



E-Service as a Sustainable Future: A Case of E-Albania

Violeta Neza^{*} , Edlira Llazo 

Department of Marketing, Aleksandër Moisiu University, Durrës 2001, Albania

Corresponding Author Email: violeta.neza@yahoo.com

Copyright: ©2023 IIETA. This article is published by IIETA and is licensed under the CC BY 4.0 license (<http://creativecommons.org/licenses/by/4.0/>).

<https://doi.org/10.18280/ijstdp.181219>

ABSTRACT

Received: 14 August 2023

Revised: 7 November 2023

Accepted: 23 November 2023

Available online: 29 December 2023

Keywords:

circular economy, e-satisfaction, marketing, "green" value, consumer loyalty

In the quest to elucidate the factors influencing consumer satisfaction within the realm of online services, this study zeroes in on the e-Albania platform, with a distinct aim to ascertain how adherence to circular economy principles impacts consumer e-satisfaction. Employing a mixed-methods approach, the study melds the empirical rigor of quantitative surveys with the nuanced understanding gleaned from qualitative interviews, offering a comprehensive view of the consumer landscape. The survey component of the research boasts a robust sample size, ensuring the findings are reflective of a broad spectrum of consumer interactions with the e-Albania service portal. Analysis of the data illuminates that not only are usability and reliability key drivers of e-satisfaction, but the integration of "green" values and consumer involvement in sustainability efforts are also pivotal. These findings advance the conversation on how online service providers, particularly those in the mold of e-Albania, can refine their service offerings to not only meet the functional demands of users but also to align with the evolving ethos of sustainable consumption. In sum, this study not only maps out the landscape of consumer e-satisfaction but also makes a compelling case for the strategic inclusion of circular economy tenets in service design and delivery as a means to foster a sustainable economy. It is an invaluable reference point for online service providers aiming to recalibrate their strategies in the direction of environmental sustainability and superior consumer satisfaction.

1. INTRODUCTION

The advent of technology and the proliferation of Internet connectivity have led to a surge in the variety of services available online. These e-services are increasingly intertwined with everyday activities, heralding convenience and a myriad of choices. Within this digital landscape, consumer satisfaction emerges as a pivotal benchmark, underpinning the sustainability and success of online platforms. Satisfied consumers often exhibit greater loyalty, are more likely to repurchase, and engage in positive word-of-mouth communication, thereby fuelling the virtuous cycle of an online service's life [1-5].

In the unique context of Albania, the national e-service platform, e-Albania, stands as a testament to technological adaptation in public administration. This platform extends its digital reach by facilitating essential civic and business operations, including but not limited to, identity verification, tax payments, healthcare registration, and business licensing. e-Albania's user-friendly design and bilingual interface cater to a broad spectrum of users, aiming to promote inclusivity and ease of access [6, 7]. Notably, the mobile-centric engagement with the platform accentuates the shift in consumer interaction patterns, which the present study has documented [8-10].

Post the COVID-19 pandemic, e-services like e-Albania not

only experienced accelerated growth due to increased demand for remote accessibilities but also began to play a significant role in the push towards ecological sustainability. By diminishing the reliance on physical documents and reducing the need for travel, e-services contribute to a "greener" marketing paradigm and support sustainable economic practices [11-15].

Given this backdrop, this research delves into the core factors that shape consumer satisfaction within the digital domain of e-Albania. It dissects the elements that catalyze consumer contentment and identifies leverage points for enhancing service quality [16, 17]. Specifically, this study aims to:

- Investigate the key drivers of consumer satisfaction in e-Albania's online services.
- Analyze the relationship between service quality, ease of use, and consumer e-satisfaction.
- Offer insights and strategic recommendations for elevating the consumer experience on the e-Albania platform.

Through this lens, the research aspires to contribute to the scholarly conversation about e-services by mapping the contours of consumer satisfaction in the context of Albania's digital governance. It ventures to fill the gaps in our understanding of how digital platforms can not only meet user expectations but also uphold and propagate sustainable economic practices.

2. LITERATURE REVIEW

The evolution of electronic services in Albania and their societal impacts has been the subject of scholarly attention across a diverse range of disciplines. In synthesizing the breadth of this research, we can appreciate the multifaceted nature of e-services development, their perceived quality, and the consequential satisfaction or dissatisfaction amongst users.

2.1 The development and impact of electronic services

Initially, the Albanian foray into e-governance and the digitization of public services is well-noted, marking a substantial increase in both the quantity of e-services offered and the user perception of these services [1]. In parallel, the expansion of electronic services in customs and the private sector, bolstered by the adoption of electronic documentation for imports, signals a broader shift toward digital efficiency and improved service standards [2]. This digital transformation, although progressive, also poses challenges and opportunities that demand continuous improvement and integration of citizen feedback.

2.2 Consumer trust and satisfaction

Within the Albanian banking system, electronic service attributes such as service quality, pricing, and institutional reputation have emerged as pivotal factors for consumer trust and loyalty. These elements collectively underpin the relationship between e-service offerings and customer satisfaction, with a quality service experience being paramount [3]. This is echoed in research that positions young people as pivotal in the adoption of e-democracy and e-government services, emphasizing the need for participatory models that resonate with youth engagement [8, 18, 19].

2.3 Determinants of customer satisfaction

In broader terms, customer satisfaction with internet services is recognized as a performance standard and a benchmark for organizational excellence. This satisfaction is intricately linked to several factors: internet quality, customer loyalty, pricing structures, and customer support [9]. The service quality, in particular, stands out as a determinant of perceived value and significantly affects customer satisfaction [11, 20]. This is critical as customer satisfaction has a cascading effect on a company's reputation, financial health, and market share [12, 21].

2.4 Online services and loyalty

The intangible nature of online services heightens the importance of customer satisfaction due to the inability of consumers to physically interact with the service pre-purchase. Hence, customer loyalty is not only a consequence of service quality and corporate image but also a driver for market competitiveness [13, 22, 23]. Research by Pradnyadewi and Giantari [24] further diversify the understanding of customer loyalty by exploring gender differences in the perception and impact of e-service satisfaction. This is compounded by the typically low switching costs in online services, which necessitate an even greater focus on consumer satisfaction to prevent attrition [25, 26].

2.5 Service quality dimensions

Several dimensions of service quality that influence consumer satisfaction have been identified, with convenience standing out for its relationship to ease of access and cost-effectiveness in online services [27]. The credibility of online information further complicates consumer trust, separating content trustworthiness from technology trustworthiness [28-31]. Despite the virtual nature of interactions in e-services, there is a need for human-like functions to serve consumers, such as e-mail and online customer service [32, 33].

2.6 Gaps in literature

Despite this extensive research, there remain notable gaps that this study aims to fill. Firstly, there's a lack of comprehensive studies that explore the interplay between e-service quality dimensions and customer satisfaction in the context of Albania's unique socio-economic landscape. Secondly, the nuanced impact of cultural factors on the adoption and satisfaction with e-services in Albania remains underexplored. Lastly, the existing literature does not adequately address the long-term effects of e-service satisfaction on consumer loyalty and behavior, particularly in the Albanian setting.

This study seeks to delve into these gaps by providing a nuanced analysis of the interrelated components of e-service quality and their long-term impacts on customer satisfaction and loyalty within the Albanian context. By doing so, it will contribute to a deeper understanding of e-service adoption and optimization in transitional economies.

3. MATERIALS AND METHODS

The theoretical base of scientific and historical work is based on the practices of Albanian, French, American, Indonesian, Chinese and other countries of the world, as a result of the expansion of electronic services for customers and of these factors on the satisfaction of the caregivers with their servants. All the determinations related to this work, which constitute a structural representation of this study, are presented in Figure 1.

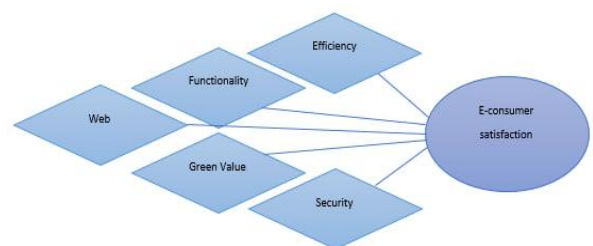


Figure 1. Structure of the research

For this research, a quantitative research design is employed, entailing the collection and analysis of numerical data using statistical methods facilitated by SPSS. The primary instrument for data collection is a survey questionnaire (Appendix A), which is distributed online to a sample of individuals who are users of e-Albania. The selection of the sample is conducted through convenience sampling, where participants are chosen based on their availability and willingness to take part in the study. The study specifically

focuses on e-Albania users who have utilized at least one of its online services within the past six months. The sample size for this study was determined using a sample size calculator with a 95% confidence level and a 5% margin of error, assuming a population size of 10,000 e-Albania users, which is representative of the user base. The calculation yielded a sample size of 250 respondents. This size is deemed adequate for the analysis as it surpasses the minimum number of responses suggested by statistical guidelines for a population of this scale, allowing for a diverse representation of e-Albania users, including various demographics and user engagement levels. The resulting sample size is determined to be 250 participants, including full time (N=169), part-time (N=16), students (N=42), retired (N=9), unemployed (N=14). The respondents were of the following age categories: 18-30 (N=120), 31-39 (N=42), 40-49 (N=45), 50-59 (N=27), 60 years old and more (N=16).

Data is gathered by utilizing a web-based survey questionnaire that is administered through Google Forms. This questionnaire consists of three distinct sections. The initial sections encompass demographic details, including age, gender, education, and occupation. The second section assesses the extent of consumer satisfaction with the online services offered by e-Albania, utilizing a Likert scale that spans from 1 (indicating strong disagreement) to 5 (indicating strong agreement). The final section collects comments and suggestions aimed at enhancing the online services, utilizing an open-ended question format. The gathered data undergo analysis employing descriptive statistical techniques and principal component analysis.

Descriptive statistics outlined the sample's demographic composition and satisfaction levels. Principal Component Analysis (PCA) was employed to identify underlying variables that influence consumer satisfaction, chosen for its efficacy in reducing data dimensionality and identifying pattern correlations within high-dimensional datasets. The use of Confirmatory Factor Analysis (CFA), a structural equation modeling technique, validated the survey's measurement model, confirming that our observed variables represent the constructs of interest. Moreover, the CFA facilitated an assessment of the construct validity by estimating the relationship between the observed variables and their underlying latent constructs.

Variance analysis further elucidated the proportion of satisfaction variance explained by the combined variables, essential for understanding the cumulative effect of multiple e-service attributes on user satisfaction. For a nuanced understanding of how individual factors relate to overall consumer contentment with e-Albania, a factor analysis was applied. This highlighted the key components shaping satisfaction, which are instrumental for strategizing service improvements. Finally, we used the method of generalization

to synthesize our findings, correlating quality elements with user satisfaction levels and appraising the role of e-services in advancing a green economy.

By employing this comprehensive suite of statistical techniques, our study not only quantifies the degree of consumer e-satisfaction but also illuminates the intricate dynamics between service quality factors and user satisfaction. This methodical analysis provides a robust foundation for the recommendations we propose to enhance the e-service framework of e-Albania.

This study ensured ethical integrity by obtaining informed consent from participants, guaranteeing their anonymity, and maintaining confidentiality. Participation was voluntary, with the option to withdraw at any time. Personal identifiers were not collected, and data were handled securely to protect participant privacy.

4. RESULTS

4.1 Factor analysis and reliability assessment

Tables 1 and 2 present the results of the reliability tests (Kaiser-Meyer-Olkin (KMO) test and Bartlett test).

Table 1. Reliability of variables in the study

Case Processing Summary		N	%
Cases	Valid	250	100
	Excluded	0	0
	Total	250	100
Reliability Statistics			
Cronbach's alpha		N items	
0.784		9	

Table 2. Data suitability used for the study

KMO Measure of Sampling Adequacy	0.842
Approx. Chi-square	1272.864
Bartlett test of sphericity	df 36
	Sig. 0

Table 3 shows the total variance, from which the number of important factors was determined. The total variance indicates what percentage of the model is explained by the variables taken together for the analysis performed. The analysis was carried out with the statistical program SPSS 24, and it turned out that two main components were identified which explain 69.8% of the model (which is a very satisfactory value for the results of the study) with "eigenvalue" (proper value) >1. Factorial analysis of the variables related to the e-Albania service and consumer satisfaction was carried out (Table 4).

Table 3. Association of variables

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.253	47.251	47.251	4.253	47.251	47.251
2	2.028	22.53	69.781	2.028	22.53	69.781
3	0.658	7.307	77.088			
4	0.595	6.614	83.702			
5	0.442	4.913	88.616			
6	0.337	3.74	92.355			
7	0.308	3.424	95.779			
8	0.202	2.249	98.028			
9	0.177	1.972	100			

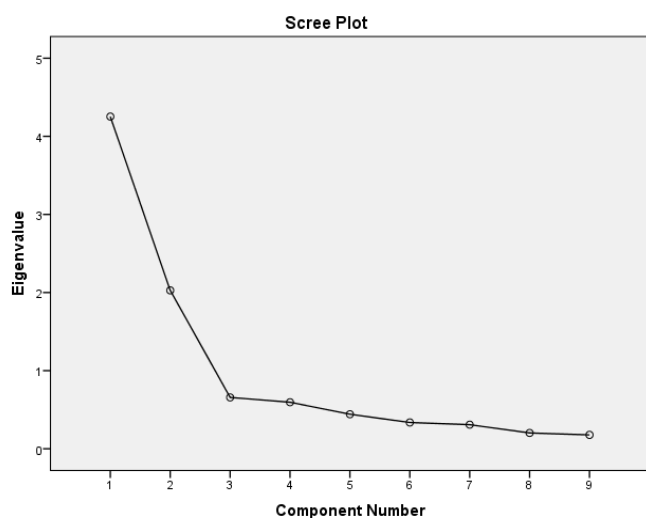
Table 4. Main components

	Component	
	1	2
e-Albania is very useful and increases consumer satisfaction	0.877	-0.019
The service e-Albania has saved time and other expenses (including fuel used in vehicles)	0.892	-0.022
e-Albania avoids corrupt elements	0.794	-0.02
e-Albania avoids strolls, contributes to "green"	0.877	0.044
The service response time of e-Albania is fast	0.793	0.042
In e-Albania I find many of the services I need	0.801	0.113
e-Albania crashes (goes out of order) constantly	0.023	0.845
e-Albania is difficult to use	-0.034	0.742
e-Albania does not make me feel safe	-0.12	0.863

In Table 4, two main components are grouped, where the first component includes variables related to efficiency (speed of service), functionality (difficulty of use, crashes), web (variety of services), perceived value (saves time, avoids corrupt elements, avoids strolls and contributes to "green") and safety. The first factor summarizes the main variables that influence the achievement of overall consumer satisfaction from the e-Albania service and explains 47.3% of the model, which is a very good indicator to show the impact of the most important variables in confirming the fulfilled consumer e-satisfaction from e-Albania. Additionally, the second factor includes variables that have an impact on consumer satisfaction and are important elements that are always valued in improving the quality of e-services in the future. This factor explains per se 22.53% of the model, which is also a satisfactory value to answer the questions of research and to explain the results of the study. On the grounds that each variable has something to contribute to the study, the variables with higher factor loading contribute more to its interpretation.

4.2 CFA analysis

Figure 2 graphically presents the results of the CFA analysis, which clearly shows the importance of the two components that group the factors that influence consumer satisfaction and that explain 69.8% of the model.

**Figure 2.** CFA analysis graph showing the main components

The analysis of principal components alongside descriptive statistics provides a nuanced understanding of user engagement with e-Albania's services. Notably, 97.6% of the survey respondents have registered for an e-Albania account, indicating a high level of adoption among the participants. Furthermore, 88% of these users navigate the service independently, without requiring assistance, which suggests a degree of user proficiency and self-sufficiency in engaging with the platform. However, this high percentage of autonomous use seemingly contradicts the reported challenges some users face regarding the ease of use—a key aspect of functionality within the service quality framework.

In addition, a substantial 90.8% of participants have consistent access to the internet, facilitating their continuous engagement with e-Albania, and 78% have opted to use the mobile application, enhancing the functionality and accessibility of the service. These statistics underscore the widespread internet penetration and the increasing transition to mobile platforms among the user base. Therefore, to answer the first question of the research: "Which are the elements of service quality that affect the consumer satisfaction of the users of e-Albania?" – it means that some elements of e-service quality that affect consumer e-satisfaction have been listed, among which functionality, efficiency, web quality, "green" value and safety, elements measured with several variables that represent each of them, were confirmed by CFA analysis. Regarding the second question of the research: "Does the online service through e-Albania contribute to the "green" economy?", the answer is affirmative, since two of the variables that were tested in the analysis have significant importance within the first component, they contain within the confirming information that the e-service of e-Albania contributes to increasing the value of "green" and sustainable economy. Tables 5 and 6 show the full analysis of the questionnaire results.

Table 5. Analysis statistics of the variables related to the questionnaire

Service Quality	Mean	Std. Deviation	Analysis N
e-Albania is very useful and increases consumer satisfaction	3.628	1.06497	250
The service e-Albania has saved time and other expenses	3.72	1.07247	250
e-Albania avoids corrupt elements	3.544	1.18222	250
e-Albania avoids strolls, contributes to "green"	3.656	1.18629	250
The service response time of e-Albania is fast	3.512	1.12379	250
In e-Albania I find many of the services I need	3.756	0.97378	250
e-Albania crashes (goes out of order) constantly	3.22	1.16664	250
e-Albania is difficult to use	2.772	1.25151	250
e-Albania does not make me feel safe	2.884	1.23476	250

Table 6. Questionnaire statistics and respondents' data

		Age			
		Frequency	%	Valid %	Cumulative %
Valid	18-30	120	48	48	48
	31-39	42	16.8	16.8	64.8
	40-49	45	18	18	82.8
	50-59	27	10.8	10.8	93.6
	Over 60 years old	16	6.4	6.4	100
	Total	250	100	100	
		Employment			
		Frequency	%	Valid %	Cumulative %
Valid	Full time	169	67.6	67.6	67.6
	Part-time	16	6.4	6.4	74
	Student	42	16.8	16.8	90.8
	Retired	9	3.6	3.6	94.4
	Unemployed	14	5.6	5.6	100
	Total	250	100	100	
		Do you have internet access?			
		Frequency	%	Valid %	Cumulative %
Valid	Yes	246	98.4	98.4	98.4
	No	4	1.6	1.6	100
	Total	250	100	100	
		How long have you been using the internet for?			
		Frequency	%	Valid %	Cumulative %
Valid	Less than 6 months	2	0.8	0.8	0.8
	6 months up to 1 year	3	1.2	1.2	2
	1-2 years	4	1.6	1.6	3.6
	2-4 years	17	6.8	6.8	10.4
	More than 4 years	224	89.6	89.6	100
	Total	250	100	100	
		Do you have technophobia?			
		Frequency	%	Valid %	Cumulative %
Valid	Yes	17	6.8	6.8	6.8
	No	195	78	78	84.8
	Indifferent	38	15.2	15.2	100
	Total	250	100	100	
		Do you always have internet access at home/on your mobile/laptop?			
		Frequency	%	Valid %	Cumulative %
Valid	Yes	227	90.8	90.8	90.8
	No	23	9.2	9.2	100
	Total	250	100	100	
		From which tool do you use the service of e-Albania the most?			
		Frequency	%	Valid %	Cumulative %
Valid	Mobile	195	78	78	78
	Laptop	29	11.6	11.6	89.6
	Home computer	26	10.4	10.4	100
	Total	250	100	100	
		Do you know the e-Albania platform?			
		Frequency	%	Valid %	Cumulative %
Valid	Yes	240	96	96	96
	No	10	4	4	100
	Total	250	100	100	
		If YES, do you use this platform (i.e., have you signed up on e-Albania)?			
		Frequency	%	Valid %	Cumulative %
Valid	Yes	244	97.6	97.6	97.6
	No	6	2.4	2.4	100
	Total	250	100	100	
		How do you use the platform of e-Albania			
		Frequency	%	Valid %	Cumulative %
Valid	On your own	220	88	88	88
	You ask for help from relatives (children/ grandchildren))	16	6.4	6.4	94.4
	You ask for help at centres that offer this service	14	5.6	5.6	100
	Total	250	100	100	
		How often do you use e-Albania as a service?			
		Frequency	%	Valid %	Cumulative %
Valid	Every day	28	11.2	11.2	11.2
	2-3 times a week	20	8	8	19.2
	Once or twice a month	108	43.2	43.2	62.4
	Once a week	14	5.6	5.6	68

Other	80	32	32	100
Total	250	100	100	

The study confirmed that the level of consumer satisfaction with online services, referring to the case of e-Albania, is high. The study revealed that the overall level of consumer satisfaction with the online services provided by e-Albania was high, with an average score of 3.62 out of 5. The majority of participants reported being satisfied or very satisfied with the online services, while only a percentage reported being dissatisfied or very dissatisfied. The results of the data analysis revealed that the factors that had a significant impact on consumer satisfaction with the online services offered by e-Albania were the ease of use (88% use e-Albania by themselves without the help and assistance of others), quality of service (speed of services, saving time and cutting moving costs by contributing “green”) and website responsiveness (variety of services offered). Factors such as functionality, efficiency, web quality, and “green” value turned out to have an impact on consumer satisfaction.

4.3 Analysis of consumer e-satisfaction factors

The findings of the study have several implications regarding consumer satisfaction obtained from online services. Firstly, the results show that online service providers should focus on improving the ease of use, service quality, and website responsiveness to increase consumer satisfaction. Secondly, safety, privacy, and website design should also be taken into consideration to ensure consumer satisfaction, although they may not have as significant an impact as other factors. Finally, the results suggest that website content should not be neglected, even though it may have a weaker impact on consumer satisfaction compared to other factors. On the whole, the study highlights the importance of understanding the factors that influence consumer satisfaction in online services and provides valuable insights for online service providers seeking to improve their consumer satisfaction levels.

The results of this study provide valuable knowledge about the level of consumer satisfaction with the online services offered by e-Albania and the factors that influence consumer e-satisfaction. The study revealed that the overall level of consumer e-satisfaction with e-Albania services was high, which is consistent with previous studies on consumer satisfaction with online services. The study also identified several factors that significantly and moderately affect consumer e-satisfaction, including ease of use, service quality, and website responsiveness. These findings are consistent with the existing literature on consumer satisfaction with online services, which has emphasized the importance of these factors in promoting consumer e-satisfaction. The relatively small sample size is a limitation of this research paper, as it might limit the generalizability of the findings. Furthermore, the study was conducted in only one geographic location (Albania), which may limit its external validity in other cultural and geographic contexts. Future research should aim to address the limitations of this study by using larger and more diverse samples and conducting cross-cultural studies to examine the generalizability of the findings on online services. Additionally, future research could explore other factors that may influence consumer satisfaction with online services, such as social presence, trust, and perceived value.

The findings of this study have some practical implications

for e-Albania and the other providers of online services. Firstly, the study highlights the importance of focusing on improving ease of use, quality of service, and web page responsiveness to increase consumer e-satisfaction. Secondly, online service providers should also take into consideration safety, privacy, and website design to ensure consumer satisfaction, although they might not have as significant an impact as the other factors. Finally, the study emphasizes the importance of paying attention to the content of the website, even though it may have a weaker impact on consumer satisfaction compared to other factors, listing as a shortcoming at this point the fact that some services which are frequently used are not yet accessible on e-Albania. Such a service is provided with a marriage certificate in cases when the marriage was dated before 2008, which causes a delay in receiving the service, not only because they are not offered online, but also because often such services are not offered even in the Units inhabited by citizens who have been displaced since a long time ago in urban areas. Furthermore, death certificates for deceased persons are not available online, as a consequence creating delays in receiving this service and in claiming benefits and insurance for their family members.

5. DISCUSSION

In the context of the burgeoning digital era, accentuated by the pandemic-induced reliance on electronic services, this study has meticulously examined the e-Albania platform, aiming to unravel the determinants of user satisfaction and providing recommendations for service providers to enhance customer engagement and evolve their digital offerings. At the outset, it's imperative to reiterate the study's objectives: to discern the elements that influence user satisfaction within e-services and to evaluate how e-Albania contributes to the "green" economy, thus underpinning sustainable economic development in Albania.

Upon thorough analysis, the research juxtaposed with extant literature delineates a confluence on the pivotal role of e-service quality in shaping customer satisfaction. Consistent with Aburayya's [34] investigation within the UAE's online shopping milieu, our findings affirm that enriched e-service quality heightens user contentment and trust, subsequently bolstering consumer loyalty - a sentiment echoed across studies by Purnamasari and Suryandari [35] and resonant with Alqasa's exploration of AI-driven service quality in Saudi banks.

However, our research introduces nuanced insights that diverge from certain aspects found in previous works. For instance, Miao et al.'s [36] study contested the direct impact of delivery service quality on e-satisfaction and customer service quality on trust, whereas our findings suggest these factors indeed wield considerable influence in the context of e-Albania. This disparity necessitates a more integrated analysis, suggesting that geographical and cultural variances may significantly modulate these relationships [37].

Mercan et al.'s [38] empirical endeavor via online educational platforms underscores the salience of effectiveness, confidentiality, and performance, aligning with our results which uphold these facets as crucial for user satisfaction. Moreover, Aguiar-Costa et al.'s [39]

identification of AI's symbiosis with service satisfaction reinforces our conclusions on the role of technological adeptness in advancing user satisfaction levels.

Our exploration extends the dialogue on e-service quality parameters and their influence on customer satisfaction and purchase intentions, reflecting the inquiries of Faisal et al. [40] Notably, our recommendations parallel their advocacy for a holistic e-marketing strategy that emphasizes information accessibility, personalization, privacy, and responsive web design to elevate user satisfaction and purchase intentions.

Naibaho et al.'s [26] insights on the service marketing mix and Puranda et al.'s [25] attribution of user loyalty to various e-service quality attributes resonate with our discovery that these elements are indeed instrumental in nurturing user satisfaction and loyalty in e-Albania's context. Moreover, this study also affirms the interconnected chain of quality, satisfaction, and loyalty delineated by Mughila and Gayathri [41], solidifying the link between e-service quality and e-loyalty through the mediator of user satisfaction [42]. Here, the research accentuates the "green" dimension of e-services, resonating with Hazaea et al.'s [43] emphasis on green procurement and its implications for sustainable development.

When dissecting the nuances of "green" consumption, Ahmad and Zhang's [44] findings on environmental values parallel our observations on the environmental psychology of consumers. In our study, this extends to the assertion that e-services significantly contribute to environmental preservation, thus bolstering the "green" economy – a postulate that aligns with Román-Augusto et al.'s [45] research on environmental satisfaction.

Finally, our research not only corroborates but also expands upon Söderholm's [46] conceptualization of a "green economy," underscoring the potential of e-services in Albania to serve as conduits for sustainable development. Lakatos et al.'s [47] prognostications on consumer satisfaction with "green" products further reinforce the need for an enhanced understanding of user perceptions and attitudes towards eco-friendly services [48].

This detailed discussion elucidates the alignment and occasional divergence of our findings with pre-existing scholarship, underscoring the multifaceted nature of consumer satisfaction in the digital age. It becomes evident that while there is consensus on certain core influences, the realm of e-service quality is textured and dynamic, requiring continuous examination as technology evolves and user expectations shift.

6. CONCLUSIONS

The emergence and escalation of the COVID-19 pandemic led to an accelerated shift toward the digitization of services, a development that was also evident in Albania's adaptation through its e-services platform, e-Albania. The adoption of these services wasn't only a response to the immediacy of the pandemic but also seems to be part of a continuing trend that aligns with ecological sustainability and contributes to greener consumer practices. This shift has spurred online service providers to innovate and strategize afresh, recognizing that service quality is a determining factor for consumer electronic satisfaction (e-satisfaction).

The present research delved into assessing the levels of consumer e-satisfaction with the online services provided by e-Albania, particularly in understanding the determinants of this satisfaction. It was found that the level of e-satisfaction

among consumers of e-Albania services is commendably high, with facets such as ease of use and service quality – encompassing functionality, efficiency, and internet quality – standing out as significant contributors to this positive assessment. Interestingly, the research also highlighted the "green" value of these e-services as a substantial influencing factor on consumer satisfaction, resonating with a global pivot towards environmental consciousness in consumer behavior.

These observations are in line with prior studies which have asserted the significance of such factors for online service providers, underpinning the need for these providers to place consumer e-satisfaction at the forefront of their strategic planning. E-satisfaction is not just a metric; it is central to customer retention and the nurturing of brand loyalty—vital elements in the competitive digital marketplace.

The findings from this research enrich the broader discourse by offering concrete empirical insights into the factors influencing consumer e-satisfaction, particularly shedding light on the context of Albania's e-services. However, the study is not without its limitations; it is geographically constrained, focusing solely on the experiences of Albanian users, and thereby potentially limiting the generalizability of the findings to other regions that might have different digital service landscapes and consumer experiences.

Looking ahead, this research lays out several pathways for future inquiries. There is a clear opportunity for comparative studies that can validate these findings across different cultural and regulatory settings. Moreover, as consumer behavior continues to evolve in response to technological advancements and ecological considerations, longitudinal studies could provide a dynamic view of the changing paradigms of e-satisfaction. Furthermore, there is scope to explore the intersection of digital service quality and environmental sustainability in depth, to understand how online services can contribute to not just consumer satisfaction but also to the wider goal of a sustainable economy.

REFERENCES

- [1] Keco, R., Tomorri, I., Tomorri, K. (2023). Quality evaluation of e-government services – The case of Albania. *Transylvanian Review of Administrative Sciences*, 68: 20-33. <http://doi.org/10.24193/tras.68E.2>
- [2] Tomco, V., Gjollëshi, E., Pashaj, K. (2019). E-signature and e-services in Albania. *Smart Cities and Regional Development Journal*, 3(2): 77-93.
- [3] Zyberi, I., Polo, A. (2021). Impact of service and e-service quality, price and image on the trust and loyalty of the electronic banking customers. *Regional Science Inquiry*, XIII(1): 59-68.
- [4] Dzyba, A., Saveliev, K. (2023). The importance and the effectiveness of cultural ecosystem services provided by parks in the city of Kyiv during the war in Ukraine. *Ukrainian Journal of Forest and Wood Science*, 14(2): 38-52. <https://doi.org/10.31548/forest/2.2023.38>
- [5] Bedelov, K., Bidaibekov, Y., Grinshkun, V., Bostanov, B., Koneva, S. (2021). The effective use of telecommunication cloud services for the training of future computer science teachers. *World Transactions on Engineering and Technology Education*, 19(4): 398-403.
- [6] Dumi, A.R., Sinaj, Z., S'eche, S.H. (2014). Evaluation and challenging environment comforting retail management and retail market performance in Albania.

- Mediterranean Journal of Social Sciences, 5(2): 25-32. <https://doi.org/10.5901/mjss.2014.v5n2p25>
- [7] Zamira Sinaj, M., Dumi, A., Eliza Bodo, M. (2012). Accessible package of services in health insurance reform in Albania. *Mediterranean Journal of Social Sciences*, 3(2): 147-152. <https://doi.org/10.5901/mjss.2012.v3n2.147>
- [8] Keta, M., Ziu, K. (2020). The importance of e-governance in furthering Albania's development and EU enlargement perspective. *EuroEconomica*, 3(39): 171-179.
- [9] Shareef, T.H., Rashid, B.N., Faraj, A.A. (2023). Factors affecting customer satisfaction with Internet services in Sulaimani Governorate, KRI. *Passer Journal of Basic and Applied Sciences*, 5(1): 134-143. <https://doi.org/10.24271/psr.2023.378420.1209>
- [10] Petersone, M., Krastins, A.V., Ketners, K. (2016). In-service training system organization improvement at customs administrations. *Eurasian Studies in Business and Economics*, 1: 201-216. https://doi.org/10.1007/978-3-319-27570-3_17
- [11] Buhaljoti, A. (2019). Customer satisfaction on internet service providers in Albania. *European Scientific Journal*, 15(28): 235-252. <https://doi.org/10.19044/esj.2019.v15n28p235>
- [12] Mittal, V., Han, K., Frennea, C., Blut, M., Shaik, M., Bosukonda, N., Sridhar, S. (2023). Customer satisfaction, loyalty behaviors, and firm financial performance: What 40 years of research tells us. *Marketing Letters*, 34: 171-187. <http://doi.org/10.2139/ssrn.4103893>
- [13] Kesuma, T.M., Yunus, M., Siregar, M.R., Muzammil, A. (2021). Quality and image: The role of satisfaction and trust as intervening variables on loyalty of customer's internet service providers. *Jurnal Manajemen dan Pemasaran Jasa*, 14(2): 282-299. <http://doi.org/10.25105/jmpj.v14i2.9358>
- [14] Mustafin, A.T. (2015). Synchronous oscillations of two populations of different species linked via interspecific interference competition. *Izvestiya Vysshikh Uchebnykh Zavedeniy. Prikladnaya Nelineynaya Dinamika*, 23(4): 3-23. <https://doi.org/10.18500/0869-6632-2015-23-4-3-23>
- [15] Babak, V.P., Babak, S.V., Myslovykh, M.V., Zaporozhets, A.O., Zvaritch, V.M. (2020). Simulation and software for diagnostic systems. *Studies in Systems, Decision and Control*, 281: 71-90. https://doi.org/10.1007/978-3-030-44443-3_3
- [16] Yaddarabullah, Muttaqin, M.F., Rafiansyah, M. (2019). Service-oriented architecture for e-marketplace model based on multi-platform distributed system. *IOP Conference Series: Materials Science and Engineering*, 662(4): 042028. <https://doi.org/10.1088/1757-899X/662/4/042028>
- [17] Dorokhova, L.P., Dorokhov, A.V. (2021). Pharmaceutical service in a pharmacy: The role of staff and quality of service. *Azerbaijan Pharmaceutical and Pharmacotherapy Journal*, 21(2): 42-48.
- [18] Shalbolova, U., Chikibayeva, Z., Kenzhegaliyeva, Z. (2021). Efficiency of investment projects to modernize facilities housing and communal services (case of Kazakhstan). *IOP Conference Series: Earth and Environmental Science*, 650(1): 012075. <https://doi.org/10.1088/1755-1315/650/1/012075>
- [19] Tatsyi, V., Getman, A., Ivanov, S., Karasiuk, V., Lugoviy, O., Sokolov, O. (2010). Semantic network of knowledge in science of law. In *Proceedings of the IASTED International Conference on Automation, Control, and Information Technology - Information and Communication Technology*, Novosibirsk, Russia, pp. 218-222. <http://doi.org/10.2316/P.2010.691-076>
- [20] Panov, V. (2023). The scientific process of two interferometers (optical) development and the mitigation of external influence. *Scientific Herald of Uzhhorod University. Series "Physics"*, (53): 19-30. <https://doi.org/10.54919/physics/53.2023.19>
- [21] Sinaj, Z., Ramosacaj, M., Kushta, E. (2023). Performance management assessment in agriculture organisations (Using factorial parameters case of Albania). *Scientific Horizons*, 26(1): 102-110. [https://doi.org/10.48077/scihor.26\(1\).2023.102-110](https://doi.org/10.48077/scihor.26(1).2023.102-110)
- [22] Abudaqa, A., Hilmi, M.F., Dahalan, N. (2021). The relationship between psychological contract, commitment, quality of work life and turnover intention in oil and gas companies in UAE: Moderating role of appreciative leadership. *International Journal for Quality Research*, 15(1): 3-20. <https://doi.org/10.24874/IJQR15.01-01>
- [23] Niyazbekova, S., Zverkova, A., Sokolinskaya, N., Kerimkhulle, S. (2023). Features of the «Green» strategies for the development of banks. *E3S Web of Conferences*, 402: 08029. <https://doi.org/10.1051/e3sconf/202340208029>
- [24] Pradnyadewi, L.P.A., Giantari, I.A.K. (2022). Effect of e-service quality on customer satisfaction and customer loyalty on Tokopedia customers in Denpasar. *European Journal of Business and Management Research*, 7(2): 200-204. <http://doi.org/10.24018/ejbmr.2022.7.2.1297>
- [25] Puranda, N.R., Ariyanti, M., Ghina, A. (2022). The effect of e-service quality on e-loyalty with e-satisfaction as an intervening for GoFood application users. *Italienisch*, 12(1): 218-226.
- [26] Naibaho, E.R., Fauzi, A., Sadalia, I. (2020). The effect of marketing mix on satisfaction of consumer insurance products unit link (Empirical study in PT AIA financial branch phoenix medan). *International Journal of Research and Review*, 7(2): 47-55.
- [27] Parasuraman, A., Zeithaml, V.A., Malhotra, A. (2005). E-S-QUAL: A multiple-item scale for assessing electronic service quality. *Journal of Service Research*, 7(3): 213-233. <http://doi.org/10.1177/1094670504271156>
- [28] Dominici, G. (2009). From marketing mix to e-marketing mix: A literature overview and classification. *International Journal of Business and Management*, 4(9): 17-24. <http://doi.org/10.5539/ijbm.v4n9p17>
- [29] Sriram, K.V., Phouzder, K., Mathew, A.O., Hungund, S. (2019). Does e-marketing mix influence brand loyalty and popularity of e-commerce websites? *ABAC Journal*, 39(2): 64-81.
- [30] Tanchak, A., Katovsky, K., Haysak, I., Adam, J., Holomb, R. (2022). Research of spallation reaction on plutonium target irradiated by protons with energy of 660 MeV. *Scientific Herald of Uzhhorod University. Series "Physics"*, (52): 36-45. <https://doi.org/10.54919/2415-8038.2022.52.36-45>
- [31] Abudaqa, A., Al Nuaimi, S., Buhazzaa, H., Al Hosani, S. (2021). Examining the significance of internal mobility

- hiring in determining the individual vs organizational outcomes: An empirical investigation from ADNOC FURSA platform during recent pandemic of COVID-19. Society of Petroleum Engineers - Abu Dhabi International Petroleum Exhibition and Conference, Abu Dhabi. <https://doi.org/10.2118/207535-MS>
- [32] Brady, M.K., Cronin, J.J. (2001). Some new thoughts on conceptualizing perceived service quality: A hierarchical approach. *Journal of Marketing*, 65(3): 34-49. <http://doi.org/10.1509/jmkg.65.3.34.18334>
- [33] Makhazhanova, U., Kerimkhulle, S., Mukhanova, A., Bayegizova, A., Aitkozha, Z., Mukhiyadin, A., Tassuov, B., Saliyeva, A., Taberkhan, R., Azieva, G. (2022). The evaluation of creditworthiness of trade and enterprises of service using the method based on fuzzy logic. *Applied Sciences (Switzerland)*, 12(22): 11515. <https://doi.org/10.3390/app122211515>
- [34] Aburayya, A. (2020). The impact of electronic service quality dimensions on customers' e-shopping and e-loyalty via the impact of e-satisfaction and e-trust: A qualitative approach. *International Journal of Innovation, Creativity and Change*, 14(9): 257-281.
- [35] Purnamasari, I., Suryandari, R.T. (2023). Effect of e-service quality on e-repurchase intention in Indonesia online shopping: E-satisfaction and e-trust as mediation variables. *European Journal of Business and Management Research*, 8(1): 155-161. <http://doi.org/10.24018/ejbmr.2023.8.1.1766>
- [36] Miao, M., Jalees, T., Zaman, S.I., Khan, S., Hanif, N., Javed, M.K. (2022). The influence of e-consumer satisfaction, e-trust and perceived value on consumer's repurchase intention in B2C e-commerce segment. *Asia Pacific Journal of Marketing and Logistics*, 34(10): 2184-2206. <http://doi.org/10.1108/APJML-03-2021-0221>
- [37] Indra Malik Akbar, I.M.A.F., Yaddarabullah, Y., Permana, S.D.H. (2021). Classification hoax news of COVID-19 on Instagram using K-Nearest neighbor. In 10th IEEE International Conference on Communication, Networks and Satellite, Virtual, Purwokerto, pp. 157-161. <https://doi.org/10.1109/COMNETSAT53002.2021.9530828>
- [38] Mercan, M., Khoshatria, T., Matin, A., Sayfullin, S. (2020). The impact of e-services quality on consumer satisfaction: Empirical study of Georgian HEI. *Journal of Business*, 9(2): 15-27. <http://doi.org/10.31578/v9i2.175>
- [39] Aguiar-Costa, L.M., Cunha, C.A.X. C., Silva, W.K.M., Abreu, N.R. (2022). Customer satisfaction in service delivery with artificial intelligence: A meta-analytic study. *Revista de Administração Mackenzie*, 23(6): 1-29. <http://doi.org/10.1590/1678-6971/eramd220003.en>
- [40] Faisal, A.S., Haque, R., Pang, A.K., Rahman, A., Connie, G. (2020). The influence of e-service quality dimensions on consumer satisfaction and purchase intention: An Indian e-market perspective. *Asian Journal of Technology & Management Research*, 10(1): 1-22.
- [41] Mughila, K., Gayathri, A.S. (2022). Impact of e-service quality on e-satisfaction and e-loyalty. *Journal of the Asiatic Society of Mumbai*, XCV(5): 157-165.
- [42] Vela, F., Sinaj, Z. (2023). The impact of increasing performance and productivity in the management of human resources in Albanian enterprises. *Theoretical and Practical Research in the Economic Fields*, 14(1): 85-93. [https://doi.org/10.14505/tpref.v14.1\(27\).08](https://doi.org/10.14505/tpref.v14.1(27).08)
- [43] Hazaea, S.A., Al-Matari, E.M., Zedan, K., Khatib, S.F. A., Zhu, J., Al Amosh, H. (2022). Green purchasing: Past, present and future. *Sustainability*, 14(9): 5008. <https://doi.org/10.3390/su14095008>
- [44] Ahmad, W., Zhang, Q. (2020). Green purchase intention: Effects of electronic service quality and customer green psychology. *Journal of Cleaner Production*, 267: 122053. <https://doi.org/10.1016/j.jclepro.2020.122053>
- [45] Román-Augusto, J.A., Garrido-Lecca-Vera, C., Lodeiros-Zubiria, M.L., Mauricio-Andia, M. (2022). [Green marketing: Drivers in the process of buying green products – The role of green satisfaction, green trust, green WOM and green perceived value. *Sustainability*, 14(17): 10580. <http://doi.org/10.3390/su141710580>
- [46] Söderholm, P. (2020). The green economy transition: The challenges of technological change for sustainability. *Sustainable Earth*, 3: 6.
- [47] Lakatos, E.S., Nan, L.M., Bacali, L., Ciobanu, G., Ciobanu, A.M., Cioca, L.I. (2021). Consumer satisfaction towards green products: Empirical insights from Romania. *Sustainability*, 13(19): 10982. <https://doi.org/10.3390/su131910982>
- [48] Babak, V.P., Babak, S.V., Eremenko, V.S., Kuts, Y.V., Myslovych, M.V., Scherbak, L.M., Zaporozhets, A.O. (2021). Models of measuring signals and fields. *Studies in Systems, Decision and Control*, 360: 33-59.