HOUSEHOLD CUSTOMERS' SATISFACTION TOWARDS SOLAR ENERGY IN RUPANDEHI DISTRICT

Dansi Ram Bhandari

Teaching Assistant, Faculty of Management, Butwal Multiple Campus, T.U.

Govinda Jnawali

Assistant Professor, Department of Statistics, Butwal Multiple Campus, T.U.

ABSTRACT

This paper aims to evaluate household customer satisfaction towards solar energy in Rupandehi district, Nepal. In order to address research issues, the study used questionnaire survey among 105 respondents during February to April, 2023. Multiple linear regression model was used to evaluate household customers' satisfaction based on characteristics of the product, customer services, contribution of the product and government support criteria. The research results showed that characteristics of the solar panel product (efficiency, durability convenient to use, price and quality) are highly concerning satisfaction criterion. Based on the results obtained of this study, it is concluded that there are high opportunities to manufacturers and solar panel service providers to keep their household customers satisfied by providing effective after sales service. Although, contribution of the solar panel energy towards energy needs of household customers is the less concerning criterion. There is large area for expansion to be made to increase solar energy market through the proper government initiation. The main implication of this study is that manufacturers should attention while designing, pricing and producing solar energy products to satisfy their customers for a long time. The results obtained may be useful to solar panel manufacturers, service providers, government authorities and researchers.

INTRODUCTION

Achieving customer happiness has become a key strategy for every kind of businesses these days. Overall success of every business firm depends upon customers' satisfaction. Many studies have identified the importance of customer satisfaction in creating and maintaining strategic competitive advantages. It is very common that satisfaction of customer is one of the considerable variables for business success (Ahmad, 2017). Customers are becoming highly sensitive day to day for the quality of the goods and services they get. Customers become more flexible to make decisions because they have many options, and it is more important for organizations to win customer' trust. Similarly, rising level of education allows customers to assess and evaluate any products and services they pay for it. Every firm that meets the customers' interest has a sound competitive advantage (Skordoulis et al., 2017).

Customer satisfaction has been promising issue for many of the studies in the past and many of them emphasizes on retail customer satisfaction rather than industrial ones (Homburg & Rudolph, 2001). Studies on customer satisfaction have prioritized quality products and services in recent year. Yi (1990) states that satisfaction of customer means that their needs are addressed, their services are deemed adequate, and their purchasing experience is favorable. Fang et al. (2021) defines that customer satisfaction is correlated with an individual's dissatisfaction as compared to their expectations and the performance or outcome of a goods or service. In this context, (Kotler & Amstrong, 2017) developed the idea of customer satisfaction with consideration for expectations derived from the post-purchase assessment of goods or services.

One of the key indicators of the interface between humans and nature is energy. The production, conversion, and use of energy are linked to the majority of environmental problems that have an impact on society, the economy, and environmental sustainability (Dincer, 2007). It is imperative that these environmental problems are handled competently (Ntanos, Skordoulis, et al., 2018). Requirement of environment friendly and safe forms of energy are becoming more common these days (Andrea et al., 2020). As the global energy system changes, sustainable energy is anticipated to emerge as the clear winner in the competition to meet the growing demand for energy (Ntanos, Kyriakopoulos, et al., 2018). In the recent years, the demand for renewable and clear sources of energy by industrial and retail customers has increased significantly. Customer satisfaction and the quality of services rendered by energy supply companies have been of significant importance to them.

Hence, for the energy supply firms, evaluating customer satisfaction is one of the emerging techniques for strategic planning, ability of identifying the necessary tools for their existence and growth. Furthermore, every firm must identify way to meet their customers' desire and retain their loyalty. Because more energy markets have lately been liberalized, customer satisfaction is not as highly valued in the energy sector as it is in other ones. There is less exploration on customer satisfaction in the energy market in Nepal as well as globe. Therefore, the purpose of this study is to close the gap in the prior research on consumer satisfaction in the energy sector. The main purpose of the study is to measure and evaluate household customers satisfaction toward solar energy in Rupandehi district, Nepal using a multiple linear regression model.

LITERATURE REVIEW

Household Customers' Satisfaction

Customer satisfaction is backbone of marketing. Customer satisfaction dimensions support to promote an increased emphasis on outcomes of customers, continue progress in the work practices and procedure used within the firm (Bhavna Prajapati, 2022). Satisfaction of customer is one of the most investigated marketing research topics (Adomaa, 2021). The main objective of outstanding service for customer is to achieve satisfaction and develop and maintain customer loyalty (Christopher et al., 2013). Regular well customer service has tactical needs and importance to improve customer experience and satisfaction to carry out quality in competitive marketplace. Erdis & Du Toit (2014) refer that customer satisfaction as a psychological process of comparing perceived performance outputs based on standard expectations. Jackson & Ahuja (2016) define that customer satisfaction refers the felling of customer that a goods or service has fulfilled or beat the expectations.

Satisfaction of customer normally arises when customers attach significance to perceived value received. Satisfaction of customer thus comparatively joined to customer value. A firm always efforts to brand itself diverse than its competitors, based on the advantages that its goods and services offer to its customers. To make these benefits meaningful, the customer should notice to service providers in same way. Few markets think that single technique a firm can distinguish itself than other competitors is to provide better value of customer (van den Bersselaar et al., 2003). Similarly, if a firm wants to offer better customer value, firm should deliver improved for customer's desires than its competitors (Al-Refaie, 2015). Value of the customer refers the result that the creditor's offer has on the client's own value chain. When the market offer shows higher performance, better perceived benefits or lower cost for customer, then there is a strong more value from its customer's perceived (Paulin, 2003). Furthermore, a firm that delivers high quality goods or services at a reasonable price than its competitors deliver higher value to its customers than its competitors.

Marketing researchers agree that a definite group that debatably has highest influence on customer behavior is the household or family group (Kotler & Keller, 2016; & Arnould et al., 2005). Researchers evaluate the behavior and attitudes of the many household customers who are the main decision- makers, while sometimes researchers examine the behavior and attitudes of the person most likely to be the main users of specific products. They further defined that how household or family members act together with and affect one to another in terms of household or individual behavior.

Customer Satisfaction in Energy Sector

Many studies have been carried out relating to satisfaction of customer toward energy service providers since last years. Normally, satisfaction of customer in the energy sectors involves the quality of service, new connection provision and government financial subsidies. Satisfaction of customer is one of the influencing factors for energy providers. The aim of a manufacturer and energy service provider- is to provide quality products and services that fulfill its customer's need at reasonable price (Medjoudj et al., 2013). Satisfied customers trust their energy service providers. Satisfaction of customer is an important energy sector's theme. Customers, who are satisfied have the chance to become loyal customers and loyal customer come from satisfied customers and possible to attract new customers in energy sector (Walsh et al., 2006). This idea supported by Mutua et al. (2012) who state that satisfaction of customer is largest in the renewable energy area at 74.71%, whereas fuel sector covers 32.32% and electricity sector has smallest satisfaction at 53.06%. Golovkova et al. (2019) showed that customer satisfaction in renewable energy sector is 78% and 75% in other sector of energy. Medjoudj et al. (2012) used multi- criteria decision-making methods to discover the satisfaction of customer with energy service providers measured by the requirement of top class of service at reasonable price. Household satisfaction of customer with energy providers is associated with the measurement of technical quality of core service and customer satisfaction (Ibáñez et al., 2006). The conceptual framework developed by Hartmann & Apaolaza Ibáñez (2007) explained the effect of satisfaction of customer and shifting costs on loyalty of customer in energy markets. They concluded that key factors related to satisfaction of customer are quality of core services, innovations, value added services and pricing policy.

Solar Energy Market in Nepal

Solar energy is rapidly growing energy sector in Nepal. OECD (2020) report shows that Nepal boasts abundant and reasonably priced solar energy resources. Its annual solar potential is

50,000 terawatt-hours, which is 100 times more than its hydropower capacity and 7,000 times more than the country's current electricity usage. Solar energy is cheaper than hydro, fossil fuel and nuclear energy. When Nepal's solar sector matures, it could be able to produce electricity at a cost of US$40 per megawatt, with costs potentially dropping to US$30 per megawatt by 2030 (Verlinden, 2020). Fast growing reductions in price of solar PV during the last few years has opened up huge markets in developed and developing countries. Lohani & Blakers (2021), in their study on "100% renewable energy with pumped- hydro energy storage in Nepal", concluded that country can meet its energy requirements from solar PV due to its low- cost. They further explained that compared to alternative storage technologies like hydrogen or batteries, pumped hydro energy is far less expensive. By 2050, the majority of nations have committed to having zero greenhouse gas emissions. In order to achieve this, the solar business must grow thirty times by the year 2020. Due to this significant upscaling, solar panels will become considerably less expensive, and the cost of solar energy in Nepal will drop significantly relative to other energy sources.

METHODOLOGY

Data and Research Tools

Survey data collected from February to April of 2023 served as the basis for this study. Respondents were categorized according to demographic factors. In total 160 household users of solar energy were randomly selected as respondents and 105 questionnaires were collected. The primary data was used to collect quantitative information by using close- ended and open-ended questionnaires. The interview was taken in face-to-face situation in natural setting with respondents. The researcher and research assistants directly involved in data collection process. The existing literatures were examined to design the questionnaire (Bhavna Prajapati, 2022; Ibáñez et al., 2006; & Mutua et al., 2012). Based on the previous research results and explicit characteristics of the solar energy sector market in Nepal, a sequence of satisfaction factors and sub- factors shown in Table 1 were investigated. Similarly, conceptual framework of the study is presented in Figure 1 showing dependent and independent variables. A five-point Likert scale was used to evaluate level of satisfaction of respondents rating from strongly disagreed (1), Disagreed (2), Neutral (3), Agreed (4) Strongly agreed (5). The collected data were analyzed using multiple linear regression method.

Study Area

Rupandehi district is the area of this study. It lies in the western and southern part of the country. It is adjoined with Nawalparasi in the east, with Kapilvastu in the west, with Palpa in the north and with India in the south. The elevation of the district is between 100 m to 1229 m from the sea level and the total area of this district is 1360 km2 with 16.1 percent in Churia range and rest in Terai. With population growth rate as 2.30 percent per annum and population density as 822.8 per square km, the total population of this district is 1,118,975. Out of total population 547,545 are males and 571,430 are females (CBS, 2021). The district is famous for trade, tourism and education sector in Nepal. It is also the birth place of Lord Gautam Buddha.

Multiple Regression Analysis

A statistical technique called multiple linear regression can be used to examine the relationship between one dependent variable and several independent variables. The purpose of multiple regression analysis is to apply the independent factors whose values are known to

estimate the value of single dependent value. Every predictor value is evaluated, the weights representing their relative contribution to the overall estimation. This study used multiple linear regression method to show the relationship between causes of customer's satisfaction solar energy and total satisfaction. In order to better explain the dependent variable, the independent variables that can do so are extracted. Total satisfaction is used as dependent variable while independent variables are represented by product characteristics, customer service, contribution of solar product and government subsidies.
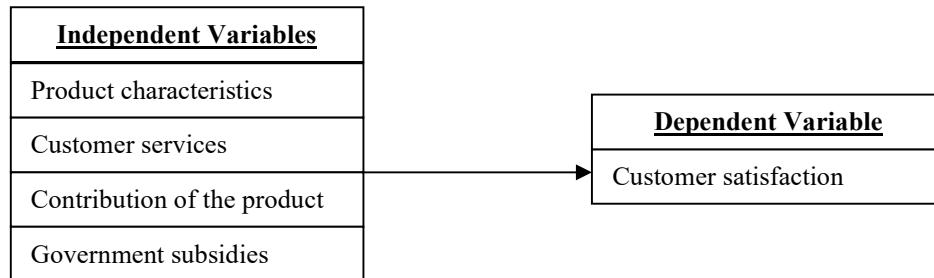
Independent Variables
Product characteristics
Customer services
Contribution of the product
Government subsidies

Dependent Variable
Customer satisfaction

Figure 1: Theoretical framework

The basic regression model used in this study is as follows:

$$Y_i = a + b_1X1_i + b_2X2_i + b_3X3_i + b_4X4_i + e_i \qquad \dots (1)$$

where,

Yi= Customer Satisfaction (CS)

$X1_i$ = Product Characteristics (PC)

$X2_i$ = Customer Service (CS1)

$X3_i$ = Contribution of Product (CP)

$X4_i$ = Government Subsidies (GS)

Table 1: Satisfaction factors and subfactors

Satisfaction Factors	Satisfaction Sub- Factors
Product characteristics	1. Price of the solar panel 2. Quality of the solar panel 3. Convenient to use 4. Durability of the solar panel 5. Warranty period of the solar panel
Customer service	1. Spare parts easily available in the local market 2. Maintenance cost of solar panel 3. Regular warranty service support 4. After sales service 5. Recommend service of current service provider
Contribution of solar panel	1. Meets energy needs 2. Additional household works using solar energy 3. Maintain healthy environment in the house 4. Support to reduce energy expenses at my home
Government subsidies	1. Financial assistance from the government to install 2. Subsidies in solar product are easy to get 3. Subsidies are encouraging to promote solar energy 4. Distribution of subsidies is transparency in Nepal

RESULTS AND DISCUSSION

Descriptive Statistics

Table 2 results show that 51.8 percent of the respondents are males and 41.9 percent are females. The age of respondents revealed that 54.3 percent are in the age of 30-39, participated by 21.9 percent in the age group of 20-29 and 40-49 both and 1.9 percent in the age of 50 and above. Regarding academic qualification of the respondents, 44.8 percent respondents completed their PCL education, 40 percent completed bachelor, 9.5 percent completed master and above degree and 5.7 percent completed SLC. On the basis of monthly income of the respondents, 44.8 percent in the income group of Rs 30,000- Rs 39,999, followed by 34.3 percent in the income group of Rs 20,000-29,999, 14.3 percent in the income group of Rs 40,000-49,999, 4.8 percent in the income group of below Rs 20,000 and 1.9 percent in the income group of Rs, 50,000 and above.

Table 2: Sample demographics

Demographics	Groups	Frequency	Percent (%)
Gender	Male	61	58.1
	Female	44	41.9
Age	20-29	23	21.9
	30-39	57	54.3
	40-49	23	21.9
	50 and above	2	1.9
Education qualification	SLC	6	5.7
	PCL	47	44.8
	Bachelor	42	40.0
	Master	10	9.5
Monthly Income	Below Rs 20000	5	4.8
	Rs. 20000-Rs 29999	36	34.3
	Rs. 30,000- Rs 39,999	47	44.8
	Rs 40,000- Rs 49,999	15	14.3
	Rs 50,000 and above	2	1.9

Assessment of Reliability

To check the reliability of the questionnaire standardized Cronbach's alpha coefficient was used. Hair et al. (2019) recommends that 0.7 is considered acceptable and well suggestion for construct reliability. Table 3 results show that all the variables measure has alpha scores above 0.7 with high internal consistency.

Table 3: Reliability scale

Variable	Cronbach's Alpha Scores
Customer Satisfaction	0.761
Product Characteristics	0.825
Customer Service	0.758
Contribution of Solar Product	0.724
Government Subsidies	0.816

Regression Results

Table 4 results show the summary of the multiple regression result for the dependent and independent variables. The regression equation of this study is $Y = 8.974 + 0.149 X1 + 0.164 X2 - 0.08 X3 + 0.115 X4$. The regression table results show that there is a strong and significant relationship between different dimensions of solar product and customer satisfaction (F=7.939,

p<0.01). The R square (0.672) implies that independent factors explain 67.2% and remaining 32.8% are explained by other factors in overall customer satisfaction among household customers of solar energy in Rupandehi district. On the individual determinants, product characteristics (price, quality, durability, convenient to use) were found important determinant for the customer satisfaction toward solar energy (p=0.02). The result is uniform with the result of previous studies (Hartmann & Apaolaza Ibáñez, 2007; & Golovkova et al., 2019). Similarly, customer service (after sales service of service provider, warranty support, availability of spare parts) played significant role in customer satisfaction toward solar product (p=0.028). The result is consistent with existing research (Ibáñez et al., 2006; & Golovkova et al., 2019). Furthermore, government subsidies at the time of installation of solar product is key factor for customer satisfaction (p= 0.034) and this result is steady with recent study (Kılıç & Kekezoğlu, 2022). Although, the study results shows that contribution of solar panel product to fulfill the energy requirement is less important determinant (p=0.137). The result of the study shows parallel with previous research (Charles Rajesh Kumar & Majid, 2020).

Table 4: Regression results (Dependent Variable: Customer satisfaction)

Independent variables	Coeff.	Std. Error	t- stat	p- value	VIF
Constant	8.974	1.812	4.951	.000	
Product characteristics (X1)	.149	.063	2.371	.020	1.343
Customer services (X2)	.164	.074	2.236	.028	1.398
Contribution of solar energy (X3)	-.080	.053	-1.500	.137	1.971
Government subsidies (X4)	.115	.053	2.151	.034	2.117
R-square		*0.672*			
F-stat		*7.939*			
p-value		*0.000*			

CONCLUSION AND IMPLICATIONS

The satisfaction of customer is assessed by comparing out the planned and after purchase evaluation of goods and services. In this study framework, the objective of the study is to evaluate household customer's satisfaction toward solar energy in Rupandehi district, Nepal regarding various criteria, such as product characteristics, customer service, contribution of solar energy in electricity use and government subsidies to promote the solar energy. Survey questionnaire method was used to identify customer's perception toward solar energy and collected data were analyzed using multiple regression technique. Based on the study result, it is concluded that product characteristics affect household customer satisfaction of solar energy. Hence, manufacturers and service providers focus on price, quality, convenient to use and durability of the product to keep their household customers satisfied. Similarly, after sales customer services of solar energy product directly affects the customer satisfaction. These estimated results indicate that manufacturers and service providers should provide regular after sales service facilities to satisfy their customers. Furthermore, government subsidies at the time of installation and operation of solar energy product considerable influence customer satisfaction toward solar energy. Therefore, it needs to focus on subsidies to promote solar energy and reduce the use of fossil fuel by the government. Contribution of solar energy product to fulfill the energy needs of household customers shows less influencing factor is one of the interesting results of the study.

The study has significant implications. Factors affecting household customers satisfaction toward solar energy market is one of the major concerns of the study. Feed- in tariffs and tax incentives are effective schemes to satisfy household customers of solar energy product. In addition, easily available spare parts, reasonable maintenance cost, express warranty of the product

and regular touch with customers after sales are key determinants to satisfy household customers toward solar energy. Therefore, manufacturers should attention while designing, pricing and producing solar energy products to satisfy their customers for a long time. Finally, our study results are reliable and relevant, rational of the study may bound this reliability. In this way, further studies can enlarge this study by covering more areas and sample size.

REFERENCES

Adomaa, E. (2021). Marketing of special library services in Ghana: The case of Ghana Atomic Energy Commision. *Library Philosophy and Practice*, *1-26*.

Ahmad, N. (2017). Quality attribute and customer satisfaction: Using Kano's Model to prioritize what matters most to customers. *Journal of Marketing and Consumer Behaviour in Emerging Markets*, *1*(5).

Al-Refaie, A. (2015). Effects of human resource management on hotel performance using structural equation modeling. *Computers in Human Behavior*, *43*. https://doi.org/10.1016/j.chb.2014.11.016

Andrea, V., Tampakis, S., Karanikola, P., Galatsidas, S., & Giannakopoulos, D. (2020). Investigating the citizens' views and perceptions about the urban forest infrastructure and services of Komotini, Greece. *WSEAS Transactions on Environment and Development*, *16*. https://doi.org/10.37394/232015.2020.16.61

Arnould, E. J., Price, L. L., & Zinkhan, G. M. (2005). Consumers - international 2nd edition. In *Consumers - international 2nd edition*.

Bhavna Prajapati, B. (2022). Factors Affecting Customer Satisfaction towards Solar Panel. *International Journal of Marketing & Human Resource Research*, *3*(2). https://doi.org/10.47747/ijmhrr.v3i2.679

Charles, R. K. J., & Majid, M. A. (2020). Renewable energy for sustainable development in India: Current status, future prospects, challenges, employment, and investment opportunities. *Energy, Sustainability and Society, 10* (1), 1-36. https://doi.org/10.1186/s13705-019-0232-1

Christopher, M., Payne, A., & Ballantyne, D. (2013). *Relationship Marketing: Creating Stakeholder Value*. Butterworth-Heinemann: UK. https://doi.org/10.4324/9780080516042

Dincer, I. (2007). Environmental and sustainability aspects of hydrogen and fuel cell systems. *International Journal of Energy Research*, *31*(1). https://doi.org/10.1002/er.1226

Erdis, C., & Du Toit, M. (2014). Household Life Cycle: The Case Of Customer Satisfaction In Restaurants. *International Business & Economics Research Journal (IBER)*, *13*(2). https://doi.org/10.19030/iber.v13i2.8450

Fang, S. C., Chen, C. H., & Yang, C. W. (2021). Implementing a Value Co-creation Network: Some Lessons from Taiwan's Steel Industry. *Journal of Business-to-Business Marketing*, *28*(1). https://doi.org/10.1080/1051712X.2021.1893034

Golovkova, A., Eklof, J., Malova, A., & Podkorytova, O. (2019). Customer satisfaction index and financial performance: a European cross country study. *International Journal of Bank Marketing*, *37*(2). https://doi.org/10.1108/IJBM-10-2017-0210

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review, 31*(1). 2-24. https://doi.org/10.1108/EBR-11-2018-0203

Hartmann, P., & Apaolaza Ibáñez, V. (2007). Managing customer loyalty in liberalized residential energy markets: The impact of energy branding. *Energy Policy*, *35*(4). https://doi.org/10.1016/j.enpol.2006.09.016

Homburg, C., & Rudolph, B. (2001). Customer satisfaction in industrial markets: Dimensional and multiple role issues. *Journal of Business Research*, *52*(1). https://doi.org/10.1016/S0148-2963(99)00101-0

Ibáñez, V. A., Hartmann, P., & Calvo, P. Z. (2006). Antecedents of customer loyalty in residential

energy markets: Service quality, satisfaction, trust and switching costs. *Service Industries Journal*, *26*(6). https://doi.org/10.1080/02642060600850717

Jackson, G., & Ahuja, V. (2016). Dawn of the digital age and the evolution of the marketing mix. *Journal of Direct, Data and Digital Marketing Practice*, *17*(3). https://doi.org/10.1057/dddmp.2016.3

Kılıç, U., & Kekezoğlu, B. (2022). A review of solar photovoltaic incentives and Policy: Selected countries and Turkey. In *Ain Shams Engineering Journal* (Vol. 13, Issue 5). https://doi.org/10.1016/j.asej.2021.101669

Kotler, P., & Amstrong, G. (2017). Principles of Marketing. *New York: Pearson International.*

Kotler, P., & Keller, K. L. (2016). A Framework for Marketing Management. In *Marketing Management*.

Lohani, S. P., & Blakers, A. (2021). 100% renewable energy with pumped-hydro-energy storage in Nepal. *Clean Energy*, *5*(2), 243–253. https://doi.org/10.1093/ce/zkab011

Medjoudj, R., Aissani, D., & Haim, K. D. (2013). Power customer satisfaction and profitability analysis using multi-criteria decision making methods. *International Journal of Electrical Power and Energy Systems*, *45*(1). https://doi.org/10.1016/j.ijepes.2012.08.062

Medjoudj, R., Laifa, A., & Aissani, D. (2012). Decision making on power customer satisfaction and enterprise profitability analysis using the Analytic Hierarchy Process. *International Journal of Production Research*, *50*(17). https://doi.org/10.1080/00207543.2012.660794

Mutua, J., Ngui, D., Osiolo, H., Aligula, E., & Gachanja, J. (2012). Consumers satisfaction in the energy sector in Kenya. *Energy Policy*, *48*. https://doi.org/10.1016/j.enpol.2012.06.004

Ntanos, S., Kyriakopoulos, G., Chalikias, M., Arabatzis, G., & Skordoulis, M. (2018). Public perceptions and willingness to pay for renewable energy: A case study from Greece. *Sustainability (Switzerland)*, *10*(3). https://doi.org/10.3390/su10030687

Ntanos, S., Skordoulis, M., Kyriakopoulos, G., Arabatzis, G., Chalikias, M., Galatsidas, S., Batzios, A., & Katsarou, A. (2018). Renewable energy and economic growth: Evidence from European countries. *Sustainability (Switzerland)*, *10*(8). https://doi.org/10.3390/su10082626

OECD. (2020). World Energy Outlook 2020 – Analysis. *OECD International Energy Agency*, *October 2020*.

Paulin, M. (2003). Relationship Marketing: Creating Stakeholder Value20031Martin Christopher, Adrian Payne and David Ballantyne. Relationship Marketing: Creating Stakeholder Value . Oxford: Butterworth Heinemann 2002. . *Journal of Services Marketing*, *17*(4). https://doi.org/10.1108/jsm.2003.17.4.443.1

Skordoulis, M., Alasonas, P., & Pekka-Economou, V. (2017). E-government services quality and citizens' satisfaction: A multi-criteria satisfaction analysis of TAXISnet information system in Greece. *International Journal of Productivity and Quality Management*, *22*(1). https://doi.org/10.1504/IJPQM.2017.085848

Van den Bersselaar, D., Jalloh, A., & Falola, T. (2003). Black Business and Economic Power. *Africa: Journal of the International African Institute*, *73*(3). https://doi.org/10.2307/3556920

Verlinden, P. J. (2020). Future challenges for photovoltaic manufacturing at the terawatt level. *Journal of Renewable and Sustainable Energy*, *12*(5). https://doi.org/10.1063/5.0020380

Walsh, G., Dinnie, K., & Wiedmann, K. P. (2006). How do corporate reputation and customer satisfaction impact customer defection? A study of private energy customers in Germany. *Journal of Services Marketing*, *20*(6). https://doi.org/10.1108/08876040610691301

Yi, Y. (1990). A Critical Review of Consumer Satisfaction (Auszug). *Review of Marketing*, *4*.