ENGAGING CUSTOMERS AS STAKEHOLDERS TO ENHANCE QUALITY MANAGEMENT IN PUBLIC INSTITUTIONS: A CASE OF KENYA POWER COMPANY USE OF TWITTER

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A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF JOURNALISM AND MASS COMMUNICATION IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF A MASTER OF ARTS DEGREE IN COMMUNICATION STUDIES, UNIVERSITY OF NAIROBI

2020

DECLARATION

This research project is my original work and has not been presented for the award of degree in any other University.

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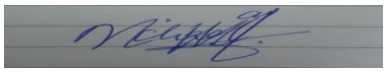
SUPERVISOR'S DECLARATION

This research project has been submitted with my approval as the university supervisor.



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DEDICATION

This thesis is dedicated to my mother Julia Muchell’e

Whose love for Education is beyond reach!

ACKNOWLEDGEMENT

Special thanks to my supervisor Dr. Mwangi Kamau for his invaluable support that has helped me through this study, and to the faculty lecturers who were involved in guiding and advising me accordingly.

A very big thank you to my mother Julia Muchelle for your support, patience and faith in me.

My appreciation is also extended to Kenya Power company for providing the field of study in my research.

Thank you

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ACRONYMS

KPLC	Kenya Power and Lighting Company
CD	Contextual design
US	United States
API	Application programming interface
USSD	Unstructured Supplementary Service Data

ABSTRACT

This study aimed to find out how engaging stakeholders through the use of social media impacted on quality management public institutions. The study mainly focused on Kenya Power Company. Kenya Power Company operates the electricity distribution network in Kenya and works in conjunction with several organizations and partners to realize its objectives. Studies done showed conflicting reports on the role of engagement with customers on social media. Moreover, social media presence didn't necessarily translate to improved quality. This study therefore sought to find out customer interaction methods on Twitter, examine Twitter analytics of the Kenya Power Company Twitter profile and also assess feedback from customers. The study employed the stakeholder's theory. A descriptive research design was employed in the study. The target population was Kenya Power Company customers who had at one time or another interacted with the Kenya Power Company twitter handle directly. Out of the 7,500,000 Kenya Power Company customers, a sample size of 240 customers as per Nassiuma's formula, were interviewed. Data analysis was conducted by using Python programming language to generate figures, graphs and charts that gave insight to answering research questions. A regression equation developed also explained how mechanisms of customer engagement, twitter analytics, and customer feedback played a role in explaining quality management at Kenya Power Company. Respondents revealed the mechanism of engagement, Twitter analytics and customer feedback played an important role in quality management. This was further ascertained in the regression equation where all the independent variables were shown to play a role.

CHAPTER ONE: INTRODUCTION

1.0 Overview

Communication is the social interaction of persons, and is a process that helps people understand one another (Kamau, 2011). It is the process of transmitting information between different parties and a common understanding amongst them (Lunenburg, 2010). Communication in the business industry happens between companies and customers. As companies engage customers to better understand their products and services to entice them, customers on the other hand interact with companies on social media to obtain further information on their products on services (Berger, 2014) and also to search for incentives and promotions (Azar et al., 2016).

Use of social media in recent times has become so important that radio and television stations have incorporated it in their broadcasts (Highfield et al., 2013). A common form of their use is where TV stations ask their users to engage them in conversations on Twitter about current shows, a process that seems to complement watching TV, a term referred to as social TV (Proulx & Shepatin, 2012). Application of social media like Twitter has been observed even in politics where politicians engage voters and allow spreading of information to reach a larger audience. An example is the US presidential election as discussed by Learmonth (2009) during the election of Obama. From the start, his campaign used social media to reach large audiences, and market him as an ideal brand, an effort that proved crucial in his election.

Research by sheila(2014) shows that Kenya power customers were not satisfied with the communication techniques used by Kenya power company. For example, they were not aware when power blackouts were due despite the fact that they were advertised in the daily newspapers. Customers suggested that the company should use social media instead to place these adverts.

This are clear examples of possibilities and capabilities of social media and how they can be applied in the business industry to build and market brands, as well as engage customers (Paquette, 2013) In that study, Paquette deliberates the effects of avoiding customers engagement using a case of BP during the Gulf oil spill in 2010. Paquette mentions that lack of communication between the company and its customers led to a negative public opinion of BP; further stressing the fact that company-to-customer engagement is a key element in any business.

Studies by Barger et al. (2016) and Schultz & Peltier (2013) however state engagement of customers on social media has no direct relationship with profitability and that there could exist other factors that when coupled with customer engagement, they then bring about increased sales.

1.1 Background of the Study

Stakeholders are individuals, groups or organizations with an interest in a company and can affect or be affected by a company's actions (Gaur, 2013). Shareholders benefit directly or indirectly from an individual or company and have a direct or indirect impact on the company (Harrin, 2010). This impact is dependent on the type of shareholder involved. Different stakeholders have varied interests, needs and wants and even priorities. For customers, their main desire is to obtain desired products, prompt and timely service delivery, no increase in prices, reliable goods or services, and compensation in case of losses (Gaur, 2013). On the other hand, stakeholders benefit the company by purchasing its goods and services, providing feedback on the quality of goods and services (Gaur, 2013), conducting reviews on services, sharing information and announcements on social media and offering support for setting up infrastructure in communities (Noor et al., 2010).

Gaur (2013) classifies shareholders into Primary and secondary shareholders. Primary shareholders are those that have a financial implication to the company such as customers,

suppliers, stockholders, creditors and employees, while secondary stakeholders do not have a financial implication but are affected by company's decisions such as the general public or community. This study will mainly focus on customers. Customers as stakeholders are affected by the quality of service or product of a company (Gartenstein, 2018).

For a business to thrive, achieve targets, deliver services promptly and attain profits, there has to be a robust communication plan in place. This is because lack of communication with stakeholders widens the gap between the company and customers as a result of unmet needs and expectations, dissatisfied clients, poor services and untimely delivery (Kinsey, 2018).

Communication thereby becomes a key component in ensuring that stakeholders perceive information that is positive and aligned to their interests. For instance, if a company starts building infrastructure in an area where it may impact community stakeholders negatively, it could result to public unrest within the area which in turn could cause delays in concluding the project resulting in increased costs, reduced productivity, revenue loss and interference of work (Gakii Kithinji, Kithinji, & Kamaara, 2017). Effective communication creates a better understanding of the goals to be achieved. It equally creates influence and fosters constructive relationships with persons and other groups that could help sway other stakeholders (Linton, 2018). Neglect to sharing information to stakeholders is a representation of a serious drawback in management or governance (Beach, Brown, & Keast, 2009) which reflects poorly on the reputation of the company and its leaders.

Online tools such as social media can be effectively used by corporations to improve interaction with stakeholders and consequently enhance quality management (Rohm et al., 2013). Social media, therefore, offers businesses and stakeholders a platform to be informed, share information, updates, opinions, and solve problems thereby leading to better coordination

of services (Cha et al., 2010). When effectively used, the internet can become a very powerful tool in maintaining project quality (Hoffmann, 2014).

1.1.1 Quality management

Running a successful business is corresponds to providing excellent service delivery. Quantifying quality management of companies is the measure of the quality of products or service delivery (Service Futures, 2019). Customer service is "the golden key" to every successful business, and has recently evolved from one-on-one interaction to more use of social media (Mansoor, 2018). Since quality management is an area that focuses on work process and people to enhance organizational performance and satisfy customers; it is a continuous activity that emphasizes on improving efficiency; and this is partly attained through effective communication with stakeholders (Choudhary & Rathore, 2013).

Businesses engage customers with an intention to market products/services, increase customer base, retain loyal clients and grow the business (McEachern, 2019). To attain this, businesses have to embrace customer reviews, complaints, comments and feedback to assess areas of improvement, which would in turn impact on quality management. Therefore, for quality management to be effectively tailored, the engagement between businesses and clients should yield constructive criticism from clients; which companies should analyze, and possibly apply to improve quality of products or service delivery (Abney et al., 2017).

Mansoor affirms that to ensure quality management at a company, the business must solicit feedback from customers. Receiving feedback helps the company to learn and develop. Analysis of feedback helps outline whether customer needs are being met, and how services could be improved to fill the gap. Customers have a positive impact on product/service quality, innovation, and operations within companies (Taherparvar et al., 2014). By utilizing feedback provided by customers, firms become aware of the external environment and can incorporate

users' needs to become more innovative. Customer feedback lets companies know about the good, the bad, and the ugly experiences of a customer with a brand, which gives insight on areas to improve a product or a service (Sharma, 2018). Improvement of product/service quality is a direct improvement in quality management.

When interacting with customers on social media, and resolved the issues they have raised, there develops a certain level of trust (Sharma, 2018). The customers feel valued and that their voices are being heard, triggering customer loyalty and continued engagement and a possible increase in sales (Mansoor, 2018). Engaging customers enact change into customers that could change an ordinary product/service experience into a positive unforgettable one by showing them that the company also cares and appreciates them; and therefore continues to build a relationship with them (Mansoor, 2018)

Engaging with customers is a sure way for a brand to connect with consumers. Responding quickly to customers not only keeps them updated but also keeps them abreast with company products, services, promotions, price increases or decreases (Mansoor, 2018). Customers remain knowledgeable and can relate to the brand in question. Moreover, sharing knowledge helps provide value to customers. The more popular a company's products are, the more the sales are likely to be. In addition, the more consumers of a product are, the more feedback the business is likely to get on how to improve the product or service (Abney et al., 2017).

Interaction of businesses with customers on social media needs to be prompt. Customers raise queries on issues affecting them and may require an immediate response (Moges et al., 2016). A brief snapshot of KPLC Twitter account and its customers show that queries raised include problems with purchasing tokens, power outages and wrong bills (Kenya Power, 2020). Such issues require urgent responses. Timely responses improve quality of service delivery. Timely response means providing support to customers in a timely fashion

("What Is the Importance of Timely Customer Service?," 2017). The time between a customer submitting their request to the time the response is given should be as short as possible. Long response times make customers feel neglected and could take business elsewhere, a hallmark of poor service delivery (Ferguson, n.d.). When poor response time is repeatedly experienced, it results in loss of customers and revenue. In social media platforms like Twitter, responses are in form of comments or direct messages, and when they are given in timely fashion, they have a direct positive impact on service delivery, which is, in turn, a measure of quality management. Timely response builds a good reputation for any company, sparks customer loyalty, serves as a word-of-mouth advertising where customers recommend others to get the service thereby increasing the company's competitive advantage (Kokemuller, 2015).

Data derived from social media has many applications (Pääkkönen & Jokitulppo, 2017). Information from Twitter analytics generates insight that has been applied in the enhancement of quality management in chain management (Chae, 2015). Twitter content, descriptions and comments when critically analyzed, they have helped to improve quality and gain competitive intelligence (He et al., 2015). In particular, analysis of sentiments discussed in topics in form of Twitter hashtags and trending topics about a particular product or service (Moges et al., 2016). The need to efficiently manipulate and analyze Twitter content by organizations or businesses is high (Barbier & Liu, 2011), for it provides managers and CEOs with knowledge and insight on what their clients are discussing with regards to their organizations and how these discussions could enhance business performance and decision making. In a study by Pearson & Wegener (2013) it was revealed that large companies that have embraced manipulation and analysis of social media data for business insights (such as Samsung, LexisNexis and Progressive Insurance) do better than their competitors, have higher profit margins and are more likely to be in the top 25 of financial performance within their industries as a result of basing their decision making on data analytics.

Announcements made by companies like KPLC on outages are important to individuals or businesses utilizing their products. Therefore, messages on power interruptions or outages need to reach people the affected persons for proper planning in case of power interruptions. Sharing of such messages by clients on Twitter through retweets reaches a larger audience, a key aspect of service delivery. Improvement of service delivery is a consequential improvement in quality management (Hoffmann, 2014).

1.1.2 Twitter as a tool for engagement with customers

Twitter is an American-based social media platform where persons interact or send messages known as "tweets". Persons who have signed up can send messages, like, tweet and retweet. Unregistered persons are only able to read through (Twitter, 2020). Moreover, Twitter was started by Twitter Inc. in 2006. On average, Twitter has 330 million active monthly users (Clement, 2019) with over 500 million tweets sent per day (Twitter Inc., 2019). It's averaged that over 80% of its users access the service using mobile phones while daily users add to about 152 million (Lunden, 2020). The company has between 1001-5000 employees (LinkedIn, n.d.), who provide the services to make the platform available worldwide. Roughly 42% of Twitter users login to the platform daily (Clement, 2019).

To run the application on mobile, one has to install it from the Google play store or Appstore for Android and iOS users respectively (Twitter Inc., n.d.-c). Once installed, a user signs up by creating an account with the desired username before using the service.

Interaction using the service entails sending tweets, retweeting, sending direct messages, following other users and commenting on other tweets or hashtags. A tweet is simply a message shared publicly and can contain text, photos, videos, links or GIFs (Twitter Inc., n.d.-c). These tweets can have up to 280 characters, 4 photos, a GIF or a video and can be viewed by anyone. Direct messages on the other hand are messages sent directly to another user and can only be seen by the two users. Following a user can be described as subscribing to

that user's tweets and retweets and seeing them every time they're posted. Retweeting is the act of sharing another user's tweet so that it's visible to your followers. Hashtag (#) indexes keywords on topics being discussed at that moment e.g. #Tokens. The more the users discussing a particular topic, the more popular the topic becomes and it gets described as a trending topic (Twitter Inc., n.d.-b). A person can connect or respond to others by mentioning them in their tweets via stating their username with the "@" sign prefix e.g. @new_user1 (Twitter Inc., n.d.-a).

Use of Twitter by organizations has been shown to increase reach to customers at a very low cost (Kwon et al., 2015), social listening to enhance business-customer relationships by handling customer complaints and answering queries (Abney et al., 2017) as well as facilitation of "word of mouth" through retweets and sharing (Lamberton & Stephen, 2016).

In Kenya, over 29% of users on social media access Twitter (Statcounter, 2020), more than any other social media platform; an indication that it offers the best platform for interaction with consumers. KPLC had two main accounts @KenyaPower_care and @KenyaPower. The former was the official social media account managed by KPLC support team on standby to answer queries, while the latter was the official corporate communications account (Twitter Inc., n.d.-e). This study was interested in using the @KenyaPower_care account. The account was created in May 2010 and had 956,335 followers as of 20th May 2020 (Twitter Inc., n.d.-e).

1.2 Problem Statement

Victor Barger et al., (2016) studies engagement of customers on social media and how it impacts on profitable relationships between the two parties, there has been no consensus on the direct impact of using social media to help leverage engagement and transform it into. In an article by Schultz & Peltier (2013), the authors noted that while companies had increased social media presence in a bid to increase customer engagement, this did not necessarily increase

revenues and service delivery. Moreover, even though average social media content for most companies rose by 35% across various platforms, content engagement fell by 17% in 2014 (IBM Institute for Business Value, 2014). Elliott (2014) notes that in the US, even though 90% of companies with over 100 employees use social media for marketing, it is still a mystery how it translates to customer value. Because of these, there has to be something more than just having a social media presence that results in improvement of customer engagement. This study, therefore, aimed to find out aspects of stakeholder engagement on social media that translated to the enhancement of quality management.

A study by Victor Barger et al. (2016) concluded that the use of social media for engagement with clients does not necessarily transform to improved service delivery and profitability. There are other several factors at play that affect engaging customers that affect service quality and these may include swift and regular responses, sentiment analysis, content accessibility and reliability (Wenzi, 2019). The content tweeted by clients on Twitter can be useful if used by relevant companies to improve products and services. This study would therefore inform and contribute to knowledge in this field of study on the importance of engaging KPLC customers through Twitter for quality management.

A study by Sheila (2014) on factors influencing customer satisfaction with service provision by kenya power company recommends that the management in Kenya Power Company should re-evaluate its communication techniques as customers are not aware of the company's activities. For instance, some customers are not aware that: one can apply for a pre-paid meter free of charge, they're not aware of the MPESA paybill numbers which could greatly relieve the customer of the task of lining up in the banking halls to pay electricity or purchase prepaid tokens and they are also not aware that they can check their bills via SMS. The researcher recommends that the company uses Twitter and Facebook to advertise new products and create awareness. Sheila's research only indicated that there are very few people

who used twitter and facebook, but it did not cover Kenya power's use of twitter or facebook, yet kenya powers' twitter account was opened in 2013. Although it is not clear when Kenya power started actively using their account Kenya power IT staff confirm that Social media has also offered a good platform to interact with customers. The company has a number of Facebook pages in different cities and a twitter handle. Customers are able to communicate queries and get responses instantly (Kenya Power IT Department, 2014) This study will therefore inform and contribute to knowledge in this field of study on importance of engaging Kenya Power customers through Twitter for quality management.

Research by Nkobe kenyoru et.al (2015), on stakeholder engagement and organizational performance of Kenya power, recommends that Kenya Power should implement strategies where customers and employees can participate in decision making process. Although Nkobe Kenyoru et al research displayed other studies that confirmed that stakeholder engagement contributes significantly to the organizational performance, they confirmed that this is not practiced by Kenya power's office in Eldoret which was their place of study. The other gap in this research is that their study was based on the Kenya power office in Eldoret county only and that it did not cover Kenya power's use of social media. Using the company's main twitter handle, this study will inform and contribute to knowledge in this field of study on Kenya Power's interaction methods on twitter, that will enhance quality management .

A study by Kelins (2019), on role of online crisis response strategies on organizational reputation at Kenya power, recommends for a review of the communication strategy adopted by Kenya power and other organization using online platform such as facebook. Although Kenya power is active on four social media platforms with facebook and twitter having the most followers, Kelins study majored Facebook only. Kelins study majored on the black out that took place in 2018 only yet there are many black outs and issues under quality

management. This study therefore aims to find out aspects of stakeholder engagement on social media other than power outage crisis that translate to enhancement of quality management.

1.3 Research objectives

The objectives of the study were:

1. To examine customer interaction methods employed by Kenya power company on Twitter
2. To investigate Twitter analytics of the Kenya Power Company Twitter account
3. To analyze customer feedback on the Kenya Power Company account on Twitter

1.4 Research Questions

i. What interaction methods were employed by Kenya Power Company to engage customers on Twitter to enhance quality management?

ii. What did the Twitter analytics of Kenya Power Company account on Twitter show about engagement with customers?

iii. How did customer feedback on Kenya Power Company Twitter account impact quality management?

1.5 Significance of the study

Engagement of stakeholders in any initiative by company is the basis for good governance (Vijayaraghavan, 2011). Good governance of anconseptual y public institution is rated by service delivery to its clients. The study would inform public institutions on the importance of conducting Twitter campaigns to reach stakeholders, and how stakeholders' involvement plays a key role in enhancement of service delivery, a key component of quality management in any company. It would also outline the significance of involving stakeholders through the use of their feedback and how this results in improved service delivery.

Engaging customers on Twitter is a reliable way of obtaining information on power outages and interruptions. As (Kenya Power, n.d.) outlines, these outages can occur due to extreme weather, falling trees, vehicle accidents, vandalism, planned interruptions, faulty equipment and animals. They occur on small scale or large scale such as national power outage experienced in most parts of the country as reported by the (Mireri, 2020) in the Standard newspaper on May 9th. Small scale outages may not be noticed by Kenya Power Company and this is the reason why they urge their customers to report outages (Kenya Power, n.d.). Engaging customers therefore became not only important but also informative since clients always tweeted information on power outages in their areas of residence. This study therefore sought to identify the kind of content posted by Kenya Power Company and its customers and whether it was helpful to Kenya Power Company in ensuring service delivery and quality management.

1.6 Limitations and scope of the study

The study investigated the use of Twitter by customers and Kenya Power Company, and how the two partners engaged in a bid to improve quality management and service delivery. Kenya Power Company had a myriad of platforms for engaging customers on a daily basis. As shown on their website (KPLC, n.d.), Kenya Power Company had varied platforms for communication with their customers including: Facebook, Twitter, LinkedIn, Telephone and Email. This study was limited to interactions between Kenya Power Company and its customers on Twitter. This created a gap since not all customers used Twitter. Moreover, engagements between Kenya Power Company and customers on platforms such as telephone, email, USSD services were not shared in the public domain, and therefore would not be used in the study. There was a possibility that a lot of relevant information would be inaccessible that would have been very informative in the study. To overcome this, data collected from Twitter

was only used to inform further on the quantitative analysis performed using data collected using questionnaires. In addition, more tweets were analyzed to increase the sample size.

The study also assumed that Twitter handles of Kenya Power Company were active and have been active throughout the entire period since its inception. A quick preview of tweets sent by the account confirmed that their most recent tweet was on 16th October, 2020 (Power, 2020). Previous tweets were spread with that period, and there was no period that seemed to have a dormant account.

Sentiment analysis of feedback from consumers was analyzed using machine learning algorithms that only worked in the English language. Therefore terms or phrases written in other languages on Twitter comments or tweets were omitted, a process that further reduced the sample size. This was resolved by using a large sample size of 5000 tweets to cater for the reduction.

CHAPTER TWO: LITERATURE REVIEW

2.0 Overview

This chapter contains past relevant literature from other researchers who have researched the same area. It contains opinions, attributes, findings and conclusions from the past research work by various personalities and organizations to offer relevant and guiding materials to be used in this chapter.

2.1 Empirical Review of Literature

2.1.1 Customer interaction methods and quality management

Customers are considered key assets of a company or organization since they contribute towards the growth and development of the company; it is, therefore, necessary to understand that they play a big role in enhancing quality management in any organization. When involved, stakeholders ensure quality management is adhered to as they are the main beneficiaries of a project (Brown, 2013). Some organization take into serious consideration public opinions voiced by residents or project beneficiaries and take them into account (Auvinen & Mariasingam, 2012). According to Siles (2015), engaging stakeholders in the decision-making process of a product or service helps to ensure real needs and priorities of a product are met within to community.

The aim of having a social media presence for businesses is to aggregate consumers together and persuade them to loyalty to the product or service (Arnone et al., 2010). According to Smith (2010) customers and businesses join Twitter to share information on certain events/happenings, news, opinions on specific topics and companies/organizations or businesses to follow. Twitter has become a favourite form of interaction between organizations or companies with the public since they play a wider role than just passing across information (Kaplan & Haenlein, 2010). It offers a many-to-many communications platform where many people can create, edit or share content over the internet (Sareah, 2015). Social media offers

organizations the ability to communicate and interact with external stakeholders such as citizens (Burleson, 2014). Twitter has been utilized to enhance customer service, provide an avenue for exchanging information and a platform for active interaction with partners (Beer, 2008).

Hollebeek (2011) posits that consumer-brand engagement implies "cognitive, emotional, behavioural factors" that link a company to its followers. Engagement with individuals is described as the intensity of participation of an individual with a company's activities and products which are initiated by either of the two (Vivek et al., 2012). On Twitter, customer engagement entails comments on tweets, likes on tweets, retweets of posts, and comments/tweets on specific hashtags (Ravaglia et al., 2015). The use of media such as pictures, videos and GIFs are now being used more in communication between persons and across social media (Burnett, 2015). Analysis of social media content has revealed that messages with a photo or video have a 45% higher chance of viewership as compared to those without (James, 2012). Clearly, this shows that viewers get easily influenced by media content even across Twitter platforms.

Business.com (2020) postulates that Twitter platform can be used by businesses to connect with customers, track conversations, build brands, promptly respond to queries, save on costs, provide customer service channels at a reduced cost since it is free to use. The use of tweets, retweets and comments, allow either customers or companies to post and give feedback. Twitter is perhaps famous for its use of hashtags, which has since been replicated in many other social media platforms (Byrum, 2014). The use of hashtags (#) is popular on Twitter to categorize keywords into various discussion topics where interested parties can interact and share information (Twitter Inc., n.d.-b). Companies use hashtags to unveil campaigns and promotions on products or services on Twitter. These hashtags enable aggregation of customers onto one section where discussions on that particular topic are shared

thereby creating a form of influence to the customers (Kleinberg, 2013). Hashtags are clickable and allow users to access tweets that contain a similar hashtag (Soboleva, 2018) thereby increasing "discoverability" of content. Use of hashtag has been shown to elevate the number of retweets of content (Petrovic et al., 2011).

Jin & Phua (2014) state that Twitter influencers or celebrities with large followings are used to sway consumers into purchasing certain products or services by simply tweeting about them. Companies on Twitter also use famous or popular people on Twitter as influencers or ambassadors to their products (Bao et al., 2013). They write a tweet and mention the business name using the @ sign (e.g. @username) and include a hashtag to trigger a topic on that particular topic and a positive message about it, thereby automatically endorsing the product and sharing it to their followers (Tang et al., 2015). The more the followers the influencer has, the bigger the reach. Mentions strike conversations on Twitter especially when influencers tweet with positive messages about a product (Boyd et al., 2010). Tweets are highly likely to be retweeted when they have been tweeted by an influencer (Araujo et al., 2017). Studies suggest that these influencers may be few but they possess an enormous amount of influence that could trigger others to retweet content that they have tweeted/retweeted (Cha et al., 2010).

A study by a marketing scientist and digital strategist Karp (2016) on people's receptivity to Twitter influencers concluded that almost 40% of users on Twitter have bought a product or service after it has been tweeted by an influencer. It is also mentioned that conventional influencers like musicians, athletes and actors have the largest influence. In fact, 49% of respondents relied on influencers when purchasing a product/service. In addition, the study showed that customers were likely to purchase a product or service 5.2 times more when and influencer had tweeted about it as compared to 2.7 times more when they had just seen the advert on Twitter.

The beauty of using Twitter is that it provides data on consumer sentiments about a product or a business; and if any business heeds advice on these sentiments, it would help them make necessary changes to a product (Ghiassi et al., 2013).

2.1.2 Twitter analytics and quality management

Before engaging stakeholders, it is imperative that businesses get information and understand the persons they will be getting involved in. Trebes, Ocock, Oldfield, & Trebes (2015) states that before engaging stakeholders, there is need to conduct a stakeholder analysis and develop a communication plan. A stakeholder analysis is done to identify stakeholders, and collect data on their interests, and influence on a product or service. The purpose of communication is to ensure that all stakeholders have access to all information, to minimize or eliminate anxiety in uncertain situations, provide positive or negative criticism, provide an avenue for resolving problems and generate solutions and also to improve morale and motivate relevant persons (Bourne, 2016).

Krumovgrad Gold Project (2014) affirms that engaging stakeholders should be informed by a set of principles based in international practice; these include trust, respect, inclusiveness, commitment, transparency and integrity. The report also points out that engagement of stakeholders should take into consideration that stakeholders usually have very high expectations that are sometimes unrealistic, and that identification of stakeholders with a common agenda or aligned interests is quite difficult. Use of Twitter has been applied by companies and organizations to help gather information and data on client's behavior by observing the kind content and information shared or liked (Gallaugher & Ransbotham, 2010). This enables control and filtering of content that can be shared to stakeholders which are beneficial to the organization. Gallaugher & Ransbotham further point out that Twitter can be used by companies and organizations to inform external stakeholders on services and events to

be conducted, thereby informing them prior, and giving them an opportunity to voice their concerns and participate.

Social media analytics is the activity that entails gathering hidden information from social media sites to help a business, company or organization make more informed decisions (Meg, 2019). Twitter analytics helps a person or business understand how the content shared on Twitter influences their business through analysis of tweets, followers, retweets, likes, clicks etc. (Twitter Inc., n.d.-d). It includes tweet metrics that give information on how many times your tweet has been seen, retweeted, liked and replied to. Kim (2019) states that businesses can drive a better social marketing strategy when they have an understanding of what type of content or topics their audience enjoy.

Twitter's default analytics provide data over the last 28 days entailing the following information: top tweets and mentions, top media tweets, top follower, number of tweets, total impressions, profile visits, total mentions and new followers (Meg, 2019). Clicking on the "Tweets" button on a user profile, enables them to see impressions, engagements (all tweet activities including clicks, replies, follows, favorites, retweets from within the tweet) and engagement rate (engagements divided by impressions).

According to Meg (2019), businesses should consider using analytics more for its wide range of benefits such as knowing when customers are most active, providing competitive benchmarks, informs the best content to post, protecting brand assets, and ability to monitor social campaigns. Understanding your audience's demographics such as age, income, language and gender lets businesses craft content to suit them (Newberry, 2019). A study by Cox (2010) on the correlation of age and attitude against online advertisement determined that users between 18 and 28 are more inclined towards brands and videos ads while between 35 and 54 were more inclined to ads that were rich in content and in video form. Such information is very informative for advertisements and marketing.

Activity metrics provide basic information like the number of tweets sent by each user about a particular hashtag, and the highly active users, a show of their commitment to the hashtag. They also show the number of original tweets and mentions (Bruns & Stieglitz, 2013). Analytics also show "virality" data which provides information on how content spreads across several media types as well as identities of relevant industry influencers or brand ambassadors (Meg, 2019). Meg asserts that there are premium tools that allow a business to access up to 5 years of data where they can evaluate customer patterns, sentiments which give insight on their marketing strategies. Identification of influencers considers the amount of engagement they have on Twitter such as retweets, comments, shares and even likes. Even a person with lesser followers could have a greater influence compared to one with more. More detailed analytics tools provide more information such as benchmarking that rates whether the latest tweet or post is doing better than normal or below that. They also provide competitor analysis and how they are currently performing in marketing products (Meg, 2019). Besides, they provide top stories being discussed through analysis of trending topics, top hashtags and viral content.

The study assessed Twitter analytics of the KPLC Twitter account and how this information was used to enhance quality management at the company.

2.1.3 Customer feedback and quality management

Twitter has become an active platform for gathering information and concerns voiced by external stakeholders (Johnson, 2012) since users may share and post information with some form of anonymity without using their real identification without necessarily having any fear of victimization thereby making this information more transparent (Manyika et al., 2011). It also provides an avenue for sharing information to a larger audience thereby enhancing identification, access and reach of information by the targeted population (Kaplan & Haenlein, 2010). Organizations exercise knowledge management, an aspect where they can control the

kind of information being shared and posted to the desired audience and therefore able to reach stakeholders using the desired information or content (Hemsley & Mason, 2012).

About 80% of digital data including that from social media platforms is amorphous (Pascual, 2019), meaning that it is not organized into any meaningful form. Unfortunately, this makes data collection and analysis more challenging. However, since the development of machine learning techniques (Garreta, 2015), it is now possible to develop models that can manipulate and organize data into any desired structure. An example is Twitter's sentiment analysis.

Sentimental analysis is the act of analyzing motions, thoughts, opinions and sentiments (Shobana et al., 2018). The process is automated to analyses raw data and group it into three classes mainly neutral, negative or positive (Pascual, 2019). This process is used on Twitter to analyze consumer emotions on products or emotions from tweets and then classify it into either negative, positive or neutral sentiment (Pak & Paroubek, 2010). Pak and Paroubek conducted a sentiment analysis on 300,000 tweets using the Naïve Bayes algorithm where they were able to analyses both text and emoticons into positive and negative sentiments. They analyzed text with positive emoticons denoting joy, happiness or praise, text with negative emoticons denoting sadness, frustration, anger and also factual texts that do not express any form of sentiment. Barbosa & Feng (2010) on the other hand analyzed tweets consisting of texts symbols, URLs, and punctuations and was able to identify the polarity of the statements. Other researchers like Devaki.p, et al (2017) have also conducted sentiment analysis using Twitter data to determine the popularity of parties in an election. They used the Naïve Bayes algorithm as well on tweets, retweets, comments and likes to classify them into either negative or positive tweets. The use of these machine learning methods has been shown to have a high accuracy of 80-85% in the sentimental analysis (Shobana et al., 2018)

Sentiment analysis is classified into three broad approaches: machine learning, lexicon-based and hybrid. The machine learning uses a training set of information to develop the model before applying it on test data. This model uses the presence of specific terms and their frequency, and phrases that portray negative or positive statements (D'Andrea et al., 2015). The lexicon-based approach uses a set of known words to construct opinions from statements and group them according to their emotion. Hybrid on the other hand uses a combination of both techniques in conducting sentiment analysis (D'Andrea et al., 2015).

The process of sentiment analysis involves five main steps: 1) Collecting raw data from the source such as Twitter. 2) Data preparation which consists mainly of data cleaning. 3) Sentiment detection where phrases are used to detect the opinion of a sentence. 4) Sentiment classification where the statement is classified as like or dislike, agree or disagree, good or bad, positive or negative, support or oppose, pro or con and factual statements. 5) Visual representation of results (D'Andrea et al., 2015; Modha et al., 2013).

Using Twitter sentiment analysis has several benefits: since the process is automated, it can analyze hundreds to thousands of tweets quickly with minimal errors, businesses can evaluate perceptions of customers in real-time, the process is consistent or unbiased (Pascual, 2019). Sentiment analysis ensures companies and organizations are aware of their customers' likes and dislikes about their products and services, or even the company's reputation. This is useful in aiding the company to make more informed business decisions (Alsaeedi & Mohammad, 2019). The information generated from the analysis provides insight to businesses on the buyer's behavioural patterns and opinions towards that product or service (Kaplan & Haenlein, 2010). It enables businesses to generate a more insightful marketing strategy based on real data, have a better understanding of their customers, quantify their audience when marketing, understand perceptions on their brands and know influencers with influence (Pinkowska, 2016; Shobana et al., 2018). AL-Kharusi et al. (2015) discuss benefits of

sentiment analysis in their study as creating a competitive advantage, improving customer-company relationship, fraud and anomaly detection.

Despite the benefits, sentiment analysis has its limitations. The models used in the process are only able to work in English language only (Gundecha & Liu, 2012). This means that tweets with mixed languages such as Swahili and Sheng will not be analyzed, thereby omitting important information.

In 2016, a case study on the new Uber app was conducted. Following its rollout, there was an increased online discussion about Uber 2-fold (Pinkowska, 2016). Following this, the company decided to conduct a sentiment analysis online to assess feedback of customers on the new app. It revealed that there was a majority of users who found the app to be very appealing. However, the company was more interested in users with negative comments. They were able to capture their feedback and use a modification of features that had not been as successful as anticipated (Pinkowska, 2016). After modifications, they conducted the analysis again which revealed that the new features were "greeted with enthusiasm". This is an ideal example of how companies can use customer's feedback on social media to improve their services.

The study conducted sentiment analysis on customer feedback on Twitter to determine the mood of their statements which informed on whether they were getting the services they required or not.

2.2 Theoretical review of literature

2.2.1 Stakeholder Theory

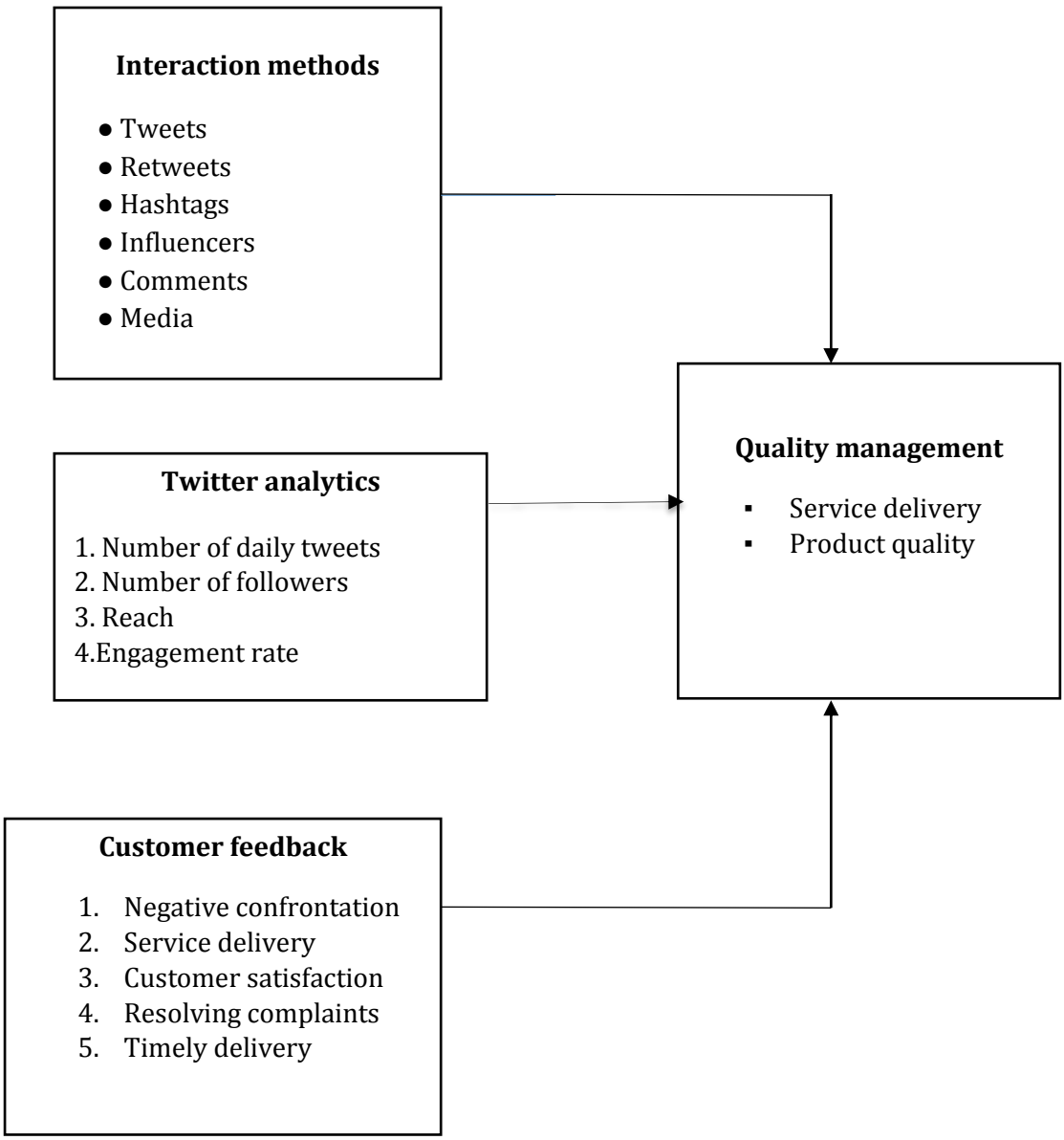
The stakeholder theory by Mitroff (1984) in Freeman (2010) states that the role of a company, in engagement with customers, is to develop a value for stakeholders by aligning its interests with those of clients, suppliers, communities and shareholders. This alignment ensures that the interests between all the parties involved are existent and progressive. The theory states

that stakeholders are any persons or groups of persons interested in a product or service, employees, government agencies, non-governmental organizations or institutions such as banks and organizations. In this theory, Freeman states that when stakeholders "swim" in the same direction, then the company's momentum and power is in motion. The stakeholder theory according to Argandoña (2011) is a theory of value creation that assumes that stakeholders are individuals internal or external of the firm that derive value or are in a partnership with a company and get to enjoy the benefits or loses of the company. They consider the creation of value between stakeholders and the company through negotiations, through taking action and formulation of strategies.

The stakeholder theory is highly applicable to this study. Different stakeholders working with KPLC play different roles within a project. In this context, KPLC stakeholders include the government, contractors, donors, partners and customers. Without careful communication and engagement, these stakeholders are likely to get dissatisfied and unhappy (Fageha & Aibinu, 2016). It is therefore imperative proper communication is conducted to ensure all stakeholders get information applicable to their desires as this would build a positive spirit (Linton, 2018).

2.3 Conceptual Framework

Independent Variables **Dependent Variables**



CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Overview

This chapter discusses the methods and procedures used in conducting the study. It explains the study variables, research design, target population, sampling methods, data collection methods and instruments. In addition, it discusses data analysis methods, interpretation and presentation of results to answer the research questions.

3.2 Research Design

A descriptive research design was used in this study. The design attempted to organize findings to create explanations which would be validated by the study (Krathwohl, 1993). The method attempted to systematically describe and explain the role of communication towards the effective involvement of stakeholders in enhancement of quality at Kenya Power Company.

3.3 Variables in the Study

In line with the theme of the study, three independent variables used were: Kenya Power Company engagement mechanism with customers on Twitter, Twitter analytics of Kenya Power Company Twitter account and customer feedback on interaction with Kenya Power Company account on Twitter. The dependent variable was quality management at Kenya Power Company.

3.4 The Unit of Analysis

The unit of analysis in this study was Twitter users interacting with the Kenya Power Company Twitter handle @KenyaPower_care. Data was obtained by interviewing Kenya Power Company customers.

3.5 Site of the Study

The study was conducted in Nairobi, Kenya on Kenya Power Company clients who were also on Twitter. Consent was obtained to interview Kenya Power Company customers visiting their headquarters at Stima Plaza, Kolobot Road in Parklands, Nairobi

3.6 Sampling Technique

3.6.1 Target Population

The target population of this study was Kenya Power Company customers who had at one time on another interacted with official Kenya Power Company Twitter handle @KenyaPower_care. A sample was drawn from all customers and only those who had used twitter qualified as interviewees. Kenya Power Company was approximated to have about 7,500,000 users as of January 2020 (Kenya Power, 2020). It is from this population that a sample was drawn.

3.6.2 Sample Size Determination

Sampling allowed a 5% error margin with 95% confidence as outlined in Kamau's study (2011) and a coefficient variation of 0.6 (Alsaeedi & Mohammad, 2019). The sample size was obtained using Nassiuma (2000) formula to generate a representative sample from the total number of customers. The formula took into consideration the confidence interval, margin error and the coefficient of variation as shown below:

$$n = \frac{NC}{C^2 + (N-1)e^2}$$

Equation 1: Nassiuma formula

Where: n is the sample size; 1 is a constant; N is the total population; e is the error tolerance and C is the coefficient of variation. Kenya Power Company had about 7.5 million customers who served as the study population. Using Nassiuma's formula as shown below, this generated a sample size of 240

$$240 = \frac{7{,}500{,}000 * 0.6}{0.6 + (7{,}500{,}000 - 1)0.05^2}$$

3.7 Data Collection Techniques

3.7.1 Instruments

Data collection was done by structured questionnaires with both open-ended and close-ended questions. Closed-ended questions included all possible answers or pre-written response categories, from which the respondents chose from. In addition, some questions incorporated a Likert-type scale comprising of five levels of 1 to 5 with 1 representing “strongly disagree”, 2: ”disagree”, 3: “Neutral”, 4:” Agree”, and 5 representing “strongly agree”. These closed-ended questions were used to generate statistics for quantitative analysis of data. On the other hand, open-ended questions were used to provide additional insight into the quantitative data.

Additional data on Twitter analytics and sentiment analysis was collected from the KPLC Twitter account using free tools such as Twitters Tweepy API, foller.me and Brand24.Foller.me is a Twitter analytics application that gives insights about any public Twitter profile by collecting real-time data on topics, mentions, hashtags, followers, location and more (Kovshenin, n.d.). Brand24 on the other hand is an internet monitoring tool that analyzes sentiments as well as audience opinions (Twitter Sentiment Analysis, n.d., p. 24). This data further contributed to understanding Twitter analytics and customer feedback on social media.

3.7.2 Pilot test

Mock interviews were conducted to a group of random individuals to assess the effectiveness of the study instruments. Their responses were recorded followed by an evaluation of question structure, reliability of the scale and validity of the questionnaires

3.7.3 Reliability

The reliability of the scale was measured using Cronbach’s coefficient alpha conducted using SPSS. Within the SPSS software, there exists a reliability test that generates a Cronbach coefficient alpha value. The range of this value explains the reliability of the scale used in the

study. Values range from 0 to 1, with values less than 0.5 an indication of low reliability and values greater than 0.7 an indication of higher reliability. The lowest value of 0.7 is recommended (Pallant, 2003) for a reliable scale and this shall be the base value to be used in testing the reliability of the scale. A value of 0.76 was obtained an indication that the scales used were good.

3.7.4 Validity

The validity of the questionnaires was assessed by conducting a pilot test to evaluate whether the questions actually measured what they are supposed to. Questions noted to be poorly understood by respondents were restructured to a more understandable way. In addition, questions included both structured and unstructured to apply the interview strategy of combine close-ended and open-ended interview as recommended by Patton (2002).

3.7.5 Data Collection

Data collection was done using one-on-one interviews where the interviewer asked questions to the respondent and recorded the responses in the questionnaire. Respondents were sourced from customers visiting Kenya Power Company headquarters in Nairobi, and only those who had interacted with the company on Twitter qualified for the interview. The questionnaire consisted of five sections comprising of questions on A: demographic information, B: mechanisms of engaging customers, C: Twitter analytics, D: client feedback and E: Quality management.

Twitter data was collected using a Python programming language in conjunction with a free Twitter tool called Tweepy. The tool allowed collection of up to 5000 tweets on the Kenya Power account and another 5000 tweets having the keyword ‘KPLC’. These tweets were subjected to qualitative analysis.

3.7.5.1 COVID 19 protocols

The process of data collection was done in adherence to strict COVID- 19 rules as per the ministry of health. All clients entering the KPLC building were required to wash their hands with water and soap. They were also required to have their masks covering both the mouth and nose. Consequently, interviews were conducted with respondents wearing masks as required. Social distancing was adhered to the later with respondents asked to sit a distance of 1.2m away from the interviewer. Physical contact was avoided, and waving was the mode of signalling used.

3.8 Data Analysis

Data analysis was conducted to summarize data and organize it in a manner that answered the research questions. Quantitative data was analysed and visualized using Python to generate statistics that gave insight to answering research questions. The analysis included the generation of pie charts, bar graphs, count plots, point plots, and summary statistics. For scale questions, means shall be generated as well as visualizations. Qualitative analysis of the tweets was performed to determine the key topics being discussed in the responses.

Regression analysis was used to estimate the relationship among variables. Quality management was regressed against three independent variables namely customer engagement mechanisms, Twitter analytics and Customer feedback. Since measurement of independent variables was on a scale of 1 to 5, their values were averaged for questions of each variable and the average of every variable was used for conducting regression. This multiple regression analysis was done using the Scipy library of Python. The equation is as expressed below:

$Ys = \beta o + \beta 1\ X1 + \beta 2\ X2 + \beta 3\ X3$

Where,

Ys = Quality management

β_0 = constant (coefficient of intercept)

X_1 = Customer engagement mechanisms

X_2 = Twitter analytics

X_3 = Customer feedback

$B_1 \ldots B_4$ = Regression coefficient of the four variables

Assumptions made before conducting regression analysis included an appropriate sample size, multicollinearity of independent variables not present, normality and linearity of data.

3.9 Ethical considerations

The rights and dignity of the respondents were respected. This included ethical concerns such as confidentiality, safety, health, equality and diversity of individuals. Participants were informed beforehand of their right to decline to participate in, or their right to withdraw from the interview at any point. Their withdrawal would not have any consequences whatsoever. The study was conducted in a free and transparent way without any intention to manipulate responses. The data collected was not be changed to skew results.

CHAPTER FOUR: FINDINGS, ANALYSIS AND RESULTS

4.1 Overview

This chapter presents data collected from 240 KPLC customers and 10,000 tweets scrapped from the company account. The chapter is divided into five sections: Demographic profile of KPLC customers (4.2), customer interaction methods and quality management (4.3), Twitter analytics and management (4.4), customer feedback and quality management (4.5) and quality management (4.6)

4.2 The Demographic Profile of KPLC Customers and its Role on Quality Management

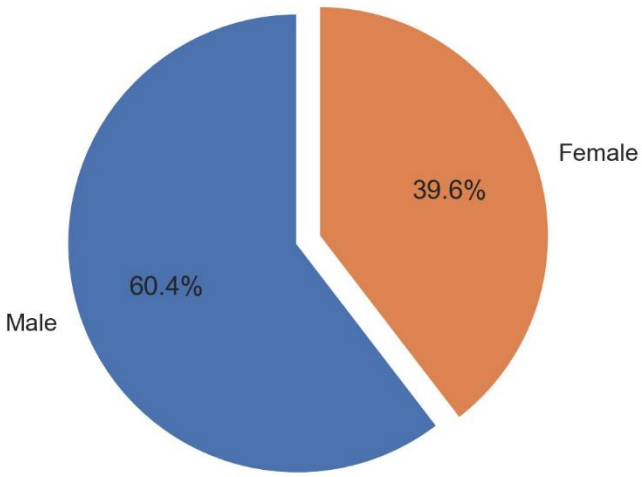
This section summarizes the demography of clients interviewed. It shows the distribution of KPLC clients interviewed with regards to gender, age and level of education.

4.2.1 Gender comparison of respondents

Out of the 240 respondents interviewed, 40% were female constituting of 95 respondents while the remaining 145 respondents were male making up the 60% as shown in figure 1.

Figure 1

Gender of respondents

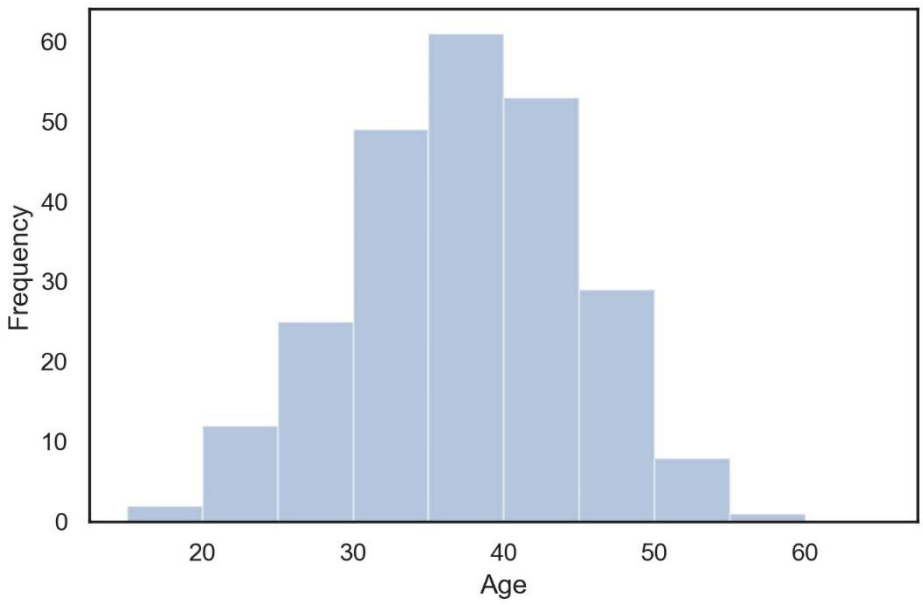


4.2.2 Age of Respondents

A histogram of the distribution of ages of respondents is shown in figure 2. The sampled data was normally distributed as shown by the histogram with the shape of a bell. Majority of respondents were between the ages of 30 and 45 while very few were below 20 years or above 55. The group between 35 and 40 years had the highest number of respondents amounting to about 61. This is a clear indication that technology use is no longer just within younger populations. Since only respondents who interact using Twitter were interviewed, there is clear evidence that even older generations in their fifties have embraced the use of technology, Twitter in particular and are using it as a source of information.

Figure 2

Histogram of Distribution of Age of Respondents



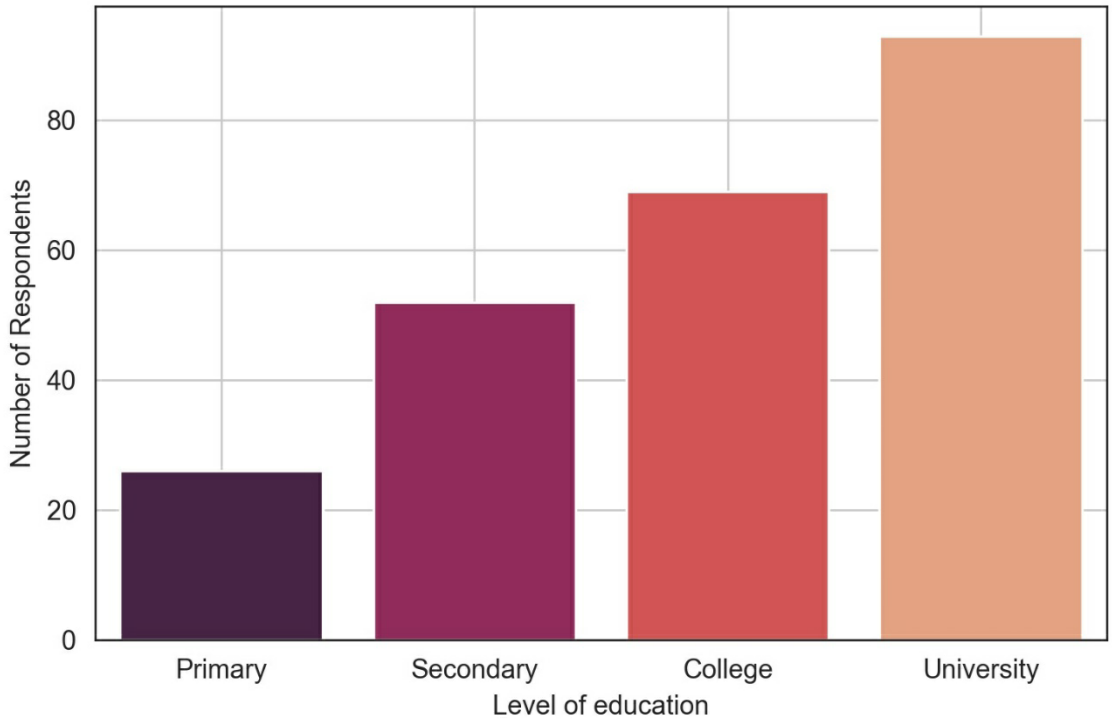
4.2.3 Level of education

Majority of respondents were university graduates with almost 90 respondents indicating that they had obtained that level of education. This could either be a first degree of a post-graduate degree. About 66 respondents stated that they had attained a college level of education. College level of education was considered to either be a certificate or a diploma

course. The lowest level of education was a primary school with about 25 respondents. The rest had obtained secondary school certificates.

Figure 3

Education level



4.3 Customer Interaction Methods and Quality Management

This section discusses the impact of interacting with the customer on quality management. It examines different methods KPLC Twitter account uses to interact with their customers on the platform. These methods are critical in reaching different clients since some methods have a higher reach than others. This section dissects the use of tweets, retweets, hashtags, direct messages, comments, and influencers; and the role they play in quality management.

4.3.1 Following KPLC Twitter account

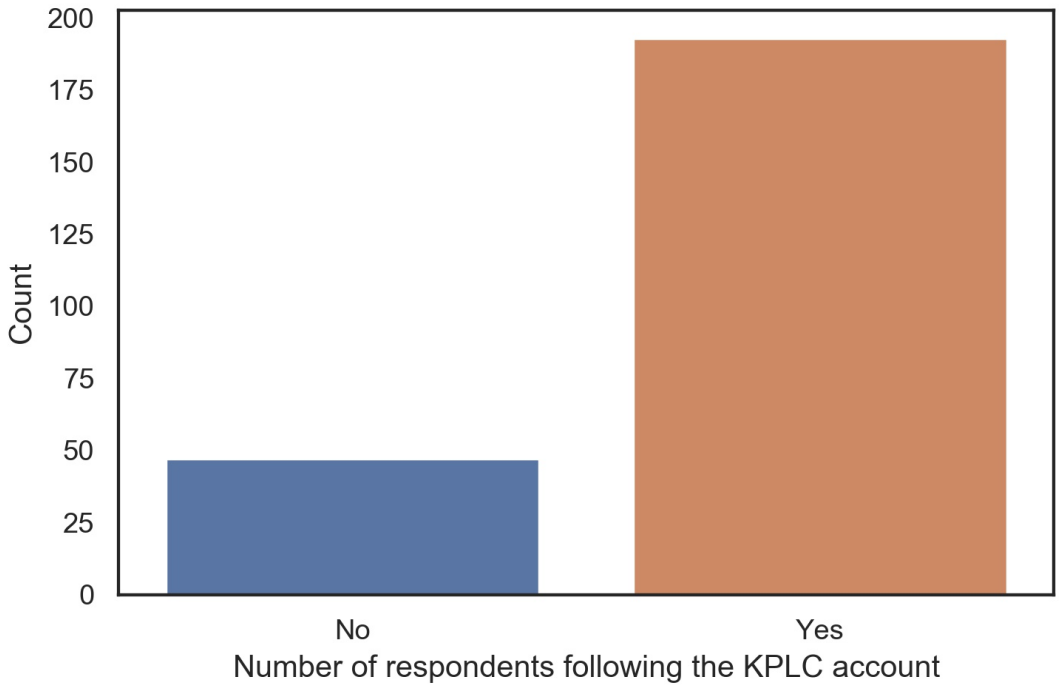
All respondents used in the interview were screened and only those who engage on Twitter were selected. All of them were therefore conversant with the use of Twitter

applications. Respondents were questioned as to whether they have ‘followed’ the KPLC Twitter account. About 195 respondents stated they indeed followed the Twitter account and they were able to receive updates whenever that account posted or tweeted. On the other hand, 45 respondents did not get updates from the official KPLC Twitter account. However, they further mentioned that whenever they needed any assistance, they would look it up and post their queries there, as they had done in the past. In case they needed to get updates, they would either search on the KPLC website or read recent tweets by KPLC.

In addition, all respondents indicated that they had interacted with the KPLC Twitter account at one time or another. This interaction happened mostly when they had an urgent issue that needed to be handled or answered. An analysis of the interaction of users sampled showed that most users were posting to the account with issues on power outages, reporting faulty wires or transformers, tokens bought and delayed, or not received etc.

Figure 4

Have you followed Kenya Power Company Twitter account



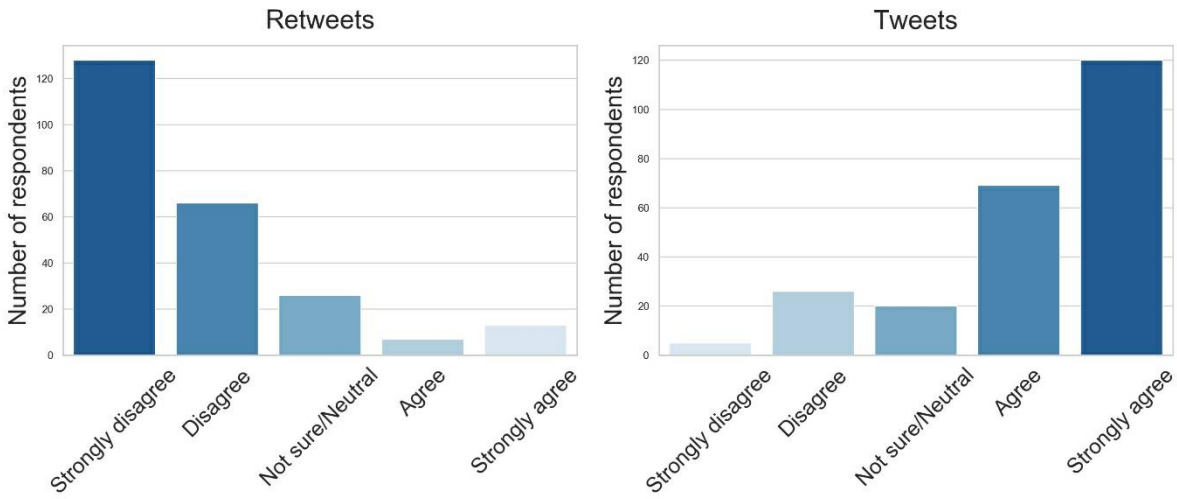
4.3.2 Use of Tweets and Retweets

Respondents were questioned at whether they had observed the use of tweets and retweets on the KPLC Twitter handle. The use of tweets and retweets had conflicting results. It was shown that about 195 stated that the account does not retweet, or they had not observed such with 130 strongly disagreeing and 65 disagreeing. On the other hand, 190 respondents indicated that they had observed the use of tweets as given by 70 respondents agreeing and 120 strongly agreeing.

Out of the 5000 sampled tweets, none is a retweet. Almost all of them are tweets/comments and replies with none being a retweet.

Figure 5

Kenya Power Company uses tweets and retweets to engage customers



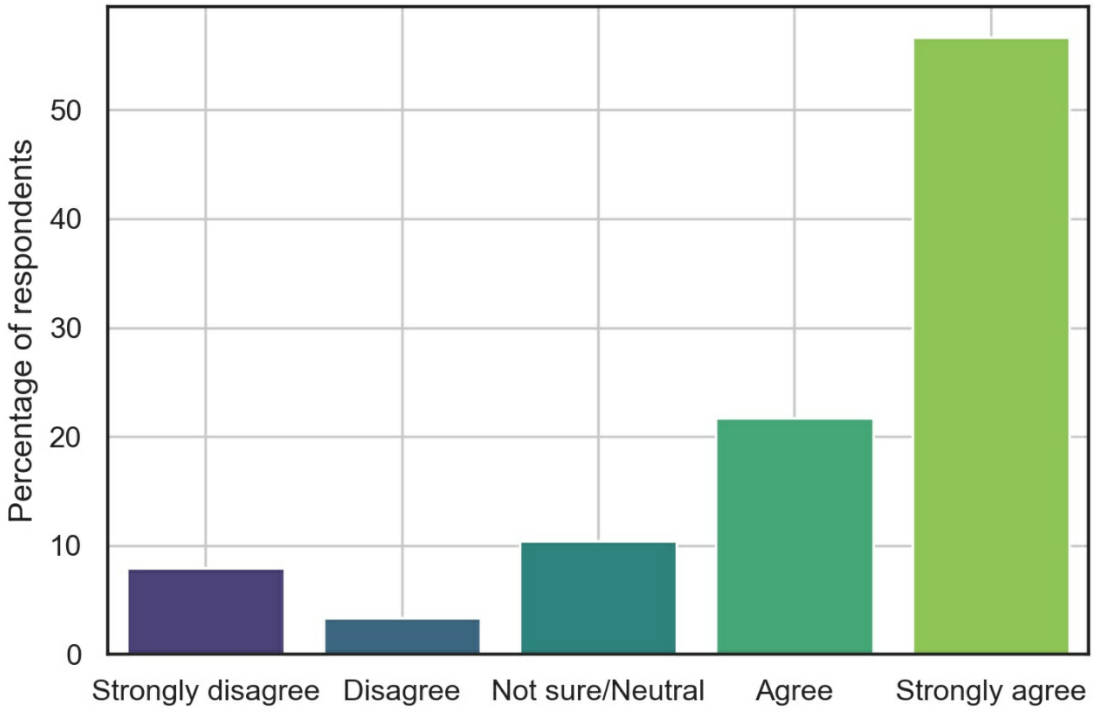
4.3.3 Use of Hashtags

Figure 6 shows the proportion of respondents who believed that KPLC uses hashtags to interact with customers. Over 56% of respondents strongly agreed that they had observed the use of hashtags and about 22% agreed. That is a cumulative 78% indicating that the company uses hashtags. A handful were unsure of the use of hashtags as shown with 10% respondents

stating that they were unsure. A few had not observed the use of hashtags and disagreed with others strongly disagreeing as given by 8% and 4% respectively

Figure 6

Kenya Power Company uses hashtags to interact with customers



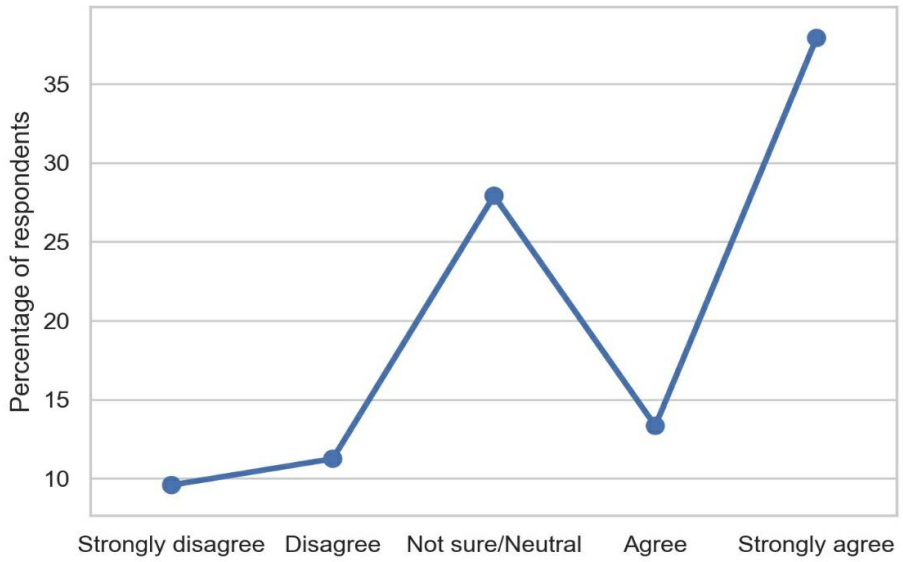
4.3.4 Use of Direct Messages (DM)

Figure 7 shows a point plot of how KPLC sends direct messages to customers. Direct messages are private and can only be seen by the receiver. About 51% of respondents had received direct messages at one time or another as given by 13% agreeing and 38% strongly agreeing. A considerable number were unsure about the use of direct messages as given by 28% stating they were unsure of their use. This group had probably never received a single message from KPLC and did not know whether the company communicates by sending direct messages to Twitter users. 21% of respondents disagreed that they did not think the company communicated using direct messages. This group comprised of 9% strongly disagreeing and 12% disagreeing.

Analysis of Twitter content could not ascertain on the use of direct messages since the sampling of Twitter content did not involve direct messages, as they are considered private. However given a sizable number indicating they had communicated via direct messages, it was clear that the company employed the use of direct messages in the process of interacting with consumers.

Figure 7

Kenya Power Company uses direct messages to engage customers



Tweets samples through web scraping of KPLC tweets using Tweepy API in Python show comments made by the account instructing customers to check their DM (direct messages). In addition, some comments instruct the clients to send a DM to the KPLC account in case they need to provide private information like meter number, Mpesa confirmation code, locations, telephone numbers, emails etc. Some of the scraped messages are shown in appendix 2.

4.3.5 Use of Comments

Respondents were questioned on whether KPLC uses comments to interact with customers. Almost all respondents accepted that they had seen the use of comments on Twitter

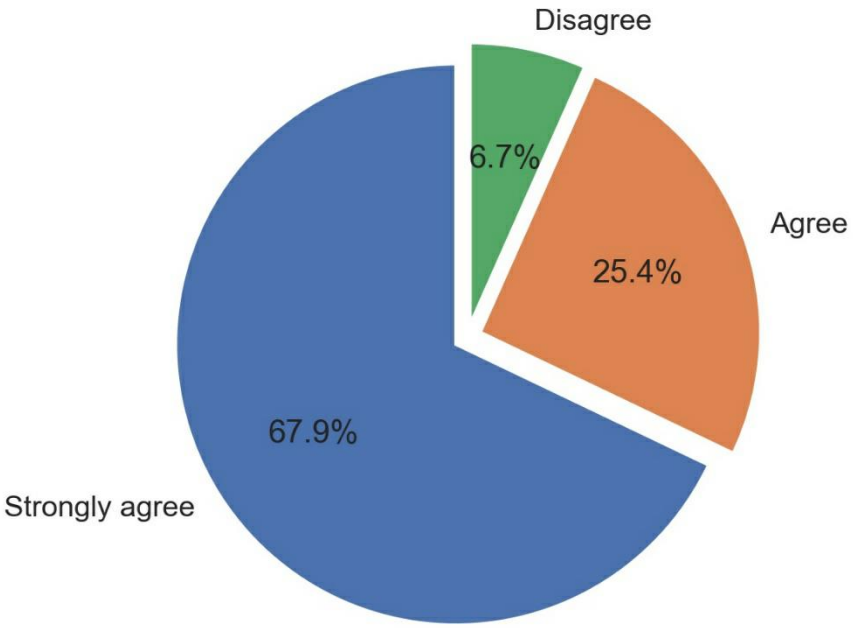
as indicated with 67.9% strongly agreeing and another 24.5% agreeing. A mere 6.7% of respondents disagreed, perhaps since they thought that the company's Twitter account was used to broadcast messages or alerts through tweets.

Comments are a key form of communication on Twitter since they are used when replying to a tweet or when responding to queries directed at a particular user. Evidence, therefore, suggests that KPLC uses comments to reply to clients on various issues. Scraping of tweets from the Twitter platform using Tweepy in Python as shown in appendix 2 and 3 indicates that KPLC actually responds to tweets through comments. Some of the content included in the comments include:

1. Telling clients that their queries have been received and that they are working on them such as '*@ALFRED81144733 Hello. Apologies for the delay in power restoration, please share your account number*'
2. Apologies for power outages such as '*@bobb_k Hello. Complaint noted under Ref 5958541 we have notified our technical team attend to it*.'
3. Informing clients to check their DM such as '*@Benyegon90 Good morning. Please refer to DM for response*.'
4. And many others

Figure 8

Kenya Power Company uses comments to interact with customers

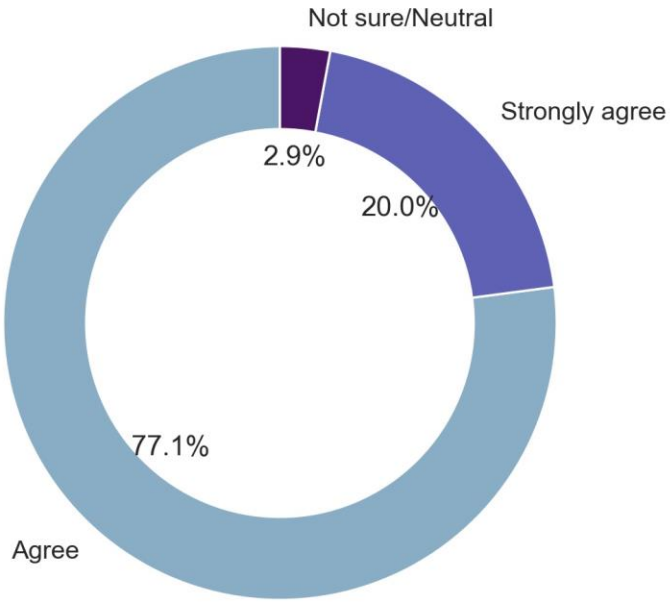


4.3.6 Use of Images and Videos

As shown in figure 9, almost all respondents indicated that they had observed the use of videos and images on the Twitter handle given by 97%. Only 3% of respondents were unsure. Videos and images are good visual representations and have used to market products and services by various as they have a higher click rate as compared to plain text.

Figure 9

Kenya Power Company uses images and videos to engage customers



Analysis of scraped tweets indeed indicated that images are the most common media files posted by the company account. Images available are mostly screenshots of various excerpts including:

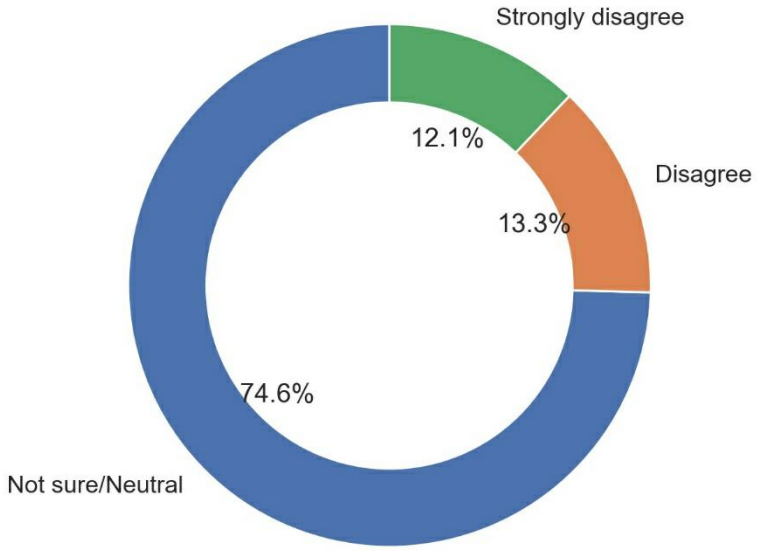
- Alerts on areas scheduled for power outages due to maintenance
- Instructions on various activities such as how to purchase tokens using various purchasing methods, how to report power failures using the USSD services or apps

4.3.6 Use of Influencers

Figure 10 shows that most respondents did not know whether the company uses influencers to market their products and services given by 75% who unsure. The rest of the respondents disagreed or strongly disagreed to having seen influencers market KPLC products or services. In addition, web scraping was done from the Twitter platform as shown in appendix 4 based on the keywords 'KPLC'. There did not seem to be any Twitter user tasked with the role of retweeting KPLC comments or tweets.

Figure 10

Kenya Power Company uses influencers to market products and services



Therefore, since the respondents were unaware of the use of influencers, they were not asked questions regarding the use of influencers to send tweets, retweets, use hashtags, comments or media files aimed at engaging customers to improve their knowledge of products and services offered by KPLC. Moreover, they were not asked on whether influencers had impacted on their decision making on KPLC products and services.

4.4 Twitter Analytics and Quality Management

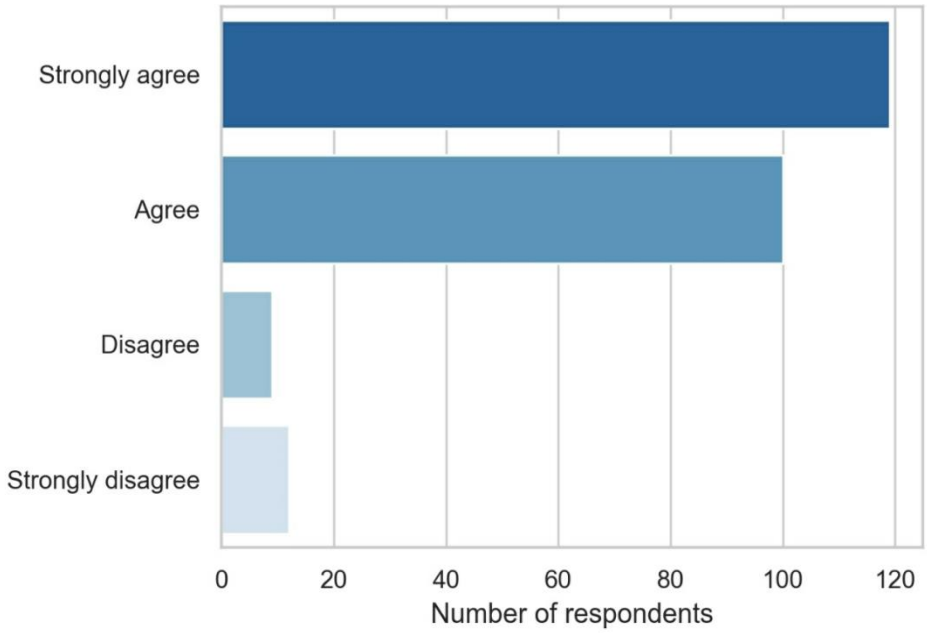
This section discusses the role twitter analytics can play in quality management. Making use of Twitter analytics by companies can result in insight that can be very critical in the decision making of a company. It assesses aspects such as referral of customers, providing solutions, and regular engagement.

4.4.1 Regular Engagement

Respondents were asked whether KPLC engages them or a regular basis on Twitter as shown in figure 11. Almost 220 respondents agreed and strongly agreed that the Twitter handle of the company is active and engages them on a regular basis. Less than 20 respondents disagreed.

Figure 11

Kenya Power Company engages customers regularly on Twitter



Regular use of Twitter by KPLC was observed when analyzing scraped data. Out of the 5000 sampled tweets, it was discovered that they all fell within the dates 7th October 2020 and 16th October 2020. Since tweets sampled on full days fell between the 8th and 15th, the analysis was conducted on these dates. Within that time, replies/comments made by the KPLC account to clients were as shown in table 1. The highest number of replies was made on the 8th October 2020 at 609 replies. The lowest was recorded on 13th October 2020 within that timeframe. The average number of replies made by the account per day is 374 replies.

Table 4. 1 Number of replies made from Kenya Power Company Twitter account

Date	Replies counted
08/10/2020	609
09/10/2020	499
10/10/2020	361
11/10/2020	428
12/10/2020	230
13/10/2020	207
14/10/2020	306
15/10/2020	352

This is a clear indication that the account is actively engaged in responding to queries raised by clients.

Further analysis of the comments/replies indicated that their content ranged from answers on power outages, issues with accounts, the status of registration of new accounts to issues on receiving tokens, etc. The responses also included instructions on how to seek further assistance at nearby offices in case solutions offered on Twitter did not work. This analysis, therefore, answers the questions that interviewees were asked:

1. KPLC sends out tweets regularly
2. KPLC engages customers regularly on Twitter
3. KPLC responds to every legitimate query raised on their Twitter account
4. KPLC provides solutions using its Twitter platform
5. KPLC refers customers to their offices in case they are unable to provide an online solution

4.4.2 Provide Solutions or Refer Clients

The analysis is further complemented with responses from interviewees as shown in figure 12 and 13 where a majority of respondents stated that the account offers solutions as well as refers clients in cases that they were unable to handle. Even though a considerable number were unsure of the two questions, it would be explained by them being unaware of whether all queries are responded to, a task that has been positively revealed by analysis of tweets that a lot of queries are responded to.

Figure 12

Kenya Power Company Twitter account provides solutions

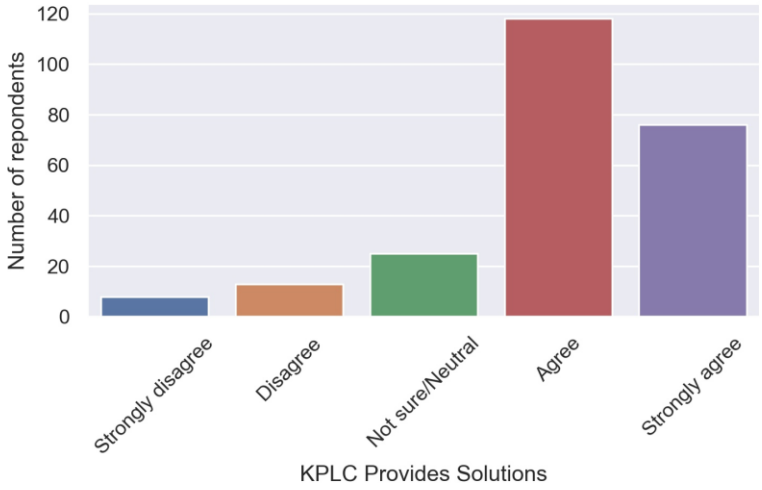
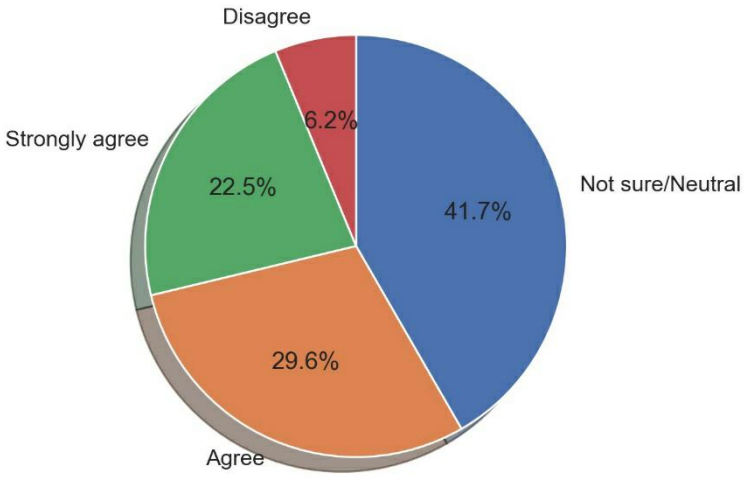


Figure 13

Kenya Power Company Twitter account refers customers



4.4.3 Account Insight

Further analysis on the account using the Foller.me tool as of the 16th October 2020, revealed that KPLC had sent a total of 1,665,563 tweets since its creation. The account had 1,007,800 followers and was following 19,562 Twitter accounts. This computed to about 51.52 followers per following ratio. With the tool being able to only analyze the last 100 tweets, out

of the 100 tweets, 100% had replies, and mentions. 22% of the tweets had links with 5% having images and a further 4% with videos.

4.5 Customer feedback and Quality Management

This section explores the role of customer feedback on quality management. Customer feedback as outlined in the review of literature provides important information that can be utilized in improving the quality of products and services. This section, therefore, analyses customer feedback on Twitter.

4.5.1 Negative Confrontations

Over 58% of respondents were unsure of negative confrontations on Twitter arising from the engagement of KPLC with customers. A considerable number of respondents thought that there exists some negative confrontations on Twitter given by 18% who strongly disagreed and 20% who disagreed that there were no negative confrontations on Twitter.

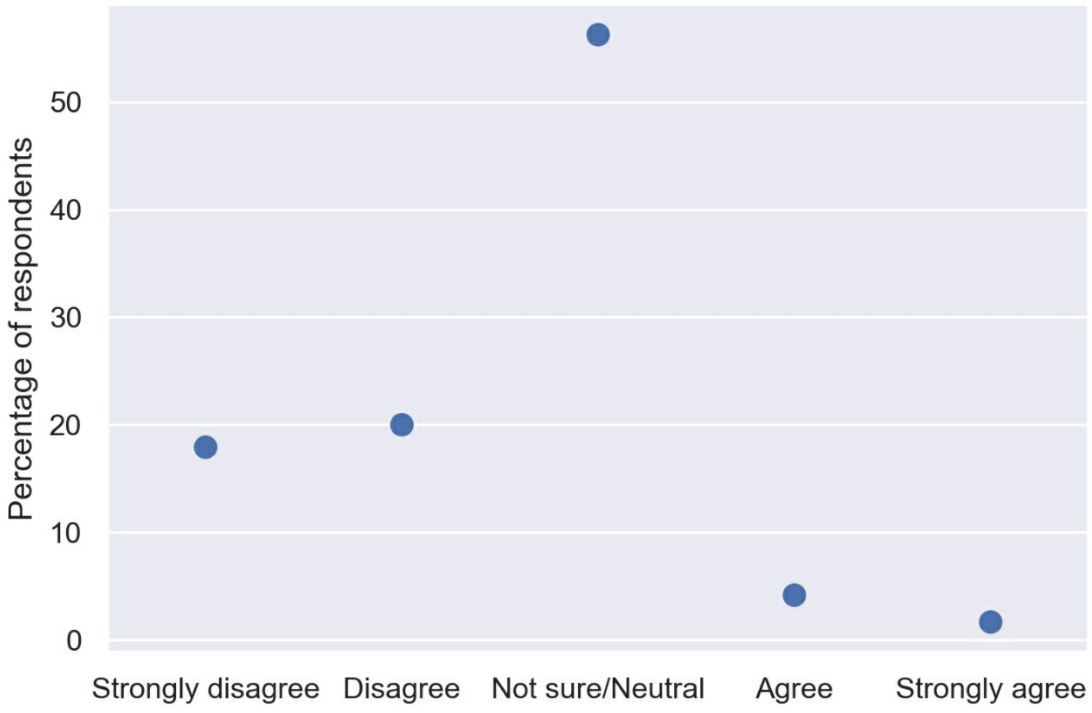
Further analysis of customer feedback conducted using the foller.me online tool that analyses Twitter content and outputs some of the keywords used in the statements to determine negativity or positivity of a tweet revealed that some of the most negative words used included ‘resent’, ‘affecting’,’ inconvenience’,’ unanswered’,’ delay’,’ loss’, ’complaint’,’ regret’ and ’sorry’ as outlined in the output (foller.me, https://foller.me/kenyapower_care). These sentiments are analyzed on the latest tweets and the sentiments seem to change over some time. However, keywords discussed in some of the tweets include ‘token’, ’receive’, ’account’, ’addressed’, ‘provide’, ’mobile’, ’kindly’, ’answered’, ’number’ etc. These key topics are an indication that questions are being answered or asked and that these interactions probably result in solutions being provided.

In addition, the analysis of customer feedback by the Brand24 tool showed 80% positive mentions of the KPLC account and 20% negative mentions of the account. This is an

indication that some customers were unhappy with some product or service from KPLC. This tool uses machine learning in the background to analyze the content of tweets.

Figure 14

Customer engagement on Twitter does not result in negative confrontations



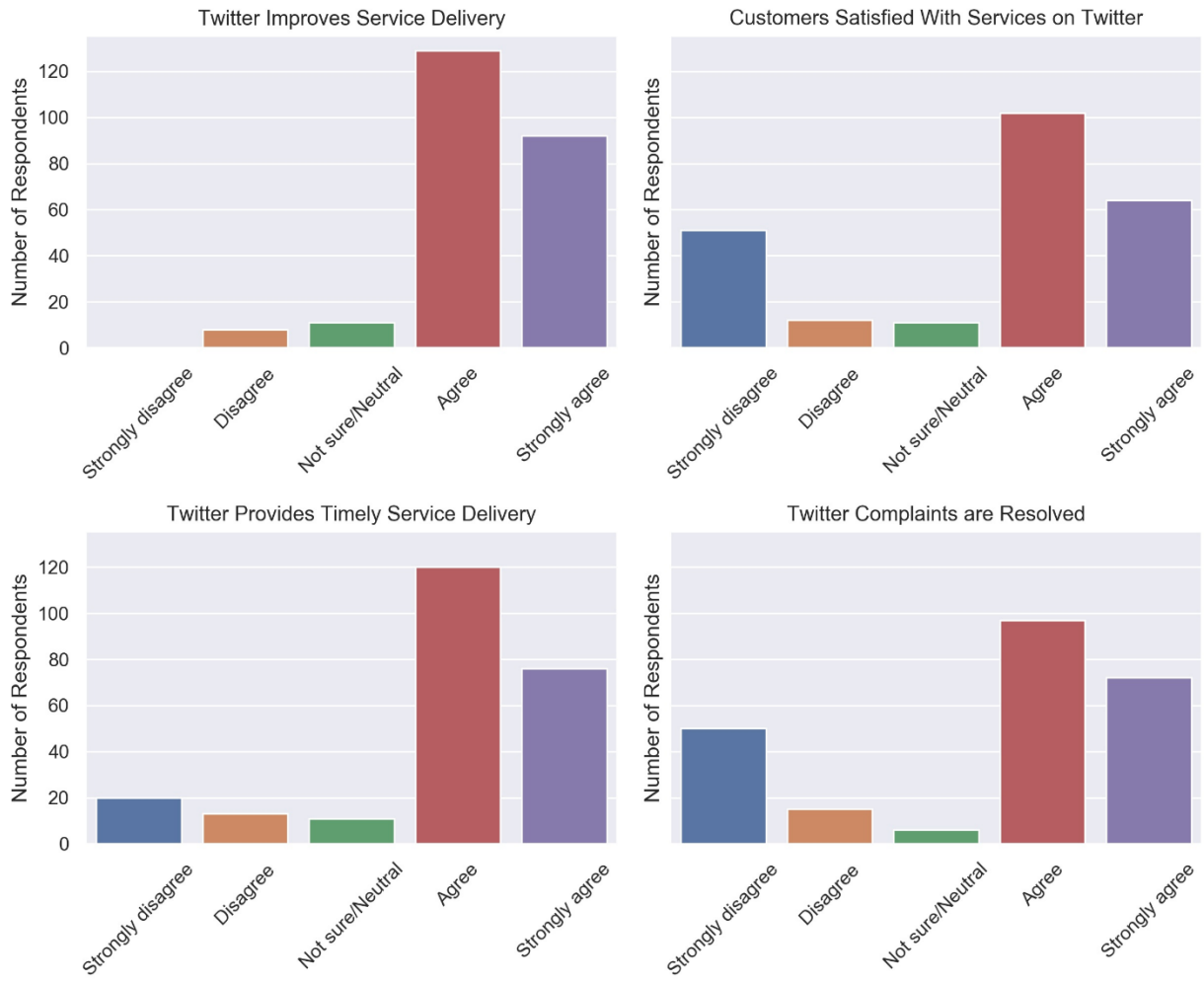
4.5.2 Service Delivery

Figure 15 summarizes four aspects of customer feedback into four subplots for ease of comparison among the various aspects. From the figure, subplot 1 (titled Twitter service improves service delivery) shows that almost all respondents stated that Twitter improves service delivery as given by about 220 respondents. Less than 20 respondents disagreed. Improvement of services by Twitter as supported by most respondents could be explained by the convenience of obtaining solutions from the comfort of a chair. Any issues experienced by customers can be asked online, and a solution provided without the hassle of visiting physical offices, that may be distant. Moreover, the cost of resolving such issues is very low since

customers are only required to only purchase megabytes for accessing the internet, and they cost as low as ten shillings.

Figure 15

Engagement on Twitter improves service delivery, speeds up services delivery, resolves complaints and satisfies customers



4.5.3 Customer Satisfaction

The second subplot of figure 15 (Customers satisfied with services on Twitter) questioned whether the clients were satisfied with services provided on Twitter. Even though the majority were satisfied with the services, over 40 respondents were unsatisfied with the services. Lack of satisfaction on Twitter usually arises due to the following reasons:

1. Queries are not responded to

2. Queries are not responded to in a timely fashion
3. Answers/solutions given are not satisfactory
4. When clients are requested to visit physical offices when they thought their issues were minute

Some of the respondents who were unsatisfied with the services offered on Twitter are likely to have experienced some of these reasons before that made them have a negative perception towards the online service.

4.5.4 Timely Delivery

The third subplot (Twitter provides timely service delivery) summarizes the provision of timely services. From the figure, over 196 respondents indicated that the services provided on Twitter are offered in a timely fashion as given by 76 strongly agreeing and 120 agreeing. This lot had probably raised issues on the Twitter account and they were resolved immediately. About 32 respondents did not think that the services offered on Twitter were timely enough with 20 strongly disagreeing and 12 just disagreeing. Those who disagreed were thought to have experienced one of the reasons some of the respondents were unsatisfied with the online service. About 12 respondents were unsure.

4.5.5 Resolving Complaints

The last subplot of figure 19 (Twitter complaints are resolved) shows responses on resolving of issues raised on Twitter. A whooping 65 respondents were unsatisfied as shown with 50 strongly disagreeing and 15 disagreeing. This group had probably experienced one or more of the reasons listed above, which resulted in having them a negative perception. In this question, only five respondents were unsure. The rest were quite happy with how issues are resolved on Twitter.

4.6 Quality Management

This section evaluates personal responses about quality management. The section scrutinizes the quality of services in terms of how Twitter has improved product quality, reliability of products or services, better-informed customers, and enhancement of services.

4.6.1 Engagement Improves Product Quality

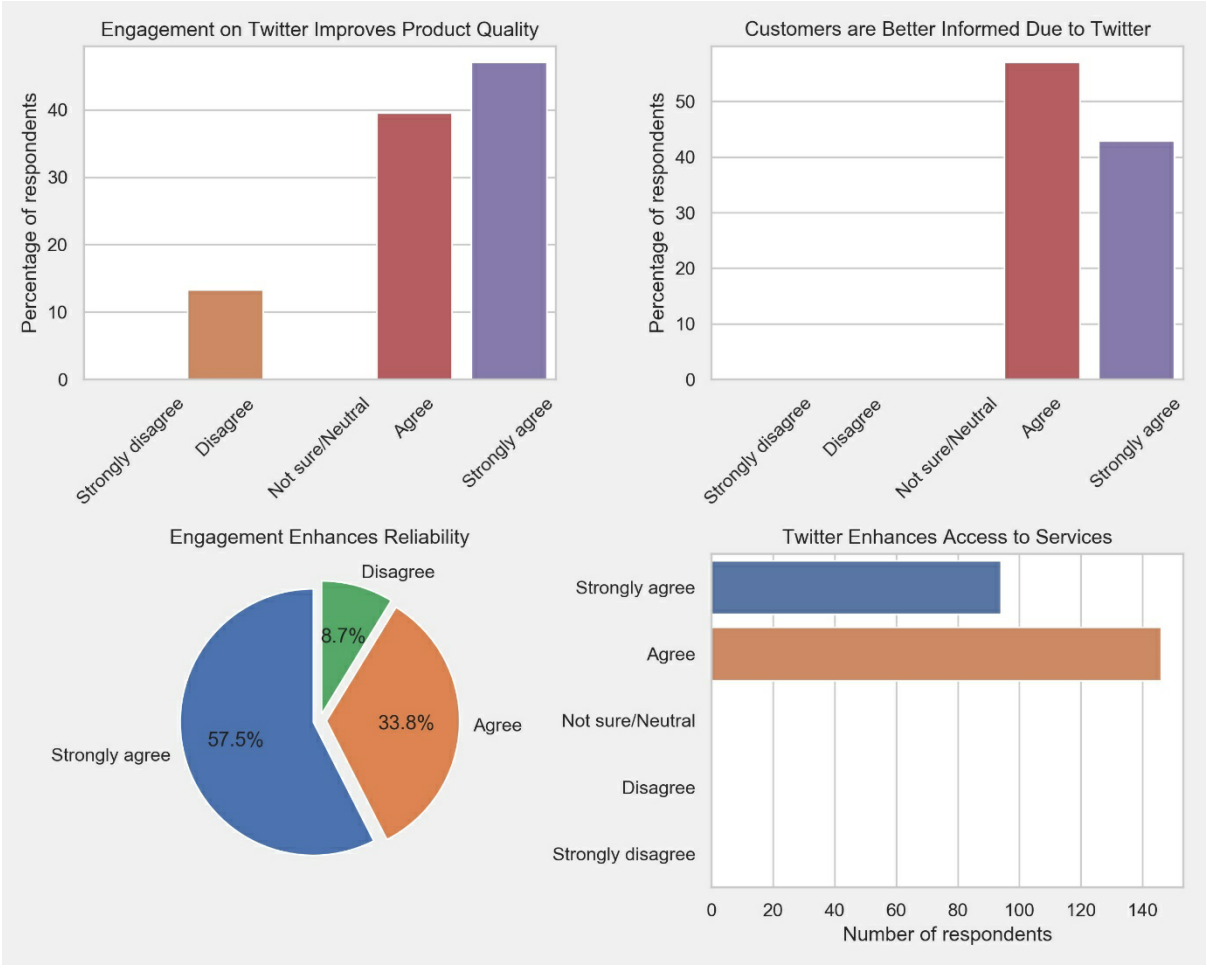
Figure 16 comprises four subplots on whether engagement with customers improves product quality, informs more, and enhances reliability and access to services. The first subplot is on the role of using Twitter to improve product quality. 86% of respondents believed that Twitter engagement had resulted in improvement of the quality of KPLC products. This was evident from 47 % strongly agreeing and 39% agreeing to this. Customer feedback can be analyzed and the negative aspects of a product can be improved based on that feedback. It seems as though KPLC has used customer feedback to enhance their products. Only 14% of respondents did not think that Twitter had positively impacted product quality.

4.6.2 Better Informed Customers

The second subplot (Customers are better informed due to Twitter) with a bar graph on Twitter resulting in better-informed customers indicates that all respondents believed that using Twitter in customers with more information and knowledge of KPLC products and services. Interacting with the KPLC Twitter account provides informative information such as scheduled power outages and instructions on accessing new and old services. This information is very informative and makes customers updated.

Figure 16

Engagement on Twitter improves product quality, informs customers, and enhances reliability and access to services



4.6.3 Reliability

The pie chart in figure 16 on the enhancement of the reliability of products and services due to engagement with customers on Twitter reveals that 91% of respondents concurred with the statement. Only 9% of respondents did not think that engaging with customers on Twitter brings about reliability. A product or service is more reliable when issues raised about its malfunction are resolved immediately. As stated before, tweets scraped off the web reveal that customers raise a lot of issues on power outages, service downtimes, product malfunctions, and issues of receiving power tokens. However, when such issues are resolved to satisfaction of the customers, it leaves them happy and with a perception that Twitter services are reliable.

4.6.4 Access to services

The last bar chart in figure 16 portrays the role of Twitter in accessing services to customers. All respondents concurred that Twitter had definitely resulted in easy access to KPLC services. Before the social media era, services could only be accessed at physical offices. However now, they can easily be accessed by a click of a button, thus the responses given by respondents.

4.7 Regression Analysis

Regression analysis of the responses results in the following equation:

Quality management = 0.52 Mechanisms of Engagement + 0.15 Twitter analytics + 0.06 Customer feedback + 1.25

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The study revealed that quality management of Kenya Power Company is impacted by mechanisms of engaging customers, Twitter analytics, and customer feedback. All these aspects when conjoined together and implemented result in improved quality management.

5.1.1 Customer Interaction Methods and Quality Management

Mechanisms of engaging customers ensure many customers are reached through the various methods of interaction available on Twitter. From the analysis, it was evident that Kenya Power Company employs several methods of engaging customers and the main ones were: tweets where about 190 respondents confirmed, comments/replies confirmed by 93% of the respondents, hash tags and direct messages as confirmed by the twitter analytics. It was also noted by the 97% of the respondents that Kenya power used images and videos to showcase/market their content to clients. However, retweets were rarely used; influencers were also not used at all to advertise or market content from Kenya Power Company.

Customer interaction methods as an independent variable had the highest contribution to quality management as shown in the regression equation.

5.1.2 Twitter Analytics and Quality Management

Twitter analytics played an important role in contributing to quality management. This variable had the second-best contribution to quality management as shown in the regression equation. This also affirms that Information from twitter analytics generates insight that has been applied in enhancement of quality management in chain management (Chae, 2015) Analytics such as regular engagement with the customers, through frequent tweets, replies, solutions, and referrals have a positive impact on quality management when properly utilized. In this study, respondents clearly showed that aspects of Twitter analytics enhance quality management.

5.1.3 Customer Feedback and Quality Management

Customer feedback had the least contribution to quality management in this study. This could be attributed to the difficult and complex analysis required to collect, clean, validate, and analyze customer feedback. In this study, customer feedback was analyzed using various tools whose output was data in a form that could not be analyzed. Therefore, some aspects of the variable were not included in the regression equation, a factor that could have resulted in its low contribution to quality management.

5.2 Recommendations

The study makes seven recommendations categorized into three, based on the three objectives of the study.

5.2.1 Customer Interaction Methods

1) A considerable number of respondents (195) indicated that the Kenya Power account does not retweet content. It is highly recommended that Kenya Power incorporates retweets as a method of interaction on Twitter since retweeting can be used to share content written by individuals on Twitter responding to other users and talking about facts or information relevant to Kenya Power. As explained by Arnone et al. (2010), retweeting enhances the social media presence of a business. Retweeting content on Twitter results in higher audience reach, a cheaper and convenient method of passing across important information.
2) Since most respondents indicated that they are not aware of Kenya power's use of influencers, it is recommended that the Kenya Power Company use influencers to help them broadcast messages by tweeting, retweeting and using hashtags. This will help them reach a wider audience other than relying on their own account.

   The use of influencers is confirmed by Boyd et al. (2010), and Karp (2016)who respectively stated that, influencers have been used by various businesses to endorse

products or services on Twitter thereby reach a wider audience owing to their large following and that ,these influencers have been shown to increase the likelihood of people purchasing a product or service.

5.2.2 Twitter Analytics

1) Despite majority of respondents indicating that the Kenya Power Twitter account engages customers on a regular basis, a considerable number of respondents stated that the account did not regularly engage customers. An average of 374 replies per day on their Twitter account is perhaps not enough to respond to questions of their over one million followers. This is a large proportion when translated to the whole population using their products. It is highly recommended that Kenya Power hires more employees to engage and manage more customers on Twitter by responding to more questions. This in turn translates to increased response rate, regular replies and higher engagement rate.
2) Since there were respondents who stated that the company twitter account does not provide solutions, it is recommended that Kenya Power trains their customer care employees working on their Twitter account to expand the scope of solutions. This would minimize the number of dissatisfied clients and increase the number of their customer referrals.

5.2.3 Customer Feedback

1) A number of respondents indicated that they were not satisfied with services offered on Twitter. It is therefore recommended that Kenya Power actively gets involved in analyzing customer feedback, by hiring a statistician or data scientist with the knowledge and experience of collecting and analyzing data on complaints provided by clients through tweets. This data will be able to show areas of customer satisfaction and

dissatisfaction and can then be used to generate possible ways of providing solutions and their actionable recommendations.

As outlined by Pinkowska (2016), capturing customer feedback is an important aspect of a business; and the feedback can be used to modify products or services to the liking of their end users. It is clear from this study that collecting data on complaints provided by clients on Twitter can be critical in identifying the underlying issues, a process that would be important in developing a solution and thereby making the customers satisfied.

2) Several respondents mentioned that Twitter complaints were not resolved. It is thus recommended that Kenya Power creates a systematic method of answering queries so as to ensure that all complaints raised are responded to. Moreover, if unresolved, the clients should be advised to pursue further help at the Kenya Power physical offices.
3) In order to ensure queries are responded to in a timely fashion, it is recommended that Kenya Power develops a policy where questions are responded within a stipulated time period, and that this is followed through to ensure that it is the case. This will also be possible if the company hired more customer care assistants on the Twitter platform.

5.3 Summary of Authors' Contribution

The thesis provides a scholarly review of how businesses are out of touch with customers; and how beneficial it could be if they engaged with them more. It points out the various methods that can be used to interact on Twitter to have a wider reach, the analytics could be retrieved by a deeper analysis of Twitter content and how they could be utilized to improve businesses; as well as how customer feedback provides crucial information that can be incorporated in the enhancement of products and services.

The thesis offers a unique approach to collecting data from Twitter, a method that enables one to examine content from the business as well as from the customer. When

dissected deeper, this provides insight into how the business engages clients, the frequency, and the response rate. On the other hand, Twitter content from the client can be analyzed to highlight the most asked queries, and problems most encountered by customers. This information when properly put to use can help businesses bridge the gap between them and their clients.

5.4 Implication for future research

This study offers a unique approach to examine the role of customer engagement on quality management by analyzing Twitter content using sentimental, and test analysis. This information is complemented with data collected from respondents to offer both a qualitative and quantitative aspect that created a well-rounded study. The study provides an avenue for other researchers to utilize more comprehensive natural language processing techniques to analyze Twitter content. These methods offer a wider application in analyzing text data, and the ability to extract most used words or collection of words appearing in a certain order.

It would be more informative to collect social media data from different platforms, merge them, and then subject it to analysis. This would provide a more comprehensive analysis since not all customers use Twitter. This study charted the path by analyzing Twitter content; therefore, it would be interesting to have research that incorporates all platforms when gathering client feedback.

REFERENCES

Aapaoja, A., Haapasalo, H., & Söderström, P. (2013). Early Stakeholder Involvement in the Project Definition Phase: Case Renovation. *ISRN Industrial Engineering*, *2013*, 1–14. https://doi.org/10.1155/2013/953915

Abney, A., Pelletier, M., Ford, T.-R., & Horky, A. (2017). #IHateYourBrand: Adaptive service recovery strategies on Twitter. *Journal of Services Marketing*, *31*. https://doi.org/10.1108/JSM-02-2016-0079

AL-Kharusi, M. I., Usman, A., & Awwalu, J. (2015). Application of Sentiment Analysis in Business Intelligence. *International Journal of Knowledge, Innovation and Entrepreneurship*, *3*, 51.

Alsaeedi, A., & Mohammad, Z. (2019). A Study on Sentiment Analysis Techniques of Twitter Data. *International Journal of Advanced Computer Science and Applications*, *10*(2), 361–374.

APM. (2013). Stakeholder Engagement. Retrieved April 26, 2018, from https://www.apm.org.uk/resources/find-a-resource/stakeholder-engagement/

Araujo, T., Neijens, P., & Vliegenthart, R. (2017). Getting the word out on Twitter: The role of influentials, information brokers and strong ties in building word-of-mouth for brands. *International Journal of Advertising*, *36*(3), 496–513. https://doi.org/10.1080/02650487.2016.1173765

Argandoña, A. (2011). Stakeholder Theory and Value Creation. *SSRN Electronic Journal*, *3*(5), 180–28023. https://doi.org/10.2139/ssrn.1947317

Arnone, L., Colot, O., Croquet, M., Geerts, A., & Pozniak, L. (2010). Company Managed Virtual Community in Global Brand Strategy. *Global Journal of Business Research*, *4*, 97–112.

Auvinen, A.-M., & Mariasingam, M. A. (2012). The role of stakeholders in Quality Assurance in ODL. *28th Annual Conference on Distance Teaching & Learning*, *XI*, 1–6. Retrieved from http://www.uwex.edu/disted/conference/resource_library/proceedings/63219_2012.pdf

Azar, S. L., Machado, J. C., Vacas-de-Carvallo, L., & Mendes, A. (2016). Motivations to interact with brands on Facebook—Towards a typology of consumer-brand interactions. *Journal of Brand Management*, *23*, 153–178.

Bao, P., Shen, H.-W., Chen, W., & Cheng, X.-Q. (2013). Cumulative Effect in Information Diffusion: Empirical Study on a Microblogging Network. *PLoS ONE*, *8*(10). https://doi.org/10.1371/journal.pone.0076027

Barbier, G., & Liu, H. (2011). Data Mining in Social Media. In C. C. Aggarwal (Ed.), *Social Network Data Analytics* (pp. 327–352). Springer US. https://doi.org/10.1007/978-1-4419-8462-3_12

Barbosa, I., & Feng, J. (2010). *Robust sentiment detection on Twitter from biased and noisy data* (pp. 36–44).

Bardram, J., & Bossen, C. (2005). Mobility work: The spatial dimension of collaboration at a hospital. *Computer Supported Cooperative Work: CSCW: An International Journal*, *14*(2), 131–160. https://doi.org/10.1007/s10606-005-0989-y

Barger, V., & Labrecque, L. I. (2013). An integrated marketing communications perspective on social media metrics. *International Journal of Integrated Marketing Communications*, *5*, 64–76.

Barger, Victor, Peltier, J. W., & Schultz, D. E. (2016). Social media and consumer engagement: A review and research agenda. *Journal of Research in Interactive Marketing*, *10*(4), 268–287. https://doi.org/10.1108/JRIM-06-2016-0065

Baumfield, V. S. (2016). Stakeholder theory from a management perspective : Bridging the shareholder / stakeholder divide. *Australian Journal of Corporate Law*, *31*(1), 187–207. Retrieved from http://epublications.bond.edu.au/cgi/viewcontent.cgi?article=1878&context=law_pubs

Beach, S., Brown, K. A., & Keast, R. L. (2009). Staking a claim : the role of stakeholders in government. *13th International Research Society for Public Management Conference (IRSPM XIII)*, 6–8.

Beer, D. (2008). Social Network(ing) Sites... Revisiting The Story So Far: A Response To Danah Boys and Nicolle Ellison. *Journal of Computer-Mediated Communication*, *13*(2), 516–529.

Beierle, T. C. (2002). The quality of stakeholder-based decisions. *Risk Analysis*, *22*(4), 739–749. https://doi.org/10.1111/0272-4332.00065

Berger, J. (2014). Word of mouth and interpersonal communication: A review and directions for future research. *Journal of Consumer Psychology*, 586–607.

Bourne, L. (2015). The three types of stakeholder communication. *PM World Journal*, *4*(9), 1–5. Retrieved from www.pmworldlibrary.net

Bourne, L. (2016). Targeted Communication: The Key to Effective Stakeholder Engagement. *Procedia - Social and Behavioral Sciences*, *226*, 431–438. https://doi.org/10.1016/j.sbspro.2016.06.208

boyd, d, Golder, S., & Lotan, G. (2010). Tweet, Tweet, Retweet: Conversational Aspects of Retweeting on Twitter. *HICSS-43*, 1–10. https://doi.org/10.1109/HICSS.2010.412

Boyer, S. (2016). The Importance of Communication. Retrieved April 25, 2018, from http://www.nutcache.com/blog/five-reasons-justify-importance-communication-project-management/

Brown, T. (2013). The Role Of Stakeholders In Implementing A Quality Management Process. Retrieved July 4, 2018, from http://customwritingtips.com/component/k2/item/18838-the-role-of-stakeholders-in-implementing-a-quality-management-process.html

Bruns, A., & Stieglitz, S. (2013). Towards More Systematic Twitter Analysis: Metrics for Tweeting Activities. *International Journal of Social Research Methodology*, *16*, 91–108. https://doi.org/10.1080/13645579.2012.756095

Burleson, J. (2014). Organization-Stakeholder Interaction Through Social Media: A Tri-level Investigation, Categorization, and Research Agenda. *Administration and Society*, *46*(5), 573–593. https://doi.org/10.1177/0095399713513140

Burnett, R. (2015). *Images and videos—Media for communication* (MENA Report).

business.com. (2020). *Twitter as a Customer Support Channel*. Business.Com. https://www.business.com/articles/Twitter-as-a-customer-support-channel/

Byrum, K. (2014). *A comparison of the source, media format, and sentiment in generating source credibility, information credibility, corporate brand reputation, purchase intention, and social media engagement in a corporate social responsibility campaign*.

Cha, M., Benevenuto, F., Haddadi, H., & Gummadi, K. P. (2010). Measuring User Influence in Twitter: The Million Follower Fallacy. *Weblogs and Social Media*. https://www.researchgate.net/publication/221298004_Measuring_User_Influence_in_Twitter_The_Million_Follower_Fallacy

Chae, B. (Kevin). (2015). Insights from hashtag #supplychain and Twitter Analytics: Considering Twitter and Twitter data for supply chain practice and research. *International Journal of Production Economics*, *165*, 247–259. https://doi.org/10.1016/j.ijpe.2014.12.037

Chinyio, E., & Olomolaiye, P. (2010). Introducing Stakeholder Management. In *Construction Stakeholder Management* (1st ed., pp. 1–12). Chichester: John Wiley & Sons Ltd. https://doi.org/10.1002/9781444315349.ch1

Choudhary, M. K., & Rathore, N. S. (2013). *Role of Effective Communication in Total Quality Management*. *4*(7), 8.

Chung, K. S. K., & Hossain, L. (2010). Towards a social network model for understanding information and communication technology use for general practitioners in rural Australia. *Computers in Human Behavior*, *26*(4), 562–571. https://doi.org/10.1016/j.chb.2009.12.008

Clement, J. (2019, August 14). *Twitter: Number of active users 2010-2019*. Statista. https://www.statista.com/statistics/282087/number-of-monthly-active-Twitter-users/

Cochrane, K. (2014). Roles of Stakeholders During Construction Projects. Retrieved April 29, 2018, from https://careertrend.com/info-8621002-roles-stakeholders-during-construction-projects.html

Communication Strategy for Stakeholder Engagement - SustaiNet. (2015). Retrieved April 27, 2018, from https://www.sustainet.com/communication-strategy-for-stakeholder-engagement/

Copa, N., Nayak, N., Holdren, D., Garrison, M., & Taylor, R. (2011). *Stakeholder Communication: Tips from the States*. Retrieved from http://nces.ed.gov/programs/slds/pdf/best_practices.pdf

Cox, S. (2010). Online social network member attitude toward online advertising formats. *Theses*. https://scholarworks.rit.edu/theses/4592

Cretu, O., Stewart, R., & Berends, T. (2011). *Risk Management for Design and Construction*. New York: Hoboken. Retrieved from https://books.google.co.uk/books?id=jCiBFGkHCgEC&dq=risk+management+process+in+construction&source=gbs_navlinks_s

D'Andrea, A., Ferri, F., Grifoni, P., & Guzzo, T. (2015). Approaches, Tools and Applications for Sentiment Analysis Implementation. *International Journal of Computer Applications*, *125*(3), 26–33. https://doi.org/10.5120/ijca2015905866

Dilara, K. R. (2014). Theory of Architecture. *Proceedings of Higher Education*, *1*(61), 45. Retrieved from http://english.archvuz.ru/2014_1/3

Duff, V. (n.d.). How Can Stakeholders Negatively Influence a Project? Retrieved April 26, 2018, from http://smallbusiness.chron.com/can-stakeholders-negatively-influence-project-36026.html

Dunn, W. N. (2014). Social Network Theory. https://doi.org/10.1177/107554708300400306

Einur, H., Baharuddin, A., Wilkinson, S., & Costello, S. B. (2016). Evaluating Early Stakeholder Engagement (ESE) as a Process for Innovation, 51–62.

Ellero, J. (2015). Projects and Policies Implementation Status, (January).

Elliott, N. (2014). *Want more social marketing budget? Stop measuring social engagement*.

El-Sawalhi, N. I., & Hammad, S. (2015). Factors affecting stakeholder management in construction projects in the Gaza Strip. *International Journal of Construction Management*, *15*(2), 157–169. https://doi.org/10.1080/15623599.2015.1035626

Emont, S., Emont, N., & Scheirer, M. A. (2008). Adoption, Sustainability and Spread of Self-Management Supports. Retrieved July 4, 2018, from https://www.rwjf.org/en/library/research/2008/07/adoption--sustainability-and-spread-of-self-management-supports.html

European Network for Rural Development. (2015). Improving stakeholder involvement. *EU Rural Review*, (19).

Fageha, M. K., & Aibinu, A. A. (2016). Identifying stakeholders' involvement that enhances project scope definition completeness in Saudi Arabian public building projects. *Built Environment Project and Asset Management*, *6*(1), 6–29. https://doi.org/10.1108/BEPAM-06-2014-0030

Ferguson, G. (n.d.). *The Importance of Response Time in the Service Industry*. Small Business - Chron.Com. Retrieved June 14, 2020, from https://smallbusiness.chron.com/importance-response-time-service-industry-45132.html

Freeman, E. R. (2010). *Strategic Management: A Stakeholder Approach*. Cambridge: Cambridge University Press.

Gakii Kithinji, R., Kithinji, R. G., & Kamaara, M. (2017). Factors Influencing Completion of Government Road Infrastructure Projects in Kenya: a Case of Meru County, *4*(442), 787–802. Retrieved from

http://strategicjournals.com/index.php/journal/article/viewFile/585/608

Gallaugher, J., & Ransbotham, S. (2010). Social Media and Customer Dialog Management at Starbucks. *MIS Quarterly Executive*, *9*.

Garreta, R. (2015, August 27). A Gentle Guide to Machine Learning. *MonkeyLearn Blog*. ../../blog/a-gentle-guide-to-machine-learning/

Gartenstein, D. (2018). *Different Types of Stakeholders*. Chron. https://corporatefinanceinstitute.com/resources/knowledge/finance/stakeholder/

Gaur, V. (2013). Understand Your Stakeholders. *International Journal of Advancements in Research & Technology*, *2*(1).

Ghiassi, M., Skinner, J., & Zimbra, D. (2013). Twitter brand sentiment analysis: A hybrid system using n-gram analysis and dynamic artificial neural network. *Expert Systems with Applications: An International Journal*, *40*(16), 6266–6282. https://doi.org/10.1016/j.eswa.2013.05.057

Gnan, L., Hinna, A., Monteduro, F., & Scarozza, D. (2013). Corporate governance and management practices: Stakeholder involvement, quality and sustainability tools adoption: Evidences in local public utilities. *Journal of Management and Governance*, *17*(4), 907–937. https://doi.org/10.1007/s10997-011-9201-6

Gundecha, P., & Liu, H. (2012). Mining Social Media: A Brief Introduction. In *Tutorials in Operations Research* (pp. 1–17). INFORMS. https://doi.org/10.1287/educ.1120.0105

Han, X., Gu, X., & Peng, S. (2019). Analysis of Tweet Form's effect on users' engagement on Twitter. *Cogent Business & Management*, *6*(1). https://doi.org/10.1080/23311975.2018.1564168

Harrin, E. (2010). *4 Types of Stakeholders in Project Management*. Resource Management. https://pmtips.net/article/4-types-of-stakeholders-in-project-management

Harvey, P., Baghri, S., & Reed, B. (2002). *Emergency Sanitation: Assessment and programme design*. *WEDC, Loughborough University*. Leicestershire.

He, W., Shen, J., Tian, X., Li, Y., Akula, V., Yan, G., & Tao, R. (2015). Gaining competitive intelligence from social media data. *Industrial Management & Data Systems*, *115*, 1622–1636. https://doi.org/10.1108/IMDS-03-2015-0098

Hemsley, J., & Mason, R. (2012). The Nature of Knowledge in the Social Media Age: Implications for Knowledge Management Models. *Proceedings of the Annual Hawaii International Conference on System Sciences*, *45*, 3928–3937.

Heravitorbati, A., Coffey, V., Trigunarsyah, B., & Saghatforoush, E. (2011). Examination of process to develop a framework for better implementation of quality practices in building projects. *International Journal of Innovation , Management and Technology (IJIMT)*. Retrieved from https://eprints.qut.edu.au/43314/

Highfield, T., Harrington, S., & Bruns, A. (2013). Twitter as a Technology for A\udiencing and Fandom. *Information, Communication & Society*, *16*(3), 315–339. https://doi.org/10.1080/1369118X.2012.756053

Hoffmann, L. (2014). *The impact of social media on stakeholder engagement*. 1–26. https://doi.org/10.15308/SInteZa-2014-758-761

Hollebeek, L. (2011). Demystifying customer brand engagement: Exploring the loyalty nexus. *Journal of Marketing Management*, *27*, 785–807.

Holtzblatt, K., & Beyer, H. (1999). Contextual design. https://doi.org/10.1145/632716.632801

IBM Institute for Business Value. (2014). Stepping up to the challenge: CMO insights from the Global C-suite Study. In *CMO C-suite Studies*.

James, M. (2012). *The power of pictures in marketing* (p. 19) [LIMRA's Marke Facts Quarter].

Jin, S.-A. A., & Phua, J. (2014). Following Celebrities' Tweets About Brands: The Impact of Twitter-Based Electronic Word-of-Mouth on Consumers' Source Credibility Perception, Buying Intention, and Social Identification With Celebrities. *Journal of Advertising*, *43*(2), 181–195. https://doi.org/10.1080/00913367.2013.827606

Johnson, J. E. (2012). Big Data + Big Analytics = Big Opportunity. *Financial Executive*, *28*(6), 50–53. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=77604799&site=bsi-live

Kamau, M. M. (2011). *Vernacular Radio and Democracy in Kenya: A Historical Reconstruction of Audiences' Usage of Kass and Inooro Radio Stations in Uasin-Gishu District*. 389.

Kaplan, A. M., & Haenlein, M. (2010). The challenges and opportunities of Social Media. *Business Horizons*, *53*(1), 59–68. Retrieved from https://www.scribd.com/doc/63799736/Kaplan-and-Haenlein-2010-Social-Media

Karp, K. (2016). *New research: The value of influencers on Twitter*. https://blog.Twitter.com/en_us/a/2016/new-research-the-value-of-influencers-on-Twitter.html

Kenya Power (2020). @KenyaPower_Care. In *Twitter*. https://twitter.com/KenyaPower_Care?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor

Kenya Power. (n.d.). *Outages and Weather*. Retrieved May 22, 2020, from https://www.KPLC.co.ke/content/item/554/outages-and-weather

Kerzner, H. R. (2015). *Project Management: A System Approach to Planning, Scheduling and Controlling*. *Statewide Agricultural Land Use Baseline 2015* (10th ed., Vol. 1). Wiley. https://doi.org/10.1017/CBO9781107415324.004

KGP. (2014). *Stakeholder Engagement Plan*. Retrieved from http://s21.q4cdn.com/589145389/files/doc_documents/EN/Stakeholder-Engagement-

Plan.pdf

Killen, C. P., & Kjaer, C. (2012). Understanding project interdependencies: The role of visual representation, culture and process. *International Journal of Project Management*, *30*(5), 554–566. https://doi.org/10.1016/j.ijproman.2012.01.018

Kim, L. (2019). *The Straightforward Guide to Twitter Analytics*. https://blog.hubspot.com/marketing/Twitter-analytics

Kinsey, A. (2018, February). *The Effects of Poor Communication in Business*. Chron Blog, Smallbusiness.Chron.Com. https://smallbusiness.chron.com/effects-poor-communication-business-345.html

Kleinberg, S. (2013). *To hashtag or not to hashtag?: That is the question—How to use them correctly without going overboard* (Chicago Tribune, pp. 2–5).

Kokemuller, N. (2015). Why Is It Important to Communicate. Address the Issues Raised by Stakeholders? Retrieved July 3, 2018, from http://smallbusiness.chron.com/important-communicate-address-issues-raised-stakeholders-76676.html

KPLC. (2016a). *Corporate Profile*. Retrieved from www.KPLC.co.ke

KPLC. (2016b). Kenya Power contractors urged to speed up implementation of projects. Retrieved August 29, 2018, from http://www.KPLC.co.ke/content/item/1500/kenya-power-contractors-urged-to-speed-up-implementation-of-projects

KPLC. (2017). Kenya Power customers increasingly preferring social media for engagement. Retrieved August 29, 2018, from http://www.KPLC.co.ke/content/item/2175/kenya-power-customers-increasingly-preferring-social-media-for-engagement

KPLC. (2018). Our Employees. Retrieved August 29, 2018, from http://www.KPLC.co.ke/content/item/63/our-employees

KPLC. (n.d.). *Customer Information*. Retrieved May 22, 2020, from https://KPLC.co.ke/category/view/22/customer-information

Krathwohl, D. . . (1993). *Methods of Educational and Social Science Research: An Integrated Approach*. New York: Longman/Addison Wesley Longman.

Kwon, E., Kim, E., Sung, Y., & Yoo, C. (2015). Brand followers: Consumer motivation and attitude towards brand communications on Twitter. *International Journal of Advertising*, *33*, 657. https://doi.org/10.2501/IJA-33-4-657-680

Lamberton, C., & Stephen, A. (2016). A Thematic Exploration of Digital, Social Media, and Mobile Marketing Research's Evolution from 2000 to 2015 and an Agenda for Future Research. *Journal of Marketing*, *80*. https://doi.org/10.1509/jm.15.0415

Learmonth, M. (2009, March 30). *Social Media Paves Obama's Way to White House*. https://adage.com/article/special-report-digital-alist-2009/digital-a-list-2009-social-media-aided-obama-s-victory/135558

Lennox, H. (2016). The Involvement of People in the Quality Management Process. Retrieved

July 4, 2018, from https://www.isotracker.com/blog/the-involvement-of-people-in-the-quality-management-process/

Liang, X., Yu, T., & Guo, L. (2017). Understanding Stakeholders' Influence on Project Success with a New SNA Method: A Case Study of the Green Retrofit in China. *Sustainability*, *9*(11), 1927. https://doi.org/10.3390/su9101927

Linkedin. (n.d.). *About Twitter*. Retrieved May 22, 2020, from https://www.linkedin.com/company/Twitter/about/

Linton, I. (2018). What Are the Benefits of Stakeholder Communication. Retrieved April 26, 2018, from http://smallbusiness.chron.com/benefits-stakeholder-communication-38875.html

Liu, W., Sidhu, A., Beacom, A. M., & Valente, T. W. (2017). Social Network Theory. In *The International Encyclopedia of Media Effects* (pp. 1–12). Hoboken, NJ, USA: John Wiley & Sons, Inc. https://doi.org/10.1002/9781118783764.wbieme0092

Lopes, L., & Mañas, A. V. (2013). Delays in It Projects Due To Failures in the Stakeholders Management. *Future Studies Research Journal*, *5*(2), 158–185.

Lunden, I. (2020). *Twitter reports $1.01B in Q4 revenue with 152M monetizable daily active users*. TechCrunch. https://techcrunch.com/2020/02/06/Twitter-q4-earnings/

Lunenburg, F. C. (2010). *Communication: The Process, Barriers, And Improving Effectiveness*. 11.

Mansoor, H. (2018). *10 Ways to Improve Your Customer Service and Increase Sales Performance*. CustomerThink. https://customerthink.com/10-ways-to-improve-your-customer-service-and-increase-sales-performance/

Manyika, J., Chui, M., Brown, B., Bughin, J., Dobbs, R., Roxburgh, C., & Hung Byers, A. (2011). Big Data: The Next Frontier for Innovation, Comptetition, and Productivity.

McEachern, A. (2019, July 12). *What is Customer Engagement, and Why is it Important?* The Smile.Io Blog. https://blog.smile.io/what-is-customer-engagement-and-why-is-it-important/

Meg. (2019). *Best Social Media Analytics Tool for 2019*. Talkwalker. https://www.talkwalker.com/social-media-analytics

Mireri, J. (2020). *Nationwide power blackout blamed on system hitch: The Standard*. The Standard. https://www.standardmedia.co.ke/article/2001370675/nationwide-power-blackout-blamed-on-system-hitch

Mirza, A. (2017). Communication Issues and Solutions for Project Implementation. Retrieved April 30, 2018, from https://www.projectmanagement.com/articles/396785/Communication-Issues-and-Solutions-for-Project-Implementation

Mitroff, I. (1984). Stakeholders of the organizational mind. *Behavioral Science*, *29*(3), 217–218. https://doi.org/10.1002/bs.3830290309

Modha, J., Pandi, G. S., & Modha, S. (2013). *Automatic Sentiment Analysis for Unstructured Data*. /paper/Automatic-Sentiment-Analysis-for-Unstructured-Data-Modha-Pandi/722532fad38b1f7da3ff5006ae13cb8b3177d50c

Moges, H.-T., Vlasselaer, V. V., Lemahieu, W., & Baesens, B. (2016). Determining the use of data quality metadata (DQM) for decision making purposes and its impact on decision outcomes—An exploratory study. *Decision Support Systems*, *83*, 32–46. https://doi.org/10.1016/j.dss.2015.12.006

Moriarty, J. (2014). The Connection Between Stakeholder Theory and Stakeholder Democracy: An Excavation and Defense. *Business and Society*, *53*(6), 820–852. https://doi.org/10.1177/0007650312439296

Morrissey, B. (2015). The importance of stakeholder and community engagement in engineering projects. Retrieved April 26, 2018, from http://www.engineersjournal.ie/2015/04/21/importance-stakeholder-community-engagement-engineering-projects/

Nassiuma, D. K. (2000). *Survey Sampling: Theory and methods*. Njoro: Egerton University Press.

National Research Council. (2004). *Analytical Methods and Approaches for Water Resources Project Planning*. Washington, D.C.: National Academies Press. https://doi.org/10.17226/10973

Newberry, C. (2019, August 26). *How to Use Twitter Analytics: The Complete Guide for Marketers*. Hootsuite Social Media Management. https://blog.hootsuite.com/Twitter-analytics-guide/

Noor, M., Douma, N., Haar, G. Van Der, Hilhorst, D., Molen, I. Van Der, & Stel, N. (2010). *Multi-Stakeholder Processes, Service Delivery and State Institutions. Theoretical framework & Methodologies*.

Nordmeyer, B. (2014). The Roles of Stakeholders in the Planning Process. Retrieved April 26, 2018, from http://smallbusiness.chron.com/roles-stakeholders-planning-process-32051.html

Notess, M. (2008). An Assessment of Contextual Design and Its Applicability to the Design of Educational Technologies, 152.

Olander, S. (2007). Stakeholder impact analysis in construction project management. *Construction Management and Economics*, *25*(3), 277–287. https://doi.org/10.1080/01446190600879125

Owalabi, J. D., Amusan, L. M., Oloke, C. O., Olusanya, O., Tunji-Olayeni, P., OwolabiDele, … OmuhIganatious. (2014). Causes and effects of delay on project construction delivery time. *International Journal of Education and Research*, *2*(4), 197–208.

Pääkkönen, P., & Jokitulppo, J. (2017). Quality management architecture for social media data. *Journal of Big Data*. https://journalofbigdata.springeropen.com/articles/10.1186/s40537-017-0066-7

Pak, A., & Paroubek, P. (2010). *Twitter as a corpus for sentiment analysis and opinion mining*. 1320–1326.

Pallant, Julie. 2003. *SPSS Survival Manual: A Step-by-Step Guide to Data Analysis Using SPSS for Windows (Versions 10 and 11) ; [Applies to SPSS for Windows up to Version 11]*. Reprinted. Buckingham: Open Univ. Press.

Patton, Michael. 2002. "Qualitative Research And Evaluation Methods." *Http://Lst-Iiep.Iiep-Unesco.Org/Cgi-Bin/Wwwi32.Exe/[In=epidoc1.in]/?T2000=018602/(100)* 3.

Paquette, H. (2013). *Social Media as a Marketing Tool: A Literature Review*. 27.

Pascual, F. (2019, June 7). Twitter Sentiment Analysis with Machine Learning. *MonkeyLearn Blog*. https://monkeylearn.com/blog/sentiment-analysis-of-Twitter/

Pearson, T., & Wegener. (2013, September 11). *Big Data: The Organizational Challenge*. Bain. https://www.bain.com/insights/big_data_the_organizational_challenge/

Petrovic, S., Osborne, M., & Lavrenko, V. (2011). *RT to Win! Predicting Message Propagation in Twitter*.

Pinkowska, M. (2016). Uber Case Study. *Brand24*. https://brand24.com/case-study/uber/

Power, K. (2020). *@KenyaPower_Care*. Twitter. https://Twitter.com/KenyaPower_Care?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Eauthor

Proulx, M., & Shepatin, S. (2012). *Social TV: How marketers can reach and engage audiences by connecting television to the web, social media, and mobile*. John Wiley & Sons.

Ravaglia, V., Brivio, E., & Graffigna, G. (2015). *Engaging consumers via Twitter: Three successful communicative strategies*. https://doi.org/10.4018/978-1-4666-8408-9.ch004

Rockwell, C. (1999). Customer Connection Creates a Winning Product: Building Success with Contextual Techniques. *Interactions*, *6*(1), 50–57. https://doi.org/10.1145/291224.291231

Rohm, A., Kaltcheva, V. D., & Milne, G. R. (2013). A mixed-method approach to examining brand-consumer interactions driven by social media. *Journal of Research in Interactive Marketing*, *7*, 295–311.

Rohm, A., Kaltcheva, V. D., & Milne, G. R. (2013). A mixed-method approach to examining brand-consumer interactions driven by social media. *Journal of Research in Interactive Marketing*, *7*, 295–311.=

Sareah, F. (2015). Interesting statistics for the top 10 social media sites. Retrieved from http://smallbiztrends.com/2015/07/social-media-sites-statistics.html

Schultz, D. E., & Peltier, J. J. (2013). Social media's slippery slope: Challenges, opportunities and future research directions. *Journal of Research in Interactive Marketing*, *7*(2), 86–99. https://doi.org/10.1108/JRIM-12-2012-0054

Service Futures. (2019). *Four Key Elements of a Service Delivery System*. https://www.servicefutures.com/four-key-elements-service-delivery-system

Sharma, G. (2018). *4 Strategies to Help Improve Your Customer Service Standards*. Social Media Today. https://www.socialmediatoday.com/news/4-strategies-to-help-improve-your-customer-service-standards/529799/

Shobana, G., Vigneshwara, B., & Maniraj Sai, A. (2018). Twitter sentimental analysis. *International Journal of Recent Technology and Engineering*, *7*(47), 346–346.

Siegelaub, J. M. (2005). *Managing Stakeholders to Achieve True Implementation Success*. Ontario, Canada. Retrieved from https://www.pmi.org/learning/library/managing-stakeholders-achieve-true-implementation-success-7406

Siles, R. (2015). Benefits of Stakeholder Participation. Retrieved July 4, 2018, from https://www.pm4dev.com/pm4dev-blog/entry/benefits-of-stakeholder-participation.html

Smith, A. (2010, December 9). *Who Tweets?* http://pewresearch.org/pubs/1821/Twitter-usersprofile- exclusive-examination

Soboleva, A. (2018). *Marketing with Twitter: Investigating factors that impact on the effectiveness of tweets*. Wesern Sydney University.

Statcounter. (2020). *Social Media Stats Kenya*. StatCounter Global Stats. https://gs.statcounter.com/social-media-stats/all/kenya

Stimson, J. (n.d.). Responsibilities Of Stakeholders. Retrieved April 26, 2018, from http://smallbusiness.chron.com/responsibilities-stakeholders-25975.html

Taherparvar, N., Esmaeilpour, R., & Dostar, M. (2014). Customer knowledge management, innovation capability and business performance: A case study of the banking industry. *Journal of Knowledge Management*, *18*(3), 591–610. https://doi.org/10.1108/JKM-11-2013-0446

Tammer, M. (2009). Early stakeholder involvement in projects. *PM World Today*, *XI*(Iv), 1–6. Retrieved from http:www.pmworldtoday.net

Tang, L., Ni, Z., Xiong, H., & Zhu, H. (2015). Locating targets through mention in Twitter. *World Wide Web*, *18*(4), 1019–1049. https://doi.org/10.1007/s11280-014-0299-8

Tengan, C., & Aigbavboa, C. (2017). Level of stakeholder engagement and part icipation in monitoring and evaluation of construct ion projects in Ghana. *Procedia Engineering*, *196*, 630–637.

The George Washington University. (2009). *The Contribution of Government Communication Capacity to Achieving Good Governance Outcomes*. Retrieved from http://siteresources.worldbank.org/EXTGOVACC/Resources/GWCommGAProundtablerapporteursreport.pdf

Trebes, B., Ocock, M., Oldfield, A., & Trebes, B. (2015). *Global Risk Assessment and Strategic Planning.* ICE Publishing. Retrieved from

https://bibdata.princeton.edu/bibliographic/10169703

Turkulainen, V., Aaltonen, K., & Lohikoski, P. (2016). Managing Project Stakeholder Communication: The Qstock Festival Case. *Project Management Journal*, *46*(6), 74–91. https://doi.org/10.1002/pmj.21547

Twitter Inc. (2019). *Twitter for Business*. https://business.Twitter.com/en.html

Twitter Inc. (n.d.-a). *About replies and mentions*. Retrieved May 23, 2020, from https://help.Twitter.com/en/using-Twitter/mentions-and-replies

Twitter Inc. (n.d.-b). *Getting started*. Getting Started. Retrieved May 22, 2020, from https://help.Twitter.com/en/Twitter-guide

Twitter Inc. (n.d.-c). *How to Tweet*. Retrieved May 22, 2020, from https://help.Twitter.com/en/using-Twitter/how-to-tweet

Twitter Inc. (n.d.-d). *How to use Twitter analytics*. Retrieved May 25, 2020, from https://business.Twitter.com/en/analytics.html

Twitter Inc. (n.d.-e). *(Kenya Power (@KenyaPower_Care) / Twitter*. Twitter.Com. Retrieved May 22, 2020, from https://Twitter.com/kenyapower_care

Twitter. (2020). In *Wikipedia*. https://en.wikipedia.org/w/index.php?title=Twitter&oldid=956410729

Union Metrics. (2020). *Twitter Snapshot Report for @KenyaPower_care*. https://app.unionmetrics.com/tools/twitter/snapshots/24590139

Vijayaraghavan, A. (2011). The Importance of Stakeholder Engagement. Retrieved September 18, 2018, from https://www.triplepundit.com/2011/06/importance-stakeholder-engagement/

Vivek, S., Beatty, S., & Morgan, R. (2012). Customer engagement: Exploring customer relationships beyond purchase. *Journal of Marketing Theory & Practice*, *20*(2), 122–146.

Wanjala, E. (2018, May 2). We don't steal from our clients, KPLC says on alleged inflated bills. *The Star Newspaper*.

Wenzi, M. (2019). *Engaging Customers Through Social Media: 7 Powerful Tactics*. Socialbakers. https://www.socialbakers.com/blog/engaging-customers-through-social-media

What Is the Importance of Timely Customer Service? (2017, February 8). *3C Contact Services*. https://3ccontactservices.com/what-is-the-importance-of-timely-customer-service/

Yousaf, M. (2018). Explanatory Research - Types of Research. Retrieved September 18, 2018, from https://scholarshipfellow.com/explanatory-research-definition-types-comparison-advantages-disadvantages/

Zulch, B. (2014). Communication: The Foundation of Project Management. *Procedia*

Technology, *16*, 1000–1009. https://doi.org/10.1016/j.protcy.2014.10.054

APPENDICES

Appendix 1: Study Questionnaire

Dear Respondent,

My name is Peris Suka, a student of Nairobi University studying Master of Arts Degree in Communication Studies. This questionnaire is intended to gather research data as part of an academic investigation for my studies. The information obtained will not be used for any other purpose other than to enhance the body of knowledge in Academic Research. Your confidentiality shall be observed by not recording your personal details, and this information shall not whatsoever be used against you. You are not forced to participate in the study; and you can pull out of the interview at any given time. You are allowed to not respond to any question should you feel uncomfortable.

SECTION A: DEMOGRAPHIC INFORMATION

1. County of residence _____
2. Level of education
   - Primary ☐
   - Secondary ☐
   - Certificate ☐
   - Diploma ☐
   - Degree ☐
   - Postgraduate ☐
3. Age _____
4. Gender
   - Male ☐
   - Female ☐
5. Do you use Twitter to interact with Kenya Power Company?
   - Yes ☐
   - No ☐

   If yes proceed. If no, stop interview.

SECTION B: MECHANISMS OF ENGAGING CUSTOMERS

6. Do you use Twitter to send tweets?
   - Yes ☐
   - No ☐
7. Have you followed the Kenya Power Company Twitter account?
   - Yes ☐
   - No ☐
8. Have you interacted with the Kenya Power Company Twitter account?
   - Yes ☐
   - No ☐

To what extent would you agree with, or disagree with the following statements, on a scale of 1 to 5 where 1= strongly disagree, 2= disagree, 3= Not sure/neutral, 4= agree and 5= strongly agree. Kenya Power Company:

	Strongly disagree (1)	**Disagree (2)**	**Neutral/ not sure (3)**	**Agree (4)**	**Strongly agree (5)**
9. Uses tweets to	☐	☐	☐	☐	☐

engage customers					
10. Uses retweets to engage customers	☐	☐	☐	☐	☐
11. Uses hashtags when interacting with customers	☐	☐	☐	☐	☐
12. Uses comments to engage customers	☐	☐	☐	☐	☐
13. Uses direct messages to engage customers	☐	☐	☐	☐	☐

14. Are there any other methods of engagement on Twitter? If yes, please mention
_____

15. Kenya Power Company uses influential users on Twitter to market their products of services?

Strongly disagree ☐
Disagree ☐
Neutral/ not sure ☐
Agree ☐
Strongly agree ☐

To what extent would you agree with, or disagree with the following statements, on a scale of 1 to 5 where 1= strongly disagree, 2= disagree, 3= Not sure/neutral, 4= agree and 5= strongly agree about Kenya Power Company influencers? Influencers:

	Strongly disagree (1)	**Disagree (2)**	**Neutral/ not sure (3)**	**Agree (4)**	**Strongly agree (5)**
16. Use tweets to engage customers	☐	☐	☐	☐	☐
17. Use retweets to engage customers	☐	☐	☐	☐	☐
18. Use hashtags when interacting with customers	☐	☐	☐	☐	☐
19. Use comments to engage customers	☐	☐	☐	☐	☐
20. Use media files to engage customers	☐	☐	☐	☐	☐

21. Did the influencer(s) have an impact on your decision making about Kenya Power Company products?

Strongly disagree ☐
Disagree ☐
Neutral/ not sure ☐
Agree ☐
Strongly agree ☐

SECTION C: TWITTER ANALYTICS

How would you agree with, or disagree with the following statements, on a scale of 1 to 5 where 1= strongly disagree, 2= disagree, 3= Not sure/neutral, 4= agree and 5= strongly agree

	Strongly disagree (1)	Disagree (2)	Neutral/ not sure (3)	Agree (4)	Strongly agree (5)
22. Kenya Power Company sends out tweets on a regular basis	☐	☐	☐	☐	☐
23. Kenya Power Company engages customers regularly on Twitter	☐	☐	☐	☐	☐
24. Kenya Power Company responds to every legitimate query raised on their twitter account	☐	☐	☐	☐	☐
25. Kenya Power Company provides solutions using their Twitter platform	☐	☐	☐	☐	☐
26. Kenya Power Company refers customers to their offices incase they are unable to provide an online solution	☐	☐	☐	☐	☐

Note: More data on Twitter analytics generated by online tools

SECTION D: CUSTOMER FEEDBACK

How would you agree with, or disagree with the following statements, on a scale of 1 to 5 where 1= strongly disagree, 2= disagree, 3= Not sure/neutral, 4= agree and 5= strongly agree

	Strongly disagree (1)	Disagree (2)	Neutral/ not sure (3)	Agree (4)	Strongly agree (5)
27. Kenya Power Company provides an overall positive experience on Twitter	☐	☐	☐	☐	☐
28. Customer engagement on Twitter does not result in negative confrontations	☐	☐	☐	☐	☐

Note: More data on customer feedback generated by online tools.

SECTION E: QUALITY MANAGEMENT

How would you agree with, or disagree with the following statements, on a scale of 1 to 5 where 1= strongly disagree, 2= disagree, 3= not sure/neutral, 4= agree and 5= strongly agree

	Strongly disagree (1)	Disagree (2)	Neutral/ not sure (3)	Agree (4)	Strongly agree (5)
29. Engagement on Twitter has improved service delivery	☐	☐	☐	☐	☐
30. Engagement on Twitter provides timely delivery of services	☐	☐	☐	☐	☐

31. Customers are more satisfied with services offered on Twitter	☐	☐	☐	☐	☐
32. Complaints raised on Twitter by customers are resolved	☐	☐	☐	☐	☐
33. All queries raised on Twitter are responded to	☐	☐	☐	☐	☐
34. Engagement of customers has improved quality of products	☐	☐	☐	☐	☐
35. Engagement has enhanced reliability	☐	☐	☐	☐	☐
36. Customers are better informed with interaction of Kenya Power Company Twitter account	☐	☐	☐	☐	☐
37. Use of Kenya Power Company Twitter account has enhanced access to services	☐	☐	☐	☐	☐

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Appendix 2: Twitter Data Showing Text On Direct Messages

NB: Five thousand tweets were scraped from the web. The table below shows only a sample.

Some of the tweets, comments and replies that have the keyword "DM"
@sk_kimutai Hello, please check DM. Answered by: NM
@Oomoste Hi ,please DM your exact location including a landmark eg a school, church etc and your telephone numberâ€¦ https://t.co/10e6CowDrU
@Samkiserian Hi ,please DM your exact location including a landmark eg a school, church etc and your telephone nuâ€¦ https://t.co/vNr5Vw9dHm
@nomizking Hello. Please check DM for the reference number. Sorry for the inconvenience. You may also dial *977# toâ€¦ https://t.co/RMmEVQ3ch2
@_sheramitchell_ Please DM your account number and telephone number for assist. You may also dial *977# to easily râ€¦ https://t.co/1oUE4jrJVs
@linahChristine Hello. Please DM your exact location including landmarks if any and your telephone number. You mayâ€¦ https://t.co/E6KHNhWeoD
@mburuks Hello. Please check DM for the reference number. Sorry for the inconvenience. You may also dial *977# to eâ€¦ https://t.co/pqZlF2CVtp
@oposche2009 Hello. Please DM your account number, exact location including landmarks if any and your telephone numâ€¦ https://t.co/isxWEtEgat
@Crypt0n1an Please check DM for the reference number. Sorry for the inconvenience. You may also dial *977# to easilâ€¦ https://t.co/5DuVAMBH06
@AntonyKuria14 Please share a detailed description of your precise location in terms of landmarks(like a school orâ€¦ https://t.co/aT6zpJLng9
@TonySaitoti Hello. Please DM your account number, exact location including landmarks if

any and your telephone numâ€¦ https://t.co/DARMOBiLFd
@Rozavio Hello. Please DM your account number, exact location including landmarks if any and your telephone number.â€¦ https://t.co/Q7CEQ9qEyj
@MerryTresha Hi Merry. Please send us this link on DM for follow up. Answered by: WB
@karuapal Hi Paul. Please confirm mobile number on DM Answered by: WB
@just_obra Hi., Please confirm the issue on DM for assistance or send us this link. Answered by: WB
@Vitoria_G_K Hi Vitoria. Please give us your account number, exact location including a landmark eg a school, churcâ€¦ https://t.co/yU6Cp5B2yd
@PMMunguti Good evening, sorry for the inconvenience. Kindly confirm nearby landmark (e.g school, church, hospital,â€¦ https://t.co/F2YjLBlWzd
@mugeni_m Good evening, kindly confirm if power has stabilized. If note please confirm nearby landmark (e.g school,â€¦ https://t.co/favewOnLB5
@danielmohh HI Daniel. Please confirm location and DM us the link for this entry. Answered by: WB
@OkoreEsq Hi Okore. Confirm mobile number on DM. Answered by: WB
@keeplungart Hi, please DM meter number and message displayed on CIU screen after keying in token for assistance. Answered by: MO
@kiksgenge1 Hello, DM seen Answered by: BT
@frankmuriki Hi. Kindly DM your meter number and telephone number and also confirm if the CIU screen had a displayâ€¦ https://t.co/jgULakyk4I
@marigigg Hi. Please give us your exact location including a landmark eg a school, church, petrol station, market,â€¦ https://t.co/J1tt43EycU
@Njery_sabina Hi Njery. Please confirm mobile number on DM. Answered by: WB
@Lsankei99 Good evening, sorry for the inconvenience. Kindly DM your account number, telephone number, location detâ€¦ https://t.co/vbq0dAgWQx
@CPAkivuvaD Good evening, sorry for the inconvenience. Kindly DM your account number, telephone number, location deâ€¦ https://t.co/WwZchL0F5n
@manje_jacob Hi Jacob. Confirm mobile number on DM. Answered by: WB
@Foubyorwa Hi. Please give us the exact location including a landmark eg a school, church, petrol station, market,â€¦ https://t.co/p7jrBFmMoj
@Omukhana_ Hi Omukhana. Please give us your exact location including a landmark eg a school, church, petrol statioâ€¦ https://t.co/2Gk0ENjlBc
@streinsandB Hi Miss B. Please give us your account number, exact location including a landmark eg a school, churchâ€¦ https://t.co/WCfzuuKztH
@OtienoTrey Good evening, sorry for the inconvenience. Kindly DM your account number, telephone number, location deâ€¦ https://t.co/vNroEdPLsp
@danielthungu Hello, please DM telephone number and clear direction for further assistance. Answered by: NM

@Karey_mwari Hello, please refer to DM for response. Answered by: NM
@kiptooh1 Hi, check DM Answered by: BT
@kangethe67 Good evening, sorry for the inconvenience. Kindly DM your account number, telephone number, location deâ€¦ https://t.co/cfFCIPsqDN
@MrGwady DM seen Answered by: BT
@jgmuraya Hello, please DM your telephone number for further assistance. Answered by: NM
@anthonychacha Hi. DM checked. Answered by: WB
@Jo_Odhiambo Hi. DM replied. Answered by: WB
@voksie Hi, kindly confirm if supply has been restored. If not DM your telephone number for for booking. Answered by: MO
@Jo_Odhiambo Hi. DM replied. Answered by: WB
@festus_wakasala Hi Festus. Mobile number please on DM? Answered by: WB

Appendix 3: Twitter Data Showing Comments/Replies By KPLC

NB: Five thousand tweets were scraped from the web. The table below shows only a sample.

Twitter comments and replies from Kenya Power Company account directed at customers
@elvallary Hello, please note the incidence has been booked under reference number 5962909 to be attended by our teâ€¦ https://t.co/Ql0xVM2PjA
@liz_lizay Power loss has occurred affecting a large section of the area. Our technical team is working on the issue Answered by: JM
@KKenyansa Hi, kindly advise if having power and last time you purchased units Answered by: JM
@kiongo_nancy Hi Nancy, we cannot review bill without actual meter readings hence the picture request. Please facilâ€¦ https://t.co/Fz6WQ6gOHy
@carol1kim Token resent to your mobile number. Kindly confirm if received Answered by: JM
@K_kwamboka Hi receive 6444 0202 4238 4264 4537^SN Answered by: SO
@Pashptah Tokens resent to your mobile number. Kindly confirm if received Answered by: JM
@wangarimabiru Token resent to your mobile number. Kindly confirm if received Answered by: JM
@Njeri973 Tokens resent to your mobile number. Kindly confirm if received Answered by: JM
@mutahibasse Tokens resent to your mobile number. Kindly confirm if received Answered by: JM

@brianpally Field teams of your area have been notified to restore the power Answered by: JM
@2wkhisa Hi receive 4710 2196 1656 6250 4292^SN Answered by: SO
@kasaine_brian Token resent to your mobile number. Kindly confirm if received Answered by: JM
@MwangiGituthi Good morning We apologize for the inconvenience caused, kindly allow us to follow up on the complaint Answered by: JM
@dennisnesta Token resent to your mobile number. Kindly confirm if received Answered by: JM
@Mbatihezekia Hi Mbatikezekia ,kindly get statement via email to customercare@kplc.co.ke to further understand youâ€¦ https://t.co/N0i2qxrFeW
@okafogef2 Kindly provide the transaction details for further assistance Answered by: JM
@Livebrayo Field teams of your area have been notified to restore the power Answered by: JM
@Qanyi87 Hi receive 3714 7916 5544 7997 0612 and 0358 5285 6508 5449 4713^SN Answered by: SO
@kenaz_otieno Hello, please receive the token numbers 2308-3880-8104-7717-5000 and 6049-0919-6647-4059-2898 . Answered by: NM
@rashdee Hello, please receive the token number 0792-4379-5916-8510-6566 . Answered by: NM
@Kaari4 Hi Please provide us with your account/meter,phone number, and a brief description of the location for bâ€¦ https://t.co/4MW1LMKcoj
@RahlmmMaria Hi we have informed our team to attend, sorry for the inconvenience caused^SN Answered by: SO
@vwamu_dominic Hi Please provide us with your account/meter,phone number, and a brief description of the locationâ€¦ https://t.co/Q2pmVfBWrR
@bosire_vincent Hello Bosire, please confirm if experiencing an outage and also provide your account number for assâ€¦ https://t.co/i4CO6Y3iaX
@Noel_Oduor19 We apologize for the inconvenience caused, kindly allow us to follow up on the complaint ref. 5961061 Answered by: JM
@iamdjausto Power loss has occurred affecting a large section of the area. Our technical team is working on the issue Answered by: JM
@TK_Ukunda Good morning ,we've registered the complaint under ref:5962683 to be addressed by our technical team. Thank you Answered by: JM
@i_Chess Token resent to your mobile number. Kindly confirm if received Answered by: JM
@lynom Issue is currently being worked on by Field teams. Apologies for the delay Answered by: JM

@NyokabiGitonga Thank you for the feedback^SN Answered by: SO
@Micky_jacks Please send us your account no. so that we may assist you with this issue Answered by: JM
@Nginamutava Power loss has occurred affecting a large section of the area. Our technical team is working on the issue Answered by: JM
@_uatiG Hi ,kindly get statement via email to customercare@kplc.co.ke to verify payments done Answered by: JM
@CPAkivuvaD customer comment Answered by: JM
@SadearH Hi Please provide us with your phone number, and a brief description of the location for booking. ^SN Answered by: SO
@NancyJohnJey Morning receive token 2293 1951 9989 3417 3478, sorry for the delay^SN Answered by: SO
@StacyNyambura15 Good morning ,we've registered the complaint under ref:5962565 to be addressed by our technical tâ€¦ https://t.co/9jXgJFgvkW

Appendix 4: Twitter Data with 'KPLC' Keyword

NB: Five thousand tweets were scraped from the web. The table below shows only a sample

Comments, tweets, retweets and replies having the keyword "KPLC"
@KenyaPower_Care No tokens received so far. OJG6JE91GM Confirmed. sent to KPLC PREPAID for account 14239902837 on 16/10/20 at 8:20
@KenyaPower_Care Kindly send Tokens to OJG5JEAV2J Confirmed. Ksh100.00 sent to KPLC PREPAID for account 3719595761â€¦ https://t.co/9wlceTkOaM
@KenyaPower I have paid for my electricity tokens and I haven't received yet. OJG4JE1NM0 Confirmed. Ksh1,000.00 sent to KPLC
@KenyaPower_Care No units received for these, please assist (Confirmed.200 KES to KPLC TOKENS for 14271856206 wasâ€¦ https://t.co/Lec6sXAX7J
@AkardiKE Nijue Kama Ni kplc ama tokens
@KeEquityBank @KenyaPower_Care Once again I need your intervention Confirmed.1000 KES to KPLC TOKENS for 14286212â€¦ https://t.co/eNyT8SIbef
Kplc pliz send tokens for 14104402913
@_i67a_ Niliacha kazi KPLCðŸ'€ðŸ'€ Mwanzo watu pia waliswitch to tokens. But okay...I have noted itðŸ˜,ðŸ˜,ðŸ˜,ðŸ˜,
#kplc lose of power due to rotten and fallen pole,, area kiirua secondary school transformer meter account number 2â€¦ https://t.co/jcu1QjO8pN

@KeEquityBank How come I can't buy kplc tokens from Eazzy banking app? All I get is a black screen.
KPLC POWER BLACKOUT ON 16TH OCTOBER Expect power LONG blackout in select areas in Nairobi, Coast & South Nyanzaâ€¦ https://t.co/RT4x4u1uQ2
@Safaricom_Care @SafaricomPLC Can OJF5IGMWHF transaction made by 0708145531 for kplc prepaid tokens be reversâ€¦ https://t.co/ItADbyj69Z
@KenyaPower_Care @Cycybaibe @KenyaPower_Care TOKENS PLEASE! OJF9J07VT3 Confirmed. Ksh1,000.00 sent to KPLC PREPAIDâ€¦ https://t.co/YvNAOhWKWM
@KenyaPower_Care TOKENS PLEASE! OJF9J07VT3 Confirmed. Ksh1,000.00 sent to KPLC PREPAID for account 37171216361 on 15/10/20 at 6:47 PM
Paygrand is also available on WhatsApp and Telegram. Buy KPLC Tokens or TopUp Airtime direct from WhatsApp or Telâ€¦ https://t.co/1L11NsqrVQ
Paygrand is also available on WhatsApp and Telegram. Buy KPLC Tokens or TopUp Airtime direct from WhatsApp or Telâ€¦ https://t.co/5Gp59ErR40
RT @KoriBstd: @pzamingo @KenyaPower_Care @JerotichSeii @EPRA_Ke @EnergyMinK @ketercharles What is the explanation for skewed KPLC tokens pâ€¦
@KenyaPower_Care send tokens OJF9IF5OB1 Confirmed. Ksh100.00 sent to KPLC PREPAID for account 14251318649 on 15/10/20 at 10:34 AM
Buy Airtime kplc tokens and pay for bills at no transaction cost using till number 5260565 Call text 0728054108 0764054104
@KenyaPower_Care Confirmed.1000 KES to KPLC TOKENS for 37164830707 was successful. Ref 101743614941 on 10/14/20 at 18:20:26.
@LAIKAKENYA ðŸ¤£ðŸ¤£hapa kwetu Kathonzweni watu wa kplc hutuambia tunaweza weka blackout intentionally na hakuna kitu mtafanya
@KenyaPower_Care Blackout in Kisii Municipality since 7 am. Mount Kenya University Kisii Campus area. KPLC A/C No 22118863.
@KPLC @KenyaPower_Care @KenyaPower please attend to reference number 5945721 which has been pending for 2 weeks nowâ€¦ https://t.co/W8QYIEpB6t
@KenyaPower_Care Assist with these tokens OJE5I1HOJL Confirmed. Ksh400.00 sent to KPLC PREPAID for account 1428420â€¦ https://t.co/6uLWG1JfJf
Buy KPLC tokens Send account number#Amount to 40512 save money while using #Tsenda services

#Tsendaâ€¦ https://t.co/mg9ql2H8Ty
Hello KPLC, my tokens were depleted and i only see the message *connect* pls help meter number 37172046528 #kplccustomercare
KPLC Diani,Ukunda is not responsive...there is need for change!! 2 days Total blackoutðŸ˜¯ðŸ˜Ž
The cost of kplc tokens has gone up again.
KPLC is messing yp my budget. What's with these prepaid tokens running out so fast?
How long does it take to replace a faulty transformer? It's been over 30 hours of reporting and no action has been taken @kplc_power
@khatibabdallah2 after twitting to KPLC and multiple call to their customer care they came and said the transformerâ€¦ https://t.co/vH44iQRbX0
@KCBGroup Quick one, if you buy tokens from the app, whose or which number receives the token itself from kplc?
Unataka KPLC ikuwe na blackouts https://t.co/mXwYhb1T7p
@KenyaPower_Care OJD1GSGZ65 Confirmedsent to KPLC PREPAID....im waiting for these tokens
@KenyaPower_Care please send tokens.OJD9GQB48J Confirmed. Ksh300.00 sent to KPLC PREPAID for account 54600778523 on 13/10/20 at 6:12 PM
#kplccustomercare send tokens...OJD9GQB48J Confirmed. Ksh300.00 sent to KPLC PREPAID for account 54600778523 on 13/10/20 at 6:12 PM
I wonder what is happening with kplc every evening there must be a blackout
Buy KPLC Tokens and Topup Airtime for Safaricom, Airtel and Telkom fast and easy with Paygrand. To Buy KPLC Tokensâ€¦ https://t.co/wwFUDodceL