital world's rapid evolution. Manufacturing, healthcare, banking, and the media are just a few sectors that have felt the effects of the rise in technological use. Established industries and corporate structures are facing challenges from new technologies like blockchain, cloud computing, artificial intelligence (AI), and smartphones. It is common practice to follow the steps outlined by the technology adoption curve. This curve may be used to categorise consumers into categories based on their tendency to accept new technologies. The phrase "early adopters" describes those who embrace new technologies ahead of the curve. For various reasons, certain demographics are more amenable to and open to new forms of technology than others.

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There are many factors that determine the likelihood of a technology's broad adoption. Whether or whether the technology will provide the stated benefits, the amount of money needed, the risk of implementation, and the quality of training and support provided. The pace and scope of technology adoption could be impacted by external factors such as market trends, regulatory frameworks, and professional standards. Using state-of-the-art technology has several advantages. Using cutting-edge digital solutions may help businesses boost production, streamline operations, reduce expenses, and stay ahead of the competition. Improvements in service quality, collaboration, and communication, as well as in decision-making, may result from embracing cutting-edge technology. More time and energy, more knowledge, and more opportunities for professional and personal development are all ways in which technology may enhance people's life. On the other hand, there are challenges associated with implementing new technologies. Businesses and individuals confront issues such as the digital divide, ethical considerations, and the protection of sensitive information in their efforts to guarantee that people from all backgrounds may benefit from technology.

STATEMENT OF THE PROBLEM

Businesses that want to increase customer satisfaction have both possibilities and obstacles when it comes to using technology. The capacity of dairy producers and merchants to completely take advantage of technical breakthroughs to boost consumer happiness is constrained by particular challenges, notwithstanding technological developments. The purpose of this research is to shed light on the pros and cons of using new technologies and how they affect the opportunity to satisfy customers. In order to thrive in today's cutthroat dairy industry, businesses must maximise their technological investments, streamline their operations, and provide exceptional customer service. This research will shed light on how these players might achieve their goals.

OBJECTIVES OF THE STUDY

- To Understand about the Technology adoption and Customer Satisfaction
- To study about the level of the customer satisfaction towards dairy farms
- To analyse the factors influencing the customer satisfaction after technology adoption
- To suggests on the findings of the study made in the project

HYPOTHESIS

Hypothesis – I
H0: There is no significance relation between Gender and Influencing Factors
H1: There is a Significance relation between Gender and Influencing

Hypothesis – II
H0: Three is no significance relation between Age and The Factors Influencing
H1: Three is a significance relation between Age and The Factors Influencing

Hypothesis – III
H0: Three is no significance relation between Income and The Factors Influencing
H1: Three is a significance relation between Income and The Factors Influencing

RESEARCH METHODOLOGY

The source of the data collection for this research is Primary and Secondary data
Primary Data: The data which is collected personally through the observations and survey through questionnaire is Primary Data. This data is also called as First Hand data.

Research Design: Descriptive and Exploratory Design
Sampling Design: Convenience Sampling
Sampling Procedure: Simple Random Sampling
Sample Size : 152
Tool for Analysis : Structured Questionnaire and Chi Square Test

Secondary Data: Secondary Data refers to the data which is already existing information that has been gathered by the researchers and authors. The data which can be seen in the Journals, Newspapers, Textbooks, Websites, etc are the secondary data

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LIMITATIONS OF THE STUDY

- The major limitations of the study is time factor
- The analysed data may or may not provide the accurate results for decision making
- The scope is limited to the Hyderabad and Secunderabad region respondents

LITERATURE REVIEW

A Study of Smartphones Users Satisfaction with Technology Adoption by Anima Bag, Yao-Chin Lin (Nov 2018): The purpose of this research was to examine consumer happiness and their receptivity to various information technology solutions. The extent to which people understand how innovations like the telephone affect people's habits and how quickly they accept new technologies is debatable. When it comes to Indians' inclination to purchase and regularly use telephones, which factors are the most influential? How does the level of technological knowledge and the perceived usefulness of smartphones influence smartphone adoption in rural India? As smartphone sophistication has increased, consumer behaviour has also improved. It expands upon the TAM offered by Davis and Venkatesh [10, 11].

The impact of Technology adoption on Consumer Satisfaction in Jordan's Banking Sector by Ayman Mansour and Yanal Mansour, (Jan 2022): Companies who are nimble enough to respond to new technological developments will be the ones to gain from the ways in which businesses expand in the contemporary day. But using technology is just half the battle when it comes to successfully implementing technology company-wide. This demonstrates that the banking industry is not immune to the far-reaching effects of technological development. Financial institutions always put the needs and desires of their consumers first. By identifying the important aspects that significantly impact the industry's capacity to please consumers, this research aimed to ascertain the impact of technology adoption on customer satisfaction in the Jordanian banking sector.

Financial Institutions use of Technology and their Customers Satisfaction towards Karthikeyanan's Technological Consulting services by Karthikeya, (Jan 2021): This study follows the evolution of public opinion on three different types of internet banking software. Utilising data acquired at the behest of the Federal Reserve Board, the study links adoption to traits including practicality, usability, compatibility, openness, perceived risk, and customer engagement. Socioeconomic position, education level, sexual orientation, marital status, and age are some of the variables that could influence adoption decisions. Although external factors have always played a role in adoption, the process itself has evolved throughout time. Bankers and policymakers assess how this fresh data may impact their work.

Customers Happiness and the spread of New Ideas by Mitis Moradi – Abadi and Artonis Moradi-Abadi's (Dec 2016): The introduction of new products and services to the market at a quick speed has substantial effects for the quality of public service and consumer satisfaction. Using concepts and frameworks from the fields of innovation acceptance and technology adoption, this research seeks to understand the sentiments of Iranian taxpayers on the new tax information system. We constructed a conceptual model based on the DeLone-McLean model to describe the interaction between the Iranian tax information system and Iranian taxpayers by reviewing previous models and the effective factors that were associated with them.

Evidence from the soft drink industry on How New technologies affect consumer satisfaction and B2B Relations (May 2010): The expansion of the Internet and the improvement of computer technology are largely responsible for this shift. New technology (NT), customer satisfaction (CS), and customer relationship management (CRM) are defined on this page. The essay delves at how the ever-evolving technological landscape affects the interactions between a company's sales team and its clients. Nine Britvic employees were split evenly between two focus groups for the main study. According to the study's findings, salespeople and their customers both were pleased by the use of technological tools.

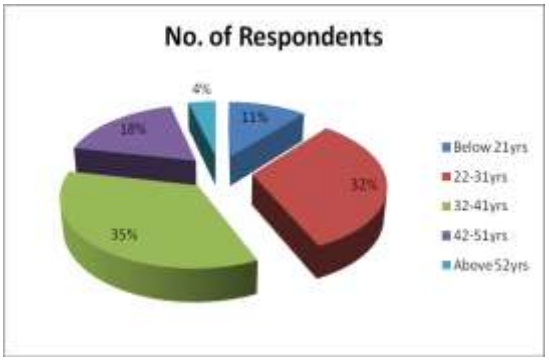
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DATA ANALYSIS

Age

a. below 21yrs b. 22-31yrs c. 32-41yrs d. 42-51yrs e. above 52yrs

Age	No. of Respondents	Percentage
Below 21yrs	17	11
22-31yrs	49	32
32-41yrs	53	35
42-51yrs	27	18
Above 52yrs	6	4
Total	152	100



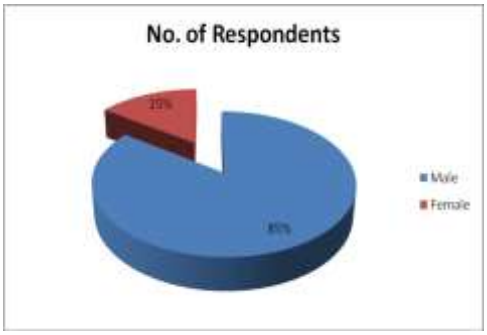
Interpretation

From the above table and graph we can state that, 11% of the respondents are in the age group of below 21yrs, 32% of the respondents are in 22-31yrs, 35% of the respondents are in 32-41yrs, 18% of the respondents are in 42-51yrs, 4% of the respondents are in above 52yrs.

Gender

a. Male b. Female

Gender	No. of Respondents	Percentage
Male	129	85
Female	23	15
Total	152	100



Interpretation

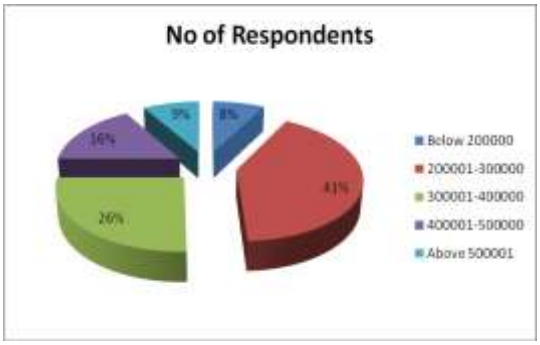
From the above table and graph we can state that, 85% of the respondents are Male & 15% of the respondents are Female.

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Income

a. Below 200000 b. 200001-300000 c. 300001-400000 d. 400001-500000 e. above 500001

Income	No of Respondents	Percentage
Below 200000	12	8
200001-300000	63	41
300001-400000	39	26
400001-500000	25	16
Above 500001	13	9
Total	152	100



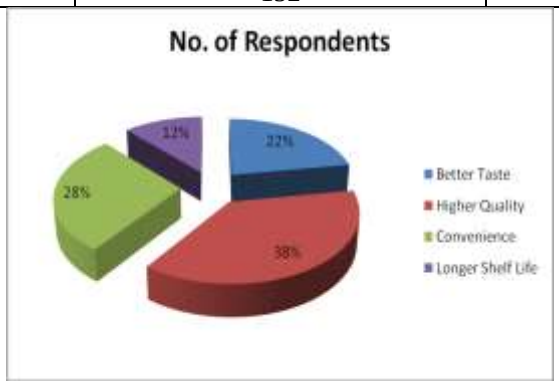
Interpretation

From the above table and graph we can state that, 8% of the respondents income is below 200000, 41% of the respondents income is 200001-300000, 26% of the respondents income is 300001-400000, 16% of the respondents income is 400001-500000, 16% of the respondents income is 400001-500000, 9% of the respondents income is above 500001

What are the factors influenced to purchase the milk products made using Modern technology?

a. Better Taste b. Higher Quality c. Convenience d. Longer Shelf Life

Factors	No. of Respondents	Percentage
Better Taste	34	22
Higher Quality	57	38
Convenience	43	28
Longer Shelf Life	18	12
Total	152	100



Interpretation

From the above table and graph we can state that, 22% of the respondetns buy the milk for Better Taste, 38% respondents for High Quality, 28% respondents for Convenience, 12% of the respondents for Longer Shelf Life.

Chi- Square Test

Hypothesis – I

H0 : There is no significance relation between gender and influencing factors

H1: There is a Significance relation between Gender and Influencing Factors

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Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Gender * the factors influenced to purchase the milk products made using Modern technology	152	100.00%	0	0.00%	152	100.00%

Gender * the factors influenced to purchase the milk products made using Modern technology							
			the factors influenced to purchase the milk products made using Modern technology				Total
			Income generation	Tax saving	Capital appreciation	More returns	
Gender	Male	Count	27	29	31	42	129
		Expected Count	30.55	27.16	30.55	40.74	129.00
		% within Gender	20.93%	22.48%	24.03%	32.56%	100.00%
	Female	Count	9	3	5	6	23
		Expected Count	5.45	4.84	5.45	7.26	106
		% within Gender	39.13%	13.04%	21.74%	26.09%	100.00%
Total		Count	36	32	36	48	152
		Expected Count	36.00	32.00	36.00	48.00	152.00
		% within Gender	23.68%	21.05%	23.68%	31.58%	100.00%

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	8.13a	5	0.06
Likelihood Ratio	14.32	5	0.014
Linear-by-Linear Association	0.416	2	0.641
N of Valid Cases	152		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 4.01.

Interpretation
From the above chi square analysis we can find that chi-square value is more that the level of significance (i.e 0.06 > 0.05), so H0 is rejected, H1 is accepted (i.e There is a significance relationship between Gender and Influencing factors)

Hypothesis – II
H0 : there is no significance relationship between the age and the factors influencing
H1: There is a significance relationship between the age and the factors influencing

Case Processing Summary						
	Cases					
	Valid		**Missing**		**Total**	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
Age * the factors influenced to purchase the milk products made using Modern technology	152	100.00%	0	0.00%	152	100.00%

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Age * the factors influenced to purchase the milk products made using Modern technology Crosstabulation							
			the factors influenced to purchase the milk products made using Modern technology				
			Better Taste	Higher Quality	Convenience	Longer Shelf Life	Total
Age	Below 21yrs	Count	7	3	4	3	17
		Expected Count	6	4	4	3	17
		% within Age	34.21%	23.68%	21.71%	20.39%	100.00%
	22-31	Count	15	16	10	8	49
		Expected Count	17	12	11	10	49
		% within Age	34.21%	23.68%	21.71%	20.39%	100.00%
	32-41	Count	19	8	12	14	53
		Expected Count	18	13	12	11	53
		% within Age	34.21%	23.68%	21.71%	20.39%	100.00%
	42-51	Count	9	8	6	4	27
		Expected Count	9	6	6	6	27
		% within Age	34.21%	23.68%	21.71%	20.39%	100.00%
	Above 52	Count	2	1	1	2	6
		Expected Count	2	1	1	1	6
		% within Age	34.21%	23.68%	21.71%	20.39%	100.00%
Total		Count	52	36	33	31	152
		Expected Count	52	36	33	31	152
		% within Age	34.21%	23.68%	21.71%	20.39%	100.00%

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	21.23	4	0.013
Likelihood Ratio	19.32	5	0.01
Linear-by-Linear Association	19.32	1	0.013
N of Valid Cases	152		
a. 7 cells (34.3%) have expected count less than 5. The minimum expected count is 1.			

Interpretation

From the above Calcualtion we can state that, calculated value is less than the Level of significance i. 0.013 < 0.05, So we accept the Null Hypothesis and reject the alternative hypothesis

Hypothesis – III

H0: There is no significance relationship between the Income and Influencing factors

H1: There is a significance relationship between the income and influencing factors

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Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Income *the factors influenced to purchase the milk products made using Modern technology	152	100.00%	0	0.00%	152	100.00%

Income * the factors influenced to purchase the milk products made using Modern technology Crosstabulation							
			the factors influenced to purchase the milk products made using Modern technology				Total
			Better Taste	Higher Quality	Convenience	Longer Shelf Life	
Income	Below 200000	Count	2	5	3	2	12
		Expected Count	2	4	3	3	12
		% within Income	19.74%	32.89%	23.68%	23.68%	100.00%
	200001-300000	Count	12	15	17	19	63
		Expected Count	12	21	15	15	63
		% within Income	19.74%	32.89%	23.68%	23.68%	100.00%
	300001-400000	Count	7	13	10	9	39
		Expected Count	8	13	9	9	39
		% within Income	19.74%	32.89%	23.68%	23.68%	100.00%
	400001-500000	Count	6	12	4	3	25
		Expected Count	5	8	6	6	25
		% within Income	19.74%	32.89%	23.68%	23.68%	100.00%
	Above 500001	Count	3	5	2	3	13
		Expected Count	3	4	3	3	13
		% within Income	19.74%	32.89%	23.68%	23.68%	100.00%
Total		Count	30	50	36	36	152
		Expected Count	30	50	36	36	152
		% within Income	19.74%	32.89%	23.68%	23.68%	100.00%

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Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	29.624a	8	0.056
Likelihood Ratio	28.419	8	0.06
Linear-by-Linear Association	4.153	2	0.042
N of Valid Cases	152		
a. 8 cells (30.0%) have expected count less than 5. The minimum expected count is 2.			

Interpretation
From the above calculations we can state that, calculations of the Chi-Square value is 0.056 which is more than the 0.05, then we reject Null Hypothesis, accept the Alternative Hypothesis

FINDINGS

- 11% of the respondents are in the age group of below 21yrs, 32% of the respondents are in 22-31yrs, 35% of the respondents are in 32-41yrs, 18% of the respondents are in 42-51yrs, 4% of the respondents are in above 52yrs.
- 85% of the respondents are Male & 15% of the respondents are Female.
- 6% of the respondents are students, 39% of the respondents are Pvt Employees, 14% of the respondents are Govt Employee, 41% of the respondents are Self Employed.
- 6% of the respondents educational qualification is SSC, 13% of the respondents are 10+2, 45% of the respondents are Degree, 36% of the respondents are PG.
- 8% of the respondents income is below 200000, 41% of the respondents income is 200001-300000, 26% of the respondents income is 300001-400000, 16% of the respondents income is 400001-500000, 16% of the respondents income is 400001-500000, 9% of the respondents income is above 500001
- 22% of the respondetns buy the milk for Better Taste, 38% respondents for High Quality, 28% respondents for Convenience, 12% of the respondents for Longer Shelf Life
- 32% of the respondents eat the diary products daily, 24% of the respondents eat rarely, 22% of the respondents eat often, 16% of the respondents eat sometimes, 6% eat never
- 31% of the respondents are Highly Satisifed with the products producted by the Thirumala Milk Products, 39% of the respondents are satisfied, 8% are Neutral, 15% are Dissatisfied, 7% are Highly Dissatisfied.
- 24% of the respondents rate Excellent for value of money for the product they receive from the company, 28% of the respondents rate Very Good, 29% of the respondents rate Good, 14% of the respondents rate Average, 5% of the respondents rate Below Average.
- 74% of the respondents says yes that cmpany met expections in the form of Quality, Price, Services, etc, 26% of the respondents says No
- 34% of the respondents says sales representative been responding for queries for the new technology adoption is very responsive, 28% says Somewhat Responsive, 17% says Netural, 13% says Somewhat unresponsive, 9% says Very Unresponsive

SUGGESTIONS

- Emphasie how vital it is to your dairy company that your customers are happy.
- Please provide a concise summary of Thirumala Milk Pvt Ltd's history, primary goals, and current activities.
- Explain how incorporating technology into your business might improve productivity and output.
- Emphasize the possibility that technology progress may increase customer satisfaction.
- Describe the technologies used, giving specific examples such automated milking machines.
- Internet-based milk quality monitoring, number seven.
- Web-based transportation and order processing systems.
- Mobile application-based client communication.
- Data-driven analytical approaches to improving customer service.
- Look at how the development of technology has affected your clients' happiness.

- Display feedback and suggestions on the installed technology.
- Clarify how the development of technology has permitted shifts in areas like availability, product quality, and interactive conversation with customers.
- Show evidence of a gain in sales or client retention or any other relevant statistics.

CONCLUSION

Thirumala Milk Pvt Ltd has seen a dramatic improvement in customer satisfaction after adopting new technology. Thirumala Milk has used a number of technological advancements to boost productivity, product quality, consumer convenience, and communication. As a result, we've seen greater levels of happiness and loyalty from our clientele. Thirumala Milk has increased productivity and ensured the highest quality milk for its clients by using automated milking equipment at its dairy farms. Since deploying IoT-based milk quality monitoring, customers can rest certain that their purchases will consistently meet or exceed expectations for both quality and safety. The convenience of Thirumala Milk's consumers has increased greatly after the company began using digital channels for customer involvement and delivery. Customers may now browse inventory, make purchases, track their packages, and leave reviews without ever leaving their houses. Reduced contact times have allowed for a more tailored and gratifying service.

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