Effect of Instagram Utilization as a Social Media Network on Performance of Small and Medium Enterprisesin Kigali City, Rwanda

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Abstract
The Internet has enabled technological developments and also created a dynamic environment for the exchange of information. It has fundamentally altered the way people live, interact, and conduct their business. In Rwanda, branding and market penetration by local enterprises continues to be impeded. Small and medium enterprises have inadequate knowledge of digital marketing. Digital marketing, which has become a global norm, is still in its infancy stage in Rwanda. The purpose of this study was to investigate the effect of the Instagram utilization as a social media network on the performance of small and medium enterprises in Rwanda. The target population consisted of 393 small and medium enterprises operating in the industry sector in Kigali City with a sample size of 198. The research used both quantitative and qualitative approaches. Descriptive and inferential statistics was used to analyze the data. Results illustrated that Instagram utilization as a social media network had a positive relationship with organizational performance, as shown in Table 4, with a correlation coefficient (R) of 0.527. The R-square obtained was 0.278, indicating that Instagram utilization as a social media network accounted for 27.8 percent of the observed change in performance of SMEs. It was concluded that if the County Government of Turkana consistently utilized Instagram as a social media network then performance of SMEs would improve drastically. Since social media usage is regarded valuable in company yet there is no encouragement towards usage by the owner-mangers, it was recommended that the Government of Rwanda should create more enabling environment to encourage use of social media especially Facebook, Instagram, and Twitter by SMEs.This study would be used as reference material by academicians and other researchers who intended to carry out studies in relation to social media network and performance of small and medium enterprises.
Keywords: Instagram Utilization, Performance of Small and Medium Enterprises, Kigali City, Rwanda

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I.   Background Of The Study

Instagram is a photo and video-sharing application that is completely free to use(Antonelli, 2020). Business performance measures how well a company accomplishes its stated goals in relation to its final product at the conclusion of a given time period (Mahmudova, 2018).Small and medium enterprises are companies with less than a certain number of employees that are not subsidiaries. The exact figure varies from country to country. In the European Union, the top limit for a small business is 250 employees. Although some countries limit the number of employees to a maximum of 200, the United States considers SMEs to encompass companies with a workforce of less than 500 (OECD, 2015).

Instagram is a free picture and video sharing application that enables users to apply digital filters, frames, and other effects to their photos before sharing them on a variety of social media platforms. To attract traffic to a firm and its website, traditional marketing strategies such as print and electronic media, as well as internet marketing, were used. As search engine algorithms evolve, website owners must regularly monitor and update their websites with relevant and current material to avoid being devalued in search results. Nowadays, social media platforms such as Instagram are viewed as standalone destinations for establishing a presence(Mangold&Faulds, 2009)

Cvijikj and Michahelles (2013) noted that content such as entertainment and information increases, on average, the number of likes, comments, and shares. These actions may be taken by anybody, even consumers, and result in an equal contribution to the company. Customer interaction results in a rise in both positive and

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negative feedback. Thus, small enterprises should engage their clients by offering a variety of entertainments and opportunities for feedback on how the business functions.

The Internet has enabled technological developments, and also created a dynamic environment for the exchanges of information. It has fundamentally altered the way people live, interact, and conduct their business. Collaboration, user-generated content, and networking are all hallmarks of today's social media landscape. The emergence of interactive media and the expanding role of consumers in creating content on behalf of brands have fueled a rise in connection and networking. Small business leaders are embracing social media marketing to promote their business to achieve awareness, increase sales, and enhance customer relationship to thrive in the current competitive period. Despite the benefits of social media networks, branding and market penetration by local enterprises continues to be impeded in Rwanda by inadequate. Local brands continue to compete for shelf space in local supermarkets and stores and are rarely found on shelves in regional marketplaces, owing to the fact that few Rwandan businesses understand the value of branding and digital marketing as a strategy for business success. Due to a lack of brand awareness, several local items have been consigned to the background, despite their high quality (Mbabazi, 2022).

Social media are web-based services that enable individuals, groups, and organizations to collaborate, connect, interact, and establish communities through the creation, co-creation, modification, sharing, and engagement with easily accessible user-generated material," as defined by(Sloan & Quan-Haase, 2017). (Schmidt & Ralph, 2011) described social media as "technology-enabled instruments for connecting people." According to (Kaplan &Haenlein, 2012), social media is an internet-based application built on the Web 2.0 platform that enables the creation and exchange of user-generated content. (Schmidt & Ralph, 2011)also identify four types of social media tools: social networks, blogs, microblogs, and real simple syndication. (Kim, 2010) determined that the majority of social media platforms share common traits and can be classified into three broad categories: social networking sites (Facebook, Twitter, Myspace, and LinkedIn), video sharing sites (YouTube), and microblogging (Blogger, Jaiku, or Pownce). The most popular social media networks for customers and entrepreneurs are Facebook, Twitter, Pinterest, YouTube, and Instagram (Banks and Haan, 2017). A social media network enables small and medium enterprises to build a network and gain exposure to potential clients.

The adoption of social media platforms such as Twitter (for blogging), Facebook (for online social networking), LinkedIn (for professional networking), and Google Plus (for social networking) by SMEs has ushered in a new wave of marketing techniques (Moshi et al., 2014). According to Ashraf (2014), online marketing has proven to be cost effective and the returns appear to be sustainable because the target market is easily accessible and information and ideas are easily relayed via the various social media platforms that serve as the foundation for engagement and interaction. Constantine (2013) argues that social media marketing as a strategy entails a number of fundamental principles aimed at establishing and maintaining an engaged online community of followers and supporters.

Small and medium-sized enterprises (SMEs) are critical to the functioning of the majority of economies, particularly in developing countries. Small and medium-sized enterprises (SMEs) account for the majority of businesses globally and are critical contributors to employment creation and economic development on a global scale. SME's are the backbone of the global economy, accounting for the majority of firms in practically every region. In developing economies, SMEs account for 90 percent of the private sector and generate more than half of all jobs. Small and medium-sized enterprises (SMEs) account for over 80% of jobs in Africa, making them a critical driver of economic growth (CSIS, 2021).

Empirically, it has been demonstrated that SMEs can increase their performance by implementing popular ICT-related technologies such as social networking. Kumar &Ayedee, (2018) did research on social media tools for business growth of SMES in India, the study found that Promotion, advertising, marketing, and customer relationship management were all aided by social media platforms. These instruments are cost-effective and have aided in the expansion of the geographic region's consumer base. The company's brand management is further aided by the use of social media platforms. Customers use Facebook, Twitter, and other social networking sites in large numbers.

PURPOSE OF THE STUDY
The purpose of this study was to investigate the effect of Instagram utilization on performance of small and medium enterprises in Kigali City, Rwanda.

STATEMENT OF THE PROBLEM
Small businesses play a unique role in the economy, their role in terms of production, employment generation, contribution to exports and facilitating equitable distribution of income is very critical as in many low-income countries. However small and medium enterprises face challenges such as limited resources, inadequate access to market information, liquidity issues ,Lack of technical experience, price sensibility , lack of clarity in level of marketing strategy, limited number of employees, demand and revenue reduction due to

COVID-19 pandemic (Tourek, 2021). Most of them have surmounted their challenges as a result of creative use of social media platforms to market and distribute their products (Apulu& Latham, 2011) opined that social media technologies can be used to enhance SMEs's performance.

Despite the benefits of social media networks, branding and market penetration by local enterprises continues to be impeded in Rwanda by inadequate or non-existent branding and marketing. Local brands continue to compete for shelf space in local supermarkets and stores and are rarely found on shelves in regional marketplaces, owing to the fact that few Rwandan businesses understand the value of branding and digital marketing as a strategy for business success. Many local businesses, particularly small and medium-sized enterprises (SMEs), are hesitant to spend in marketing and brand awareness campaigns because they adhere to a more conventional method of doing business and believe they can live on walk-in clients. Due to a lack of brand awareness, several local items have been consigned to the background, despite their high quality (Mbabazi, 2022).

Regular contact on social media by entertainment organizations has a favorable effect on sales, as people tend to follow these types of accounts regularly. However, in Rwanda many people have inadequate knowledge on digital marketing; they do not understand it very well. Though digital marketing is a new norm, it is still used at a low rate (Mbabazi, 2019). Empirically, it has been demonstrated that SMEs can increase their performance by implementing popular ICT-related technologies such as social networking. The studies were conducted globally, continentally, regional and locally but very few have been found in Rwanda. Unfortunately, these studies of a similar nature in Rwanda only looked at public institutions, non-governmental organizations and large businesses. Small firms can't necessarily adopt the same techniques as large corporations and non-governmental organization. Therefore, this study sought to fill the missing gap of social media adoption on performance of small and medium enterprises in Rwanda by addressing the adoption of Facebook, Instagram and WhatsApp to measure performance in terms of brand awareness, sales growth rate and customer satisfaction.

THEORETICAL FRAME WORK
This study was guided by the following theories:

Resource Based Theory
According to the resource-based view (RBV) theory, a firm's performance will improve if it acquires some immobile and non-duplicable resources and capabilities. The RBV theory of a firm's main premise is that a firm's strength is based on its core competencies, which provide a long-term competitive advantage gained through resource availability and the implementation of a resource management strategy (Wernerfelt, 1984).

One of the areas where SMEs fall short is resource availability. The majority of SMEs' flaws are related to finances, size-related disadvantages, and the organization's ability to maximize its strengths. The vital point of a network is the contribution of resources and exchanges between network partners (Wincent& Westerberg, 2006). It is clear that networks can benefit SMEs only when they choose the right network to acquire the resources they require for their success (Zaheer&Zaheer, 2001). Participation in social media business networks and online networking activities can help SMEs improve their tangible and intangible resources. 'Being a member of and participating in a business social media network provides a trusted environment with a potentially global reach through which near-immediate contacts can be formed as a foundation for future business collaboration (Quinton & Wilson, 2016).

Diffusion of Innovation Theory
The diffusion of innovations theory describes how an innovation spreads over time within organizations or among people, leading to its adoption and use for a variety of purposes. In this case, innovation can take the form of a product, service, idea, information, or practice that people perceive as novel (Rogers, 2004). Such innovations, according to proponents of the theory, have relative advantages over existing methods, are simple to understand with observable results, can be tested by potential adopters, and are compatible with existing values, experiences, and needs (Odoom*et al.*, 2017).

Organizations vary in their readiness to adopt innovations, and there are often fewer early adopters than later adopters. The diffusion of innovation theory has been applied to a range of adoption issues, including who should make decisions regarding new innovations inside organizations, when and to what extent new technologies should be adopted, and how the technology's influence on the company should be considered. In comparison to traditional media and early campaign technology such as campaign websites, social media clearly has a number of advantages. Social media is: timely: the site can be updated immediately; simple to use: updating is as simple as uploading and posting content; cost effective: campaigns do not need to purchase as much bandwidth for their websites if they simply link to social media directly from their website; and reach a large and growing audience (Gulati& Williams, 2012).

The technology adoption life cycle is a sociological model that outlines how a new product or innovation gets adopted or accepted, taking into accounts the demographic and psychological characteristics of designated adopter groups. According to the paradigm, the initial set of people who utilize a new product are referred to as "innovators," followed by "early adopters." Following that are the early majority and late majority, and the final group to accept a product is referred to as "laggards."

EMPIRICAL LITERATURE REVIEW

Raidah and Mayangsari (2020) did research on online engagement factors on integral local fashion brand accounts in Indonesia, The research discovered that the content type of a post has an effect on increasing customer engagement. The content type was characterized in this study as entertaining, instructional, and compensation posts. Each category of content has a unique effect on customer engagement. Among the three content classifications, entertainment content has the greatest impact on customer engagement. Instagram is associated with advanced modes of communication and is quite simple to implement and reach the target customer. Posting information may influence their friends to do the same thing or to make judgments based on their information. Similar to advertising, if customers leave positive remarks about products, their friends will be influenced to purchase the same product. These advantages make it easier for individuals to find what they're looking for, and people tend to believe what their peers recommend. Instagram is the most popular social networking platform for sharing people's lifestyles, stories, and even where they vacationed (Hall &Peszko, 2016).

Ruzindana and Nabuzale, (2018) studied on   The Use of Social Networks in Promoting Rwanda's Image: A Case of Ministry of Foreign Affairs, Cooperation and East African Community the study findings revealed that The total connection between Rwanda's image and social networks is 0.743, which is significant and good. This suggests that at a 5% level of significance, social network variables account for about 74.3 percent of the variation in the promotion of Rwanda's image. In other words, this is an accurate reflection of how actively Rwandans use social media platforms like Twitter, Facebook, YouTube, and Instagram to promote the country's image. Therefore, promoting a country's tourism destination, enhancing its diplomacy, combating genocidal mentality, and attracting investment are all possible via social networking. According to this study, promoting the country's image should be a top priority for social media. The study failed to match each social media type to their benefits and is focused on public sector. The current study will investigate the adaptability of social media network especially Facebook, Instagram and WhatsApp and will focus to SMEs in Kigali city, Rwanda.

Tiwasing, (2021) researched on Social media business networks and SME performance: A rural–urban comparativeanalysis in UK. The findings indicate that rural SMEs that are members of social media business networks have a higher turnover and a greater desire to expand sales than rural and urban SMEs that are not members. Rural enterprises that are members of these business networks perform similarly to urban SMEs that are members in terms of revenue. They do, however, underperform their urban counterparts in terms of sales growth. Thus, improving the success of SMEs in rural areas would require stronger online business support environments, enhanced digital infrastructure and connectivity, the establishment of online co-working spaces, and higher digital and technology capabilities.

Sunoma & Ali (2021) did a research on impact of social media adoption on performance of SMES in Kano state, Nigeria. The study discovered that social media adoption has a significant impact on SMEs' performance in terms of cost savings associated with marketing and communication, increased customer relationships, easy access to market information, brand awareness, loyalty, and equity, and increased market share, sales, and revenue.

In the study conducted by Morsy, (2017) on the impact of social media on business development in Egypt Multiple regression analysis showed that the use of social media to improve the customer experience, manage the customer community, and manage the company's relationship with government, regulators, and interest groups as predictors of SMM group's adoption of social media tools to induce potential product or service as a business development target.

Similarly to   Urban & Maphathe, (2021)did research on Social media marketing and customer engagement: A focus on small and medium enterprises (SMEs) in South Africa, the purpose of this essay was to determine the extent to which social media platforms, notably Facebook, Instagram, and Twitter, can enhance customer interaction. The research design was a quantitative cross-sectional study that relied on primary data gathering and tested hypotheses using correlational and regression analysis. The findings corroborate the predictions, demonstrating a strong and positive association between the use of Facebook, Instagram, and Twitter platforms and enhanced customer interaction. The findings have managerial implications, as owner-managers should leverage social media by maintaining and building a broad network of connections to gather knowledge and uncover resources, as well as to build a reputation and communicate with their customers.

Collen *et al.*, (2020) conducted a research on Social Media and Marketing Performance of Small and Medium Enterprises (SMEs) in Harare Metropolitan Province, Zimbabwe. The study employed a quantitative

method based on the positivist paradigm. The study employed a cross-sectional survey design, with a random sample drawn from the population. In this study, questionnaires were employed to collect data. The findings indicated that social media considerably enhanced SMEs' performance in terms of productivity, relative improvement in terms of customer base and relationships, and positively impacted SMEs' brand awareness and business strategy in Zimbabwe.

Gekombe *et al.,* (2019)analyzed Social media use among small and medium enterprises: a case of fashion industry growth the study examine how social identity, perceived utility and perceived ease of use influence the usage of social media in SMEs and whether the use of social media promotes the growth of fashion SMEs in Kenya. The study revealed that Social identity and perceived ease of use bore substantial influence on the utilization of social media whereas perceived usefulness indicated no relevance in influencing owner-managers' intention to use social media. The usage of social media on the other hand had a big influence on SME growth. Social media usage is regarded valuable in company yet there is no encouragement towards usage by the owner-mangers. Policy makers can therefore establish an enabling environment to encourage use of social media by SMEs. This study attempted to find out whether or not the use of social media had a direct effect on expansion of SMEs.

Kazungu *et al.,* (2017) did research on Social Media and Performance of Micro Enterprises in Moshi Tanzania, The findings indicated that, when all other factors are equal, social media use improves business performance. MEs' preferred social media platform was determined to be WhatsApp, followed by Facebook, Instagram, and Twitter. On the other side, awareness, hazards and insecurity of information, as well as expenses, were all identified as barriers to SMEs using social media. It was discovered that effective usage of social media can significantly improve the performance of SMEs.

Musiime & Mwaipopo (2019) studied on the mediating role of brand involvement in the social media use marketing communication effectiveness relationship: a case of selected entertainment SMES in Uganda. The findings revealed that social media use has a considerable impact on the effectiveness of marketing communications and that brand involvement plays a key role in mediating this relationship. The result is that relevant product information is more effective when it is focused at customers who are really loyal to the brand. The idea is that businesses spend in posting accurate and relevant product information on social media tools and keep it updated on a regular basis.

Yusuf (2013) did research on impact of ICT on SMES in Rwanda the findings of this study demonstrate that ICT has a variety of beneficial effects on the growth and competitiveness of SMEs. Innovative use of ICT enables SMEs to not only reduce costs and increase productivity, but also to develop several degrees of connection bonds with their consumers, resulting in a value proposition. Niyitegeka (2018) studied on social media and performance of public institutions in Rwanda a case study of national women council (NWC). Findings from the respondents were evaluated using software that is specialized in data processing and interpreted using tables. The quantitative data shows that 65.3 percent of respondents use Facebook and twitter.

The findings also indicated that many people do visit social media platforms every day, where 71.6 percent of respondents verified with that idea but the minor number of 3.7 percent of responder indicated that they never use any social media platform. The quantitative data shows 86.5 percent of respondents felt that social media enhanced the communication process inside public institutions. The analysis found out that above 70 percent of responders believed that social media relaxed the participation process between customers and institution. The majority of respondents with high rate of 95.1 percent agreed that for public institutions to meet the difficulties, the government should carry out the mobilization campaign among the workforce to establish the blue line on the use of social media.

Marete *et al.,* (2021) did research on Socio demographic Factors and Adoption of Social Media as a Management Tool by Managers and Administrators in Selected Non-Governmental Organizations in Kigali, Rwanda Overall, social media adoption was quite strong, with WhatsApp being the most popular application. Numerous respondents' characteristics, such as their age, education level, and work status, demonstrated a statistically significant correlation with their adoption of specific social media programs. However, the findings indicate that the majority of NGOs examined lack an organized approach to social media use. The study concluded that while social media adoption was relatively high overall, there was a significant disparity in how specific social media applications were used, and that certain socio demographic factors such as education level and training appeared to be strong predictors of social media adoption.

Small and medium enterprises and micro enterprises account for approximately 95 percent of all firms in OECD nations, 60-70 percent of employment, and 55 percent of GDP, and they create the bulk of new jobs, demonstrating the importance of SMEs have an effect on employment in contrast, nearly 80% of Rwandans are today employed in agriculture Production. The SME sector, which includes both legal and informal firms, accounts for 98 percent of all businesses. Companies in Rwanda, accounting for 41% of total private sector employment despite the fact that the formalized with only 300,000 people working, the sector has a lot of room

for expansion. The majority of micro and small businesses employ up to four workers, indicating that the sector's expansion might result in more jobs (OECD, 2020).
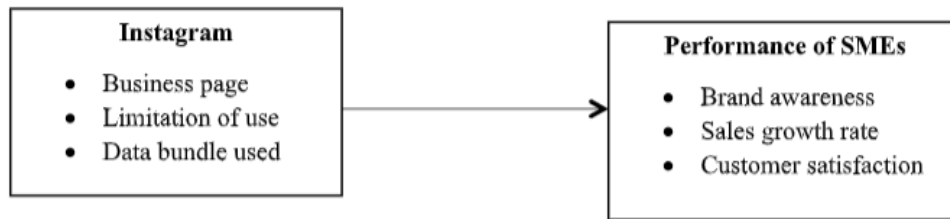

Figure 1: Conceptual Framework showing Interaction of the Instagram Utilization andPerformance of SMEs

II. Research Methodology

This study adopted descriptive research design. The research design establishes the framework for data collection, measurement, and analysis (Kothari, 2008). Descriptive research use statistical tests such as Pearson's moment correlation, regression, or multiple regression analysis to analyze correlations between data (Punch &Oancea, 2014). The Target population was drawn from the employees from the following:

Table 1: Sampling Frame

Kigali City Industries	District	Small	Medium	Total
	Gasabo	35	198	233
	Kicukiro	4	85	89
Kigali City Industries	Nyarugenge	0	71	71
Target Population				**393**

This study targeted SMEs in manufacturing sector (industry sector). This study used simple random sampling and purposive sampling. Respondents were the SMEs manager/owners as they are strategically involving to the adaptability of instagram as a social media network.

The Yamane formula was used to calculate the study's overall sample size.

$$n = \frac{N}{1 + Ne^2} \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots. (1)$$

- Where:
- n is the sample size,
- N is population size and
- e^2 is margin of error (Yamane, 1967, therefore sample size is as follow:

$$n = \frac{393}{1 + 393(0.05)^2} \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots (2)$$

$$n = 198 \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots (3)$$

Collection of primary data was made possible by use of structured questionnaires based on a five-point Likert scale.

RESEARCH FINDINGS
DESCRIPTIVE STATISTICS
Descriptive Statistics of Instagram Utilization as a Social Media Network
The study sought to determine the respondents' views on how Instagram utilization as a social media network influences performance of SMEs. Descriptive results are as shown in the Table 2.

Table 2: Instagram Utilization as a Social Media Network

Questions	Min	Max	Mean	Std. Deviation	Variance
Our Instagram features(hash tags, location tags, discover, reeds) help in brand awareness	1.0	5.0	4.089	1.1162	1.246
Our Instagram followers help to get customer comments	1.0	5.0	4.158	1.1802	1.393

Our Instagram allows our business to reach new audience easily	1.0	5.0	4.142	1.1574	1.339
Our Instagram make brand ambassadors	1.0	5.0	4.211	1.0120	1.024
Our Instagram business profile is a sales booster	1.0	5.0	4.158	1.0268	1.054
Our Instagram helps to Personalize our Account to Attract More Buyers	1.0	5.0	4.168	.9721	.945
Our Instagram content strategy helps us in sales promotion	1.0	5.0	4.389	.8704	.758
Our Instagram helps to engage with targeted customers	1.0	5.0	4.337	1.0552	1.113
Our Instagram business profile helps to provide contact information to the audience	1.0	5.0	4.337	1.0038	1.008
Our Instagram helps to manage customer inquiries	1.0	5.0	4.279	1.0446	1.091
Valid N (listwise) = 190; Mean Score = 4.661					

This study construct had eight (10) items. The means and standard deviations of the respondents' responses were computed from the five point Likert Scale of Strongly Agreed (SA = 5), Agree (A = 4), Neutral (N = 3), Disagree (D = 2), strongly disagree (SD = 1). Findings from Table 2 illustrates that Instagram features (hash tags, location tags, discover, reeds) help in brand at a mean response of 4.089, S.D = 1.1162 with variance of 1.246. Subsequent results indicated that Instagram followers help to get customer comments at a mean response of 4.158, S.D =1.1802with variance of 1.393. Respondents were of the views that Instagram allows our business to reach new audience easily at a mean response of 4.142, S.D =1.1574with variance of 1.339. Outcomes show that Instagram make brand ambassadors at a mean response of 4.211, S.D =1.012 with variance of 1.024. Responses from the participants indicated that Instagram business profile is a sales booster at a mean response of 4.158, S.D =1.0268 with variance of 1.054.Respondents were of the views that Instagram helps to Personalize their Account to attract more buyers at a mean response of 4.168, S.D =0.9721with variance of 0.945. Respondents illustrated that Instagram content strategy helps us in sales promotion at a mean response of 4.389, S.D =0.7804with variance of 0.758.The question on whether market Instagram helps to engage with targeted customers had a mean response of 4.337, S.D =1.0552with variance of 1.113. Respondents also observed that Instagram business profile helps to provide contact information to the audience at a mean response of 4.337, S.D =1.0038with variance of 1.008and that Instagram helps to manage customer inquiriesat a mean response of 4.279, S.D =1.0446with variance of 1.091. The overall mean score of Instagram utilization as a social media network was 4.661. These results indicate that majority of the respondents (93.22%)had varied views that Instagram utilization as a social media network indeed was a key determinant of performance of SMEs.

Descriptive Statistics of Performance of SMEs
Results of the nine variables of performance of SMEs, the dependent variable are as shown in the Table 3.

Table 3: Descriptive Statistics of Performance of SMEs

Questions	Min	Max	Mean	Std. Deviation (S.D)	Variance
Our number of new customers has been increased	1.0	5.0	4.116	1.0726	1.151
Our employees performance has been enhanced	1.0	5.0	4.279	.9207	.848
Our sales has been increasing over the years	1.0	5.0	4.395	.8710	.759
Our marketing cost has decreased	1.0	5.0	4.368	1.0085	1.017
Our customer relationship has improved	1.0	5.0	4.295	1.0222	1.045
Information sharing and communication have been enhanced	1.0	5.0	4.095	1.1134	1.240
Our market share has grown up	1.0	5.0	4.084	1.1789	1.390
Search engine user can found our brand name	1.0	5.0	4.174	1.1392	1.298
Audience engagement, trust and brand loyalty have been boosted	1.0	5.0	4.339	1.0167	1.034
Valid N (listwise) = 190; Mean Score = 4.238					

Findings illustrate that the number of new customers has been increased at a mean response of 4.116, S.D =1.0726 with variance of 1.151. Secondly, respondents were of the views that employees performance has been enhanced at a mean response of 4.279, S.D =0.9207with variance of 0.848. The question on whether sales has been increasing over the years had a mean response of 4.395, S.D =0.8710with variance of 0.759. Respondents also observed that marketing cost has decreased at a mean response of 4.368, S.D =1.0085with

variance of 1.017. Respondents were of the views that customer relationship has improved at a mean response of 4.295, S.D =1.0222with variance of 1.24. The question on whether market share has grown up had a mean response of 4.084, S.D =1.1789with variance of 1.39. Respondents also observed that search engine user could found the brand name at a mean response of 4.174, S.D =1.1392with variance of 1.298and that audience engagement, trust and brand loyalty have been boosted at a mean response of 4.339, S.D =1.0167with variance of 1.034. Findings from the dependent variable illustrated that the views on the performance of SMES attracted different views from the respondents but there was a uniform agreement on the questions asked on the performance of SMEs as evidenced from the means (overall mean score of 4.238), variance and the standard deviations.

DIAGNOSTIC TESTS

Diagnostic tests were conducted to confirm for anomalies since linear regression is sensitive to exception impacts. Before carrying linear regression, it was important to check the assumptions of normality, linearity, homoscedasticity and absence of Multi-collinearity. A linear regression modelling approach was used in the study to assess the causal effect relationship of Instagram utilization as a social media network on performance of SMEs. The scatter plot is acceptable approach to endorse whether the data is homoscedastic (which averages the residuals are equivalent over the regression line). A study that violates multiple regression analyses assumptions may give a biased relationship estimates (Chatterjee & Hadi, 2012).

INFERENTIAL STATISTICS

The study sought to determine the influence of Instagram utilization as a social media network on performance of SMEs. The results are as put on Table 4.

Table 4: Model Summary and ANOVA Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
						Change Statistics			
1	.527a	.278	.274	.54102	.278	72.463	1	188	.000

a. Predictors: (Constant), Instagram utilization

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.210	1	21.210	72.463	.000[b]
	Residual	55.028	188	.293		
	Total	76.238	189			

a. Dependent Variable: performance SMEs; b. Predictor: (Constant): Instagram utilization

It was hypothesized that: H_01There is no statistical significant relationship between Instagram utilization and performance of SMEs in Kigali City, Rwanda. To test the hypothesis, the model $Y=\beta_0+ \beta_1X_1+ \varepsilon$ was fitted.

Instagram utilization as a social media network had a positive relationship with organizational performance, as shown in Table 4, with a correlation coefficient (R) of 0.527. The R-square obtained was 0.278, indicating that Instagram utilization as a social media network accounted for 27.8 percent of the observed change in performance of SMEs while the remaining 72.2% is attributed to other factors not captured in this model that do affect the performance of SMEs. Similarly, the F test produced F value $(1,188) =72.463, p0.05)$, which was sufficient to support the goodness of fit of the regression model in explaining variation in the predicted variable (performance of SMEs).

Table 5: Instagram Utilization and Performance of SMEs

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.775	.292		6.081	.000
Instagram utilization	.583	.068	.527	8.513	.000

a. Dependent Variable: Performance of SMEs

a. Dependent Variable: Performance of SMEs; b. Predictor: (Constant): Instagram utilization; Significance level, p≤0.05

The model predicts that if one unit modifies Instagram utilization, thenperformanceof SMEs would change by 0.527 units. The unstandardized coefficients =0.583 and t=8.513 indicate a positive and significant relationship between Instagram utilization and performance of SMEs in Kigali City, Rwanda. According to Hypothesis ($H_0$1), Instagram utilization has no statistically significant influence on performance of SMEs in Kigali City, Rwanda. However, the findings indicate that management by objectives had a statistically significant impact on organizational performance. The null hypothesis($H_0$1), which stated that Instagram utilization has no statistically significant influence on performance of SMEs, was rejected, and the alternate hypothesis was accepted.

These findings were consistent with the research by Sunoma & Ali (2021) did a research on impact of social media adoption on performance of SMES in Kano state, Nigeria. The study discovered that social media adoption has a significant impact on SMEs' performance in terms of cost savings associated with marketing and communication, increased customer relationships, easy access to market information, brand awareness, loyalty, and equity, and increased market share, sales, and revenue. Collen *et al.* (2020) conducted a research on Social Media and Marketing Performance of Small and Medium Enterprises (SMEs) in Harare Metropolitan Province, Zimbabwe. The findings indicated that social media considerably enhanced SMEs' performance in terms of productivity, relative improvement in terms of customer base and relationships, and positively impacted SMEs' brand awareness and business strategy in Zimbabwe.Gekombe *et al.* (2019) analyzed Social media use among small and medium enterprises: a case of fashion industry growth the study examine how social identity, perceived utility and perceived ease of use influence the usage of social media in SMEs and whether the use of social media promotes the growth of fashion SMEs in Kenya. The usage of social media on the other hand had a big influence on SME growth.

III.   Conclusions

The model predicts that if one unit modifies Instagram utilization, then performance of SMEs would change by 0.527 units.The null hypothesis ($H_0$1), which stated that Instagram utilization has no statistically significant influence on performance of SMEs, was rejected, and the alternate hypothesis was accepted.Therefore if the County Government of Turkana consistently utilized Instagram as a social media network then performance of SMEs would improve drastically.

IV.   Recommendations

Social media usage is regarded valuable in company yet there is no encouragement towards usage by the owner-mangers. TheGovernment of Rwandashould create more enabling environment to encourage use of social media especially Facebook, Instagram, and Twitter by SMEs.

SUGGESTIONS FOR FURTHER RESEARCH

A similar study should be carried out in institutions of other countries and other sectors involved apart from the SMEs to see if similar results could be obtained.

AUTHOR CONTRIBUTIONS

Muhingabire Karake Gloriose sought for the study authorization, from the relevant government institution like graduate school of Kibabii University and National Commission for Science and Technologyand Innovation. She developed the study methodology that comprised of research instruments that were used in data collection.She further analysed, interpreted and discussed the data. The author then undertook a literature review that included background information on the study concepts and the theoretical context.She undertook and supervised primary data collection personally. She furthermore, coded the collected questionnaires and thereafter undertook data entry and analysis, using SPSS 22 software.The supervisors: Dr. Joshua Olang'o Abuya and Dr. Yonah Eteneensured that the published article conformed to the formatting guidelines.

CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest regarding the publication of this Manuscript. In addition, the ethical issues; including plagiarism, informed consent, misconduct, data fabrication and/ or falsification, double publication and/or submission, redundancy has been completely observed by the authors.

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