Analysing driving factors of customer satisfaction among telecommunication service providers in Kurdistan region

Nabaz Nawzad Abdullah1, M Prabhu1, and Masayu Binti Othman1

Abstract
Due to unprecedented innovation in information and communication technology, customers interact more with telecommunication service providers. Customer satisfaction is the extent of customer psychological sense and expectation towards a particular product or service. Satisfaction is a core to business success where corporates strive to fulfill them in the competitive market, where customers have more options. The lack of understanding of customer expectations created a gap between telecommunication companies operating in Kurdistan Region and subscribers. The current study intends to understand factors affecting customer satisfaction among telecommunication service companies in Kurdistan Region. It also identifies the customer’s critical factors concerning telecommunication services. Convenience sampling has been used to investigate the impacts of service quality, service attitude, value-added services, and price on customer satisfaction. The result revealed a significant and positive relationship between all independent variables except for the value-added services found to have a significant but reverse impact on customer satisfaction. The negative impacts of value-added services on customer satisfaction rely on the fact that roaming services, money transfer, reward points, and easy recharge are not concerns for customers compared to the price, quality of networks, and connectivity. The study signifies that nourishing customers by telecommunication companies in Kurdistan Region improve their market share and creates competitive value and uniqueness. This study highlights that competitive advantage and uniqueness offers more customer-oriented services to mobile subscribers and could be perceived as a precondition to the survival of operating firms. In return, the general public delivers cheaper and more reliable services with improved connectivity and internet service at a competitive price.

Keywords
Customer satisfaction, value-added services, price, quality, telecommunication, service attribute

Date received: 19 June 2019; accepted: 16 June 2022

Introduction
Customer satisfaction is defined by Kotler and Keller1 as the personal feelings of customers, which could be pleasure or disappointment towards customer expectation or the perceived products performed by the service provider. Its seen as a key performance indicator to measure the effectiveness of business and public organisations. Alaoui and Tkiouat2 relate customer satisfaction to the interaction of product design, service quality, and customer characteristics. The customers’ satisfaction must be a primary objective of any business company. Their very survival is at stake, and, on the other hand, customer loyalty depends primarily on them and getting them to become ambassadors of the brand. More clearly, the satisfied customer becomes an agent for the

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company and invites other people to choose that particular service as an efficient source of company advertisement. Some scholars have incorporated customer satisfaction and customer loyalty to focus on a large number of customers and the business’s success.\textsuperscript{3–5} The emergence of many companies in the telecommunication market has created a highly competitive environment towards customer satisfaction.

Furthermore, customers are increasingly informed, and their level of demands and expectations are higher than before. Several studies have revealed the importance of customer satisfaction in business, especially in the highly competitive market.\textsuperscript{5,7} Abdulrahman\textsuperscript{8} believe that customer satisfaction should be the core element of business strategy as the goal of any business entity is to survive in a competitive market. Clients are the target of any business, whether individual or government agencies. So, clients need to be targeted so their satisfaction can be fulfilled. Customer satisfaction significantly impacts business development.\textsuperscript{5,10} However, dissatisfied customers negatively impact the business as they share their bad experiences with others. Indeed they do it more frequently than a satisfied customer. Nowadays, things can quickly go viral and be shared all over print and social media. Once a customer finds something substandard, they directly complain and share their reviews by using social media platforms.\textsuperscript{11} Business companies are better off dedicating time to internal processes concerning customer service, offering quality service, attention, and product so that the client is satisfied and remains engaged with what the company offers instead of leaving with any of the competitors.\textsuperscript{12} Thus, they will be capable of maintaining their operation and increasing their sales. Consequently, the company will achieve a better economic and financial outcome, therefore, higher profitability and shareholder satisfaction.

In the last few years, the companies have been working hard to win market share in Kurdistan Region, especially the telecommunication companies. Achieving a high level of satisfaction is the key generator of long-term company performance.\textsuperscript{13} As the performance and survival of the companies rely on customer satisfaction, individual policies and market techniques could be applied. Lately, the telecommunication companies in Kurdistan have diversified their offers such as internet and other communication packages to their customer to satisfy their needs and survive in the current competitive market that companies aggressively compete for each other.\textsuperscript{9} However, it seems that customers are not satisfied with their services and prices. The prices, quality, and packages are different from one service provider to another; thus, different levels of satisfaction could be expected. This study aims to investigate the extent to which customers are satisfied with the three major telecommunication companies including Korek Telecom, Asia Cell, and Zein Iraq. Zain Iraq which is a unit of Kuwait’s Zain serves 16 million customers all over Iraq with fewer subscribers in Kurdistan Region, but AsiaCell has more than 14 million subscribers and provides mobile and telecommunication services all over Iraq.\textsuperscript{14} However, Korek Telecom with its headquarter in Kurdistan Region had a market share of 16% as of December 2013. AsiaCell and Korek Telecom began their operation in 1999 and 2000 and that has given a considerable head start comparing to Zein Iraq that was licensed in 2003. The three mobile operators have granted their license from the Independent Communication and Media Commission for 15 years starting from 2007.\textsuperscript{15} The recent data driven from the official homepage of the mobile operators in Iraq shows a slight growth in the number of their subscribers. The Zein Iraq is still the leading mobile operator in Iraq with 16 million subscribers, AsiaCell follows by 14.7 million, and Korek Telecom with 7 million subscribers. Thus, as shown in Figure 1, the total number of mobile cellular subscriptions in Iraq is 37.7 where Zein Iraq has the market share of 42.4%, AsiaCell 39%, and Korek Telecom seems to be the fastest growing mobile operator with 18.56% of the Iraqi market share.

The three companies somehow monopolised the telecommunication market as the national license costs $1.25 billion, which left less potential for other mobile operators to start. However, the operators are seeking to expand their market and mobile data networks especially moving from 2G networks to 3G and 4G networks and now striving to provide 5G service to their customers. As the number of people using smartphones increases, internet access becomes inevitable. Mobile operators somehow fail as Data Network companies including Newroz Telecom, control the market, Fastlink, and Fiber Optic Lines. In that complicated environment, the mobile operators offer their customers promotions and best-in-class services to attract them. Therefore, satisfaction from telecommunication companies is greatly influenced by the value of the services provided to them. Value creation is to create a unique product to maintain the relationship with the customer and accelerate their satisfaction. Few critical factors potentially influence customer behaviour towards the service providers, including the price, service quality, service attribute value-added services (VAS). This study intends to measure the direct relationship between driving factors affecting customer preferences and customer satisfaction among telecommunication companies operating in Kurdistan Region.

**Literature review**

Satisfaction is a precondition for the success of business entities. The dynamic marketplace entails more customer-driven initiatives to fulfil, understand and retain customer needs and wants and build a long-term intimate relationship that leads to business growth.\textsuperscript{17} The paradigm shift results in more customer interaction, identification, customisation, and personalisation, ensuring more profit, customer
satisfaction, and retention as such argues that customer satisfaction and value are the most significant factor for the success of service as well as manufacturing firms. Garbarino and Johnson described satisfaction as the attitudinal construct of the actors that reflects likely assessment and perception of the skills and quality of acting. Satisfaction is the personal feeling of pleasure or disappointment when comparing expectation and perceived service performance. A satisfied customer usually receives expected services that produce value and feel before purchasing. The satisfied customers usually become key to company success as they become agents for the brand and indirectly promote the product and services through word of mouth and social media. Recommending products by loyal customers is essential for business ventures to flourish. Li, Qi, and Shu demonstrated that satisfied customers through word of mouth influence the level of profitability due to the positivity of the customer and the referral of the services to others through word of mouth. Simultaneously, the more satisfaction achieved, the better loyalty could be obtained, as discussed by Yuksel, Yuksel & Bilim. However, this is highly related to other factors such as price, quality of services, service attributes, and value-added services provided to the customers. The factors such as perceived value, perceived quality, company image, index of service as part of the four factors as mentioned earlier included in the model developed by Li, Qi, and Shu that was created based on the American Customer Satisfaction Index (ACSI) and Technology Acceptance Model (TAM) model.

Service quality and satisfaction

Customer satisfaction is influenced by measures such as the quality of the services along with other factors. The primary dimensions used to measure service quality includes but are not limited to reliability, assurance, responsiveness, tangible and empathy which define the level of customer satisfaction. These factors Customers, when buying a product, typically check the quality. Sometimes, the quality is compared against the price before the buyer decides. Customers are looking for quality even to improve their safety and the product’s life. The strength of the relationship between service quality and customer satisfaction is not always significant, but different studies show different results when testing the two variables. Gotlieb et al. found a robust positive relationship between service quality and customer satisfaction. Still, other studies find a weaker relationship between the two variables, as in Zhou. Cruz studied the relationship between quality and customer satisfaction in the automotive industry. The author founds a positive relationship between the two concepts. More clearly, the author insisted that incidents like repairs, injuries, or death are due to the unsafe car product design or quality of products. Thus, quality leads to business development as productivity increase. This linkage is essential when Analysing business development concerning customer satisfaction where quality matters.

In the competitive market economy, managers need to find ways to upgrade their service facilities and offer quality services to their customers to maintain their competitive advantage. However, this has become an issue among Chinese bank managers due to the lack of knowledge on customer preferences, which hinders their efforts to develop and monitor quality services that give them a competitive advantage in the market economy. Customer dissatisfaction, in this case, causes retention that changes the behaviour of customers toward the service provider. Thus, the customer becomes a potential switcher, diminishing stayers and keeping away from the particular service provider. In this current study, the quality might have a different

![Figure 1. Number of cellular subscription in Iraq 2003–2021.](image-url)

Note: The figure was produced from the data on mobile operator’s webpage & ODea.16
interpretation in the communication sector. It’s more related to the customer care, security, quality of communication, and efficient services where subscriber accesses their mobile services 24 h; thus, the following hypothesis is proposed:

**H1.** There is a significant relationship between service quality and customer satisfaction.

**Service attributes and satisfaction**

Service attribute is another factor highlighted in previous studies. Liesionis and Pilelienė³⁶ argue that service attribute affects customer decision and preferences. Hence, to understand the preferred product attributes, the provider must obtain knowledge from customers in the market to see the feature and identify the kind of services customers are willing to purchase and what price they are willing to pay for that particular product.³¹,³⁰ Therefore, to ensure the quality product, Fernandes, Filho, and Bonney³² recommended product attribute control through particular regulations, coordination, monitoring, and checking material flows and production activities. Others studied the impacts of mobile service attributes on customer satisfaction and used five service attributes: call rates, service availability, service quality, brand image, and promotion. Concerning brand image in the telecommunication market, Li, Qi, and Shu³ found a contrary relationship between brand image and customer satisfaction.

The integration of service attributes and quality control in the production system facilitates business boosts due to increased customer satisfaction. Zhou²⁶ shows that reliability/assurance is the most crucial factor that impacts customer satisfaction; however, other dimensions have insignificant impacts on satisfaction. He argued that reliability is the critical driver of customer satisfaction, and it’s the core problem of Chinese local banks where customers are lack of trust perceived by them. The other structural parameters tested by Zhou²⁶ including empathy, responsiveness, and tangibles found to have insignificant impacts on service satisfaction. Here, the following hypothesis has been proposed to identify the relationship between service attributes and customer satisfaction:

**H2.** There is a significant relationship between service attributes and customer satisfaction.

**Value-added services and satisfaction**

Miranda et al.²⁴ related customer satisfaction to Value Added Service (VAS) using different components as physical environment, the characteristics of the employees, and their attitude towards the customer, which is believed to influence overall customer satisfaction. The author also identified the importance of VAS and found it essential to survive in a competitive market. The author argues that mobile phone providers have to provide a kind of service that gives them a different image, especially by offering innovative VAS, as it determines customer satisfaction. The positive relationship is also found in the banking sector studied. The author argues that the VAS offered by the Indian banks has created an image and becomes a brand. Without VAS, the banks might find it challenging to retain their customers and become brands in the market. Similar findings by Muruali et al. (2016) highlight the significance of VAS ensuring customer satisfaction. Through competitive edge, the providers could achieve the significance of VAS ensures customer satisfaction, which the providers could achieve through the competitive edge. Other scholars³³–³⁷ have used SERVQUAL dimensions that capture customer satisfaction. The SERVQUAL dimensions include assurance, empathy, reliability, and responsiveness tangibles. This dimension is believed to influence customer behaviour and satisfaction significantly. Thus, the willingness to provide efficient services and help customers impacts on the client-business relationship along with the courtesy of employees and providing promised services to the customers.³⁷ In another study by Johnston²³ on fast food restaurants, several factors have been added to the relationship with customer satisfaction, including friendliness, comfort, and aesthetics. The service provider’s behaviour is relatively crucial in determining the level of satisfaction. The friendlier the service provider is, the more satisfaction could be achieved. Discounts and promotions are other policies companies could apply to attract customers and satisfy their needs. Liesionis and Pilelienė³⁶ explained the importance of promotions on customer choice. The author highlighted that bonuses, off-the-price services, and gifts with the product could influence customer decisions and fulfill their preferences. The customer perceived value substantially determines the level of customer satisfaction. Thus, the firms seek to ensure customer desires from products or services have been perceived. The following hypothesis was formulated based on the arguments discussed:

**H3.** There is a significant relationship between value-added services and customer satisfaction.

**Price and customer satisfaction**

The price allocation strategy is a fundamental aspect of the marketing process in business. Price is defined as an individual sacrifice or what the client gives away to get a product.³⁷ The prices of products impact customer satisfaction.³⁸ Human beings are partially rational when making a decision, and in so many cases, people decide to buy a product based on price. Nafey³⁹ argues that even customers
are not fully satisfied with the service level. Still, satisfaction could be achieved if the price motive exists to pursue customers to choose that particular service. Some people think the most expensive product is better, even though it’s not always true. The price allocation strategy that consists of offering a product at a price higher than others is known as a quality-price indication. The idea is that by assigning a higher price than your competitors, the service provider sends a signal that its product is of better quality. In a study by Lichtenstein et al., it has been identified that higher price products represent higher quality products compared to low price products. Thus, the higher quality product represents higher customer satisfaction. Its also discussed why a higher price is more likely to bring customer satisfaction and refers to the fact that a higher price represents higher quality. A higher-quality product represents fewer malfunctions.

The previous literature correlates higher prices to customer satisfaction, but scholarly arguments rebut previous arguments. For instance, some authors argue that price sensitivity is positively correlated to satisfaction, especially among female customers in the Chinese market economy. In the same vein, Dodds, Anderson, and Sullivan construct a model that believes that customer satisfaction and willingness to purchase rely on the product price and brand name information or the service attributes. We are living a disbanding of promotions, which aim to captivate consumers and create a trend of loyalty and approach to the purchase process; the idea is to make the most significant number of consumers to these chain stores, to offer not only better prices but an excellent sales service with added value that is called timely and efficient attention. Also, discounting and price-friendly products generate a higher level of satisfaction in the customer so that the client feels very important for this company. Price is the most crucial instrument in the competitive market economy for attracting more customers and challenging other competitors. Based on the discussion provided, the following hypothesis could be proposed:

H4. There is a significant relationship between price and customer satisfaction.

Research methods

The quantitative research design has been used, and the data has been collected through the questionnaire. This method is effective because it provides a constructive solution to the current problem, and it’s challenging to obtain a large number of primary data through other methods. This study scattered 230 questionnaires among users of three mobile operators in the Kurdistan region, including Korek Telecom, Zein Iraq, and Asiacell. The three companies have been used because they have the largest market share and somehow monopolise the telecommunication market.

The none-probability sampling has been used by applying the convenient sampling method, which helps the researcher obtain data from a population that is accessible to represent the entire population. This type of sampling is significant and provides more reliable data since people in other cities should not be excluded. The number of people using mobile service providers is divided based on the locations. For instance, most Sulaimaniyah governorate people use Asiacell and Korek Tel in Erbil. For that, using convenient sampling helps the research to provide reliable results and includes accessible populations through online methods. Thus, the online technique was used in the first stage to include respondents living in the distance, especially in Duhok and Sulaimaniyah governorate, followed by physical distribution of the questionnaires in Erbil governorate. The questionnaire was designed divided into two parts. The first part was allocated to the respondents’ profile, including their age, gender, education, occupation, monthly income, and service provider.

The second part of the questionnaire included the factors affecting customer satisfaction. Respondents were asked to weigh their level of satisfaction where one stands for highly dissatisfied and five as highly satisfied. The first variable is service quality includes seven items; service attribute includes eight items; value-added services include five items and price includes seven items. The dependent variable, customer satisfaction, includes ten items. Each item is used to measure customer satisfaction towards the services provided by the telecommunication companies. The internal reliability of the data was measured by using Cronbach’s alpha. Correlation coefficient and analysis have been used to measure the relationship between independent variables as shown in the conceptual framework (see Figure 2) and dependent variables. Also, the Ordinary Least Squares (OLS) model, a type of Linear Least Square, has been used to estimate the unknown parameters in linear Regression.

Findings and discussion

Reliability

Internal consistency and reliability of data can be verified by using the Cronbach alpha test of reliability. The value of Cronbach alpha must exceed 0.6 to establish data reliability. The Cronbach’s alpha value regarding various items included in this study has been displayed in Table 1. Table 1 highlights that the value of Cronbach’s Alpha co-efficient regarding all the factors ranges from 0.920 to 0.768, which is well more than the minimum requirement. This establishes the reliability of all the factors included under the determining factors. Furthermore, the estimated value of Cronbachs Alpha in respect of all the variables exceeds the “Alpha if Item Deleted” value; hence, no item needs
to be dropped from the study. The Cronbach’s Alpha coefficient in respect of all the variables included under the customer satisfaction factor well exceeds the minimum threshold limit of 0.6. Further, the estimated value of Cronbach’s Alpha exceeds the “Alpha if Item Deleted” value. This signifies that all the items shall be included for further analysis.

Factors determining consumer satisfaction towards mobile services

The level of importance accorded by consumers to different factors as determinants of their satisfaction towards their mobile service has been displayed in Table 2.

Table 2 portrays the values of Mean, Standard Deviation, and the ranks assigned to each factor according to their importance. It can be inferred that Service attributes are the most important factor, followed by Service quality, Value-added services, and Price.

Factors influencing customer satisfaction towards telecommunication companies

Multiple linear regression analysis has been used to identify the factors influencing customer satisfaction towards telecommunication companies in the Kurdistan region, and the results are depicted in Table 3. Correlation analysis has been done to check the prevalence of the relationship between the independent variables and dependent variables, and the results are displayed in Table 4.

Table 2. Determinants of consumer satisfaction.

| Sl.No | Particulars          | Mean   | Std. Deviation | Rank |
|-------|----------------------|--------|----------------|------|
| 1     | Service quality      | 3.3383 | 0.58950        | 2    |
| 2     | Service attributes   | 3.4744 | 0.76934        | 1    |
| 3     | Value-added services | 3.0909 | 0.83229        | 3    |
| 4     | Price                | 2.9071 | 0.91366        | 4    |

Table 4 establishes a strong positive correlation between the dependent variable of customer satisfaction and the independent variables of Service quality, Service attributes, Value-added services, and Price, which is an essential prerequisite for regression analysis. Further, the independent variables do not have much correlation, which is another important prerequisite to establishing the absence of multicollinearity issues. Multicollinearity, in this case, is not a problem since independent variables in regression analysis have a particular value of independence. Therefore, if the degree of relationship between predictor variables were high, collinearity becomes an issue to fit the model and interpret the findings. The collinearity, in this case, creates an error of the coefficients, which makes some variables statistically insignificant.

Determinants of customer satisfaction

Multiple linear regression analysis has been employed to study customer satisfaction in telecommunication companies in the Kurdistan region. Results of regression analysis using the OLS (Ordinary Least Square) technique is depicted below Table, and the model used for testing this relationship is given as under

\[ Y_i = a_0 + \beta_1 x_{1i} + \beta_2 x_{2i} + \beta_3 x_{3i} + \ldots + \beta_n x_{ni} + e_i \ldots \]  

(1)

where

- \( y_i \) represents the dependent variable
- \( x_{1i}, x_{2i}, x_{3i}, \ldots, x_{ni} \) represent independent variables
- \( a_0 \) represents intercept
- \( \beta_1, \beta_2, \beta_3, \ldots, \beta_n \) represent the parameters to be estimated
- \( e_i \) represent the error term

In the present research work, the author has formulated the equation as given below.

Customer satisfaction

\[ = a_0 + \beta_1 \text{Service quality} + \beta_2 \text{Service attributes} + \beta_3 \text{Value added services} + \beta_4 \text{Price} + e_i \ldots \]  

(2)
Table 3 displays that the R Squared value is 0.735, suggesting that the OLS Model is good. F statistics value of 149.298 suggests that the results are statistically significant at a 1% level. The service quality factor exerts a significant positive impact on customer satisfaction at a 1% level. It reveals that a one-unit increase in service quality leads to increased customer satisfaction by 0.351 units. The result is consistent with other studies.\textsuperscript{49} For instance, it indicated that features of signal strength positively impact customer satisfaction with a higher score of (0.69). The author also argued that customers become dissatisfied when the signal is low and face an unstable connection—the telecommunication companies in Kurdistan. Korek Telecom has a signal problem in Sulaimaniyah Province, Asiacell has a low signal problem in Erbil and Duhok. Korek Telecom has a signal problem in Sulaimaniyah Province, Asiacell has a low signal problem in Erbil and Duhok.

In contrast, Zein Iraq has a low signal problem all over the region. Thus, the customers are divided as networks, connectivity, and coverages become an issue for the customers.\textsuperscript{53} The coverage is also a practical dimension within the service attribute in the Ghana Telecommunication sector. Customers are believed to be more satisfied when their expectation is met concerning coverage compared to those whose expectations are not met.\textsuperscript{17} Concerning the coverage, Korek Telecom is more active in Erbil and Duhok governorate; thus, their customers are more located in that two districts. However, Zein Iraq and Asia Cell have better coverage in most districts, which increased their market share in Kurdistan Region and the entire Iraq. These findings explain how coverage and service attributes are valued in satisfying mobile subscribers.

Value-added service exerts a significant negative impact on customer satisfaction at a one percent level. This implies that a one-unit increase in value-added service leads to a 0.166 unit decrease in customer satisfaction. The current finding is against Sundhar,\textsuperscript{54} who found customer satisfaction positively correlated to value-added services in the case of Malaysia, especially delighted promotion, which he believes increases the value of a lifetime. The author argues as customers are satisfied due to the bonuses and rewards they receive, they will share their experience in various ways, including social media and word of mouth, which indirectly brand the companies. Didi, Nizam, and Hamza\textsuperscript{55} found value-added services have a positive significant linear impact on customer satisfaction with a \( p \)-value of 0.03 at a 95% confidence interval. The result could also be discussed with the findings of Abdul Rahman,\textsuperscript{17} who studied the relationship between value-added services and customer satisfaction. The authors derived their data from customers of 6 mobile telecommunication companies in Ghana. They found that value-added services have a significant positive relationship with customer satisfaction as \( p \)-value is 0.027 at a 95% confidence interval, which contradicts this current study. Value-added services are not always a strong determinant of customer satisfaction. Even though added services in forms of promotion are found to be critical towards the attainment of customer satisfaction in other studies, but Popli and Madan\textsuperscript{56} found it has the least impact on customer satisfaction with a standardised coefficient \( b = 0.091 \) compared to other variables such as price \((b = 236)\), coverage \((0.221)\) and customer services \((b = 0.158)\). However, another study found that value-added services do not bring a high-profit return to the company if customers do

### Table 3. Determinants of customer satisfaction.

| Independent variable | Coefficients | t-value |
|----------------------|--------------|---------|
| Constant             | -0.133       | (-0.774)|
| Service quality      | 0.351        | (5.915)*|
| Service attributes   | 0.470        | (8.499)*|
| Value-added services | -0.166       | (-3.002)*|
| Price                | 0.389        | (7.834)*|
| R-Square             | 0.735        |         |
| F-statistics         | 149.298*     |         |

\( a \). Predictors: (Constant), Price, Service quality, Service attributes, Value-added services.

\( b \). Dependent Variable: Customer satisfaction

Note: \( t \)-statistics are in parenthesis. *significant at one percent level.

### Table 4. Relationship between customer satisfaction towards telecommunication companies and determinants of such satisfaction.

| Particulars        | Customer satisfaction | Service quality | Service attributes | Value-added services | Price |
|--------------------|-----------------------|------------------|--------------------|----------------------|-------|
| Customer satisfaction | 1                     | —                | —                  | —                    | —     |
| Service quality    | 0.646                 | 1                | —                  | —                    | —     |
| Service attributes | 0.761                 | 0.236            | 1                  | —                    | —     |
| Value-added services | 0.594             | 0.297            | 0.293              | 1                    | —     |
| Price              | 0.749                 | 0.333            | 0.266              | 0.341                | 1     |
not use the services again, which is not parallel with this study but somehow explains the contradiction; thus, customer satisfaction is vital to guarantee customer loyalty which results in branding through word of mouth by valued customers. Value-added services in such a situation increase customer loyalty. When customers are treated well by the service provider, approximately every customer tells five people about the services, resulting in an increase of profit by 25%–85%.17

The price factor also exerts a significant positive impact on customer satisfaction at a one percent level suggesting that the rise in one unit of price leads to a 0.389 unit increase in customer satisfaction. Since customers are rapturous, they usually expect the spending; thus, to attain customer satisfaction, the firms should create superior value.57 This result is consistent with Abdul Rahman17 who showed in their study when customer expectations of call charges are met, they are more likely to be satisfied compared to those that their expectation has not met. Gustafsson et al.58 found a significant relationship between fair prices and customer satisfaction. The author highlighted that mobile operators’ fair price and service quality are essential determinants to fulfill customer expectations and retain users. The findings are also consistent with. Low-cost services could be related to low-quality products. In low-income regions, customers do not have high purchase power; price matters to satisfy customers. Among the four factors, service attribute exerts the maximum positive impact on customer satisfaction, consistent with other studies.59

**Conclusion**

Customer satisfaction is essential in business and the market economy. Since business is about profit, customers should be centered when a business decision is made. Any business decision that does not fulfill customer expectations will negatively impact the company profitability and loyalty of the customers. The level of satisfaction indicates the future purchase intention so that any companies will be transmitted to other customers and affects the company performances. However, the dissatisfied customer helps the company to detect dysfunctions and problems in the company and, in the same way, the satisfaction shown in specific points tells us what aspects of the company we have to take care of, reinforce, and also serves as guidance to find new success formulas. This study concluded that prices have a great potential for the customer and essential determinant of customers’ satisfaction in the telecommunication market of the Kurdistan Region. The price is an essential factor in determining customer retention and the company’s sustainable performance. The finding of this study also highlighted the importance of price, especially in poor and remote areas where people look for cheap services. It’s followed by quality as a set of characteristics of a product, process, or service that confer the capacity to satisfy the explicit and implicit needs of the client. The quality of products and services is crucial for the customers to make future purchases. Quality of the services customers deliver from operators significantly influences the level of customer satisfaction in the telecommunication market as customers are looking for better connectivity, availability of Wi-Fi, and other services. Providing service attributes alone might not fulfill customer needs, but the quality has to be incorporated. Indeed, the study concluded that value-added services have a reverse influence on customer satisfaction. This relates to the fact that roaming services and credit transfer are not crucial for the customers when choosing their operator compared to the service attributes and packages. It’s very tricky for mobile operators to conduct market analysis and understand what customers need to sustain their market share and revive their competitors. Understanding customer needs minimises expenditure for value-added services that might be not important at this moment to offer to the customers. Still, the money could be invested in other services that the customer needs. This is a managerial implication to understand the significance of value-added services in the telecommunication industry such as easy recharge services, roaming services, money transfer services, and credit availability. Even when value-added services are offered to the customers, the quality and price should be considered to be capable to reuse services. Besides, it’s highly recommended for mobile operators not to use promotion as a way to deceive customers as it breaks down the trust between service providers and customers. Consequently, the customer does not trust their operators to fairly provide promotion; on contrary, they find it as a way to cheat customers. The driving factors of customer satisfaction Analysed in this study have important managerial implications and determines the success of telecommunication companies. The companies need to invest more in research and development to maintain quality services and fulfill customer needs otherwise it will be very challenging to survive in the emergence of alternative communication methods. Social media networks and online apps define the future market of mobile operators. If companies are only stuck on the classical mobile networks with low-quality internet service, they will not be able to retain current subscribers. Customer satisfaction could be used as a mediator variable for the possible future development of this study again customer loyalty. In the competitive market economy, customer loyalty is very significant to be studied by the companies as retaining current customers adds value to companies.
Declaration of conflicting interests
The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding
The author(s) received financial support for the research, authorship, and/or publication of this article.

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