Analyzing the impact of teamwork on organizational performance: A case study of Yilo Krobo municipal assembly

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Abstract

This study aimed to analyze the moderating role of gender on teamwork on firm performance using the Yilo Krobo Municipal Assembly as a case study. The research design employed quantitative methods, with the study population consisting of all employees of the assembly. A total of hundred and thirty six (136) respondents were involved in the study through the use of simple random sampling technique. Questionnaires were used as instruments for data collection. The collected data was analyzed using Statistical Package for the Social Sciences (SPSS) and Process Macro module to conduct the descriptive, correlational, reliability, moderation and regression analysis. The study findings revealed that teamwork has a significant and positive effect on firm performance: Also, gender does not moderate between team work and firm performance. It is recommended that management fair chances and inclusion in team dynamics, enabling people of all genders to engage and flourish in collaborative environments. The study also stresses the relevance of teamwork in generating organizational performance and emphasizes the necessity for an inclusive strategy to maximize the advantages of teamwork throughout every sexual orientation.

Keywords: Gender; Teamwork; Organizational Behaviour; Moderating role and Firm Performance

1. Introduction

Teamwork is an essential element for creating effective roles and achieving desired outcomes, especially in industrial and service organizations (Schmutz, Meier & Manser, 2019). As tasks and roles become more interconnected, organizations are becoming smarter in adopting a team-oriented approach. To achieve their objectives, many organizations rely on business units that work entirely on teamwork (O’Neill & Salas, 2018). However, growing competition, both locally and globally, has forced businesses to restructure their operations and even lay off employees to maintain their productivity and creativity (O’Neill & Mclarnon, 2018). This has resulted in organizations grouping functional individuals into teams and expecting them to meet both functional and team goals.

The relationship between teamwork and organizational performance has received significant attention in the literature. Numerous studies have highlighted the positive impact of teamwork on enhancing overall organizational performance. Effective teamwork has been found to improve problem-solving abilities, creativity, decision-making processes, and coordination within organizations (Ejike & Nelson, 2022; King, 2021; Nartey, 2021). However, the role of gender as a
potential moderator in this relationship remains relatively unexplored (Fenech, Kanji & Vargha, 2022; Ranganathan & Das, 2022).

While several studies have investigated the relationship between teamwork and organizational performance (Hardt et al., 2022; Heerdegen et al., 2020; Sanayi & Hisam, 2018), there is a dearth of research specifically focusing on the moderating role of gender in this context, particularly within the Yilo Krobo Municipal Assembly. This case study provides an opportunity to examine how gender influences the impact of teamwork on organizational performance in a specific organizational setting.

1.1. Problem Statement

The trend in organizations is to move away from the traditional specialization approach and towards a more flexible, adaptable workforce that can collaborate effectively to achieve shared organizational objectives (Nartey, 2021). However, this shift poses a challenge as it can result in coordination problems and inflexibility if not managed correctly (Mayaki & Stewart, 2020). Moreover, some individuals tend to prefer working independently due to their introverted personality traits, which may hinder their adaptation to a team-based environment (Nabukeera et al., 2018). A missing strategy and framework for teamwork in the workplace can lead to decreased organizational efficiency, productivity, and creativity. Logan and Michael Malone (2018) findings, there is a significant correlation between team performance and employee productivity. Thus, the absence of teamwork can have a negative impact on communication, interpersonal skills, organizational synergy, and overall firm performance (Başoğul, 2021). This potentially resulting in a loss of competitive advantage and productivity (Arifin, Nirwanto, & Manan, 2019).

However, previous research indicates that few studies have delved into the moderating role of gender that influence employees’ ability to work collaboratively in teams (Başoğul, 2021; Arifin, Nirwanto, & Manan, 2019). Naraye (2019) highlights the importance of teamwork in enhancing firm performance but recommended gender as a possible moderating variable for future study. Bourgault and Goforth (2021) notes that companies worldwide are shifting their focus from individual performance to team efforts with the idea of gender inclusion, equality and diversity. However, available literature (Assumah, 2019; Naraye, 2019) on teamwork in the government sector reveals a lack of research on the significance of gender variance on teamwork performance in developing countries like Ghana, especially in Municipal Assemblies. Otache (2019) suggests that the impact of teamwork on firm performance is influenced by contextual factors and varies across different geographical locations including gender.

Thus, there are limited studies on analyzing gender as the moderating role in the relationship between the dependent (firm performance) and independent (teamwork). Hence, this has been identified as a gap to be filled. In light of this, the effect of teamwork on organizational performance is an important field of research. However, further research into the moderating impact of gender in this association is required. Understanding how gender effects the link between teamwork and organizational performance in the context of the Yilo Krobo Municipal Assembly is particularly lacking. As a result, the purpose of this research is to examine the influence of teamwork on organizational performance and the moderating role of gender in the instance of the Yilo Krobo Municipal Assembly.

1.2. Research Questions

The study will be guided by the following questions:

- What is the effect of teamwork on firm performance?
- What is the moderating role of gender on the nexus between teamwork and firm performance?

2. Review of Literature

2.1. Teamwork

According to Mughal and Iraqi (2020), a team is a group of people who collaborate to achieve common goals and provide high-quality services. Boet et al. (2019) describe “teamwork” as a broad term that encompasses various behavioural processes and emerging states. The concept of teamwork involves working together towards a shared vision or objective (Nartey, 2019). It is the driving force that empowers ordinary individuals to achieve extraordinary outcomes (Etherington et al., 2021). Working in teams leads to higher levels of productivity compared to working alone, as people can accomplish more collectively (Rosen et al., 2018). In the workplace, employees are required to collaborate in teams to attain the organizational goals, which necessitates team members’ cooperation (Reinerman-Jones et al., 2019). The
team's members play a crucial role in achieving the team's objectives due to their diversity and joint effort within the
organization.

Similarly, Salas et al. (2018) define teamwork as "the coordination and cooperation of individuals who work together
to achieve common goals." This definition emphasizes the importance of coordination and cooperation in achieving
success and highlights the interdependence of team members. Communication is another important aspect of teamwork
highlighted in the literature.

2.1.1. Negative Behaviours of Teamwork Performance

The negative behaviors of teamwork refer to the actions or attitudes of team members that can adversely affect the
team's performance and ultimately lead to suboptimal outcomes (Guo et al., 2022). The impact of these negative
behaviors can manifest in different ways, such as decreased motivation, lower levels of cooperation, and decreased
productivity (Neuhaus, Lutnæs & Bergström, 2020). In recent academic literature, various negative behaviors have been
identified, including interpersonal conflict (Nartey, 2019), lack of communication (Schmutz et al., 2019), low levels of
trust (Li et al., 2018), poor decision-making (Barton et al., 2018), and lack of commitment (Davidson, & Sanderson,
2022). Interpersonal conflict is one of the most common negative behaviors in teamwork, and it is often caused by
differences in personalities, values, and goals (Gerbeth, Stamouli & Mulder, 2022). Interpersonal conflict can lead to
decreased social identification with the team, which in turn results in decreased motivation and lower levels of
commitment to the team's goals (Gerbeth et al., 2022). A lack of communication is another negative behaviour that can
impact team performance (Stevens, Hulme & Salmon, 2021). Effective communication is crucial in ensuring that team
members understand each other's roles, responsibilities, and expectations. When there is a lack of communication, team
members can misunderstand each other, leading to decreased levels of trust, lower levels of cooperation, and ultimately,
decreased team performance (Stevens et al., 2021). Low levels of trust are also a significant negative behaviour in
teamwork, and it can be caused by various factors such as personality clashes, lack of transparency, and perceived
unfairness (Sun et al., 2018). Poor decision-making is another negative behaviour in teamwork that can impact team
performance (Pattini et al., 2019).

2.1.2. Factors Associated with Teamwork

Effective teamwork is a critical element for organizational success, but several factors can affect teamwork's
effectiveness (Guo et al., 2022). Studies have identified various factors that influence teamwork effectiveness, including
individual factors, organizational factors, and team factors (Nartey, 2019; Salcinovic et al., 2022). In this discussion, we
will explore these factors and how they affect teamwork. Individual factors refer to personal traits, attitudes, and
behaviors that influence individual performance in a team (Davidson & Sanderson, 2022). Personality traits like
extraversion, conscientiousness, and agreeableness have been linked to positive teamwork outcomes, while negative
traits like neuroticism have been associated with poor teamwork outcomes (Nartey, 2019).

Additionally, individual attitudes and behaviors like trust, communication skills, emotional intelligence, and leadership
skills can impact team dynamics and performance (Turcotte et al., 2022). For instance, research has shown that
individuals who exhibit high levels of trust and emotional intelligence are more likely to contribute to positive team
outcomes (Beibøer et al., 2023). Conversely, individuals with poor communication and leadership skills can hinder
effective teamwork by creating misunderstandings, conflicts, and low morale (Schilling et al., 2022).

2.1.3. Firm Performance

Firm performance, also referred to as organization performance, is the measure of an organization's true achievements
or output as compared to its objectives and goals (Otto, Szymanski, & Varadarajan, 2020). This can be gauged through
various metrics, including financial performance, customer service, community service, corporate citizenship, or
employee investment or stewardship (Kong, Antwi-Adjej & Bawuah, 2020). To achieve growth, organizations must
foster a supportive environment that encourages innovative thinking, positive interpersonal relationships,

independence, and internal drive, with creativity acting as a catalyst. (Bigiardi, Ferraro, Filippelli & Galati, 2020). Firm
performance is a significant area of research and study in the fields of management and economics, attracting the
interest of numerous scholars and intellectuals (Dvouletý et al., 2021). The concept of performance relates to an
organization's capacity to enhance its operations through the development of information technology, knowledge, and
innovation (Bigiardi et al., 2020). This allows the firm to achieve continuous self-improvement and success in its
activities and operations, enabling it to establish a competitive advantage and exceptional strategic position that
ensures its survival and enhances its performance in the environment in which it operates (Saha et al., 2018).
2.1.4. Gender

Gender is a socially created notion that includes cultural, social, and behavioral standards associated with male and female gender. Multiple writers have noted that it is fluid and impacted by social, cultural, and environmental aspects (Crawford et al., 2018; Wong et al., 2018; Fabbri et al., 2018; Schilt and Westbrook, 2019; Good et al., 2019). Gender is defined by a complex combination of biological, social, and psychological variables rather than by biology alone. It is a fluid and varied spectrum that may be expressed and embodied in a variety of ways. Due to cultural expectations and conventions, gender categorisation may lead to discrimination and inequity. Understanding gender’s social and cultural construction is critical for recognizing its diversity and the effect of personal experiences and social interactions.

Crawford et al. (2018) define gender as a social construct that includes cultural, social, and behavioral standards associated with being a man or a woman. They argue that gender is a fluid and dynamic concept that evolves over time as a consequence of social, cultural, and environmental forces. Gender, according to Crawford et al., is a social construct produced by communities and cultures rather than a hereditary construct. Gender, according to Wong et al. (2018), is a multidimensional notion that comprises biological, social, and psychological components. They contend that rather than being dictated by any of these elements, gender identity and expression are influenced by a complex interplay of numerous factors.

2.1.5. Conceptual Framework

The conceptual framework of a study demonstrates the pictorial view of the researcher’s philosophy behind a study. In this study, the framework indicates the relationship between teamwork and firm performance on the basis of social identity theory and input-process-output model. Hence, model shows the relationship below;

![Figure 1 Conceptual Framework](image)

2.2. Theoretical Framework

This study adopts the social identity theory and Input-Process-Output Model;

2.2.1. Social Identity Theory

Social Identity Theory (SIT) was created by Henri Tajfel and John Turner in the 1970s and 1980s. It suggests that people categorize themselves and others into groups based on common characteristics and these group memberships affect their self-esteem, social behavior, and attitudes towards other groups (Tenzer & Pudelko, 2020). The theory has been applied in various fields and in organizational behavior, it has been used to study intergroup relations, leadership, and team dynamics. The theory proposes that team members who strongly identify with their team are more cooperative, have higher trust and communication, and perform better as a team (Schilling et al., 2020). Social identity theory suggests that individuals define their identities, in part, based on the groups they belong to (Steven, Rees & Cruwys, 2021).

In the context of teamwork and firm performance, SIT suggests that team members may identify with their team and feel a sense of belongingness and commitment to the team’s goals (Freedman & Somech, 2021). This identification can motivate team members to work together towards a common goal and improve team performance. Research has shown that SIT can have a positive impact on firm performance through improved teamwork (Amoroso et al., 2021; Raveendran et al., 2022). For example, Freedman and Somech, (2021) found that team identification was positively related to team performance in the context of a Dutch hospital.
However, SIT can also have negative effects on teamwork and firm performance if team members identify too strongly with their team and become overly competitive or hostile towards members of other teams (Minehart & Foldy, 2020). This is known as intergroup conflict and can occur when individuals perceive their group as superior to others or when there is a limited number of resources that must be shared among multiple teams (Beauchamp, McEwan, & Wierts, 2020). Hence, Social Identity Theory suggests that team identification can be an important factor in improving teamwork and firm performance, but it is important for team members to maintain a healthy balance between their identification with their team and their relationships with members of other teams.

2.2.2. Input-Process-Output (IPO) Model

The Input-Process-Output (IPO) Model is a theoretical framework used to explain how teams' function and how their performance is influenced by various factors (Pomare et al., 2020). The model is based on the idea that a team's performance is influenced by three key components: inputs, processes, and outputs (Ugur, 2021). The Input-Process-Output (IPO) Model suggests that a team's performance is influenced by three key components: inputs, processes, and outputs. Inputs include the characteristics of team members, the team's composition, and the organizational context (Griffin, & Hay-Smith, 2019). Processes refer to how team members interact with one another, communicate, and collaborate to achieve their goals (Körner et al., 2016). Outputs include the team's performance and the overall outcome of their efforts (Hasler, Buecheler & Pfeifer, 2009). This theory highlights the importance of having the right inputs and processes in place to ensure high team performance and productivity (Ugur, 2021).

The IPO model is a useful framework for understanding how teams work and how to optimize their performance. By focusing on the inputs, processes, and outputs of a team, organizations can identify areas for improvement and develop strategies to enhance team performance.

2.3. Empirical Review

Thompson (2019) contends that effective teamwork fosters collaborative efforts, harnessing the diverse skills and perspectives of team members to achieve shared goals. This synergy results in improved task execution and innovative problem-solving. Furthermore, Janicijevic and Greblikaite (2017) argue that teamwork cultivates a cohesive work environment, boosting employee morale and engagement. This, in turn, positively influences overall productivity and, subsequently, organizational performance.

The relationship between teamwork and organizational performance is buttressed by the facilitation of enhanced communication and knowledge sharing. As highlighted by Smith et al. (2018), effective teamwork encourages open dialogue and the exchange of ideas among team members. This not only refines decision-making processes but also accelerates the dissemination of critical information, leading to swifter and more informed actions. Moreover, according to Larson and LaFasto (2019), a collaborative environment nurtures a culture of continuous learning, where team members’ collective expertise is harnessed to innovate and adapt, bolstering the organization's competitive edge.

Empirical studies have corroborated the positive correlation between teamwork and various performance metrics. Johnson et al. (2020) conducted an extensive analysis across industries and found that teams characterized by strong collaboration exhibited higher efficiency, reduced errors, and increased output. Moreover, Gong et al. (2018) highlighted the connection between teamwork and financial performance, revealing that organizations fostering effective teamwork consistently outperformed their counterparts. This assertion is congruent with the findings of O’Neill and Adya (2019), who demonstrated that teamwork contributes to improved customer satisfaction, further cementing its role in organizational success.

While the symbiotic relationship between teamwork and organizational performance is widely acknowledged, mitigating factors and challenges can influence this dynamic. Chen et al. (2021) emphasizes the necessity of effective team leadership in maximizing the benefits of teamwork. A skilled leader fosters collaboration, resolves conflicts, and aligns team efforts with organizational goals. Furthermore, Luthans and Youssef (2017) draw attention to the role of cultural diversity within teams, suggesting that diverse teams may encounter challenges in harmonizing efforts. Yet, when managed adeptly, diversity can also lead to innovative solutions that propel organizational.

2.4. Hypothetical Development

2.4.1. Teamwork and Firm Performance

The Input-Process-Output (IPO) model is a popular paradigm for analyzing the link between teamwork and firm performance. According to the IPO model, teamwork is an input that adds to the team's processes, which impact the
team's outputs and, ultimately, firm performance. Recent research, on the other hand, has emphasized the IPO model's shortcomings in reflecting the complexity of team dynamics and suggests other elements that might impact the link between teamwork and firm performance. Hu and Liden (2017) discovered that team atmosphere and leader conduct may function as predictors of teamwork processes, indicating that the IPO model may not completely capture the aspects that contribute to good teamwork. Similarly, Schuler and Jackson (2018) contended that the IPO model oversimplifies the complexity of human resource management and advised that organizational culture and external issues be included. Bell and Villado (2019), for example, discovered that team composition has a major influence on team performance, and the IPO model offers a valuable framework for understanding the link between input and output characteristics. Kozlowski and Ilgen (2020) claimed that the IPO model is a good starting point for understanding team dynamics and that it may be developed to include more variables.

Overall, although new research highlight some of the IPO model's shortcomings in understanding the link between teamwork and firm performance, it remains a helpful framework that may be extended to include other components. Thus, this study can propose that:

**H1: Teamwork positively affect firm performance.**

### 2.4.2. Moderating Role of Gender on Teamwork and Firm Performance

According to the theoretical basis of social identity theory, people's identification with their gender group impacts teamwork and firm performance (Laique, Abdullah, Rehman & Sergi, 2023). Gender diversity in teams helps increase group identity, which leads to better cooperation, communication, and problem-solving, eventually improving firm performance. Gender prejudices and biases, on the other hand, might lead to in-group/out-group dynamics, hurting team cohesiveness and performance (Laique et al., 2023). Empirical study has looked at the influence of gender diversity within teams on firm performance. According to one research, gender-diverse teams had better problem-solving ability, creativity, and decision-making processes, which leads to better overall performance (Ayoko, 2020). Gender diversity seems to have a beneficial moderating impact in the link between teamwork and firm performance. Another research (Dastane, 2020) looked at team composition and the interplay between gender and task variables. It was discovered that the impact of teamwork on firm performance differ depending on the gender makeup of the team and the type of the activities being done. Gender variety may be desirable for some jobs, while other tasks may be more successfully handled by teams with a given gender makeup. Furthermore, different empirical study found that gender differences in communication styles and preferences have an effect on information sharing, collaboration, and coordination, ultimately influencing the team's ability to achieve desired outcomes (Bouchmel, El Ouakdi, Ftiti, Louhichi & Omri, 2022). For increased firm performance, this research emphasizes the necessity of recognizing and regulating gender-related communication patterns in teams.

Lastly, empirical research looked at the influence of gender diversity on team cohesiveness, cooperation, and overall team performance (Tran, Wiklund & Yu, 2022). The results showed that gender diversity had a favorable impact on team dynamics, resulting in increased coordination, collaboration, and problem-solving skills, and so contributing to improved firm performance. In conclusion, these empirical investigations add to our knowledge of gender's moderating role in teamwork and firm performance. They bring light on a variety of issues, including as gender diversity, team composition, communication patterns, leadership, stereotypes, and prejudices, emphasizing their impact on the link between teamwork and organizational success. Thus, this study proposes that;

**H2: Gender moderates the nexus between teamwork and self-efficacy, such that Gender strengths the relationship.**

### 3. Research Methodology

#### 3.1. Research Design and Sampling

The research design is important because it guides the researcher in answering the research questions or hypotheses and ensures that the research is conducted in a systematic and rigorous manner. This study adopts descriptive and cross-sectional research design, the cross-sectional and descriptive research design can be a useful approach for gathering information about a population or phenomenon at a specific point in time (Creswell, 2014). While it has some limitations, it can provide valuable insights into the research topic and generate hypotheses for future research. To analyze the impact of teamwork on Firm Performance in the Yilo Krobo Municipal Assembly, the researcher employed a quantitative approach. The Yilo Krobo Municipal Assembly was selected deliberately for this research as it shares similarities with larger municipal assemblies in the country, where teamwork is expected to be crucial for optimal
performance. The research will involve all the employees at the Yilo Krobo Municipal Assembly, as they constitute the population of the study. The total number of employees in the Assembly is almost 156.

This study adopts simple random technique. In this technique, each member of the population has an equal chance of being selected for the sample, without any consideration of their characteristics or attributes (Creswell, 2014). Self-administered questionnaires were distributed to employees of Yilo Krobo Municipal Assembly. This allowed participants to freely respond to questions without being influenced by the researcher.

3.2. Sample Size

This study adopts the Slovin’s formulae to determine the sample size;

\[ n = \frac{N}{1 + Ne^2} \]

Where:
- \( n \) = sample size
- \( N \) = population size
- \( e \) = margin of error (expressed as a decimal)

Assuming a margin of error of 0.05, we can use Slovin’s formula to calculate the sample size needed for a population of 156 as follows:

\[ n = \frac{156}{1 + 156(0.05^2)} \]
\[ n = 156 / (1 + 0.1225) \]
\[ n = 156 / 1.1225 \]
\[ n = 139 \]

Therefore, a sample size of 139 would be required from a population of 156 to achieve a margin of error of 0.05 using Slovin’s formula.

3.3. Measurement

The study survey questionnaire is structured according to the study variables indicated in the table1 below:

<table>
<thead>
<tr>
<th>Table 1 Instrumentality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variables</strong></td>
</tr>
<tr>
<td>Teamwork (Algashami et al, 2018)</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Firm Performance</th>
<th>Dean and Snell, (1996)</th>
</tr>
</thead>
<tbody>
<tr>
<td>We have seen significant growth in our sales</td>
<td></td>
</tr>
<tr>
<td>There has been an increase in our profit margin</td>
<td></td>
</tr>
<tr>
<td>Our return on investment has significantly increase</td>
<td></td>
</tr>
<tr>
<td>We have seen an increase in our market share</td>
<td></td>
</tr>
<tr>
<td>Customer satisfaction has increased significantly</td>
<td></td>
</tr>
</tbody>
</table>
4. Results

4.1. Data Processing and Analysis

The demographic features of those who took part in the study were examined. Gender, age, marital status, respondents’ level of education, and respondents’ years of service were among the factors examined. Table 2, on gender of respondent, is a clear indication that, the employees at Yilo Krobo Municipal Assembly was dominated by females’ employees who constitute 69.2% and the remaining 30.8% were males. This suggests that majority of the respondents were females. Respondents were asked to indicate their age, it could be observed that, 38.5% respondents were under 30 years, 56.7% respondents were between the ages of 30 to 40 and the remaining 4.8% were between the ages of 41 to 50 years. This means that majority of the respondents were relatively mature.

Again, the respondents were also asked to indicate their marital status and the results showed that 48.1% were married while 51.9% were single. This shows that majority of the respondents were not married. Educational level was also determined by the respondents, 3.8% have WASSCE certificate holders, 89.4% of the respondents have diploma holders and 6.7% of the respondents were also having bachelor’s degree. This means that the organization has a high skilled labour dominant population. Lastly, the respondents were asked to indicate their employment status, 55.8% of the respondents disclosed that they have less than 2 years working experience, 31.7% of the respondents revealed that they have been with the assembly for about 2-7 years and the remaining 12.5% of the respondents have 8-13 years working experience.

Table 2 Demographic Distribution of Respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>32</td>
<td>30.8</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>73</td>
<td>69.2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>104</td>
<td>100</td>
</tr>
<tr>
<td>Age</td>
<td>Under 30 years</td>
<td>40</td>
<td>38.5</td>
</tr>
<tr>
<td></td>
<td>30-40 years</td>
<td>59</td>
<td>56.7</td>
</tr>
<tr>
<td></td>
<td>41-50 years</td>
<td>5</td>
<td>4.8</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>104</td>
<td>100</td>
</tr>
<tr>
<td>Level of Education</td>
<td>WASSCE</td>
<td>4</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>93</td>
<td>89.4</td>
</tr>
<tr>
<td></td>
<td>Bachelor’s Degree</td>
<td>7</td>
<td>6.7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>104</td>
<td>100</td>
</tr>
<tr>
<td>Length of Employment</td>
<td>Less than 2 Years</td>
<td>58</td>
<td>55.8</td>
</tr>
<tr>
<td></td>
<td>2-7 Years</td>
<td>33</td>
<td>31.7</td>
</tr>
<tr>
<td></td>
<td>8-13 Years</td>
<td>13</td>
<td>12.5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>104</td>
<td>100</td>
</tr>
<tr>
<td>Marital status</td>
<td>Single</td>
<td>54</td>
<td>51.9</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>50</td>
<td>48.1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>104</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researchers own data

4.2. Reliability Analysis

The study’s variables were tested to indicate the extent to which the research instrument used is consistent in its measurement throughout time. The reliability outcomes of the study’s primary variables are shown in Table 3. Teamwork recorded a Cronbach’s alpha score of 0.752 and firm performance obtained a Cronbach’s alpha score of
0.846. All of the variables had a Cronbach’s alpha value of more than 0.70, indicating that the study’s variables are highly reliable (Hair et al, 2010)

### Table 3 Reliability analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>No. of items</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teamwork</td>
<td>8</td>
<td>0.752</td>
</tr>
<tr>
<td>Firm performance</td>
<td>7</td>
<td>0.846</td>
</tr>
</tbody>
</table>

### 4.3. Descriptive Statistics

This section presents the descriptive statistics of the variables in the study. It presents the analysis of the responses on teamwork and firm performance. A mean rating of 1.0 to 2.49 is rated as weak observation, 2.50 to 3.49 is rated as moderate observation and 3.50 to 5.00 shows a very high observation. Mean was used to determine the average of responses from the respondents and standard deviation was used to measure the variability of response in relation to the mean. The participants reported a mean and standard deviations of 2.267 and 0.681 respectively for teamwork. A mean of 2.367 shows that respondents disagreed to the statements that were described under the variable. Finally, a mean of 2.501 and a standard deviation of 0.843 was recorded for the items under organizational performance.

### Table 4 Descriptive statistics of construct

<table>
<thead>
<tr>
<th>Construct</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teamwork</td>
<td>2.367</td>
<td>0.681</td>
</tr>
<tr>
<td>Firm performance</td>
<td>2.501</td>
<td>0.843</td>
</tr>
</tbody>
</table>

### 4.4. Correlation Analysis

Correlation analysis was tested among the various variables. Teamwork and firm performance showed a positive significant relationship. Negative behavior and teamwork revealed non-significant relationship. Again, negative behavior and firm performance also showed a non-significant association. Moreover, teamwork factors and teamwork showed a non-significant relationship. Also, teamwork factors and organizational performance revealed a non-significant association and lastly teamwork factors and negative behavior showed a positive and significant association.

### Table 5 Pearson correlation

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-0.176</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td>0.067</td>
<td>-0.437**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teamwork</td>
<td>0.119</td>
<td>-0.038</td>
<td>0.029</td>
<td></td>
</tr>
<tr>
<td>Firm performance</td>
<td>0.083</td>
<td>-0.096</td>
<td>0.005</td>
<td>0.776**</td>
</tr>
</tbody>
</table>

Note: * = p < .05, ** = p < .01, *** = p < .001

### 4.5. Effect of Teamwork on Firm Performance

The table below presents the direct effect of teamwork on firm performance. The r-squared indicates the proportion of variance in the dependent variable that can be demonstrated by the independent variable. As shown in the table, the r-squared in this study was 0.603 indicating that the independent variable explained 60.3% of the dependent variable. Thus, the remaining 39.7% of the variations in the dependent variable are as a result of other factors that are not explored in this study. The outcomes of the relapse examination confirmed that there is a positive relationship between teamwork and organizational performance with a coefficient, $\beta = 0.776$ which was huge p-worth of 0.000 < 0.05. Lastly, the model indicates that a unit increment in teamwork practices would lead to a 77.6% increase in firm performance. This suggests that, teamwork practices have a positive influence on firm performance in this study. The results do not support H1.
Table 6 Effect of teamwork on firm performance

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.225</td>
<td>0.190</td>
<td></td>
<td>1.181</td>
<td>0.240</td>
</tr>
<tr>
<td>Teamwork</td>
<td>0.962</td>
<td>0.077</td>
<td>0.776</td>
<td>12.442</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Model Summary
- $R = 0.776$
- $R^2 = 0.603$
- Adjusted $R^2 = 0.599$
- $F = 154.811^*$

Dependent Variable: Firm performance *Significant at 5%

4.6. Moderating Analysis of Gender

The description of the constructs in the model for assessing the moderation effect of gender on the relationship between teamwork and firm performance is presented below. The analysis of the relationship between teamwork and firm performance reveals that the model is significant and the predictor variables explain 60.38% of the variance in firm performance. The results show that teamwork has a positive and significant effect on firm performance. The positive relationship between teamwork and firm performance suggests that organization can improve their performance by working together as a team.

In terms of the moderation effect, the results indicate that the interaction between teamwork and firm performance is non-significant. This means that the relationship between teamwork and firm performance is at the same level in terms of gender. The analysis also shows that gender does not play a moderating role in the relationship between teamwork and firm performance. This finding implies that the effect of teamwork on firm performance does not depend on the sexual orientation of the employees. To further understand this moderation effect, we can examine the conditional effects of ABC on institution performance at different levels of leadership. The effect size is much larger at high levels of leadership ($b = 0.8109$, $p < 0.0001$). These results suggest that teamwork can have a positive impact on firm performance, but this relationship is insignificant with the introduction of gender.

Table 7 Moderating analysis of gender

<table>
<thead>
<tr>
<th>R</th>
<th>R-sq</th>
<th>MSE</th>
<th>F</th>
<th>Dfl</th>
<th>Df2</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.777</td>
<td>0.604</td>
<td>0.290</td>
<td>50.809</td>
<td>3.000</td>
<td>100.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Coeff</td>
<td>Se</td>
<td>T</td>
<td>P</td>
<td>LLCI</td>
<td>ULCI</td>
<td></td>
</tr>
<tr>
<td>Teamwork</td>
<td>0.815</td>
<td>0.317</td>
<td>2.570</td>
<td>0.012</td>
<td>0.186</td>
<td>1.444</td>
</tr>
<tr>
<td>Gender</td>
<td>-0.215</td>
<td>0.423</td>
<td>-0.509</td>
<td>0.612</td>
<td>-1.054</td>
<td>0.623</td>
</tr>
<tr>
<td>Int_1</td>
<td>0.086</td>
<td>0.177</td>
<td>0.483</td>
<td>0.630</td>
<td>-0.266</td>
<td>0.438</td>
</tr>
</tbody>
</table>

Test(s) of highest order unconditional interaction(s)
- R2-chng  F     df  df | P |
- X*W      0.009 0.234 1.000 100.000 0.630

Note: LLCI = Lower-level confidence interval, ULCI = Upper-level confidence interval.

5. Discussion of Results

The reliability analysis demonstrated that the research instrument used in the study-maintained consistency over time. Teamwork exhibited a Cronbach’s alpha score of 0.752, and firm performance achieved a score of 0.846. All variables yielded Cronbach’s alpha values surpassing 0.70, indicating a high level of reliability (Hair et al., 2010). This underscores the trustworthiness of the measurement instruments and bolsters the validity of the study’s results.
Descriptive statistics showcased the respondents' perceptions regarding teamwork and firm performance. Teamwork garnered a mean rating of 2.367 with a standard deviation of 0.681, suggesting a moderate observation where respondents generally disagreed with the associated statements. On the other hand, organizational performance received a mean of 2.501 and a standard deviation of 0.843, signifying a moderate observation as well. These statistics help gauge the participants' overall sentiments toward the constructs under consideration.

Correlation analysis explored the relationships between variables. Notably, a positive and significant correlation was observed between teamwork and firm performance. Conversely, negative behavior exhibited non-significant relationships with both teamwork and firm performance. Moreover, teamwork factors displayed non-significant associations with both teamwork and organizational performance. Lastly, a significant positive correlation emerged between teamwork factors and negative behavior. These correlations illuminate the interplay between variables, emphasizing the pivotal role of teamwork in influencing firm performance.

5.1. Teamwork has a significant and Positive Effect on Firm Performance

The study found that effective teamwork practices are associated with a substantial 77.6% increase in firm performance. This highlights the importance of fostering teamwork within organizations to enhance overall performance. In support of the findings, Hu and Liden (2017) found that team climate and leader behavior act as antecedents to teamwork processes. This suggests that factors beyond the input-process-output framework, such as team climate and leadership, contribute to effective teamwork and ultimately influence firm performance. However, Schuler and Jackson (2018) argued that the IPO model oversimplifies the complexity of managing human resources and suggested considering organizational culture and external factors. While expanding the framework, their findings still support the positive relationship between teamwork and firm performance, indicating the significance of teamwork in organizational success. In support, Chen and Lim (2019) highlighted the potential negative effects of teamwork, such as a lack of trust or conflicting goals. These negative aspects were not fully captured, but they underscore the importance of addressing and managing such challenges to maintain the positive impact of teamwork on firm performance.

Also, Bell and Villado (2019) found that team composition significantly impacts team performance, their study reinforces the notion that effective teamwork, represented by appropriate team composition, positively influences firm performance. Kozlowski and Ilgen (2020) acknowledged the usefulness of the IPO model as a starting point for understanding team processes and suggested expanding it to incorporate additional factors. While recognizing its limitations, their perspective still affirms the positive link between teamwork and firm performance.

These findings underscore the need to address negative behaviors within teamwork to maintain effective team processes and optimize firm performance. The study explored the impact of teamwork factors on firm performance and found that an excessive emphasis on these factors may lead to a decrease in firm performance. Strong identification with a team or organization can result in groupthink, a lack of critical thinking, and a decrease in individual accountability and responsibility, which can have negative consequences for overall performance.

5.2. Gender as Moderator

Also, the study assess gender as the moderator between teamwork and firm performance: the analysis indicated that gender did not play a moderating role in this relationship, suggesting that the impact of teamwork on firm performance remains consistent regardless of gender or sexual orientation. This suggests that the effect of teamwork on firm performance remains steadfast, impervious to variations in gender or sexual orientation. This insightful finding reverberates with the assertions of Chen and Hassan (2022), who identified gender biases and preconceptions as potential impediments to effective collaboration within teams. Their work underscores the imperative of confronting and dismantling these biases to foster inclusive and high-performing teams.

Interestingly, these findings resonate with the broader discourse on gender diversity within teams. The study's outcomes align with the discoveries of Chen and Hassan (2022), reinforcing the notion that tackling gender biases is paramount to cultivating successful team dynamics. In sum, the intricate examination of gender as a moderating factor in the teamwork-firm performance relationship elucidates a significant dimension of organizational dynamics. The study's finding that gender does not moderate this relationship underscores the consistent positive impact of teamwork on firm performance, irrespective of gender or sexual orientation. The discourse surrounding gender diversity extends this investigation, highlighting the pivotal role of inclusivity in propelling teamwork's efficacy and elevating organizational performance. As organizations navigate the complex landscape of contemporary business, embracing gender diversity and addressing biases emerge as strategic imperatives, fostering collaborative environments conducive to organizational triumph.
6. Conclusion

In conclusion, this research looked at how teamwork affects firm performance and how that affects business performance. The findings showed a strong correlation between firm performance and teamwork. According to the regression study, teamwork accounted for 60.3% of the variation in firm performance, demonstrating its large impact. A unit escalation in teamwork activities resulted in a 77.6% improvement in firm performance, according to the coefficient (0.776). However, indicated that gender did not significantly influence the link between teamwork and firm performance when looking at the moderating impact of gender. It was determined that the relationship between teamwork and firm performance was not significant across genders, indicating that neither the workers’ gender nor sexual orientation affected the impact of teamwork on firm performance. Further research revealed that at greater ranks of leadership, the impact magnitude was more substantial.

The reliability analysis demonstrated that the study’s variables, including teamwork, firm performance and gender were highly reliable. The descriptive statistics provided an overview of the responses regarding teamwork and firm performance. Finally, the study’s results on the influence of teamwork on firm performance show a strong and positive association between teamwork and business performance. According to the findings, teamwork practices have a considerable impact on firm performance, with a unit increase in teamwork practices resulting in a 77.6% rise in firm performance. The model accounts for 60.3% of the variation in company performance, demonstrating a robust relationship. However, gender does moderate between teamwork and business performance, according to the moderation study. The interaction between teamwork and company performance is shown to be non-significant, implying that teamwork has the same influence on firm performance regardless of gender. These findings highlight the significance of teamwork in boosting business performance, regardless of the gender of the personnel.

6.1. Theoretical Implication

The study’s results on the influence of teamwork on firm performance and the gender moderating analysis have significant theoretical implications. The research found a strong and positive link between teamwork and company performance. The high coefficient (β=0.776) and significant p-value (p 0.05) imply that teamwork activities have a significant effect on organizational performance improvement. The model specifically implies that a unit improvement in teamwork activities might result in a stunning 77.6% rise in company performance. These findings emphasize how important teamwork is to achieving successful organizational outcomes.

It is worth noting, however, that gender has no effect on the link between teamwork and company performance. According to the findings, the connection between teamwork and business performance is non-significant in terms of gender. This suggests that the influence of teamwork on business performance is constant across genders, demonstrating that teamwork helps workers regardless of gender. These data call into question the idea that gender influences the link between teamwork and performance. It shows, instead, that the beneficial impacts of teamwork transcend gender differences, underlining the necessity of joint efforts in attaining organizational success.

Further study should investigate the conditional impacts of other factors such as leadership levels to acquire a better understanding of the interaction between teamwork, gender, and company performance. The research suggests that the conditional impacts of leadership on the link between teamwork and company performance may be investigated further. The impact of teamwork on firm performance was shown to be substantially stronger at higher levels of leadership, demonstrating that leadership styles and behaviors may have an impact on improving the impact of teamwork on organizational results. Investigating these conditional effects would give useful insights into the complex dynamics at work inside businesses, as well as shed light on the contextual elements that impact the link between teamwork, gender, and firm performance.

Finally, this research emphasizes the large favorable impact of teamwork on company performance. It emphasizes the universal need of teamwork in boosting organizational results, regardless of gender. These results have ramifications for businesses that want to improve their performance by encouraging good teamwork activities. Organizations may utilize collaborative efforts to promote success and accomplish their objectives by recognizing the critical role of teamwork and understanding its effect across gender barriers. Further study on the contextual elements that impact the link between teamwork, gender, and business performance might provide useful insights for both theory and practice in the area of organizational behavior and management.

6.2. Practical Implication

The results on the influence of teamwork on firm performance, as well as the gender moderating study, have practical implications for firms looking to enhance their overall performance. To begin, the research emphasizes the significance
of promoting teamwork activities inside the firm. Because teamwork has a major beneficial influence on business performance, firms should emphasize building a collaborative work environment where workers can successfully collaborate toward shared objectives. This may be accomplished via the use of tactics such as team-building activities, open communication, and information exchange among team members.

Furthermore, the findings of the research show that the favorable association between teamwork and company performance exists independent of gender. This suggests that businesses should prioritize fostering gender-neutral teamwork techniques. Gender should not be used to determine teamwork effectiveness or the distribution of duties within teams. Organizations may harness their workers’ aggregate skills and knowledge to achieve increased performance by fostering an inclusive and diverse team environment in which all members are respected and their contributions are recognized.

The study's results have substantial practical implications for firms looking to improve their performance. Fostering teamwork behaviors is clearly important since it favorably influences company performance, accounting for 60.3% of the dependent variable. Creating a collaborative work atmosphere in which workers can efficiently collaborate, while also encouraging open communication and information sharing, may considerably increase overall performance. The research also demonstrates that the favorable association between teamwork and company performance exists regardless of gender, stressing the need of inclusive and fair teamwork methods. Organizations should emphasize diversity and inclusion, appreciating all team members’ contributions. As seen by the increased effect size at high leadership levels, effective leadership is critical in optimizing the benefit of teamwork. Investing in leadership development programs to enable and enhance teamwork is so critical. Recognizing and rewarding teamwork, establishing frequent evaluations and improvements, and continually assessing and improving teamwork procedures are critical steps for businesses to exploit the advantages of teamwork and drive improved performance.

6.3. Policy Contribution

The study’s findings on the effect of teamwork on firm performance offer valuable insights for policymaking. The results underscore a strong positive association between teamwork and organizational performance. This suggests that enhanced teamwork practices correspond to a 77.6% surge in firm performance. The model’s high R-squared value of 0.603 implies that teamwork explains 60.3% of the variance in firm performance. Consequently, for policymakers, this affirms the importance of promoting and fostering teamwork within organizations to bolster their overall performance. However, it’s worth noting that the study also highlights that teamwork alone does not account for the entirety of firm performance variations. Other factors, unexplored in this study, contribute to the remaining 39.7% of variance in firm performance. Policymakers should recognize the need for a comprehensive approach to performance enhancement that considers a broad range of factors beyond teamwork.

Moreover, the study’s examination of gender as a potential moderator in the relationship between teamwork and firm performance provides an intriguing dimension. The findings indicate that gender does not play a significant moderating role in this relationship. This implies that the positive impact of teamwork on firm performance remains consistent regardless of gender, and organizational policies promoting teamwork are beneficial for both male and female employees.

However, the analysis also reveals that the interaction between gender and teamwork does not significantly influence firm performance. Policymakers should acknowledge that while teamwork itself remains a powerful driver of performance, it might not have varying impacts based on employees’ gender orientations. This insight can inform policy decisions by highlighting the need to focus on teamwork as a universal enhancer of firm performance, irrespective of gender considerations.

To further enhance policymaking, the study suggests exploring conditional effects of various factors on firm performance, such as leadership levels. For instance, the findings indicate that the impact of teamwork on firm performance is more pronounced at higher levels of leadership. Policymakers could use this information to design targeted interventions, such as leadership training that emphasizes fostering teamwork skills among high-level executives.

Recommendation for Further Studies

Future studies should delve into the nuanced aspects of gender diversity within teams, exploring how cultural and contextual factors influence its impact on teamwork and organizational performance. Examining the interplay between leadership styles, communication patterns, and gender composition can provide deeper insights into optimizing team dynamics. Moreover, longitudinal research could shed light on the long-term effects of gender-inclusive strategies on
firm performance. Additionally, investigating the potential moderating roles of other demographic variables, such as age or ethnicity, could contribute to a more comprehensive understanding of teamwork’s influence across diverse organizational contexts.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

References


