

Influence of Organisational Agility on Project Performance in Rwanda

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Abstract:

The study examines the influence of organizational agility on the performance of the Strategic Alliance towards Decent Livelihoods for Tea Workers and Farmers (STA) project in four districts of Karongi, Ngororero, Nyamasheke, and Nyamagabe in Southern and Western provinces of Rwanda. The objectives were to establish the extent to which leadership agility, business agility and workforce agility influence the performance of the STA project. Leadership agility, business agility and workforce agility are the explanatory variables while project performance is the outcome variable. The study is underpinned by the dynamics capability and contingency theory as the theoretical foundations. The researcher used quantitative research design to establish the statistical significance of the relationship between organizational agility and project performance. The study used a purposively selected sample size of 59 respondents who included 2 donors, 10 project staff and 47 project volunteers. However, data was collected from 58 respondents as 1 donor did not provide data citing conflicting schedules. Data was collected by use of the structured questionnaire while data analysis was done using SPSS computer software. Descriptive method (mean and standard deviation) and inferential techniques (Pearson correlation and multiple linear regression) were applied in data analysis and interpretation. Findings show that leadership agility has no statistically significant effect on project performance ($\beta=.003, p>.05$). However, it is observed that business agility has a statistically significant effect on project performance in the STA project ($\beta=.328, p<.05$). The statistical test on human resource agility also shows that it has a statistically significant effect on project performance in the STA project ($\beta=.942, p<.05$). The research findings are expected to influence management in many organizations to adapt agile practices in order to suit the changing business environment.

Keywords:*Organizational agility, project performance, leadership agility, business process agility, human resource/workforce agility*

I. INTRODUCTION

The increasing rate of globalization has made the business operating environment to become more dynamic, uncertain, and competitive. In the same vein, the evolving technological change has also improved the spread and reach of information thus bringing new business opportunities such as speed, convenience, and efficiency (Teece, 2018). However, Teece (2014) indicates that this technological change has also brought threats and disruptions arising from swift changes in customer tastes, needs and preferences which compel businesses to constantly change their methods of operation.

In modern times, customers are becoming more knowledgeable, and their needs and preferences are constantly changing, with the current age of information abundance and speed providing new options sources for their purchase and consumption (Wafei, 2016). Products and service user-ratings and reviews are available instantly at the fingertip for consumer judgment and choice. The ability of customers and businesses to select the best business partners or service providers at short notice has created a competitive marketplace (Teece, 2018). More recently, business uncertainty and distortions have been compounded by the 2019 outbreak of the COVID-19 pandemic and the subsequent global lockdowns that closed both local and international organizations.

In order to remain competitive, and survive the recurring turbulences, organizations are being challenged to become agile and flexible in the way they deliver services and deal with their stakeholders (Teece, 2014). Organizational agility has been identified by different researchers as one of the key organizational management approaches that is critical for achieving and maintaining organizational performance. Zitkiene and Deksnys (2018) argue that agility enables organizations to be flexible and adapt to the evolving changes in market situations, customers' and business partners' expectations and plays a key role in ensuring better organizational and project performance.

The literature review on organizational agility (Wendler, 2013) shows that most available agility frameworks, theories and concepts are interrelated and there is no general consensus regarding the components in the construct of organizational agility. It is observed (Wendler, 2013) that organizational agility has various but similar themes including leadership agility, business agility, work force agility, cultural agility and manufacturing agility.

Leadership agility enables managers to maintain the momentum of leading the organization in a flexible and transformational manner while responding to the volatility within the business environment. The type of leadership inspires organizational teams to emulate their leader and respond to organizational challenges in a flexible manner (Erande & Verma, 2017). Business agility helps organizations to develop and maintain structural physical and operational flexibility and creativity while maintaining effective and efficient business models (Bourne, 2018). On the other hand, Muduli (2017) indicates that workforce agility enables organizational staff and teams to respond effectively, efficiently to organizational challenges while maintaining continuous learning on how to serve customers and other stakeholders better.

Empirical studies have also proved that organizational agility enhances organizational and project performance. For example, Wafei (2016) conducted a study on organizational agility as a key to organizational success at Menoufia University Hospital in Egypt. The researcher found that all participants were in unanimous agreement that agility as a management methodology directly affected different dimensions of organizational productivity, performance at Menoufia University Hospital in Egypt, thus improving the organizational and project performance. Similarly, Christopher and Towill (2017) observed that organizational agility was an important factor for improving the supply chain

management processes which helps to speed up customer service delivery as well as reduce lead time.

Despite the critical significance of organizational agility in enhancing organizational and project performance, frameworks governing the agility of organizations have not yet fully been defined, conceptualized (Zitkiene & Deksnys, 2018) and neither has the concept been embraced and adopted across many organizations. Many organizations are still managed based on traditional rigid models, methodologies, and policies and this tends to hinder service delivery and organizational projects' performance. Similarly, the role of this management methodology in ensuring organizational and project performance in Rwanda has not been extensively studied by researchers.

The Strategic Alliance towards Decent Livelihoods for Tea Workers and Farmers (STA) in Rwanda is a three-year project that is being implemented by GIZ in partnership with six international companies dealing in tea value chain (STA, 2019). These include Jacob Douwe Egberts, Marks and Spencer, Lavazza, Ostfriesische Tee Gesellschaft, Tata Global Beverages, Taylors of Harrogate, who are represented by The Ethical Tea Partnership – a not for profit organization advancing the sustainable development of tea value chain globally. It was launched on August 1, 2019 and is expected to run till July 31, 2022. It operates in the tea-growing districts of Karongi, Ngororero, Nyamasheke, and Nyamagabe districts in Southern and Western provinces of Rwanda (STA, 2019).

The STA is being implemented with the objectives of i) improving the livelihoods of smallholder farmers, ii) improving the livelihoods of estate workers in Rwanda, iii) improving sector coordination and strategies and iv) establishment of a steering structure and a project monitoring and evaluations system (STA, 2019). The project works with both the smallholder and tea estates, covering directly at least 4,500 (30% women) smallholder farmers and 32,000 individuals working in tea estates (STA, 2019).

At the end, the project is expected to contribute to improvement of beneficiaries' lives by supporting the attainment of the sustainable development goals (SDGs) of ending poverty, zero hunger gender equality, decent work and economic growth, climate action and promotion of partnership for the goals (STA, 2019). Like any other modern organization, it is hoped that organizational agility has the potential to fully improve the performance and success of STA project. It is on this basis that the researcher seeks to investigate the role of organizational agility in enhancing project performance

in Rwanda using the case of STA. To narrow the scope and conduct in-depth investigation, the researcher will explore three agility constructs in the organizational agility framework. These include leadership agility, business process agility and human resource/workforce agility.

Problem Statement

Organizational agility as a management approach for managing time-sensitive and risky organizational operations and projects in a volatile, complex, and uncertain business environment. This is due to the fact that, this management phenomena has proven effective for enhancing organizational and project performance, service quality, efficiency in making decisions as well as enhancing organizational and project performance (Salameh, 2014). Organizational agility is considered effective for lowering total costs of the organization and lead-time in service delivery because of its focus on customer engagement and feedback as well as its responsive capacity towards changes in the wider business environment (Ali, et al., 2015). It has also been commended by Muduli (2017) for improving project coordination, team cooperation and operational flexibility.

The STA is a big and complex project. It is being implemented by multiple stakeholder institutions (STA, 2019) whose organizational missions, visions and objectives are diverse and this has become a key source of conflicting interests and poor coordination among project leadership and workforce mainly due to detached teams has significantly affected project performance. There is also limited flexibility in internal working methods within GIZ and private partners which affected timely delivery of the project's core business activities. A combination of these organizational challenges has negatively hindered the performance of STA project.

The researcher believes that if organizational agility functions (focusing on leadership, workforce and business functions) are fully developed and embraced by all key stakeholders, the performance of STA project in Rwanda will be improved. However, organizational agility is a new concept in the Rwandan academia and its effect on project performance has not been fully and empirically researched based on Rwandan project case study and STA in particular. The current research seeks to address this research gap through investigating the effect of leadership, business and workforce agility on project performance using STA project in Rwanda as a case study.

Research hypotheses

This research was based on three research hypotheses as indicated below:

- **H1a:** Leadership agility has a significant effect on project performance in STA project
- **H1b:** Business agility has a significant effect on project performance in STA project
- **H1c:** Workforce agility has a significant effect on project performance in STA project

Significance of the study

The study will provide insights to STA management on how organizational agility affects project performance. This will motivate STA management to improve the organizational agility practices, processes, and methods. Secondly, the research will provide knowledge to other scholars studying about organizational agility and this will improve academic research in institutions of higher learning. Lastly, the research will also enable the researcher to acquire a Master of Business Administration degree from the University of Kigali.

Scope of the Study

This research focused on assessing the effect of organizational agility on project performance in Rwanda. Organizational agility represents the predictor variable while project performance represents the outcome variable. Geographically, the research was carried out southern and western provinces in the districts of Karongi, Ngororero, Nyamasheke, and Nyamagabe. The project focused on the period 2019-2022 because this period was aligned with the project duration.

II. LITERATURE REVIEW

Theoretical Review

This research is based on the dynamics capability theory and the contingency theory of management as analysed in the subsequent sections

Dynamics capability theory

The dynamic capabilities theory was developed by Teece in 1997 and it is important in the current research because it combines elements of organizational agility and firm competitiveness. According to Teece, et al. (1997), dynamic capabilities refers to the ability of an organization to create, reconfigure and assimilate towards a highly changing and competitive business environment. Teece (2014) further indicated that the dynamic capabilities of an organization revolve around three key aspects which are sensing to discover opportunities, seizing which involves strategizing to tap

into the opportunities, and transformation which focuses on continuous renewal of the organization's value.

Similarly, Teece (2018) further stressed that the dynamic capabilities theory was formulated to help organizations improve their adaptability and flexibility towards managing competition effectively in order to improve organizational performance and stakeholder satisfaction. However, the dynamics capability theory seems to focus on developing organizational agility strategies for countering the effect of competition from other firms. To this effect, there is high emphasis on profit making organizations as opposed to non-profit making organizations which form the focus of this research. Because of this weakness, the researcher adopts the contingency theory which applies in all organizational categories as the guiding theoretical foundation.

Contingent theory

The contingent theory suggests that the effectiveness of a leader or manager depends on management behaviour and the environment or situation (Islam & Hu, 2012). In other words, the way leaders manage organizations and projects should be flexible, adaptable and should evolve and change according to the changes in the business environment. The theory stresses that effective management is influenced by the managers' personality traits, organizational structure, and the environment in which the managers and organizations operate.

The theory further demonstrates that organizations are open systems which are constantly influenced by challenges which should be critically managed for the purpose of satisfying and balancing the needs of all teams and for adapting in line with environmental changes. Environmental changes can bring about opportunities and threats or weaknesses and strength which can be leveraged on by the organization to improve performance. As observed by Bridger (2012) the changing organizational environment requires leadership and human resources to become adaptable, flexible and agile in managing organizational processes and operations.

Furthermore, changes within in the organization require operational adaptation, flexibility, and situational-type leadership if they are to solve the challenges that affect them. For organizational operations to be agile, Teece (2017) stresses that leaders and human resources in the organization should have the capacity to sense opportunities and threats, the ability to mitigate threats and risks and seize opportunities and

then reconfigure organizational resources to sit the changing organizational environment.

The theory also stresses that the idea that there is one universal management approach applicable to all organizations in all settings is a myth because different situations require a different management style. This requires leadership agility where the leaders in project settings are able to adjust their leadership styles to suit the prevailing environmental threats and opportunities. To be able to suit every environment, leaders should adopt a hybrid of different leadership styles (such as autocratic, pacesetter, transformational coaching, democratic, laissez faire, affiliative and delegative) with each style suitable to its specific organizational situations.

In project settings, the contingency theory further demonstrates that the appropriate style of management or doing things is dependent upon the nature of activity/task and the operating environment. From this assumption, it is important for organizations to adopt flexible business plans, procedures and processes that will ensure that the organization's projects are implemented in a flexible manner while considering environmental factors.

In terms of project human resources/workforce, the contingency theory suggests that people with different personalities are necessary in different operating environments, and they should be managed in consideration of the environmental conditions. This assumption is supported by Karman (2019) who indicated that due to changes and turbulences in business environment, human resources should develop the resilience to adapt and become flexible in order to remain relevant in evolving workplace settings and processes.

Effective leaders and managers must, above all else, achieve good fits that align with the changes in the organizational environment (leadership agility). According to Joiner (2018) the ability of a leader to adapt with the changing environment is what distinguishes best-performing leaders and failures. A leader who is able to scan the environment, adopt strategies to mitigate risks and seize opportunities while realigning resources to meet market demands will successfully drive his/her organization to greater performance.

As emphasised by De Smet, et al. (2018) Sharifi and Zhang (2013), Sengupta and Masini (2008), Shariffi and Zhang (2013), Karman (2019), this seems to suggest that management of organizations should become strategically adaptable (leadership agility), establish

adaptable and flexible organizational operations and processes (business/operational agility) and train and empower their human resources to become flexible in the face of changing organizational environment (workforce agility).

Empirical Literature Review

Leadership agility and project performance

It has been observed that agile leadership positively affects the productivity of teams and project performance. For example, Spiegler, Heinecke and Wagner (2021) studied seventy-five (75) engineering and technology professionals from eleven (11) departments of Bosch in Germany and found that team members whose leaders had visionary outlook and empowered them to take up leadership responsibilities were more productive, and this enhanced their project performance.

Furthermore, research by Gren, et al. (2017) about agile team development found that contingency as a theoretical foundation for agile leadership was critical in promoting project performance. The contingent theory presupposes that each situation influences leaders to lead organizations in a different and unique way that is suitable for that particular situation. This means that leaders need to change their leadership style frequently based on the nature of the challenges they are faced with. The authors found that organizations that demonstrated agile leadership (with effective communication, empowering teams, and effective negotiation skills) scored highly on performance indicators of market expansion, customer loyalty and retention when compared to those whose leadership did not adapt to the changing situations.

In a related development, Thomas, et al. (2019) conducted an analysis of data generated from 432 organizations from the electronics sub-sector in Germany analysed and found that agile leadership especially (the ability to manage change or strategic vision) had a positive effect on innovativeness of the surveyed organizations which significantly improved the performance of the surveyed organizations. Specifically, leadership agility was found to influence the market size and improved organizational efficiency thus reducing operating costs. However, it was also revealed that for positive change to be achieved, the leader had to ensure that all his/her teams were in tune with the organizational vision, and in most cases, it was hard to achieve uniformity of vision.

Business agility and project performance

Studies have shown that business agility represented by organizational structures improve management effectiveness, commitment, and project performance. Robbins (2008) indicated that the commitment of management represents the desire by an individual manager to keep up with the organization and realize organizational vision. Using inferential statistics, Mon, et al. (2019) studied significance of the structure of the organization on project performance in Indonesia. The findings showed that the adaptability of organizational structure was instrumental in promoting the project performance in terms of profitability, efficiency and stakeholder satisfaction, results, and impact. However, Saeed and Rafique (2014) routine changes in decisions along the hierarchy chain of command caused organizational disruptions that negatively affected project performance in terms of reducing organizational efficiency and performance.

Operations flexibility is one of the key functions of business agility that drives operational effectiveness. Adaptability is an important factor for harmonizing the strategy for operations with that of marketing, thus enabling the organization to create new and customized products/services. Awad (2015) analysed the effect of organizational flexibility in aligning operational and marketing strategies and observed that 17% of the surveyed organizations were able to effectively respond to business volatility in terms of products innovations and customizations based on customers' needs. It was revealed that being flexible helped to address strategy operations thus ensuring speed of service delivery, efficiency and customer loyalty and satisfaction. All these contributed to the surveyed projects' performance.

In a related development, Ariss and Zhang (2012) empirically examined the effect of adaptability on production process in 31 manufacturing organizations in Michigan, United States and found that business flexibility in innovations and market minimized performance gaps between companies operating in the surveyed region. Using ordinary least squares regression, the researchers observed that business capability (technology adaptation, market research and response and culture of innovation) projected a statistically significant and positive effect towards project performance in terms of efficiency, service quality and market expansion.

Workforce/human resource agility and project performance

It has been argued that workforce agility is a combination of multiple human resources functions, practices and methods which include skills flexibility

and transferability, flexible workplace practices, teamwork and knowledge sharing and ability to make interpersonal relationships at work (Bridger, 2012). In line with this argument, Muduli (2017) studied 519 staffs in the services and manufacturing sectors in India with the goal of determining how workforce agility affected specific performance indicators as well as psychological empowerment. The findings revealed that the ability to acquire various skills and transfer those skills across different business functions was an important contributor to project efficiency, product quality and speed of service delivery which have an effect on project performance.

In the same vein, Muhamad and Behrooz (2014) studied how structures and organizational learning improved agility and project performance in the service industry in Pakistan between 2011 and 2013. Using a survey of 89 service organizations in Karachi, the researchers used linear regression to estimate the impact of workforce agility and found that workforce agility (as measured in terms of knowledge sharing/learning, teamwork and skills flexibility and transferability) had a statistically significant and positive effect on performance indicators of efficiency, service quality and market growth. The regression coefficients $\beta=.211$, $\beta=.138$ and $\beta=.161$ showed that a unit change in knowledge sharing/learning, teamwork and skills flexibility/transferability contributed up to 21.1%, 13.8% and 16.1% of the change in performance outcomes. However, these variables did not show any effect on project financial performance.

Conceptual framework

Figure 2.1 is the framework of research concepts which illustrates the hypothesized causal association between organizational agility and project performance as well as their research constructs. Organizational agility is the independent variable while project performance is the dependent variable.

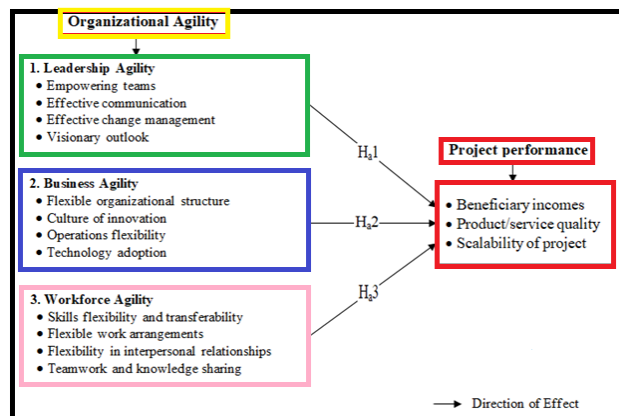


Figure 2.1: Hypothesized Conceptual Framework, Source: Author (Adapted from Literature).

III. METHODOLOGY AND INSTRUMENTS

Research Design

The researcher used a quantitative design which focuses on collection and analysis of numerical data. This method was preferred because the researcher was interested in giving a descriptive analysis of leadership agility, human resource agility, business agility and project performance as well as establishing the statistical significance of the findings. The quantitative approach used correlation design which helped to determine the statistical influence of organizational agility on performance of STA project in GIZ Rwanda.

Study Population

The target population of the study was 486 people. These included 4 donors, 10 STA project staff and 472 project beneficiaries. Table 3.1 shows the target population.

Population category	Population Size
STA project donors	4
STA projects' staff	10
STA project beneficiaries and volunteers	472
Total	486

Table 3.1: Target Population of the Respondents

Sampling

Sample Size

The sample size was 59 people who were selected by using purposive sampling technique. These included 2 donors, 10 project management and staff and 47 project beneficiaries who work with the project staff at grassroots level as volunteers. Table 3.2 shows the total sample size and sampling techniques.

Population category	Sample Size	Sampling techniques
Donors	2	Purposive
Projects staff	10	Purposive
Project volunteers	47	Purposive
Total	59	

Table 3.2: Sample Size and Sampling Technique

Sampling Techniques

The researcher used purposive sampling technique to select participants. Purposive sampling is a method of sampling where respondents are purposively selected based on their unique characteristics which are preferred by the researcher. For the purpose of this study, the 2 project donors, 10 project staff, and 47 project volunteers were selected based on the degree of their engagement in the project implementation. The fact that these groups are actively involved in the implementation of the STA project gives them an advantage in understanding the project and its implementation processes better than other groups in the population.

Data Collection methods and instruments

The researcher used a structured questionnaire to collect data from respondents. The questionnaire was used during primary data collection from the selected project beneficiaries and staffs. It was constructed on a 5-point likert scale where: 5=Strongly Agree, 4=Agree, 3=Neutral, 2=Disagree and 1=Strongly Disagree. The 5-point scales are preferred because they are easy to score and provide data in a short time. The questionnaire survey is preferred because it collects information from many respondents in a projected time frame. Only close-ended questions were used in the questionnaire because they are easy to answer.

Reliability and validity

The validity is the process by which person evaluate if the contents of questionnaires are related with the research purpose and validity is measured with the focus of materials procedures for all issues to be resolved (Bloomfield & Fisher, 2019). It is monitored and assessed by the supervisor and make sure if the all data collection materials contain the all items related with study objectives and questionnaire drafted in manner it contain enough question for each objectives and meet the research purpose.

Reliability is like the evidences of materials to give the similar results while administered to different respondents. To ensure the instrument reliability, pilot-testing of the questionnaire was done using 3 groups of 4

students each after which the questionnaire was administered to them. The consistency in their responses proved that the questionnaire was reliable/consistent in generating similar findings.

Data processing

Before the data was analysed, it was cleaned, coded, and entered into the computer using the statistical package for social sciences (SPSS). Through this process, the data was properly organized, and errors were eliminated thus making it easy for data analysis and interpretation to derive conclusions about the influence of organizational agility on the performance of the STA project.

Data Analysis

Data analysis was done based on both quantitative and qualitative approached. The quantitative approach adopted descriptive analysis and inferential analysis.

Descriptive analysis

Descriptive statistics was used to describe the basic features of the data in a study, because they provide simple summaries about the sample and the measures/response items. In other words, descriptive statistics was preferred because they present lots of quantitative measures/descriptions in a manageable form. The researcher used number (N), mode, means and standard deviation (SD) to describe the nature of responses on each of the response items under the study variables. The use of these descriptive functions was preferred because according to Bryman, et al. (2019), mean, standard deviation and mode are the appropriate and commonly used methods of descriptive analysis for likert scale data.

Inferential analysis

The researcher also conducted a Pearson correlation and multiple linear regression analyses in order to determine the relationship and statistical significance of the relationship between organizational agility and project performance. The multiple linear regression model used for analysis and hypothesis testing for this study was adapted from Hutcheson (2011) as indicated below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Where:

Y=Project performance

β_0 =Constant

$\beta_1 \dots \beta_3$ =Regression parameters/coefficients

X₁=Leadership agility

X₂=Business agility

X₃=Workforce/human resource agility
 ε=Error term

IV. DATA ANALYSIS, INTERPRETATION AND FINDINGS

Background characteristics of respondents

The researcher investigated the background characteristics of respondents which included gender, level of education and period of collaboration/work with the STA project. This was aimed at establishing whether respondents possess the adequate profiles for providing valid and reliable information/data. Table 4.1 shows the findings.

Variable	Response options	Frequency	Percent
Respondent's gender	Male	26	44.8
	Female	32	55.2
	Total	58	100.0
Level of education	Primary level	17	29.3
	Secondary level	29	50.0
	University	12	20.8
	Total	58	100.0
Work/partnership period	0-2 years	13	22.4
	2-4 years	45	77.6
	Total	58	100.0

Table 4.1: Background Characteristics of the Respondents

As Table 4.1 shows, it can be observed that there was fairness in gender equality (44.8% male compared to 55.2% female respondents). This suggests that STA project is compliant with Rwanda government's policy of strengthening gender equality which improves project performance. Since women pay more attention to details, it can also be concluded that their participation in the study provides confidence that the data collected was complete and exhaustive. Regarding education, findings show that 70.8% had completed secondary and university levels of education. This indicates that respondents had adequate literacy to enable them to understand the research concepts and questions thus improving the validity of the data provided. In terms of duration of work and collaboration, 77.6% revealed that they had worked/collaborated with the STA project for 2-4 years compared to 22.4% who had worked/collaborated with the project for 0-2 years. This indicates that majority of respondents had enough experience with the STA project thus improving the researchers' confidence that the data provided for this research was valid and reliable.

Descriptive statistics

The descriptive statistics analyses the data with the purpose of describing the nature of the data and status of the phenomenon being investigated. The descriptive analysis for this research focusses on the: i) effect of leadership agility on project performance in STA project, ii) effect of business agility on project performance in STA project, iii) effect of workforce agility on project performance in STA project, and iv) performance of the STA project.

Status of leadership agility in the management of STA project

Leadership agility refers to the ability of a firm's top leadership/management to maintain flexibility while facing new developments, to continuously make adjustments in the firm's strategic direction and to develop new and innovative ways of creating market value that improves the performance of the firm (Yakov and Shlomo, 2014). Using a five-point likert scale, the investigated the status and nature of leadership agility and whether it was effective in facilitating project competitiveness. Table 4.2 shows the findings.

Response Item	N	Mean	SD
LA1 - Our project management gives us autonomy	58	1.121	1.299
LA2 - There is delegation of authority in management of the project	58	3.931	1.268
LA3 - The management can easily identify and collaborate with project stakeholders	58	2.207	1.553
LA4 - The organizational leadership cultivates a culture of dialogue	58	3.948	1.303
LA5 - Our leadership is able to analyze and solve organizational and project problems	58	4.034	1.228
LA6 - Our project leaders seek feedback from staff	58	4.483	.922
LA7 - Our project leaders continuously learn to develop new skills and knowledge	58	4.414	.992
LA8 - Our project leaders are able to articulate and share organizational vision	58	4.190	1.146
LA9 - Our project leaders motivate us to love our work and be productive	58	4.224	1.312
LA10 - Our project leaders are charismatic/inspirational	58	4.362	1.021
LA11 - Our project leaders exercise power and influence	58	4.138	1.206
LA12 - Our project leaders have emotional connection with subordinates	58	3.965	1.283
LA13 - Our project leaders are open to ideas and influence of others	58	4.103	1.165

Table 4.2: Status of leadership agility in the management of STA project

According to Table 4.2, it is observed that respondents disagreed with the statement that project management gave them autonomy (Mean=1.121, SD=1.299). This indicates that STA project teams did

not have the freedom to work independently. In item LA2, respondents agreed that there was delegation of authority in management of the project (Mean=3.931, SD=1.268). This indicates that management reduced work overloads to focus on strategic activities of the STA project, thus improving the possibility of success. Furthermore, item LA3 shows that respondents were neutral to the statement that management can easily identify and collaborate with project stakeholders (Mean=2.207, SD=1.553). This suggests that respondents were less inclined to express their opinions on this item. Regarding conflict resolution, respondents in item LA4 agreed that organizational leadership cultivates a culture of dialogue (Mean=3.948, SD=1.303). This indicates that STA project is committed to workplace harmony among staffs which strengthens project performance. In terms of organizational assessment, it is observed in item LA5 where respondents agreed that STA project leadership was able to analyze and solve organizational and project problems (Mean=4.034, SD=1.228). This indicates management's capability to assess organizational environment and respond accordingly to mitigate risks and exploit opportunities. In item LA6, respondents also agreed that project leaders sought feedback from staff (Mean=4.483, SD=0.922). This indicates a strong culture of accountability. In regard to continuous skills development, respondents also agreed that project leaders continuously learned to develop new skills and knowledge (Mean=4.414, SD=0.992). This indicates that the STA project management has the capability and willingness to continuously acquire knowledge. In terms of common vision, respondents also agreed that STA project leaders were able to articulate and share organizational vision (Mean=4.190, SD=1.146). This indicates that project management was committed to ensuring that the project teams have one common vision. Regarding staff incentives, respondents also agreed that project leaders motivated them to love their work and be productive (Mean=4.224, SD=1.312). This suggests that STA project management was committed to ensuring staff satisfaction across the project teams. Concerning leadership influence, respondents also agreed that STA project leaders were charismatic/inspirational (Mean=4.362, SD=1.021). This indicates that management was able to inspire their subordinates to a desired course of action towards fulfilling project goals. In terms of authority and control, respondents also agreed that STA project leaders exercised power and influence (Mean=4.138, SD=1.206). This indicates that they were able to control the

behaviors of their subordinates and ensure commitment and accountability. Furthermore, respondents agreed that STA project leaders had emotional connection with subordinates (Mean=3.965, SD=1.283). This suggests the existence of strong interpersonal relationships between staff and management. In terms of decision flexibility, respondents also agreed that STA project leaders were open to ideas and influence of others (Mean=4.103, SD=1.165). This indicates the flexibility of project leaders to learn from others thus increasing the potential for idea diffusion and project success.

Human resource/workforce agility in the management of STA project

The agility of the workforce/human resource refers to the ability of organizational staff/teams to adapt and evolve in response to the changing needs of organizational processes, goals and the external environment. HR agility is important for organizational competitiveness because it enables HR to respond to the challenges and changes effectively and quickly regarding business needs, and updates, workplace disruptions and staff expectations. Using a five-point likert scale, the investigated the status and nature of HR agility and whether it was effective in facilitating project performance. Table 4.3 shows the findings.

Response Item	N	Mean	SD
HR1 - I participate in project decision-making	58	1.879	1.325
HR2 - I am knowledgeable and skilled about this project	58	4.138	1.357
HR3 - I am motivated to work with this project	58	4.379	1.023
HR4 - I exercise flexibility at work in this project	58	4.224	1.312
HR5 - I have multiple skills that are relevant to this project	58	1.810	1.177
HR6 - I am empowered by the project management	58	4.552	1.062
HR7 - I am fluent in all languages spoken by project stakeholders	58	4.086	1.274
HR8 - I have top management support on this project	58	4.241	1.302
HR9 - I am able to exploit my knowledge and skills to improve the project	58	4.362	1.021
HR10 - There is teamwork in our project processes	58	4.172	1.352
HR11 - I participate in continuous learning about best practices for project management	58	4.362	1.021
HR12 - I am comfortable with workplace changes and new ideas	58	4.465	0.941
HR13 - I am flexible to switch tasks, jobs and work departments/stations	58	4.534	1.063

HR14 - I am comfortable with cross-functional teams and collaborative ventures with other departments, projects and organizations	58	4.241	1.189
HR15 - I take personal initiative to understand my project, organization and other organizations	58	4.241	1.302
HR16 - I have multiple relevant IT skills that are relevant to this project	58	4.362	1.021
HR17 - I take short time to adapt to new working environment/set up	58	4.172	1.352

Table 4.3: Human resource agility in the management of STA project

According to Table 4.3, in item HR1 respondents disagreed with the statement that they participated in project decision-making (Mean=1.879, SD=1.325). This indicates that there is limited stakeholder participation in STA project's key decision-making processes. In terms of competences, as shown in in item HR2, respondents agreed that they were knowledgeable and skilled about the STA project (Mean=4.138, SD=1.357). This indicates that project teams have the necessary competences to ensure better performance of the project. In item HR3, respondents also agreed that they were motivated to work with the STA project (Mean=4.379, SD=1.023). This suggests that STA project management prioritizes staff satisfaction to improve their productivity. Regarding flexibility of personnel, respondents also agreed that they exercised flexibility at work in the STA project (Mean=4.224, SD=1.312). This suggests that granting flexible work schedules to employees minimizes stress which improves team performance and overall project performance. In regard to variety of skills, respondents disagreed with the statement that they had multiple skills that are relevant to this project (Mean=1.810, SD=1.177). This may indicate that there were limited opportunities for skills transfers across project teams. In terms of empowerment, respondents also agreed that they were empowered by the project management (Mean=4.552, SD=1.062). This suggests that STA project management facilitates STA project staffs to exploit their full potential at work. In regard to languages, respondents also agreed that they were fluent in all languages spoken by project stakeholders (Mean=4.086, SD=1.274). This indicates that there is effective communication between project implementation teams and stakeholders. It is further observed that respondents agreed that they had the support of top management on the STA project (Mean=4.241, SD=1.302). This indicates that project staff receives the necessary support to improve performance. Regarding knowledge utilization, respondents also agreed that they were able to exploit their knowledge and skills to improve the project

(Mean=4.362, SD=1.021). This indicates that project staffs fully exploited their competences for the benefit of the STA project. In terms of collaboration among staffs, respondents also agreed that there was teamwork in the STA project processes (Mean=4.172, SD=1.352). This indicates that staffs were helping one another and sharing skills and knowledge to deliver quality project outcomes. In terms of employee development programs, respondents also agreed that they participated in continuous learning about best practices for project management (Mean=4.362, SD=1.021). This indicates that the organization gives value to skills development. Regarding exchange of ideas, respondents also agreed that they were comfortable with workplace changes and new ideas (Mean=4.465, SD=.941). This is an important indicator for staff innovation which enhances project performance. In terms of changing jobs, respondents also agreed that they were flexible to switch tasks, jobs and work departments/stations (Mean=4.534, SD=1.063). This suggests that STA teams were highly adaptable in executing their work. Furthermore, respondents also agreed that they were comfortable with cross-functional teams and collaborative ventures with other departments, projects and organizations (Mean=4.241, SD=1.189). This indicates STA project staffs were flexible and willing to learn from the peers in other departments, projects and organizations. In regard to personal innovation, respondents also agreed that they too personal initiative to understand the project, organization and other organizations (Mean=4.241, SD=1.302). This indicates that STA project staffs are curious to learn new ways and best practices of improving their performance on the project. Multiplicity of skills is also important in ensuring project performance. For that matter, respondents agreed that they had multiple IT skills that were relevant to the STA project (Mean=4.362, SD=1.021). This suggests that STA project teams were flexible to switch their skills between jobs thus improving their productivity for project performance. It is also observed that respondents agreed that they take short time to adapt to new working environment/set up (Mean=4.172, SD=1.352). This indicates that STA project staffs can easily adapt to all work environments where the project operates, thus improving the success rate and performance of the project.

Business process agility in the management of STA project

Business agility refers to the capacity of a firm to adapt its processes, operations, technology and information with the goal of aligning it with regularly

evolving organizational requirements brought by business' environmental dynamics, competitive threats and organizational volatility. For the purpose of this research, the researcher used a five-point likert scale to investigate the nature of business process agility in STA project with the aim of determining its effect on project performance. Table 4.4 shows the findings

Response Item	N	Mean	SD
BA1 - The organization has a culture of continuous learning	58	4.259	1.101
BA2 - The organization has flexible stakeholder service delivery systems	58	4.465	1.046
BA3 - The organization has a flexible organizational culture	58	2.155	1.105
BA4 - The organization has flexible organizational policies	58	4.293	1.092
BA5 - Our organization has effective stakeholder collaboration	58	4.448	1.079
BA6 - The organization has the ability to exploit opportunities	58	4.310	1.079
BA7 - The organization has developed ability to respond to threats	58	4.638	0.852
BA8 - Our transaction processes are automated	58	1.724	1.121
BA9 - We have an adaptable organizational structure	58	4.569	0.920
BA10 - Our organization's decision-making is decentralized	58	1.552	1.079
BA11 - We have a culture of open information sharing in our project	58	4.362	1.021
BA12 - We have effective collaboration with our project stakeholders	58	4.052	1.432

Table 4.4: Business process agility in the management of STA project

As Table 4.4 shows, it can be observed in item BA1 that respondents agreed that STA project has a culture of continuous learning (Mean=4.259, SD=1.101). This suggests that STA project management is committed to lifelong learning and skills development of its project staff members. Furthermore, item BA2 shows that respondents agreed that STA project had flexible stakeholder service delivery systems (Mean=4.465, SD=1.046). This indicates that the STA project delivers services in a flexible manner thus enabling better performance and stakeholder satisfaction. In item BA3, it is observed that respondents were neutral to the statement that the organization has a flexible organizational culture (Mean=2.155, SD=1.105). This suggests that they were not comfortable to reveal their opinion on the question. In regard to flexible policies, respondents agreed that the organization has flexible organizational policies (Mean=4.293, SD=1.092). This indicates that STA project management is committed to increase employee happiness, engagement and morale which are key predictors of employee productivity and project performance. Regarding item BA5, data shows

that respondents agreed that the organization has effective stakeholder collaboration (Mean=4.448, SD=1.079). This illustrates STA's effective stakeholder management and communication processes. In regard to opportunity exploitation, respondents agreed that the organization has the ability to exploit opportunities (Mean=4.310, SD=1.079). This is indicative of STA's capacity to leverage on the available opportunities for improving project performance. In terms of risk mitigation, respondents agreed that the organization has developed ability to respond to threats (Mean=4.638, SD=.852). This suggests that STA has the capacity to control projects risks and to successfully navigate through if they occur. In terms of ICT usage, respondents disagreed with the statement that their transaction processes were automated (Mean=1.724, SD=1.121). This indicates the likelihood of delays in core project activities where ICT is required such as inventory management, payment of bills, etc. In item BA9, respondents agreed that the organization has an adaptable organizational structure (Mean=4.569, SD=.920). This indicates that management and staff members can easily switch jobs in order to ensure that activities that demand greater effort are easily executed through collaboration. In other words, a flexible organizational structure offers potential for HR innovation since people are not restricted to departments and can move easily to share knowledge and make decisions. In regard to decision-making, respondents disagreed with the statement that the organization's decision-making is decentralized (Mean=1.552, SD=1.079). This indicates over centralization of power and authority that has the potential to stifle decision-making among subordinate staff. In terms of team openness, respondents agreed that there was a culture of open information sharing in the STA project (Mean=4.362, SD=1.021). This indicates the potential for effective knowledge sharing that enhances staff productivity in the organization. Regarding stakeholder cooperation, respondents agreed that they had effective collaboration with STA project stakeholders (Mean=4.052, SD=1.432). This indicates that STA project staffs had a positive working relationship with stakeholders thus increasing the potential for stakeholder support to the project and enhancing project performance.

Performance of the STA project

Project performance refers to the extent to which a project is successful in achieving its set goals and satisfying the needs and expectations of stakeholders. Using a five-point likert scale the researcher investigated

the performance of the STA project based on four indicators of household income, project scalability, stakeholder participation, and project relevance. Table 4.5 shows the findings.

Response Item	N	Mean	SD
PP1 - Household incomes of the project's targeted beneficiaries have significantly improved	58	4.241	1.097
PP2 - Project interventions have been expanded beyond its initial areas of operation	58	4.414	1.093
PP3 - All key project stakeholders have been involved in key project decision-making processes	58	4.327	1.032
PP4 - Project interventions are relevant to government policies and partner interests	58	4.138	1.290

Table 4.5: Performance of the STA project

As Table 4.5 shows, it is observed that respondents agreed that the household incomes of the targeted STA beneficiaries have significantly improved (Mean=4.241, SD=1.097). This can be attributed to the project's focus on income diversification activities, thus indicating that the STA project is on the right track. Furthermore, respondents agreed that project interventions have been expanded beyond its initial areas of operation (Mean=4.414, SD=1.093). This signifies the project's effectiveness in scalability of its operations thus pointing to the potential for increased coverage of more beneficiaries. Regarding stakeholder involvement, respondents also agreed that all key project stakeholders have been involved in key project decision-making processes (Mean=4.327, SD=1.032). This shows that stakeholders' views and suggestions have been considered by the project implementers to improve their satisfaction. In terms of relevance, respondents also agreed that interventions of the STA project were relevant to government policies and partner interests (Mean=4.138, SD=1.290). This indicates that the STA project is in harmony with government policy of improving people's living standards by increasing their incomes and general welfare.

Inferential statistics

Inferential statistics and analysis was also used for drawing conclusions about the population by assessing random samples. This was done to facilitate research generalizations about the study population. The methods used for inferential analysis for this study include Pearson correlation and multiple linear regression analysis or ordinary least squares method.

Pearson correlation

Table 4.6 shows the Pearson correlation matrix which illustrates the nature and strength of the relationship/association between leadership agility, human resource/workforce agility, and business agility on one hand and project performance.

Table 4.6: Pearson correlation matrix

Variable	n	M	SD	X ₁	X ₂	X ₃	Y
Leadership agility (X ₁)	58	3.9	.69	-			
Human resource agility (X ₂)	58	4.1	.74	.812**	-		
Business agility (X ₃)	58	3.7	.49	.567**	.745**	-	
Project performance (Y)	58	4.3	.74	.630**	.801**	.877**	-

** Correlation is significant at the .01 level (2-tailed).

As Table 4.6 shows, it is observed that leadership agility (X1) was positively correlated with project performance (Y) with a coefficient of (r=.630**), and the association was statistically significant (p<.01). This shows that as leadership agility changes, project performance also changes and vice versa. Similarly, it is observed that the performance (Y) of STA project is also positively related to human resource agility (X2) with a correlation coefficient (r=.801**). This association is also statistically significant (p<.01). This shows that as human resource/workforce agility changes, project performance (Y) also changes and vice versa. In the same vein, a positive relationship was also observed between project performance (Y) and business agility (X3) with a correlation coefficient of (r=.877**), and the relationship was statistically significant (p<.01). This demonstrates that a change in business process agility is followed by a corresponding change in project performance outcomes and vice versa.

Regression analysis

Multiple linear or ordinary least squares regression was used to determine the contribution of each of the predictor variables: leadership agility, human resource/workforce agility and business agility towards project performance. The regression model presents the model summary, analysis of variance and regression coefficients.

Table 4.7: Regression Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.905 ^a	.819	.809	.322

a. Predictors: (Constant), Business agility, Leadership agility, Human resource/workforce agility

b. Dependent Variable: Project performance

As illustrated in Table 4.7, $R=.905$ represents the combined correlation coefficient for the three predictor variables which show that there is a correlation between organizational agility variables: business agility, leadership agility, human resource/workforce agility on one hand and project performance. The adjusted R square of .809 shows that 80.9% of the variation in project performance outcomes can be attributed to business agility, leadership agility and human resource/workforce agility.

Table 4.8: Analysis of variance (ANOVA^a)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.398	3	8.466	81.468	.000 ^b
	Residual	5.612	54	.104		
	Total	31.010	57			

a. Dependent Variable: Project performance

b. Predictors: (Constant), Business agility, Leadership agility, Human resource/workforce agility

The ANOVA table is used to determine whether the regression model is suitable and significant enough to correctly determine the statistical outcomes. According to Table 4.8, it can be observed that the regression model used fits the data very well and can significantly ($p<.000$) and correctly predict the regression outcomes.

Table 4.9: Regression Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.606	.340		-1.780	.081
	LA	.003	.108	.003	.026	.979
	HR	.328	.125	.329	2.630	.011
	BA	.942	.130	.631	7.225	.000

a. Dependent Variable: Project performance

Table 4.9 shows the regression coefficients for the leadership agility (LA), human resource agility (HR) and business process agility (BA). The coefficient ($\beta=.003$, $p>.05$) shows that holding other factors constant, a unit change in LA results into 0.3% change in project performance of the STA project in GIZ. Similarly, $\beta=.328$, $p<.05$ for HR shows that holding other factors constant, a unit change in HR contributes up to 32.8% variation in project performance of the STA project in GIZ. Lastly, $\beta=.942$, $p<.05$ for BA shows that holding other factors constant, a unit change in BA contributes up to 94.2% of the change in project performance of the STA project in GIZ.

Hypothesis testing

The first hypothesis (H1a) states that LA has a significant effect on project performance in STA project. However, findings show that LA has no statistically

significant effect on project performance ($\beta=.003$, $p>.05$). Therefore, this research fails to accept the first hypothesis.

The second hypothesis (H1b) states that BA has a significant effect on project performance in STA project. Regression coefficients and the probability value ($\beta=.328$, $p<.05$) show that indeed BA has a statistically significant effect on project performance in the STA project. The research therefore fails to reject the second hypothesis.

The third hypothesis (H1c) states that HR has a significant effect on project performance in STA project. This is consistent with the regression coefficients and the probability value ($\beta=.942$, $p<.05$) which showed that HR has a statistically significant effect on project performance in the STA project. The research therefore fails to reject the third hypothesis.

Discussion of findings

Findings for the first hypothesis show that leadership agility has no statistically significant effect on project performance of the STA project in GIZ in 2019-2022. This observation is in sharp contrast with Thomas, et al. (2019) whose analysis of data generated from 432 organizations from the electronics sub-sector in Germany found that agile leadership had a positive and significant effect on staff innovativeness which significantly improved the performance of the surveyed organizations. However, it was also revealed that for positive change to be achieved, the leader had to ensure that all subordinates were in tune with the organizational vision, and in most cases, it was hard to achieve uniformity of vision.

Nevertheless, findings for the second hypothesis revealed that business process agility had a statistically significant effect on project performance in the STA project between 2019 and 2022. Similar studies have shown that business agility represented by organizational structures improve management effectiveness, commitment, and project performance. Robbins (2008) indicated that the commitment of management represents the desire by an individual manager to keep up with the organization and realize organizational vision. Using inferential statistics, Mon, et al. (2019) studied significance of the structure of the organization on project performance in Indonesia. The findings showed that the adaptability of organizational structure was instrumental in promoting the project performance in terms of profitability, efficiency and stakeholder satisfaction, results, and impact.

Lastly, results for the third hypothesis also show that human resources/workforce agility had a statistically

significant effect on project performance in the STA project between 2019 and 2022. This is corroborated by Muduli (2017) who studied 519 staffs in the services and manufacturing sectors in India with the goal of determining how workforce agility affected specific performance indicators as well as psychological empowerment of employees. The findings revealed that the ability to acquire various skills and transfer those skills across different business functions was an important contributor to project efficiency, product quality and speed of service delivery which have an effect on project performance.

V. SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary of findings

Effectiveness of leadership agility in STA project

Findings show that the leadership agility of STA project top management was favorable. Data shows effective delegation, stakeholder collaboration, culture of dialogue, creativity, sharing of vision, staff motivation and ability to learn from others.

However, the project managers did not give employees enough autonomy to make independent decisions and this presents potential for bureaucracy, and this negatively affects project implementation and stakeholder satisfaction.

The test of the hypothesis also shows that even though leadership agility has a positive effect on the performance of the STA project, it was not statistically significant.

Effectiveness of human resource/workforce agility in the STA project

Data on the effectiveness of HR agility shows that staff are skilled, motivated, flexible, empowered, fluent in communication, supported by top management, have teamwork, lifelong learners, and take personal initiative to improve their productivity.

Nevertheless, it is observed that majority did not have the opportunity to participate in key decision-making processes of the project. This hinders participatory management and stifles the flow of ideas between staff and management

The inferential statistics further shows that there was a positive relationship between HR agility and project performance and the relationship was statistically significant.

Effectiveness of business agility in the STA project

Data shows that the agility of project's business operations was effective in enhancing performance. There was a culture of continuous learning, flexible

stakeholder service delivery systems, flexible organizational policies, effective stakeholder collaboration, staff creativity, adaptable organizational structure, open information sharing and effective collaboration with project stakeholders.

However, findings also show that transaction processes are not fully automated, and this hinders effective project implementation and service delivery across functions where automation is required. It is also observed that the organization's decision-making is not decentralized and this over centralization of authority affects decision-making.

The inferential statistical analysis further shows that there was a positive relationship between business process agility and project performance and the relationship was statistically significant.

Conclusions

The study examined the effect of organizational agility on the performance of projects using the STA project as a case of study.

It was intended to establish how leadership agility, human resource agility and business process agility influenced project performance between 2019 and 2022.

The study observes that the adaptability of STA project leadership is effective in facilitating project adjustments and change in uncertain environments.

Furthermore, the human resources of the STA project exhibit high level of flexibility and are able to adapt to different work settings and this favors project performance.

In regard to business process agility, it is observed that this process was effective, and operations of the project are functioning properly thus creating potential for better project outcomes.

The research argues that leadership agility has a positive effect on the performance of STA project between 2019 and 2022 but this effect is not statistically significant.

It is also important to note that HR agility has a positive and statistically significant effect on the performance of the STA project between 2019 and 2022.

Similarly, business process agility has a positive and statistically significant effect on the performance of the STA project between 2019 and 2022.

Nevertheless, there is limited employee autonomy and majority of staff do not have the opportunity to participate in key decision-making processes of the project. There is also limited project automation and over centralization of decision-making. These issues hinder effective project implementation.

However, it is important to note that organizational agility, the ability of an organization to adapt to uncertainties in the environment has enabled the STA project to fulfill some of the key project goals.

Recommendations

The management of STA project should give employees full autonomy to ensure that they can independently plan and execute their work tasks. This will improve staff creativity, innovation, satisfaction, and overall staff empowerment.

The management of STA project should facilitate staff participation in key decision-making processes of the project in order to strengthen project ownership and commonality of organizational vision. This will improve efficiency and sharing of ideas which is a critical component for effective stakeholder management.

The management of STA project should fully automate its key functions in order to improve efficiency and service delivery.

There is need for decentralization of decision making in the STA project in order to eliminate bureaucracy and improve the effectiveness of implementation. This will enable project staff to make independent decisions without having to wait for top management.

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