The Effect of Identified Social ICT Platforms on Prevalence of Conflicts in Kenya

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Abstract: **Information Communication Technology contributes immensely to the world economy. In Developed countries, ICT innovations are utilized for safety, economic improvement and health while much is yet to be realized in developing countries. Africa has advanced in ICT though not clear on how it enhances the people's wellbeing apart from positive and negative causes on moral value erosion and wars. This paper sought to establish the influence of identified ICT platforms on conflict prevalence in Kenya. Specifically, the study objectives were to establish the effect of Facebook communication and information flow on conflict prevalence, establish the information flow through WhatsApp on conflict prevalence, determine the influence of Twitter on conflict prevalence and establish the influence of Instagram on conflict prevalence in Kenya. Social exchange and innovation theories were adopted. The population of the study will entail the general public with a sample of 384 respondents sourced through media. Simple random sampling was employed to get the sample respondents. Questionnaires were formulated and sent online through the media and feedback analyzed with the aid of SPSS. Reliability of the instruments was ensured using Cronbach's reliability technique while validity was checked using content validity methods. The findings revealed a reliability coefficient of 0.83 for the overall instruments implying that it was reliable. Pearson product moment correlation and multiple linear regression models were mingled with descriptive statistics to obtain meaningful associations and ratings. The findings were presented in tables. First, it emerged from the demographic characteristics that most of the respondents, 200(52.6%) were aged 51-60, 171(45.0%) were male and majority of professionals worked in NGOs. The findings revealed that ICT platforms (social media) accounted for an overall significant variance of 72.1% in conflict prevalence. Facebook (β=.333, p<.05), WhatsApp (β=.329, p<.05), Instagram (β=.278, p<.05) and Twitter (β=.225, p<.05) has a significant effect on Conflict prevalence in Kenya. It was concluded that the selected social media ICT platforms contributed significantly to conflict prevalence in Kenya. The findings may be helpful to stakeholders in the ICT, scholars and conflict sector in controlling disruptive innovations and managing conflicts.**

Key words: **Conflict; disruptive; information; innovations; prevalence**

I. INTRODUCTION

The advent in new technologies leading to improved social media is both important and dangerous to communities worldwide. In the conflict area, social media plays a huge role in both conflict management and acceleration (Zeitzoff, 2017). In developed countries like Israel, shifts in public support contributed to by information flow through social media largely reduce conflict intensity more than USA and Egypt and the United Nations (Zeitzoff, 2018). Since the aftermath of the Iranian elections in 2009, social media emerged as the changer in both political and other related conflicts in the Middle East and African governments including East Africa more seriously in 2011. Studies by Lange-Ionatamishvili, Svetoka and Geers (2015) revealed that social media conflict caused by the Russian government has led to fear, doubt, and uncertainty in the government.

In Chile, studies showed that generic frames influenced the information that people shared on social media, specifically on Facebook and Twitter, sourced by psychological engagements, motivations and emotions (Valenzuela, Piña & Ramírez, 2017). In other developing countries like Kenya, there is an observation shift from traditional methods to improved information communication technology methods in various organizations and even conflict management or propagation (Ward, 2019). Other studies revealed that social media, particularly Facebook and You tube also positively influenced conflict management for most communities and individuals who used then to foster peace (Jiang, Luo, & Kulemeka, 2017).

Primary data from 356 Chinese firms revealed a strong relationship between enterprise social media and task conflict and a weak relationship with relationship conflict (Pitafi, Khan, Khan, & Ren, 2020). On the other hand, information from 1731 recruits from mechanical Turk revealed that using distraction conflict theory, Facebook and You tube were found to cause distraction conflict at the place of work rather than promoting organizational communications (Brooks, Longstreet & Califf, 2017). Fox, Osborn and Warber (2014) found a relationship between Facebook and Conflict management in a relationship while Kim (2018) found a relationship between Facebook use and conflict avoidance.

Using six WhatsApp groups that feature Argus British families and others that feature Argus Spanish families, a study by García-Gómez (2018) revealed that through WhatsApp groups, Facebook mediated conflicts and as well led to increased social conflicts. In Malaysia, a study by Ponnusamy, Iranmanesh, Foroughi & Hyun (2020) revealed that there was a relationship between Instagram addition and recognition and social needs leading to conflicts. In addition, findings by Alade (2017)'s findings revealed that active

Instagram use had a strong influence on Instagram related conflict and a negative outcome among young people.

Thus, most studies have dealt with social media and conflict while omitting the influence of social media on the conflict prevalence in developing countries as Kenya. Kenya has different conflict areas ranging from office conflicts, social, political, land, among others. Prior studies looked at the influence of political conflicts on economic growth but failed to look at the factors that accelerated these conflicts, such as social media platforms. Therefore, this paper sought to establish the influence of selected common ICT platforms on conflict prevalence in Kenya. Specifically, the study objectives were to establish the effect of Facebook communication and information flow on conflict prevalence, establish the information flow through WhatsApp on conflict prevalence, determine the influence of Twitter on conflict prevalence and establish the influence of Instagram on conflict prevalence in Kenya.

II. METHODOLOGY

The study employed a descriptive survey and correlational research designs that involve collecting data from a sample of the population about people's attitudes, opinions or habits pointed out by Mugenda and Mugenda (2003). She further notes that descriptive designs are used to allow researchers gather present information and interpret it for the purposes of clarification. On the other hand, as proposed by Kothari (2008), correlational research design enables measure relationships among variables. It allows the collection of information in a relatively short period and is accurate (Jonker & Pennink, 2010).

The study was carried out in Kenya, across the counties from different respondents. Kenya is a peaceful country except with small conflicts in some areas and during political seasons. It has a population of approximately 47 million people according to KBNS (2019) census results. The sample size calculation was carried out using Fox, Hunn and Mathers (2009) formula, whereby 384 responds were selected. Simple random sampling was used to get the respondents from across the counties. Proportionate calculations were done to ensure that samples were selected from all the counties. The data was collected using structured and unstructured questionnaires which were formulated and send online through open data kids and social media. Using SPSS, data was downloaded and cleaned, managed and analyzed. Reliability of the instruments was ensured using Cronbach's reliability technique while validity was checked using content validity methods. The reliability coefficient was 0.83, implying that the instrument was reliable. Data analysis was carried out using Pearson product moment correlation as regression methods to establish associations among the variables and the causal effect of social media on conflict prevalence.

III. RESULTS AND DISCUSSIONS

Demographic Characteristics

Table 1 Demographic Characteristics

Character	**Category**	**Frequency**	**Percentage**
	20-29	**30**	**7.9**
Age	30-40	39	10.3
	41-50	84	22.1
	51-60	200	52.6
	above 60	27	7.1
Sex	Female	171	45
	Male	209	55
Main Occupation of the respondents	Civil Servant	60	15.9
	Elected Officer	9	2.3
	Technologist	69	18.2
	Businessman	43	11.4
	Teachers	26	6.8
	NGOs	88	23.2
	Student	69	18.2
	Others	15	4
Highest level of education	Post Graduate	12	3.2
	Graduate	83	21.8
	Tertiary	219	57.8
	Secondary	65	17.2

Table 2 Correlation between Social Media and Conflict Prevalence

Correlations						
		Conflict prevalence	**Facebook communication and information flow**	**Twitter**	**information flow through WhatsApp**	**Instagram**
Conflict prevalence	Pearson Correlation	1	.690**	.527**	.689**	.530**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	380	380	380	380	380
Facebook communication and information flow	Pearson Correlation	.690**	1	.489**	.395**	.428**
	Sig. (2-tailed)	.000		.000	.000	.000

	N	380	380	380	380	380
Twitter	Pearson Correlation	.527**	.489**	1	.510**	-.103*
	Sig. (2-tailed)	.000	.000		.000	.044
	N	380	380	380	380	380
information flow through WhatsApp	Pearson Correlation	.689**	.395**	.510**	1	.414**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	380	380	380	380	380
Instagram	Pearson Correlation	.530**	.428**	-.103*	.414**	1
	Sig. (2-tailed)	.000	.000	.044	.000	
	N	380	380	380	380	380
**. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

Table 3 Effect of Social Media on Prevalence of Conflict

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.849[a]	.721	.718	.18926	.721	241.828	4	375	.000
a. Predictors: (Constant), Instagram, Twitter, Facebook communication and information flow, information flow through WhatsApp									

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	34.649	4	8.662	241.828	.000[b]
	Residual	13.432	375	.036		
	Total	48.081	379			
a. Dependent Variable: Conflict prevalence						
b. Predictors: (Constant), Instagram, Twitter, Facebook communication and information flow, information flow through WhatsApp						

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.339	.128		2.649	.008
	Facebook communication and information flow	.281	.032	.333	8.764	.000
	Twitter	.186	.035	.225	5.350	.000
	information flow through WhatsApp	.243	.028	.329	8.589	.000
	Instagram	.222	.032	.274	7.036	.000
a. Dependent Variable: Conflict prevalence						

The findings revealed that the majority of the respondents, 200(52.6%) were aged 51-60 years. The majority of them, 209(55%) were also male and a common preoccupation was NGOs employees. The findings further show that majority of the respondents' highest level of education was tertiary, 219(57.8%) followed by 83(21.8%).

Facebook and Prevalence of Conflict

Table 4 Effect of Facebook Information flow on Prevalence of Conflict

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.690[a]	.477	.475	.25800	.477	344.306	1	378	.000

a. Predictors: (Constant), Facebook communication and information flow

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	22.919	1	22.919	344.306	.000[b]
	Residual	25.162	378	.067		
	Total	48.081	379			

a. Dependent Variable: Conflict prevalence

b. Predictors: (Constant), Facebook communication and information flow

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.589	.132		12.031	.000
	Facebook communication and information flow	.583	.031	.690	18.555	.000

a. Dependent Variable: Conflict prevalence

The study's first objective was to establish the effect of Facebook communication and information flow on conflict prevalence. Using Pearson product moment correlation, the study established that there was a positive a significant correlation between Facebook communication and information flow on conflict prevalence ($r=.690$, $p<.05$) as shown in Table 1. This finding implies that there was an association between Facebook communication and information flow on conflict prevalence and that prevalence of conflict was positively enhanced by Facebook. It this value is squared, we get an r square value of 0.4761, which if we multiply by 100% yields 47.61%. This means that out of 100%, Facebook communication and information flow accounts for a significant 47% if other variables are not considered. This means that conflict prevalence is highly associated with Facebook communication and information flow.

In order to establish the effect of Facebook communication and information flow on conflict prevalence, both simple linear regression model and standard multiple regression models were carried out for comparison. The findings in Table 3 indicate that Facebook communication and information flow positively affect conflict prevalence ($\beta=.690$, $p<.05$), implying that increased Facebook communication is more likely to lead to increased conflict prevalence rather than promoting peace. In addition, findings from the standard multiple regression model revealed that the magnitude of effect was moderate, ($\beta=.333$, $p<.05$) implying that even after including the other variables, Facebook still has a significant effect on conflict prevalence.

Information flow through WhatsApp and Prevalence of Conflict

Table 5 Effect of information flow through WhatsApp on Prevalence of Conflict

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.689[a]	.475	.474	.25840	.475	342.075	1	378	.000

a. Predictors: (Constant), information flow through WhatsApp

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.841	1	22.841	342.075	.000[b]
	Residual	25.240	378	.067		
	Total	48.081	379			
a. Dependent Variable: Conflict prevalence						
b. Predictors: (Constant), information flow through WhatsApp						

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.004	.110		18.189	.000
	information flow through WhatsApp	.510	.028	.689	18.495	.000
a. Dependent Variable: Conflict prevalence						

The second objective sought to establish the effect of information flow through WhatsApp on conflict prevalence. Pearson product moment correlation results revealed that there was a significant positive correlation between information flow through WhatsApp and Conflict prevalence as shown in Table 1, ($r=.689$, $p<.05$). This also implies that higher conflict prevalence was associated with higher information flow through WhatsApp. Findings using information flow through WhatsApp have a significant effect on conflict prevalence ($\beta=.689$, $p<.05$). This means that without considering other variables, information flow through WhatsApp contributes significantly to conflict prevalence such that one standard deviation in information flow through WhatsApp would likely lead to increased conflict prevalence. However, when compared with other variables, information flow through WhatsApp's effect on conflict prevalence was still positive and significant ($\beta=.329$, $p<.05$), becoming second after Facebook.

Influence of Twitter on Conflict Prevalence

Table 6: Effect of Twitter Conflict Prevalence

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.527[a]	.278	.276	.30305	.278	145.544	1	378	.000
a. Predictors: (Constant), Twitter									

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.366	1	13.366	145.544	.000[b]
	Residual	34.715	378	.092		
	Total	48.081	379			
a. Dependent Variable: Conflict prevalence						
b. Predictors: (Constant), Twitter						

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.324	.142		16.373	.000
	Twitter	.437	.036	.527	12.064	.000
a. Dependent Variable: Conflict prevalence						

The third objective of the study sought to establish the influence of Twitter on conflict prevalence in Kenya. The findings revealed a positive a significant correlation between Twitter and Conflict prevalence (r=.527, p<.05), which is a moderate relationship. Alone, these findings imply that Twitter accounts for a 28.7% variance in Conflict prevalence, F (1, 378) = 145.54 and has a significant effect (β=.527). This implies that if other variables are not included in the model one unit increase in Twitter usage leads to increased Conflict prevalence by 0.527 units. In addition, the findings using the standard multiple regression model revealed that twitter contributed to conflict prevalence significantly (β=.225, p<.05), implying that compared with other variables, there is a reduced effect of Twitter on conflict prevalence such that one unit increase in Twitter usage leads to 0.225 unit increase in conflict prevalence.

Influence of Instagram on Conflict Prevalence

Table 7: Influence of Instagram on Conflict Prevalence

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.530[a]	.281	.279	.30245	.281	147.630	1	378	.000

a. Predictors: (Constant), Instagram

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.504	1	13.504	147.630	.000[b]
	Residual	34.577	378	.091		
	Total	48.081	379			

a. Dependent Variable: Conflict prevalence

b. Predictors: (Constant), Instagram

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.442	.131		18.605	.000
	Instagram	.428	.035	.530	12.150	.000

a. Dependent Variable: Conflict prevalence

The final objective of the study was to determine the influence of Instagram on conflict prevalence in Kenya. The findings revealed a weak positive significant correlation between Instagram and conflict prevalence (r=.530, p<.05). Therefore, there is a significant association between Instagram and conflict prevalence. However, the weak correlation means that Instagram is not widely used as compared to Facebook and WhatsApp. In addition, the findings revealed that Instagram contributes significantly to the prevalence of conflicts (β=.530, p<.05) and accounts for 27.8% variance in conflict prevalence as indicated in Table 6. Using standard multiple regression model, the findings shows that Instagram maintained a significant effect on conflict prevalence (β=.274, p<.05), implying that a one standard deviation change in the use of Instagram leads to 0.274 unit increase in conflict prevalence as shown in Table 2.

IV. CONCLUDING REMARKS

The present study sought to establish the effects of identified common ICT platforms (social media) on conflict prevalence in Kenya. According to the findings, all the identified platforms significantly contribute to the prevalence of Conflicts in Kenya as concluded in the subsequent paragraphs.

From the study's first objective, Facebook, apart from promoting social norms, businesses and the economy, its impacts are negative. It highly contributes to heighten conflict in conflict prevalence areas.

WhatsApp is another ICT platform that has rapidly grown, gaining momentum due to its ability to bring different groups together. Its effect on the society is both positive and negative depending on its usage. This paper has emerged that WhatsApp is widely used and negatively contributes to the conflicts by increasing. Thus, WhatsApp has increased the prevalence of conflicts in Kenya.

Another social media (ICT) platform was Twitter, which although widely used in the developed countries, has really gained ground in the developing countries. This is contributed to by increased uptake of smartphones which necessitates the use of twitter. Twitter has therefore caused more negative political and social conflicts. As is the case in this paper, it can be concluded that Twitter negatively influences conflict prevalence in Kenya.

Finally, the study sought the influence of Instagram on conflict prevalence in Kenya. Instagram is highly used among the youthful population and therefore its effect is mostly on youthful relationship conflicts. However, the ability to accommodate large amounts of pictures has increased conflicts as people make judgments based on what they see in the media. It can thus be concluded that Instagram has increased the prevalence of conflicts in Kenya.

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