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**ABSTRACT**

*The purpose of this study was to establish the effect of informal work groups' characteristics on employee performance at the Kakamega County General Teaching and Referral Hospital. Specific objective was to establish the effect of group networks on employee performance. Descriptive research design was adopted by the study. Target population comprised of 602 employees in the hospital. Yamane's formula was used to obtain a sample of 240 respondents who were selected through stratified random technique. Questionnaires were used for data collection. Validity and reliability was attained through expert consultation and test retest respectively during a pilot study on randomly selected 24 respondents from the hospital that was not part of the final study. Descriptive statistics was used to analyze background information of the respondents, demographic variables, and level of interaction, group networks and creativity of group members. The effect of the coefficients of informal groups' networks on employee performance was analysed using regression analysis. Findings revealed that social networks affects employee performance to great extent. It was concluded that the management of Kakamega County General Teaching and Referral Hospital had not created a suitable environment for informal team variables like social networks to thrive. The study recommended that the hospital should identify and strengthen workable informal networks through which work performance would be enhanced.*

**Key words:** Employee Performance; Informal Workplace Groups; Social Networks; Kakamega County General Hospital

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## INTRODUCTION

In contemporary organizations, where productivity and efficiency demand collaboration within and across functional, physical and hierarchical boundaries, collaboration in employee networks has become critical to innovation, and to both individual and company performance (Nkala & Mbuyisa, 2014). However, managers and supervisors frequently face problems due to failure to recognize that within every organisation, there are often informal group pressures that influence and regulate individual behaviour (Zoltan & Vancea, 2015). These groups are normally very powerful social networks which are constructed in response to and through actions of their members (Mullins, 2010). They formulate an implicit code of ethics or undesirable set of standards establishing acceptable behaviours for a group of employees (Sarkwa, 2011). Informal group is defined as being composed of a number of persons whose joint work experiences give rise to a system of interpersonal relationships which extends beyond the limits of work relations set by management; it naturally evolves as people interact with each other (Zoltan & Vancea, 2015). Informal groups can exist in an organization as a result of the mutually shared interest of the individuals (Greenberg, 2010). According to Reiter-Palmon, Sinha, Gevers, Odobez and Volpe (2017), informal groups often share common input, process, and output: a model described by Kozlowski and Ilgen (2006) as Input-Process-Output (IPO).

A large body of literature with a rich history suggests that the configuration of group member attributes, called group characteristics, has a fundamental influence on workgroups (Brown, Colaneri & Outland, 2018). In some Asian countries, informal teams have been associated with improved work performance. Occupational performance particularly among employees in higher learning institutions in Oman has been attributed to teamwork oriented climate of trust (Sanyal & Hisam, 2018). In Zimbabwe, school

heads are urged to foster good team spirit and positive relationships by turning informal groups into active organisation's participatory groups whose main objective are to help every member to improve students' academic performance (Nkala & Mbuyisa, 2014). University managements in Ghana often highlight the important roles played by informal relations among employees as a strategy of achieving the organizational objectives (Owusu-Boateng, Attah & Acheampong, 2016).

Locally, informal workplace groups have been given recognition by management in several sectors as a strategy of enhancing employee performance. In the public service of Kenya, practitioners argue that teamwork ensures democracy at the workplace, enhances change, encourage innovation and creativity, and allow for effective decision-making and networking (Kelemba, Chepkilot & Zakayo, 2017). Similarly, it is argued that informal groups such as those sharing social media platforms like Facebook, Instagram and WhatsApp significantly enhance networking and information sharing (Alibhai, 2017).. These virtues positively correlate with organizational performance. Conflict is one of the most outstanding workplace aspects. Among organizations in the Air Transport industry of Kenya, informal workplace teams have been linked with success in conflict resolution (Mwangi & Ragui, 2013).

Informal networks may become powerful conduits of knowledge that is often deemed to supersede or negate organisationally-produced knowledge (Fischbacher-Smith & Fischbacher-smith, 2014). However, effect of informal networks formulated by employees in the healthcare sector seems to have received limited attention in research. Orbach, Demko, Doyle, Waber and Pentland (2015) examined informal communication network structure within the sales division of a global manufacturing organization in the US and found that allocation of an individual's communication among colleagues reflected the company's structure as a post-bureaucratic

organization. Similarly, a study by Alibhai (2017) investigated how virtual platforms affect group performance among employees of UN in Kenya. It revealed that the platforms enhance exchanges of ideas, work experiences as well as networking among other benefits. It is observable that focus under the lenses of informal networks among employees tends to have overlooked healthcare workers as opposed to other sectors.

Performance is the degree to which an employee is successful in meeting the task assigned by the organization management (Kabajeh, Nu'aimat & Dahmash, 2012). It is also seen as the utilization of minimum resources to get maximum output by employees. Thus, performance is efficiency and effectiveness of employees within the confine of organization (Malik, 2011). Performance means ability to make profit from all the business activities of an organization, company, firm, or an enterprise (Kabajeh, et al, 2012). It shows how efficiently the management can make profit by using all the resources available in the market. It is the ability of a given investment to earn a return from its use. It is an index of efficiency; and is regarded as a measure of efficiency and management guide to greater efficiency. Performance is one of the most important objectives of financial management whose goal is to maximize the owner's wealth (Kabajeh et al, 2012; Malik, 2011). However, in the health sector, performance is measured in terms of service delivery (Sachdev & Verma, 2004) although the same tends to have received limited attention in research.

Healthcare services in Kenya are provided through a network of 4,700 health facilities, with the public sector contributing 51 % in aggregate (Republic of Kenya, 2011). However, the performance of employees in the health facilities seems not to have been focused under the lenses of informal working groups. Healthcare provision in Kakamega County has suffered under the burden of strained resources including staffing (Mung'ono, 2015; Chesire, Wafula,

Oyugi & Ochieng, 2016). Kakamega County has some of the worst health indicators in the country, for example deliveries under skilled health providers is a paltry 25.4% compared to home delivery at 74.6% (KDHS, 2014, cited in Bungei, 2017). This paints a picture of strained resources in this major facility that can negatively impact on service delivery, and therefore questions whether informal workgroups among employees are able to meet the challenges

### **Objective of the Study**

To establish the effect of social networks in workplace informal group members on employee performance at the Kakamega County General Teaching and Referral Hospital, Kenya. The research hypothesis was as below;

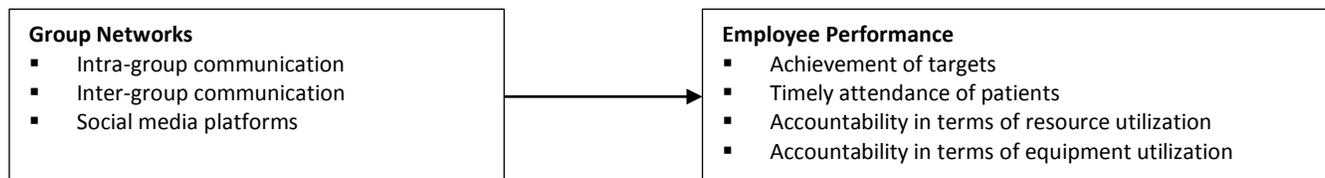
**Ho:** *There is no significant effect of informal workplace group networks on employee performance at the Kakamega County General Teaching and Referral Hospital, Kenya.*

### **LITERATURE REVIEW**

This study was grounded on Belbin's (1993) model. The theory presents the concept of the characters of specific team members which describes the role of each team participant to be exceptional in the group performance. According to his definition, team role is a tendency to perform, contribute and interconnect with others through a particular manner. Belbin introduced nine team roles that motivate team success (Belbin, 2012; Yeh, Smith, Jennings & Castro, 2006). These nine roles are divided into three major groups: Action Oriented, Thought Oriented and People Oriented. According to Belbin, among the team roles proposed, shapers are regarded to be the most potentially disruptive role within the group. Belbin also pointed out that Team shapers remain very essential to any effective team as they possess excellent work rates and are quick to explore different approach and avenue (Aritzeta, Swales & Senior, 2007; Belbin, 2012).

Belbin in addition determined that every team's role has strengths and weaknesses which must be clearly understood by all the leaders. To drive great teams, it is imperative for the team leader to clearly understand every role played by the team member. Belbin found successful teams to be having compatible roles played by members while unsuccessful ones were involved in role conflict such as personality clashes, conflict, and lack of cooperation originating in role surplus/mismatch and/or missing needed behavior roles. Belbin theory is used to identify how Team Roles and style of leadership influence teams, and acts as a diagnostic tool for

teams and individuals targeting better teamwork (Belbin, 2010). The team forms the central arena for observing the character of team members with critical roles in building productive teams in every organization. But this model is created and limited to be experimented within a work environment only, since it examines a person team's behavior and not personality, which is not enough in concluding or evaluating a person (Batenburg, 2013). The theory was however selected for this study because it tends to describe the specific characters of team membership that can be influential to employee performance.



**Independent variable**

**Dependent Variable**

**Figure 1: Conceptual Framework**

**Empirical Review**

The relationship among people influences their ideas, attitudes, and behaviors. Because individuals do not exist in isolation, so their connections will provide opportunities and create constraints at the same time (Prasetyo, 2017). For this reason, paying attention to the actual connection of people is essential owing to the fact that work often happens through interactions outside of formal reporting and working relationships (Fischbacher-Smith & Fischbacher-smith, 2014). However, studies covering informal networks among organizations seem not to have paid attention to institutions in the health sector.

informal groups enhances communication among the members while others noted that they find it easy to express their grievances in the informal setting. The results also confirmed that informal groups have no rules hence high sense of autonomy is expected in an informal setting. Lastly, most of the participants agreed to the fact that informal groups have a positive effect on the productivity of the members of staff with keen attention creating a high level of motivation among them. Those who did not support this fact noted that joining these informal groups could lead to strikes that might impede the proper functionality of the organizational structure hence would reduce productivity.

Abbas (2018) assessed the influence of informal groups on productivity among Philadelphia Pharmaceuticals Company in USA. The analysis investigates 48 workers from Philadelphia Pharmaceuticals and uses both questionnaires and semi-structured interviews to collect the data. The results shows that majority of them agrees that the

Knost (2006) assessed formal and informal work group relationships with performance and the moderation model using social network analysis at a military training course in Canada. A sample of 406 students in 28 groups showed empirical evidence that individual performance is positively related to

centrality in the formal social network while a negative relationship was found between performance and centrality in the informal social network. Orbach et al., (2015) examined communication within the global sales division during two 4-week phases, before and after employees moved to the adjacent, redesigned floor in Boston. A total of 62 employees participated during the first phase, with 7 more employees joining the study after relocation. Findings revealed that the allocation of an individual's communication among colleagues reflected the company's structure as a post-bureaucratic organization. The observed inter-team communication patterns differed from those expected to arise based on the various functions performed by each team throughout the sales cycle.

In Columbia, Prasetyo (2017) investigated how social network analysis could visualize and analyze the informal networks in organizational and community leadership's studies. By applying social network approach to evaluating leadership network, the organization or community can more efficiently scale and accelerate their development as well as solves their leadership problems. It was also found that this method is useful for those who are seeking to influence policy, disseminate new ideas, and mobilize resources towards a common or a specific goal. SNA provides a set of theories, tools, and processes for understanding the relationships and structures of a network

## METHODOLOGY

This study adopted both descriptive survey and correlation designs. According to Best and Kahn (2009), descriptive research seeks to find answers to questions through the analysis of variable relationships. Correlation design on the other hand determines the relationship among two or more variables. Data was gathered from multiple variables and correlation statistical techniques were applied. The target population of this study was 602

healthcare workers at the Kakamega county general Teaching and referral hospital. The employees were chosen for this study because they are the ones who participate in the actual service provision at the hospital. This study adopted Yamane's (1967; cited in Israel, 2013) formula to calculate the sample frame for sectional heads as shown below.

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

Where n is the sample size, N is the population size, and e is the level of precision.

$$n = \frac{602}{1+602(0.05)^2} = 240$$

To ensure equal representation of each member in the study, stratified random sampling which involves dividing the population into subgroups (or departments) and then taking a simple random sample of  $f = n/N \times 100\%$  (Patton, 2002) was adopted. Where  $f$  is the sample size of the sub group;  $n$  is the population of the sub group; and  $N$  is the total sample size. This study sample was therefore divided into 18 strata representing each department from which respondents were selected using stratified random sampling technique. Questionnaire was employed on the sampled employees from each department. The result of the test was analyzed using SPSS 21.0, where Cronbach's alpha of 0.86 and 0.82 respectively was attained for group network and employee performance. Data collected was then processed and analyzed using descriptive statistics in terms of mean (M) and standard deviation (SD). Analyzed data was presented in form of tables. Statistical Package for the Social Sciences (SPSS) tool was used to generate correlations and regressions. Linear regression was used to analyze the relationship between group networks and employee performance among the employees of the Hospital. The regression model used is as shown below:

$$Y_0 = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where;

$Y_0$  = Employee Performance  
 $B_1$  = Coefficient of the Independent Variables  
 $X_1$  = Group networks  
 $\beta_0$  = Constant representing the fixed items on the Y  
 $\epsilon$  = Error or stochastic term representing factors that affect Y not included in the study

## RESULTS

A total of 240 questionnaires were distributed to the sampled employees. Completed and returned

questionnaires were 195 which represented 81.25%. This was an acceptable questionnaire return rate given that it surpassed 20% for surveys involving small population (Gay, 1992) and 50% (Mugenda & Mugenda, 2003).

### Descriptive Statistics

Respondents were asked to state the level of their agreement with various items presented in the questionnaire concerning how group networks have enhanced employee performance at the hospital. Results presented in percentages (%) and Mean (*M*) of the items is presented in Table 1.

**Table 1: Effect of group networks**

Effect of Networks among members on performance	N	M	1	2	3	4	5	SD
Peer-oriented networks enhance collaborative work performance	195	3.13	9.9	10.4	46.0	12.9	10.8	1.04
Informal networks lead to work-related knowledge sharing	195	3.59	10.3	11.4	11.2	32.1	32.1	1.01
Inter-team communication among networked teams improves employee performance	195	3.86	4.1	10.6	8.6	34.9	31.8	0.93
Intra-team communication among networked teams improves employee performance	195	3.76	10.2	15.1	8.5	34.1	32.2	0.97
There is plenty of support among intra-team networked groups leading to improved work performance	195	3.43	4.8	18.6	50.1	14.2	12.3	1.58
Social media platforms formed among networked members catalyses information sharing leading to efficient work performance	195	3.41	10.1	11.1	50.6	10.6	17.7	1.61
Overall Mean	195	<b>3.53</b>						<b>1.19</b>

Table 2 illustrated that in overall, employees at the hospital agreed ( $M=3.53$ ;  $SD=1.19$ ) that networks among informal group members had contributed to employee performance at the hospital. Specifically, the respondents agreed that: inter-team communication among networked teams improved employee performance (66.7%;  $M=3.86$ ); intra-team communication among networked teams improves employee performance (66.3%;  $M=3.76$ ), and that informal networks lead to work-related knowledge sharing (64.2%;  $M=3.59$ ). The sampled respondents however neither agreed nor disagreed that: social

media platforms formed among networked members catalyses information sharing leading to efficient work performance (50.6%;  $M=3.41$ ); there is plenty of support among intra-team networked groups leading to improved work performance (50.1%;  $M=3.43$ ), and that peer-oriented networks enhance collaborative work performance (46%;  $M=3.13$ ) have contributed to employee performance at the hospital.

These findings tend to point at the fact that informal networks created among group members are considered to be effective in enhancing employee

performance at the hospital. Effectiveness of networks in informal groups resonates with Hackman's (1987) IPO model as reflected in emergent states resulting from interactions between team members such as trust, cohesiveness, leadership, and collective efficacy. Processes associated with IPO model like communication and information sharing among group members is effective within informal setting. Similar finding was also revealed by Abbas (2018) in a study that assessed the influence of informal groups on productivity among Philadelphia Pharmaceuticals Company in USA. The study established that informal groups enhance communication among the members, with members finding it easy to express their grievances within such informal settings.

However, Knost (2006) found a negative relationship between performance and centrality in the informal social network during a study done in Canada to assess formal and informal work group relationships with performance. It is thus emerging that networks based on informal groupings away from official structures are critically beneficial for improved employee performance.

### Inferential Results

The researcher was also able to correlate the mean of components of group networks and employee performance. Table 2 presents result of Pearson's correlations between group networks and employee performance.

**Table 2: Correlations between Group Networks and employee Performance**

		Employee performance	Group Networks
<b>Employee performance</b>	Pearson Correlation	1	.811**
	Sig. (2-tailed)		.001
	N	195	195
<b>Group Networks</b>	Pearson Correlation	.811**	1
	Sig. (2-tailed)	.001	
	N	195	195

**\*\*.** Correlation is significant at the 0.01 level (2-tailed).

Table 2 illustrated Pearson correlation between the independent variable and dependent variable was 0.53\*\*,  $p < 0.01$  which was positive. It showed that there is a positive relationship between Group Networks and employee performance. The correlation was significant at 0.01 level (2-tailed)  $p < 0.01$ . Thus there is a significant relationship between Group Networks and employee performance. This implied that with improved group networks, there will be high performance at Kakamega County General Teaching and Referral Hospital.

### Hypothesis Testing

The null hypothesis of the study was (**Ho**): There is no significant effect of informal workplace group networks on employee performance at the Kakamega County General Teaching and Referral Hospital, Kenya. The hypothesis was meant to test the relationship between networks among groups and employee performance at the Kakamega County General Teaching and Referral Hospital. The actual influence of the coefficient (networks among group members) on employee performance at the hospital was computed using linear regression analysis. Table 3 presented the linear regression analysis.

**Table 3: Linear Regression Analysis for Networks and Employee Performance**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.146	.116		18.5	.000
1 Networks among groups	.601	.048	.811	12.521	.000

Dependent Variable: **Employee Performance**

According to Table 3, the unstandardized beta for networks among group members is .601. This implied that for every unit improvement in networks among members of informal workgroups, there would be .601 unit improvements in employee performance at the Kakamega County General Teaching and Referral Hospital. The regression equation  $Y = \beta_0 + \beta_3 X_3 + \epsilon$ , with the constant ( $\beta_0$ ) being 2.146, the coefficient can be plugged into the formula to predict employee performance at the hospital using the group interactions as:

$$Y = \beta_0 + \beta_3 X_3$$

$$\text{Employee performance} = 2.146 + .601X_3$$

The direction of the relationship (whether negative or positive) between group networks and employee performance at the Kakamega County General Teaching and Referral Hospital was also analysed. Table 4 presented the model summary of the relationship between group networks and employee performance at the hospital.

**Table 4: Model Summary for group Networks and Employee Performance**

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate	Change Statistics		
					R Change	Square F Change	df1
1	.811 <sup>a</sup>	.658	.650	.12397	.645	16.377	1

a. Predictors: (Constant), Group Networks

Table 4 illustrated that  $R^2$  is .658 ( $R^2 = .658$ ;  $P < 0.05$ ). The direction of the relationship between group networks and employee performance is positive and significant. This implied that the model was a good predictor of the variation in the dependent variable. This finding suggested that group networks explain 65.8% of variation in employee performance at the hospital. Consequently, 34.2% of variation in employee performance is explained by other variables other than networks among members of the informal workgroups at the hospital.

### CONCLUSIONS AND RECOMMENDATIONS

The study found that networks created by group members contribute to employee performance at the hospital to a large extent. Similarly, significant and

positive relationship was found between networks and employee performance at the hospital. The study concluded that networks created by group enhance employee performance at the hospital. In addition, improvement in networks among group members contributes significant unit improvements in employee performance at the Hospital.

Recognition of networks among group members as a contributing factor in propelling employee performance was equally revealed by the study. Employees in the Hospital seem to be relying on informal networks for work related information and support.

The researcher recommended that the organization should identify workable networks among the

employees and should try to empower them so as to achieve optimum performance. Moreover, the study recommends that comparative studies should be conducted in private health institutions to find out how informal groups network affects employee performance.

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