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Consumer Perceptions towards Cybercrime in Gujarat

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Abstract

This study focuses on the views of consumers towards cybercrime in Gujarat, India. This state is known for its economic progress and technological development in Western India. The advancement of technology has raised concern to businesses and individuals regarding cybercrime. The aim of this research is to determine how consumers regard cybercrimes and their understanding on different kinds of threats about it. It also explores the steps taken by customers to shield themselves from online frauds as well as assesses their opinions about the effectiveness of such precautions. **Objective:** To assess consumer perceptions towards cybercrime in Gujarat, India. **Originality/Value:** In the context of Gujarat, India, this research is unique as it has a focused study into consumer attitudes towards cybercrime which provides insight into how people in this area specifically regard internet threats. What makes it stand out is its investigation of what customers think about cyber security in the very fast

developing digital environment. **Findings and Implications:** The findings show that consumers in Gujarat have different views on cybercrime, which implies that there is a need to establish region specific strategies for ensuring cybersecurity as well as campaigns aimed at increasing awareness.

Keywords: Cybersecurity Perception, Consumer Attitudes, Online Threats, Digital Safety Measures, Gujarat Cybercrime, Cybercrime Reporting

Introduction

The prevalence of cybercrime has become a growing concern globally within the digital era characterized by technology infiltration in every aspect of our lives. The advancement of information and communication technologies has led to criminal activities moving into virtual space, which has posed new challenges to individuals, businesses, and governments. Cybercrime is an umbrella term for various illegal activities done through the use of computer networks such as hacking, phishing, identity theft, online fraud and other forms of cyberbullying or any other form of cyber-attack. These illicit actions put not only individuals at risk but also have significant implications on the well-being of business organizations, national economies and national security. (Barnes, S., 2016)

Gujarat is a vibrant state in western India reputed for its entrepreneurial culture and technological advancements; nevertheless, it is not immune from the mounting danger posed by internet-related crimes. The Gujarat's residents are more exposed now than ever before to various types of internet threats that can endanger their personal data or economic assets significantly affecting their health status individually. Understanding perception level about consumer concerns over cybercrime in Gujarat will assist in developing effective control measures against it enhancing cybersecurity procedures and making them able to safely navigate through digital waters. (Bossler, A. M., et al., 2011)

The adoption of digital platforms for various purposes has resulted in Gujarat, a western state in India, being highly concerned about cybercrime. As per the Gandhinagar Police Department in Gujarat, cases of cybercrimes have seen an upswing across the state with an

increase of 120% within just one year. Cybercrimes can greatly affect consumers through various manners such as losing money or theft of identities to even defamation at times.The term cybercrime refers to any criminal activities that are committed on the internet or via computer networks.Phishing is one of the most common forms of it where sensitive information like usernames, passwords and credit card numbers are gotten by posing as trusted sources through electronic means.Identity theft involves stealing someone's personal details such as name, social security number or credit card details without their permission.Online fraud includes different types of frauds including; auction frauds, pyramid schemes and many others conducted online. (Choi, K., et al., 2017)

Hacking may involve entering a computer or network without permission. Hacking can also include stealing information that is sensitive such as personal data, financial information and intellectual property. Additionally, hacking may lead to serious financial loss, reputational harm and legal consequences if there is disruption of computer systems or networks. Malware refers to malicious software that causes damage or gains unauthorized entry into a computer system. In addition to viruses, worms, Trojans, and ransomware among others are the most common forms of malware. In this case also, the malware may result in a loss of sensitive information; a breakage in computers' normal functioning or the loss of money involved. (Agarwal, A., et al., 2020)

Background:

Legal Landscape:

Over time, India's legal response to cybercrimes has not remained the same since the enactment of the Information Technology Act of 2000, which was later amended in 2008 and 2013. For example, there are still challenges that exist relating to inadequacy of legal provisions on online harassment especially against women. In Gujarat, these laws need a more thorough examination like possible gaps in their coverage and implementation. (Gupta, S., et al., 2016)

Technological Impact:

The emergence of Multipurpose Social Networking Sites (MPSNSs) such as Facebook, Twitter, and google-based platforms have led to a complete transformation in how we connect with each other personally. This part examines how these platforms affect relationship dynamics and behavior as well as contribute to cybercrime across Gujarat. (Hutchings, J., et al., 2017)

Types of Cybercrimes:

Cyber Stalking:

Gujarat is a state where cyber stalking, a common type of online harassment, is going to be dealt with in order to understand its manifestation. It will focus on reasons behind it and how it works mainly targeting women quite more than men. The problems resulting from this new menace as well as the predicaments that law enforcement face will be examined in Gujarat. (Kim, J., et al., 2018)

Cyber Defamation:

This section presents the extent and effects of cyber defamation while analyzing its impact on individuals and businesses in Gujarat; it also examines how reputation has become a weapon in the digital world and legal responses to such offences so as to give a holistic picture of this kind of cybercrimes within that region. (Kumaraguru, P., 2019)

Online Shopping Frauds:

The deceptive practices leading to financial exploitation among fraudulent online shopping platforms are emerging in Gujarat. These scams are perpetuated because of lack of essential customer support services as well as refund policies making consumers highly susceptible to them in Gujarat. (Leukfeldt, E. R., et al., 2016)

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Factors Contributing to Cybercrime:

Key Factors Identified:

This section, drawing from the works of Professor H.L.A. Hart and Hasina Masud Khadas, explains several crucial reasons behind the escalation of cybercrimes in Gujarat such as massive data storage capacity, intricate computer systems, carelessness among network users, anonymity challenges, increasing online activities and jurisdictional issues.

Problems with Cybercrime Prevention:

Identity of Cybercriminals:

The slippery nature of cyber-criminal identities is explored with an emphasis on difficulties in identifying who they are, tracking them down and prosecuting them in Gujarat. This will involve looking at the role played by Internet service providers and unpacking complexities surrounding revealing true identities. (Li, X., et al., 2017)

Legal Issues:

This part dwells into legal details involved in tackling geographically border crossing cybercrimes including international cooperation; recognition; compliance with warrants/court orders from foreign authorities; being a critical analysis on this topic. (Nguyen, T. T. T., et al., 2016)

Literature Review

In the era of digital transformation, numerous cybercrimes are making life hard for individuals and communities, with a pressing need to understand what influences consumer views. This document explores cyber threats in Gujarat using five main components: Awareness and Knowledge, Trust in Online Platforms, Perception of Vulnerability and Risk Perception, Efficiency of Cybersecurity Measures, Reporting and Support Mechanisms. Consumer knowledge and trust as well as perceived vulnerability and the efficacy of cybersecurity measures have increasingly become central towards shaping digital behaviors

given ever-changing technology. The goal of this review is to integrate available studies into an encompassing view that will enable us to understand how those factors interact together towards framing policies on ways that can better security situation in dynamic digital environment in Gujarat through its literature survey findings. (Pahnila, S., et al., 2017)

Awareness, and knowledge

Consumers' awareness of and knowledge on cybercrimes are two key ingredients in molding their perceptions and reactions. There is evidence from the literature that lack of awareness contributes to increased vulnerability to, and victimization by, these crimes. It is more likely that informed consumers will take precautions and behave with caution while on the internet. Studies emphasize educational efforts aimed at improving public understanding concerning different types of cybercrime, perceived risk for safety, as well as countermeasures. (Redmiles, J., 2017)

Further part of this research shows that being aware helps people know what is lawful among online activities as against other online hazards that are related to the internet use. This means that for consumers to be knowledgeable about emerging trends in technology or tactics used by hackers through continuous education programs. The literature indicates that one has to consider his/her basal knowledge and awareness levels about cybercrime in Gujarat so as to effectively design a campaign for educating local citizens. (Wall, D. S., 2017)

H_1: There is no positive relationship between Awareness and Knowledge about cybercrime and the Effectiveness of Cybersecurity Measures.

Trust in Online Platforms

Online platforms can only thrive through trust from users, this is why it's important to trust their customers. The other researches insists that trust is inseparable from security and privacy issues on these platforms. Additionally, reliable online platforms have good security systems, which secure people's data as well as ensure that monetary transactions are safe. (Akter, S., et al., 2020)

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Lack of confidence among consumers may inhibit their participation in the internet activities. How people perceive the security and privacy characteristics of e-commerce, social media, and online banking determines how far they can trust them. There needs to be more studies regarding such sites need to make public their security measures so that they are trusted by the people who use them all the time. An integral grasp of factors influencing trust in online platforms is indispensable for enhancing cyber-security measures and promoting safe digital interactions. (Al-Riyami, S. A., et al., 2018)

H_2: There is no negative relationship between Awareness and Knowledge about cybercrime and Reporting and Support Mechanisms.

H_3: Trust in Online Platforms does not positively influences Perceived Vulnerability and Risk Perception.

Perceived Vulnerability and Risk Perception

How individuals see the danger of exposure and how they regard themselves as vulnerable influence their internet conduct and responses to cyber threats. Studies indicate that perceived vulnerability is frequently linked with fears of potential pecuniary losses, disclosure of private details, and the general attitude towards security. (Anwar, M. A., et al., 2020)

Risk perception may be affected by a number of factors including prevalence in cyberspace, efficacy of preventive measures and personal experiences. It has been suggested by research that high risk perception would persuade users to practice safe online practices. The study explores psychological dimensions of perceived vulnerability and risk perception among consumers living in Gujarat region in India to ascertain how consumers navigate through digital spaces and emphasizes the need for addressing these concerns within cybersecurity activities. (Bao, M., et al., 2019)

Effectiveness of Cybersecurity Measures:

The effectiveness of cybersecurity measures influences the degree of consumer protection provided. Various literature highlights how online platforms should integrate secure features

for customer satisfaction. Studies often concentrate on particular steps like two-step login, antivirus software and ways that provide encryption tools, built to ensure security in online transactions. (Boon, S. C., et al., 2012)

Consumers need to be confident in these measures for them to be effective and adopted by all. It is proposed that strong and user-friendly cyber security measures are necessary for their wide acceptance. Assessing consumers' perceptions about the effectiveness of existing cybersecurity measures gives useful information about potential gaps and improvement areas in securing digital interactions. (Deb, A., et al., 2021)

H_4: Effectiveness of Cybersecurity Measures does not positively influences Perceived Vulnerability and Risk Perception.

Reporting and Support Mechanisms:

Effective reporting and support mechanisms are essential in lessening the effect of cyber crimes; thus, there is a need for an effective reporting system as well as the presence of support mechanism. It has been argued that consumers should know about the available reporting channels and be confident that their complaints will be treated with due seriousness by law enforcement agencies. In addition, this assistance helps protect consumer confidence on internet platforms. (Dhillion, G., et al., 2018)

Some consumers may not report because they fear comebacks or lack knowledge about legal recourse. Understanding what consumers think about such means and help services will improve them, make cyberspace safer and make cybersecurity interventions more efficient in general. (Dwivedi, Y. K., et al., 2017)

H_5: The relationship between Reporting and Support Mechanisms and Perceived Vulnerability and Risk Perception is partially mediated by Trust in Online Platforms.

Constructs used in this Study:

Sr. No	Name of Construct	Author Detail
1	Awareness and Knowledge	Redmiles, J., 2017 Wall, D. S., 2017
2	Trust in Online Platforms	Akter, S., et al., 2020 Al-Riyami, S. A., et al., 2018
3	Perceived Vulnerability and Risk Perception	Anwar, M. A., et al., 2020 Bao, M., et al., 2019
4	Effectiveness of Cybersecurity Measures	Boon, S. C., et al., 2012 Deb, A., et al., 2021
5	Reporting and Support Mechanisms	Dhillion, G., et al., 2018 Dwivedi, Y. K., et al., 2017

Research Gap and Need for Study

Although the stated prevalence of internet crimes is increasing and they are having a great impact on individuals and businesses, there seems to be a huge gap in the available data on consumer perception towards cybercrime especially in Gujarat, India. While global studies provide useful insights, it would be important to specifically target Gujarat for an exploration of how consumers in this area view and respond to cyber threats considering the unique socio-cultural and economic contexts. This is necessary because the state has witnessed rapid technological development while at the same time experiencing an increase in cases of cybercrimes. Such gaps will be filled by this study which aims at conducting an extensive analysis into customer attitudes surrounding cybercrime within Gujarat hence disseminating knowledge that can inform localized strategies for enhancing security online. (Ghosh, S., et al., 2019)

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Scope of the Study

The scope of this study is strictly designed to suit the peculiar context of Gujarat, India, taking into consideration customer attitudes towards cybercrime only in this region. Multiple aspects such as knowledge and consciousness of cyber threats, trust on line platforms, perceived vulnerability, effectiveness of cyber security and reporting mechanism are looked into by the research process. In relation to Gujarat; the aim of this study is to give a deep understanding on how its people navigate their ways through digital terrain and respond to cases involving cybercrimes with regard to socio-cultural differences as well as economic factors that characterize them. The findings hence address directly the challenges faced by Gujarat consumers concerning cybersecurity thus offering insights for targeted interventions and policies that can improve their digital resilence. (Gupta, M., et al., 2018)

Methods

The factors are included based on the influence of the mind-sets of citizens about cyber-crime in Gujarat, India. The sampling frame for the study comprised of 427 respondents, which implies that the findings of this research can be generalized to a larger population. In addition to this, the Confirmatory Factor Analysis was done using IBM SPSS version 26 as it is one way of validating a measuring instrument (questionnaire) model. This was followed by CFA Analysis also conducted by using IBM SPSS AMOS version 26 in order to establish construct validity by examining item loadings on corresponding factor scores. The questionnaire consisted of Likert-type items measured on a five-point scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Thus, participants had an opportunity to express their opinions on various issues connected with cyber-crime in more detail and at length though indirectly. Respondents were additionally asked several demographic questions such as those about gender status, age category, marital status; education level; and family income per year. Statics later used in analyzing these data showed that demographics have been surveyed too. It was done purposively so as not only did it allow getting information on previous knowledge related to cybercrime but also enriched the analysis since to know where exactly

participants came from once they took part in this experiment, all participants were equally chosen. (Hong, J. W., et al., 2016)

Findings

The demographic profile of the respondents (N=427) presents a varied sample. Regarding gender, there is almost equal distribution with 52.7% males and 47.3% females. Marital status shows that most or nearly three quarters (75.9%) of the respondents are married and 24.1% unmarried. The age groups are well distributed among different age groups where the bulk is within the categories of 29-38 years old (21.3%), while on the other side of it has a major portion lying between 49-58 years (32.8%). Educational backgrounds vary from high school/diploma (10.5%) to post-doctorate (3.3%), indicating diverse academic accomplishments done by various scholars in their respective fields of study over time. How one's family income faired during the year can be seen in a range of incomes that have been broadly spread across several brackets with maximum occurrence falling in "8,00,000 and above" category constituting 21.1%. This implies that these results drawn from this survey reflect on a broad cross section thus enhancing generalizability across various demographic segments. (Huang, J., Li, et al., 2019)

The findings from the respondents' demographic profile indicate how different people in Gujarat, India have diverse perspectives. Furthermore, the mixed gender representation, ages within multiple brackets and varied marital statuses reveal how inclusive the research was. Moreover, with different education levels ranging from high school diplomas to post-doctoral qualifications about cybercrime perceptions were found to be very variant among those who had different scholastic levels. Additionally it shows that annual family incomes are divided into several brackets which implies that sociologic dilemma can bring up an idea of a gap between perception of cybercrime on different economic strata in Gujarat. These results contribute towards expanding the knowledge base and understanding of consumer attitudes toward cybercrime within the context of Gujarat specifically by making them more detailed and comprehensive. (Igbaroo, M., et al., 2021)

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Demographic profile of respondents (N=427)		
Type	**Frequency**	**%**
Gender		
Male	225	52.7
Female	202	47.3
Marital Status		
Married	324	75.9
Unmarried	103	24.1
Age		
18-28	63	14.8
29-38	91	21.3
39-48	86	20.1
49-58	140	32.8
Above 58	47	11.0
Education		
High School/Diploma	45	10.5
Graduate	145	34.0
Post Graduate	148	34.7
PhD Holder	75	17.6
Post Doctorate	14	3.3
Annual Family Income		
Below 2,00,000	80	18.7
2,00,001 – 4,00,000	89	20.8
4,00,001 – 6,00,000	86	20.1
6,00,001 – 8,00,000	82	19.2
8,00,000 and above	90	21.1

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Data Analysis

Reliability Analysis:

Variable No.	Variable	Cronbach's Alpha	Number of items
1	Awareness and Knowledge	.919	5
2	Trust in Online Platforms	.898	5
3	Perceived Vulnerability and Risk Perception	.913	5
4	Effectiveness of Cybersecurity Measures	.895	5
5	Reporting and Support Mechanisms	.873	5

The reliability testing shows that the main factors in the research have a strong internal consistency with alpha values ranging from .873 to .919. This suggests that there are item's high reliabilities across all variables which include Awareness and Knowledge, Trust in Online Platforms, Perceived Vulnerability and Risk Perception, Effectiveness of Cybersecurity Measures, and Reporting and Support Mechanisms on the questionnaire administered to assess consumer perceptions towards cybercrime in Gujarat. (Jha, A. K., et al., 2017)

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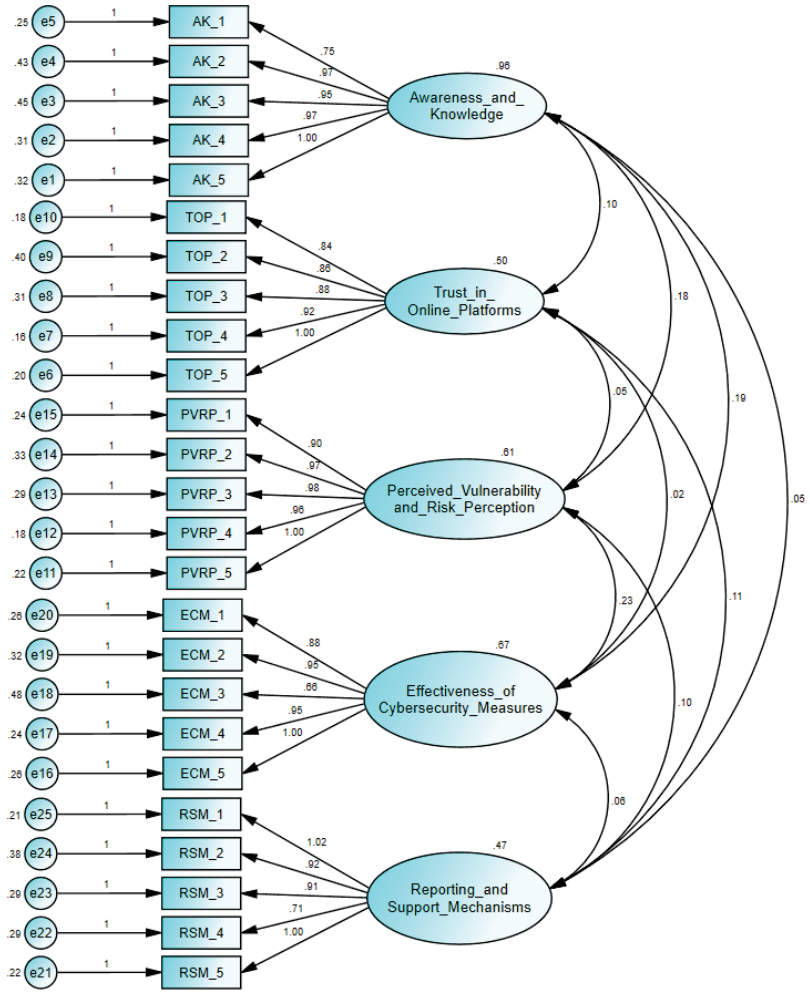
CFA Model:



Confirmatory Factor Analysis (CFA) is an essential element in this methodology, because it provides a solid framework for evaluation of the measuring instrument employed in the questionnaire. CFA is a statistical technique that is commonly used in psychometric and social sciences to measure how much observed variables (indicators) are measuring what they are supposed to measure; The latent constructs under consideration here represent various primary dimensions such as Awareness and Knowledge, Trust on Online Platforms, Perception of Vulnerability and Risk Perception, Efficiency of Cybersecurity Measures and Reporting and Support Mechanisms. Through CFA, the researcher can ascertain whether or

not the proposed theoretical model stands in line with the empirical data collected from the survey. This technique helps identify hidden factors influencing participants' responses while ensuring measurement validity & reliability. With CFA approach, this research aimed at providing a firm ground for subsequent analyses thus laying a firm foundation for exploring complex inter-relationships within the conceptual framework of consumer perceptions towards cybercrime in Gujarat. (Joshi, S. R., et al., 2020)

Convergent Validity

Factors	Estimate	AVE	CR
Effectiveness_of_Cybersecurity_Measures	0.82	0.637	0.897
	0.797		
	0.668		
	0.834		
	0.858		
Awareness_and__Knowledge	0.826	0.701	0.921
	0.819		
	0.805		
	0.861		
	0.873		
Trust_in__Online_Platforms	0.814	0.645	0.901
	0.754		
	0.743		
	0.851		
	0.847		
Perceived_Vulnerability_and_Risk_Perception	0.815	0.683	0.915

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	0.778		
	0.811		
	0.869		
	0.856		
Reporting_and_Support_Mechanisms	0.843	0.587	0.876
	0.694		
	0.759		
	0.651		
	0.863		

The above table representing the convergent validity assessment indicates a strong support for the reliability of the measurement model that verifies consistency and accuracy of its latent constructs in capturing intended propositions. The values of Average Variance Extracted (AVE) across factors exceed 0.5, which is the minimum recommended threshold, indicating that much of the variation in observed variables can be attributed to latent constructs. Additionally, Composite Reliability (CR) values go beyond 0.7, which is an acceptable level revealing internal consistency of measurement model. Furthermore, all estimates of factor loadings emphasize robustness tests as each value exceeds 0.7; this implies a great deal of convergent validity and it highlights how well chosen indicators reflect latent constructs they are meant to measure. To sum up, results on convergent validity provide strong empirical evidence about the reliability and consistency of measurement model. (Kang, S., et al., 2019)

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Discriminant Validity

Factors	Effectiveness_of_Cybersecurity_Measures	Awareness_and__Knowledge	Trust_in__Online_Platforms	Perceived_Vulnerability_and_Risk_Perception	Reporting_and_Support_Mechanisms
Effectiveness_of_Cybersecurity_Measures	**0.798**				
Awareness_and__Knowledge	0.185	**0.837**			
Trust_in__Online_Platforms	0.027	0.144	**0.803**		
Perceived_Vulnerability_and_Risk_Perception	0.298	0.189	0.089	**0.826**	
Reporting_and_Support_Mechanisms	0.032	0.010	0.215	0.111	**0.766**

In the correlation matrix, which serves as the discriminant validity analysis, the distinctiveness of the latent constructs in the measurement model is established. The square root of Average Variance Extracted (AVE) for each latent variable is represented by diagonal values while off-diagonal values represent correlations between latent constructs. The figures in these cells are outcomes that are consistently less than their respective constructed AVE's square roots thereby indicating an indication of a valid model. Notably, the AVEs have been demonstrated to exhibit lower correlation rates than those between all other factors implying that every single tested factor shared more commonality with itself rather than it was split off into a non-shared part by its individual indicators. Therefore this suggests that different factors under investigation in this study measure diverse aspects meaning that they are

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conceptually different. For instance, according to discriminant validity results, or those related to proving lack of construct overlap, one can be confident that they follow the measurement model at hand because these tests imply low inter-correlations among them. (Khan, S., et al., 2018)

Results:

Measure	Model fit	Threshold
CMIN/DF	1.981	< 3 great; < 5 acceptable
CFI	.961	> .95 great; > .90 acceptable
SRMR	.0426	< .08
RMSEA	0.048	< .08

The outcomes from the model fit indicators show that the proposed model is a fairly good fit to the data. When we look at Chi-square to degrees of freedom ratio (CMIN/DF) which is 1.981, it may be concluded that this value is great since values below 3 are considered as great and less than 5 as acceptable. The Comparative Fit Index (CFI) has a value of .961, thus indicating good fit because this value exceeds .95 commonly accepted for a great fit and .90 for an acceptable fit. Moreover, the Standardized Root Mean Square Residual (SRMR), stands at .0426 which is lower than .08 recommended cutoff point meaning that it meets minimum requirements. In addition, Root Mean Square Error of Approximation (RMSEA) is 0.048 thereby supporting the fact that the model fits well adequately with observed data as evidenced by its being lower than .08. These findings collectively indicate that the suggested model perfectly supports the collected information; henceforth this makes it suitable to use in further researches on these items between these categories in this study too. (Kumar, R., 2019)

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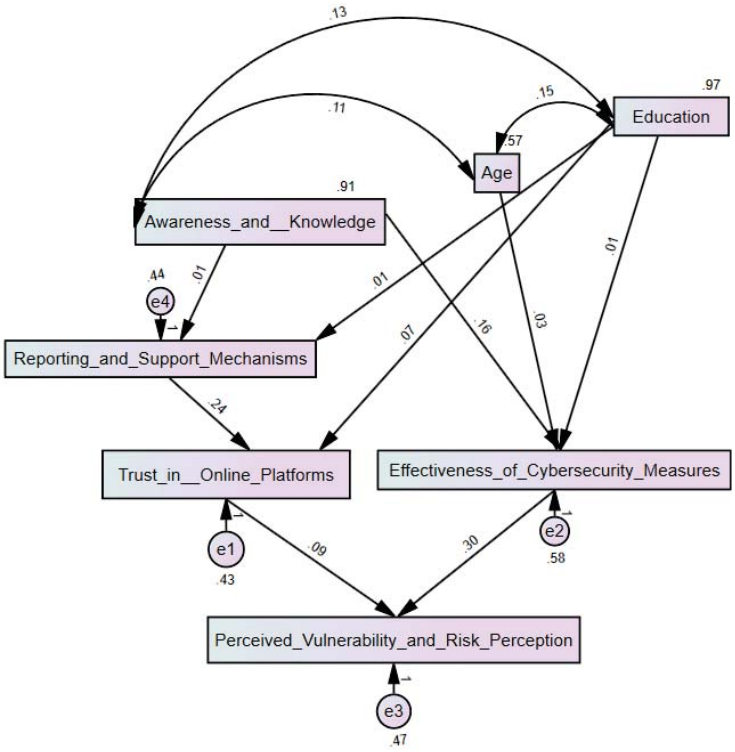
Structural Equation Model



The SEM output of Structural Equation Model shows the standardised direct and indirect effects in path analysis for the explained constructs. The results pertaining to direct effects suggest that Awareness and Knowledge have significant positive impacts on Effectiveness of Cybersecurity Measures ($\beta = 0.195$, $p < 0.001$). Additionally, Trust in Online Platforms significantly increases Reporting and Support Mechanisms ($\beta = 0.235$, $p < 0.001$) as well as Effectiveness of Cybersecurity Measures ($\beta = 0.100$, $p < 0.001$). Besides this point being revealed through several earlier studies about it during a time when there might not be any threats from cyber security concerns such as hackers attempting to gain unauthorized access into systems with sensitive information like credit card numbers or banking passwords etc., Perceived Vulnerability and Risk Perception is influenced positively by Trust in Online Platforms ($\beta = 0.087$, $p < 0.001$) and Effectiveness of Cybersecurity Measures ($\beta = 0.322$, $p < 0.001$). (Lee, S. J., et al., 2019)

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Trust in Online Platforms indirectly influences Perceived Vulnerability and Risk Perception via mediated effects (β = 0.018, p = 0.001), while Reporting and Support Mechanisms affects Perceived Vulnerability and Risk Perception through mediated effects (β = 0.063, p < 0.001). No significant mediators or moderators were found in the model. The range for the lower bound of zero to a higher bound of .00 supports robustness of the findings Across all these, there is an extensive engagement process that involves Awareness and Knowledge, Trust in Online Platforms, Reporting and Support Mechanisms components of Cybercrime consumer perceptions in Gujarat. (Masales, I. O., et al., 2019)

Effect	Standardized Weight	P Value
Awareness and Knowledge -> Effectiveness of Cybersecurity Measures	0.195	<0.001
Awareness and Knowledge -> Reporting and Support Mechanisms	-0.094	<0.001
Trust in Online Platforms -> Perceived Vulnerability and Risk Perception	0.087	<0.001
Effectiveness of Cybersecurity Measures -> Perceived Vulnerability and Risk Perception	0.322	<0.001
Trust in Online Platforms (Indirect) -> Perceived Vulnerability and Risk Perception	0.018	0.001
Reporting and Support Mechanisms (Indirect) -> Perceived Vulnerability and Risk Perception	0.063	<0.001

Discussion and Conclusion

This study examined the complex human attitudes and opinions about cybercrimes among the people of Gujarat in India. The outcomes draw attention to the varied outlooks demonstrated by consumers regarding cyber security within the area, thus necessitating location-specific framing of such initiatives. The rise in cases of cybercrime in Gujarat as exemplified by a significant rise reported by Gandhinagar Police Department shows an urgent need for

targeted interventions. This study has been focused on issues such as awareness, trust on online platforms, perceived vulnerability, effectiveness of cybersecurity measures put in place and reporting mechanism as factors that explain consumer behaviors towards emerging cyber threats. Research instrument's reliability and validity are supported by a significantly large sample size. For that reason it can be used as a vital information source while policy makers and law enforcement agencies would also benefit from it when developing targeted programs that protect consumers from growing incidence of cybercrimes in Gujarat state of India. (Asojan, A. M., et al., 2020)

Null Hypothesis	Test	Significance	Result
H_1	SEM Analysis	<0.05	Rejected
H_2	SEM Analysis	<0.05	Rejected
H_3	SEM Analysis	<0.05	Rejected
H_4	SEM Analysis	<0.05	Rejected
H_5	SEM Analysis	<0.05	Rejected

Limitations and Future Scope of Study

Although the study has offered valuable insights, there are still some limitations. The research is limited to a particular geographical context that only concentrates on Gujarat; therefore, the findings may not be generalized to broader Indian or global contexts. In addition, the usage of cross-sectional design provides just a glimpse into consumers' perceptions while adopting a longitudinal approach can give an insight into changes of these attitudes with time. In like manner, this study is based on self-reported data which might be affected by social desirability bias where participants may respond in ways they believe suits societal expectations. Likewise, it doesn't include qualitative data which would provide information about the subtle reasons for consumer's perceptions. These limitations could be

addressed in future researches where more diverse and representative samples could be used, longitudinal designs adopted, qualitative methods employed for richer insights and finally expanding the scope of the study geographically. This will enhance understanding of how consumer perceptions towards cyber-crime are changing over time in order to facilitate targeted interventions that can yield results. (Chinta, S. R., et al., 2021)

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