



A Conceptual Framework for Enhancing Consumer Satisfaction through Data Protection in the Postal and Telecommunications Sector in Zimbabwe.

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Abstract: The purpose of the study was to develop and test a framework of data protection dimensions that enhance customer satisfaction in the Postal and Telecommunications sector. The specific objectives of the study were to establish the relationships between data protection dimensions (awareness and knowledge of the rights of data subjects, data protection trust and confidence of data subjects, and cyber and data protection complaints redress) and consumer satisfaction. There has been limited study on the connection between data protection and customer satisfaction in the context of the postal and

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telecommunications sector. The current consumer satisfaction framework in the postal and telecommunications sector in Zimbabwe does not consider data protection issues. The study adopted a quantitative approach to establish the relationships between variables. A cross-section survey of 1,143 respondents that were randomly selected was conducted across all ten provinces in Zimbabwe. The results indicate that there is a positive relationship between consumer trust and confidence and consumer satisfaction with postal and telecommunication services. The study is crucial in informing the development of a new framework for measuring consumer satisfaction in the postal and telecommunications sector. The framework will help establish data protection metrics that have a significant influence on consumer satisfaction.

Keywords: Consumer trust; data subjects; complaints redress; consumer confidence; customer satisfaction

JEL Classification: M14

1. Introduction

Digitalisation has revolutionized the socioeconomic state of the world, making data the most sought-after currency of our time. Processing information is now a crucial aspect of business operations, leading to companies holding personal data. In today's world, consumer satisfaction has become a top priority for both the public and private sectors (Willard, 2000). A study by KPMG asserts that businesses must prioritize customer data protection to gain and retain their trust in the digital age, and by making data protection a top priority, businesses can considerably improve customer satisfaction (KPMG, 2002). Further studies unequivocally support the notion that businesses that prioritize data privacy are better equipped to meet legal and regulatory requirements, which can help them avoid costly fines and legal issues (IAPP 2022) and (Ponemon Institute 2021). The processing of personal information is fundamental to the operations of postal and telecommunications service providers. The Postal and Telecommunications Regulatory Authority of Zimbabwe (POTRAZ) has the mandate to promote the interests of consumers, purchasers, and other users, concerning the quality and variety of postal and telecommunications services provided, and telecommunication apparatus supplied (Postal and Telecommunications Act Chapter 12:05 of 2000). POTRAZ is also the designated Data Protection Authority of Zimbabwe according to the Cyber & Data Protection Act (Chapter 12:07) of 2021. Consumer satisfaction is a multi-faceted subject, tailored solutions must be employed in laying out the groundwork for an operational relationship between variables used to build a comprehensive consumer satisfaction model. In this paper POTRAZ proposes a framework that can be used to address issues of customer satisfaction in the sector, incorporating data protection aspects.

1.1. Problem Statement.

Though data protection is becoming more recognized as a critical issue, it seems that there has been limited study on the connection between data protection and customer satisfaction in the context of the postal and telecommunications sector. It's worth noting that the current consumer satisfaction framework in the postal and telecommunications sector in Zimbabwe does not consider data protection matters. The survey conducted in 2022 to gauge consumer satisfaction was based on quality-of-service metrics, complaints resolution, toll-free services, and customer service in operator premises, among other issues. However, none of the metrics included data protection matters, which is a significant gap in the current consumer satisfaction framework. Given the critical role played by postal and telecommunications operators in processing personal data, it is essential to develop a comprehensive framework that incorporates data protection as one of the basis/pillars of the ICT-industry customer satisfaction model.

1.2. Objectives of the Study

The purpose of the study was to develop a consumer satisfaction framework incorporating data protection matters. Specific objectives of the study were to:

1. Establish the association between awareness and knowledge of the rights of data subjects with consumer satisfaction.
2. Ascertain the relationship between data protection trust and confidence of data subjects with consumer satisfaction.
3. Investigate the correlation between cyber and data protection complaints redress and consumer satisfaction.

1.3. Significance of the Study

The study is crucial in informing the development of a new framework for measuring consumer satisfaction in the postal and telecommunications sector, not just for sector players but also for the regulator, the Postal and Telecommunications Regulatory Authority of Zimbabwe. The framework will help establish data protection metrics that have a significant influence on consumer satisfaction. This, in turn, will serve as a foundation for inculcating data protection into overall service delivery by postal and telecommunications service providers. By incorporating data protection into their customer satisfaction metrics, service providers will be able to provide a more comprehensive and secure service to their customers. Furthermore, it will help to bridge the gap in the current consumer satisfaction framework and ensure that data

protection is given the attention it deserves in the ICT-industry customer satisfaction model.

2. Literature Review

2.1. Data Protection

Data protection has become increasingly crucial; It refers to the measures and practices employed to safeguard consumers' personal information (Ogunleye, 2022; Korff & Marie, 2016). It involves ensuring compliance with regulatory frameworks, securing data from breaches, and respecting individuals' privacy rights (Zhang, et. al., 2020; Seubert & Becker, 2020). The importance of data protection matters is evidenced by the promulgation of data protection legislation globally. According to the United Nations Conference on Trade and Development (UNCTAD, 2023) 137 out of 194 countries had put in place legislation to secure the protection of data and privacy with 61% and 57% of countries in Africa and Asia, respectively, having adopted such legislation. Zimbabwe's Cyber and Data Protection Act (Chapter 12:07) was promulgated in 2021. Data protection regulations contain redress mechanisms that allow individuals to act personally, or through designated representatives, against organizations that breach their privacy rights or cause harm because of their collection, processing, storage, or transmission of personal data (Ogunleye, 2022). The constitutional protection of privacy rights is not only of individual relevance but also of major democratic significance (Seubert & Becker, 2020). Personal data should not be disclosed, made available, or otherwise used for purposes other than those specified in accordance with the consent of the data subject and by the authority of law (Korff & Marie, 2016). A review of relevant literature shows that research on data protection has primarily focused on legal aspects, technological solutions, and organizational practices to protect consumer data effectively.

2.2. Awareness and Knowledge of Consumer Rights

The consumer is the central point for all business activities and the only person subjected to all types of exploitation due to lack of awareness (Devi & Rao, 2016). Literature suggests that informed consumers who understand their rights are more likely to feel empowered and demand compliance from organizations. Consumers are enjoying high privileges, though it is unfortunate to know that they are becoming the main target of exploitation (Devi & Rao, 2016). Higher consumer knowledge is crucial for them to have confidence and high bargaining power and hence participate actively in the market (Mwakatumbula, et. al. 2015). Consumers are still being exploited mainly because of lack of awareness of Consumer rights (Devi & Rao, 2016). Government Initiatives, Consumer Awareness, and Accessibility are critical

factors of Consumer Protection (Devi & Rao, 2016). Social media plays a pivotal role in improving consumer knowledge (Mwakatumbula, et al 2015). Regulatory authorities may consider adopting the use of social media to improve awareness as its penetration improved dramatically in the world, especially in developing countries (Mwakatumbula, et al 2015). The usage of social media platforms should be encouraged as it spreads positive word of mouth and have far-reaching implications on influencing consumer attitudes towards brands (Mazikana, 2020).

2.3. Consumer Trust and Confidence

Trust and confidence in organizations' ability to protect consumer data are crucial for ensuring satisfaction. Consumers have little or no trust in how companies use their data online (Mosteller & Poddar, 2017). Trust plays an essential role in promoting successful relationships, reducing risk and uncertainty, and increasing willingness to purchase (Zhang, et al., 2020). Many studies have emphasized that online consumer trust positively influences consumers' online purchase intention (Zhang J, et al., 2020). Trust has a positive relationship to engagement (Mosteller & Poddar A., 2017).

Studies have shown that organizations that prioritize data protection and demonstrate transparency in their practices earn higher levels of trust from consumers (Zia, et al., 2022; Zhang, et al., 2020). Building and maintaining trust requires open communication, secure data storage, and a commitment to addressing any data breaches promptly and efficiently (Mosteller & Poddar, 2017; Zhang J, et al., 2020). Several GDPR-related trust antecedents perceived security, perceived third-party assurance, and perceived openness have been found to have positive significance in terms of online consumer trust (Zhang, et al., 2020).

2.4. Redress Mechanisms

Literature shows that redress mechanisms are essential in addressing consumer grievances related to data protection (Ogunleye, 2022; Fanni, et al., 2022). Users need to be certain that they have access to redress and remedies in case something goes wrong (Fanni R, et al., 2022). Regulators should ensure that individuals harmed by the deployment of AI systems are able to make a regulatory complaint or pursue legal action in court (Ogunleye., 2022). Active redress mechanism should claim redress on time because most often the decisions immediately affect the user (Fanni R, et al., 2022). However, there is a lack of consistency in the award of compensation, particularly in cases of non-pecuniary loss, and some uncertainty as to what an 'effective remedy' might be in some data protection cases (Varney, 2016). Consumers need assurance that their concerns will be resolved effectively in the event of privacy violations or data breaches (Fanni, et al., 2022; Ogunleye, 2022).

Efficient and accessible redress mechanisms contribute significantly to consumer satisfaction, as they provide a sense of security and trust in the organization's commitment to protecting their data (Ogunleye, 2022). A key aspect of effective regulation is ensuring the ability of harmed individuals and stakeholders to seek and obtain redress in a manner that is transparent, easily accessible, and timely (Ogunleye, 2022; Varney, 2016).

2.5. Consumer Satisfaction

The consumer is an asset to every organization which is to be maintained carefully and treated as the profit centre of the organization (Birajdar & Joshi, 2016). Consumer satisfaction is the judgement made by the consumer after receiving the services (Birajdar & Joshi, 2016). Consumer satisfaction is a major milestone in the success of a company and occurs when consumers get services according to their expectations (Mujahid, et al., 2021). Privacy protection is a critical factor in attracting consumer satisfaction, just as in the global market (Kim, et al 2020). Managers should carefully review that their security systems do not infringe on consumer privacy to directly increase consumer satisfaction and loyalty (Kim, et al 2020). Responsiveness and reliability have been discovered to influence consumer satisfaction (Ali & Amir, 2020).

Consumer satisfaction reflects consumers' perception of their experience with an organization, including their level of contentment with the products, services, and interactions. In the context of data protection, satisfied consumers feel assured that their personal information is safe, their privacy rights are respected, and they have access to effective redress mechanisms (Kim, et al 2020; Ogunleye, 2022). Service industries should cultivate the key service-quality elements thoroughly to enhance consumer satisfaction (Ali & Amir, 2020). Public institutions should rely on ICT tools and use them to reach the best levels of privacy and security to protect personal information and ensure that they are not exposed to information or financial fraud, which represents a major competitive advantage that contributes to gaining the trust and loyalty of consumers and obtaining new loyal consumers (Tartar, 2020; Mazikana, 2020). Organizations can measure and improve consumer satisfaction by focusing on the factors mentioned above and continuously seeking feedback from consumers.

3. Conceptual Framework and Hypotheses Development

3.1. Conceptual Framework

To empirically test the proposed influence of data protection dimensions on postal and telecommunications consumer protection, a conceptual framework is developed premised on the reviewed data protection literature. Figure 1 depicts the interconnected relationships among these variables.

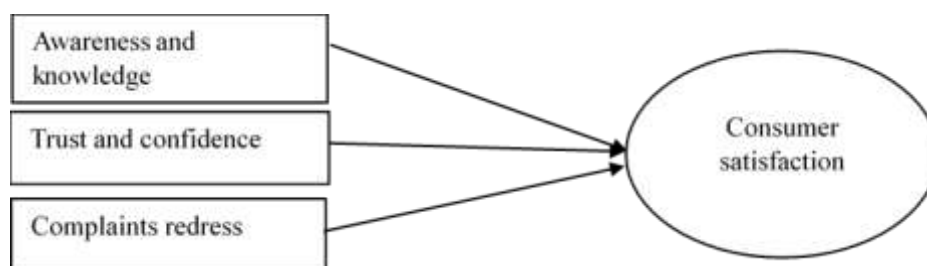


Figure 1. A Conceptual Framework

3.2. Hypothesis Development

In this conceptualized model, data protection dimensions namely, awareness and knowledge of consumer rights, customer trust and confidence, and complaints redress are the independent variables and consumer satisfaction is the dependent variable. The proposed relationship between the variables is that the use of data protection dimensions positively influences consumer satisfaction, and the following hypotheses will be tested.

H1: There is a positive relationship between awareness and knowledge of the rights of data subjects with consumer satisfaction.

H2: Data protection trust and confidence of data subjects has a positive impact on consumer satisfaction.

H3: There is a positive relationship between cyber and data protection complaints redress and consumer satisfaction.

4. Methodology

The study adopted a quantitative approach to establish the correlations and quantify the effects of data protection dimensions on customer satisfaction.

4.1. Population and Sampling Techniques

The population under study is the consumers of postal and telecommunication services in Zimbabwe. The survey targeted individuals aged eighteen (18) years and above, domiciled in urban as well as rural areas, across all the ten provinces of Zimbabwe. The survey was gender inclusive, targeting both males and females. A cross-section survey of 1,143 respondents was conducted across all ten provinces in Zimbabwe. Stratified sampling with simple random sampling was applied to select the respondents.

4.2. Research Instrument

The survey employed a questionnaire as its primary survey tool, with data collection conducted electronically through Computer-Aided Personal Interviews (CAPI). The Kobo Digital Application was utilized to gather the data. A 5-point Likert scale was used to evaluate variables in the study.

4.3. Data Analysis

Data analysis was conducted using SPSS version 23. Both descriptive and inferential statistics were employed to analyse the gathered data for this study. Specifically, data were analysed using correlation and regression techniques.

5. Results

5.1. Demographic Profiles

The demographics of the respondents highlighted that 49% were male and 51% were female who participated in the survey. Sixty-one percent (61%) of the respondents were between the ages of 18 to 35. This aligns well with the national demographics, where the population is largely youthful. 56% of respondents cited the completion of secondary level education as their highest educational qualification. This level of education implies good basic literacy levels and suggests that the majority are potentially actively engaged in digital technologies. A significant proportion of respondents (38%) identified themselves as self-employed, operating in the informal sector. This aligns well with national labour demographics, thus making the sample nationally representative.

5.2. Pre-study Validations

A pilot study was conducted using fifty Postal and Telecommunications Regulatory Authority of Zimbabwe employees. In addition, expert consultations with professionals and academics were also conducted.

5.3. Correlation Analysis

A correlation test, specifically the Kendall's tau_b rank correlation, was used to assess the association between the variables. Correlation ranges from -1.0, representing a perfect negative relationship, to +1.0, representing a perfect positive relationship. The table below presents the level of association between independent variables and consumer satisfaction with postal and telecommunication services.

Table 1. Correlation Analysis

Correlation Coefficient (r)		Awareness and knowledge	Remedies Mechanism	Consumer Trust and Confidence	Sector and Consumer Satisfaction
Awareness and knowledge	r	1			
	Sig.	.000	0		
Redress Mechanism	r	.209**	1		
	Sig.	0	.000		
Consumer Trust and Confidence	r	0.04	-.067**	1	
	Sig.	0.122	0.007	.000	
Sector and Consumer Satisfaction	r	-0.009	0.001	.067**	1
	Sig.	0.734	0.969	0.004	.000
	N	1135	1135	1129	1135

Of the independent variables, there is a positive correlation between consumer trust and confidence and consumer satisfaction with postal and telecommunication Services. These associations suggest that as consumers' data protection trust and confidence levels increase, overall satisfaction with postal and telecommunication services. Additionally, the significance levels confirm that these correlations are statistically significant, indicating that they are unlikely to have occurred by chance ($r=0.067$; $p<0.004$).

5.4. Regression Analysis

Regression analysis was also performed on the variables. The primary objective of the regression analysis was to examine how well the independent variables predict

the outcome variable. The outcomes of the regression tests are presented in Table 2 below.

Table 2. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.121a	.015	.010	.96378

Predictors: (Constant), Awareness and Knowledge of consumer data protection rights, Perceived Importance of Rights, Consumer Trust and Confidence, Consumer Complaint Redress Mechanism, Redress remedies.

The table above shows an R square of 0.015. This denotes that the combined effect of the predictor variables explains 15% of the changes in the dependent variable (consumer satisfaction). Ozili, Peterson K, 2023 says an R Square of at least 10% is acceptable on the condition that some of the predictors or explanatory variables are statistically significant. Therefore, the predictor variables are explaining a considerable portion of changes in the dependent variable. The table shows that 2 of the predictor variables had an insignificant impact ($p < 0.05$) on consumer satisfaction. These 2 variables are: Awareness and Knowledge of consumer data protection rights and Consumer Complaint Redress. Therefore, these are excluded from the final fitted model. The final fitted model becomes:

$$\text{Consumer Satisfaction} = 3.277 + 0.116\text{Confidence} + E$$

Table 3. Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	3.277	.170		19.221	.000
Awareness and knowledge of consumer data protection rights	-.041	.068	-.018	-.606	.545
Consumer Complaints Redress Mechanism	.030	.048	.019	.620	.536
Consumer Trust and Confidence	.116	.032	.109	3.666	.000

The results show that consumer trust and confidence ($\beta = 0.116$, $p < 0.05$) statistically predict consumer satisfaction. This implies that, *ceteris paribus*, a one-unit change in confidence is likely to result in 0.11 units change in consumer satisfaction.

5.5. Hypothesis Testing

Of the 3 hypotheses specified in 3.2, the results of the study accept H2, which postulated a positive predictive relationship between the trust and confidence levels of data subjects and overall consumer satisfaction with postal and telecommunication services (H3: ($\beta=0.116$, $p<0.05$)). This implies a statistically significant positive relationship. This finding aligns with the results of a study by Zhang J, et al., in 2020, which reported a positive relationship between data protection-related trust antecedents and consumer engagement.

The testing of the impact of awareness and knowledge of the rights of data subjects on consumer satisfaction (H1) and the relationship between data protection complaints redress and consumer satisfaction (H3) produced insignificant results. The findings imply that although there is a relationship between the respective independent variables and consumer satisfaction for postal and satisfaction, the strength of the relationship is not strong. In summary, ‘awareness and knowledge of rights by data subjects’ and ‘data protection complaints redress’ did not independently demonstrate a strong impact on overall consumer satisfaction for postal and telecommunications. The explanation could be that they may be input factors to ‘Confidence and Trust’ variable, which has a strong relationship with overall consumer satisfaction for postal and telecommunications. Hence, we drop the two independent variables from the model, i.e., ‘awareness and knowledge of rights by data subjects’ and ‘data protection complaints redress’.

6. Recommendations

Based on the evidence from this study, data protection is crucial to postal and telecommunications consumer satisfaction. If the goal is to increase overall consumer satisfaction for the two sectors, one of the strategies should be to increase data subjects’ trust and confidence through data protection. The consumer protection frameworks for the postal and telecommunications sector should incorporate data protection parameters, over and above service delivery parameters, there should not be treated as silos. Furthermore, the measurement of the Consumer Satisfaction Index should incorporate data protection confidence and trust as one of the input drivers, as evidenced by this study.

References

- Ali, R.O. & Amir, N.A.H. (2020). Service Quality and Consumer Satisfaction: Experience of Consumers in Postal Service: *Journal Intelek Volume 15 Issue 2*. Faculty of Business and Management, Universiti Teknologi MARA Cawangan Terengganu, Kampus Dungun, 23000 Dungun, Terengganu, Malaysia.
- Birajdar, C. & Joshi, A. (2016). A review of Consumer Satisfaction for Indian Postal Services: *International Journal of Marketing and Human Resource Management (IJMHRM)* Volume 7, Issue 3, Sep–Dec. <http://www.iaeme.com/ijmhrm/issues.asp?>
- Devi, P.; Uma, M. & Rao, B. S. (2016). Consumer Protection Awareness- Role of Education. *Universal Journal of Industrial and Business Management* 4(4), pp. 97-103. <http://www.hrpub.>
- Fanni, R.; Steinkogler, V.E.; Zampedri, G & Pierson, J. (2022). Enhancing human agency through redress in Artificial Intelligence Systems: *AI & Society*, 38, pp. 537–547 <https://doi.org/10.1007/s00146-022-01454-7>.
- Kim, Y.; Wang, Q. & Roh, T. (2020). Do information and service quality affect perceived privacy protection, satisfaction, and loyalty? Evidence from a Chinese O2O-based mobile shopping application: *Telematics and Informatics, Journal*. homepage: www.elsevier.com/locate/tele.
- Korff, D. & Georges, M. (2016). Guidance for data protection officers in the public and quasi-public sectors on how to ensure compliance with the European Union General Data Protection Regulation: *Grant Agreement number: 769100 — T4DATA — REC-DATA-2016/REC-DATA-2016-01*.
- Malgieri, G. & Comande, G. (2017). Why a Right to Legibility of Automated Decision-Making Exists in the General Data Protection Regulation: *International Data Privacy Law*, Vol. 7, No. 4.
- Martin, N.; Matt, C.; Niebel, C. & Blind, K. (2019). How Data Protection Regulation Affects Startup Innovation: *Information Systems Frontiers*, 21, pp. 1307–1324. <https://doi.org/10.1007/s10796-019-09974-2>
- Mazikana, A.T. (2020). The impact of quality service and consumer satisfaction on consumer purchasing decisions in Zimbabwe telecommunications industry: *SSRN Profile* - https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=2660231.
- Mosteller, J. & Poddar, A. (2017). To Share and Protect: Using Regulatory Focus Theory to Examine the Privacy Paradox of Consumers' Social Media Engagement and Online Privacy Protection Behaviors. *Journal of Interactive Marketing*. Sykes College of Business, University of Tampa, FL 33606. United States b Franklin P Perdue School of Business, Salisbury University, MD 20801, United States.
- Mujahid, N. N. & Nurfaisyah, A. (2021). Consumer Satisfaction Analysis Using Package and Document Delivery Services Pt. Indonesian Post (Case Study of Makassar Central Post Office) *International Journal of Health, Economics and Social Sciences*; Vol-3, Issue-4, (IJHESS).
- Muncinelli, G.; De Lima, E. P.; Deschamps, F.; Da Costa, Gouvea, S.E. & Cestari, A.P. (2020). Components of the Preliminary Conceptual Model for Process Capability in LGPD (Brazilian Data Protection Regulation) Context. *Transdisciplinary Engineering for Complex Socio-technical Systems – Real-life Applications* J. Pokojski et al. (Eds.)
- Mwakatumbula, Hilda, J.; Moshi, Goodiel, C. & Mitomo, H. (2015). Consumer Awareness And Protection In Telecommunication Markets: Case Of Tanzania; Determinant Of Consumers' Knowledge On Their Rights, *26th European Regional Conference of the International Telecommunications Society (ITS)*: "What Next for European Telecommunications?". Madrid, Spain, 24th-27th June.

Ogunleye, I. (2022). AI's Redress Problem: Recommendations to Improve Consumer Protection from Artificial Intelligence. *Center for Long-Term Cyber Security*: University of California, Berkeley.

Seubert, S. & Becker, C. (2020). *The Democratic Impact of Strengthening European Fundamental Rights in the Digital Age: The Example of Privacy Protection*. Department of Political Science, Goethe University, Frankfurt, Germany.

Tartar, K. (2020): The Effect of Modern Information and Communication Technology on Consumers' Satisfaction in the Algerian Public Institutions -A study Related to The Electronic Services Quality in *The Postal Telecommunication Institutions: Economic Researcher Review, Volume: 08/Issue 13*, June, pp. 32-57. <https://www.asjp.cerist.dz/en/PresentationRevue/85>.

*** (2023). *The United Nations Conference on Trade and Development. Data Protection and Privacy Legislation Worldwide*. <https://unctad.org/page/data-protection-and-privacy-legislation-worldwide>.

Varney, M. (2016). *Effective Redress of Grievance in Data Protection: An Illusion?*.

Wanda, P. & Hanne, S. (2018). Are Consumers Concerned About Privacy? An Online Survey Emphasizing the General Data Protection Regulation. *Conference on Health and Social Care Information Systems and Technologies*. CENTERIS/ProjMAN/HCist. Westerdals University, Norway.

Zhang, J.; Hassandoust, F. & Williams, J.E. (2020). Online Consumer Trust in the Context of the General Data Protection Regulation (GDPR). *Pacific Asia Journal of the Association for Information Systems. Research Paper* Volume 12, Issue 1. New Zealand.

Zia Junaid, A.; Dengfeng, C.; Vongvanij, S.; Waqar, A. & Khan, T. (2022). Investigating Consumer Trust and Positivity of Perceived Consumer Service Skills on the Confidence of Online Shopping. *Journal of Marketing Strategies (JMS)* Volume 4, Issue 1.