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EFFECT OF PROJECT MANAGEMENT PRACTICES ON THE PERFORMANCE OF PHARMACEUTICAL MULTINATIONAL CORPORATIONS IN RWANDA (2018 - 2021): LOCAL STAKEHOLDERS PERCEPTION PERSPECTIVE.

Case of Rwanda Association of Pharmaceutical Importers (AIGPHAR) and Rwanda Medical Representatives Organization (RMRO).

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A DISSERTATION SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF PROJECT MANAGEMENT OF UNIVERSITY OF KIGALI

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ABSTRACT

*The research project entitled "**Effect of Project Management Practices on the Performance of Pharmaceutical Multinational Corporations in RWANDA (2018-2021); Local Stakeholders Perception Perspective. Case of AIGPHAR (Rwanda Pharmaceutical Importers Association) and RMRO (Rwanda Medical Representative Association)**" was guided by the following objectives: To determine the effect of project management practices on performance of Pharmaceutical Multinational Corporations in RWANDA. The research focused on the practices as Project planning management, Project communication management, Project risk management and Project Monitoring and evaluation management. 3 Theories, resource-Based theory, contingency theory and systems theory was also used to underlie the explanation of the effect of project management practices and performance of Pharmaceutical Multinational Corporations in Rwanda. The study used both descriptive and explanatory research design. The study targeted 104 population that are local stakeholders of Pharmaceutical Multinational Corporations in RWANDA, composed by 57 members of RMRO, association of Medical representatives that are local employees of MNCs and 47 members of AIGPHAR, that represent and distribute MNCs products, in wholesale pharmacy establishments. Questionnaire and documentary review were used as methods of data collection. Descriptive and inferential statistic such as multiple linear regressions was used to analyze data. The findings revealed that project planning practices have significance positive effect on performance of multinational pharmaceutical Corporations in Rwanda as indicated by $\beta_1= 0.302$, p-value=0.000<0.05, t= 4.373. In contrary, the findings revealed that project communication management practices have insignificant positive effect on performance of multinational pharmaceutical Corporations in Rwanda as indicated by $\beta_2= 0.007$, p-value=0.923>0.05, t= 0.097. Moreover, the findings discovered that risk management practices have significant positive effect on performance of multinational pharmaceutical Corporations in Rwanda as indicated by $\beta_3= 0.156$, p-value=0.003<0.05, t= 3.101. The results revealed that monitoring and evaluation have significant positive effect on performance of multinational pharmaceutical Corporations in Rwanda as indicated by $\beta_3= 0.340$, p-value=0.000<0.05, t= 6.887. The study concluded that, at 95% of confidence interval, 56.5% of the performance of pharmaceutical multinational Corporations in Rwanda is provided by project management practices, such as, decreasingly, monitoring and evaluation practices, risk management practices, project planning practices and lastly and not significantly by project communication practices.*

1. <u>INTRODUCTION</u>

Pharmaceuticals contribute to the good quality life and wellbeing of worldwide population. The current medicine homologation, registration and marketing process requires practical skills, high organizational structure and strong financial capital, what makes a pharma industry to be a global multimillion USD industry. (Timmermans & Sharma, 2016). Pharma industry, as other industry, to be successful and competitive, it has to develop and implement practices and projects that would relief a positive market position. (Cherutich, 2017).

Project Management strategy is concerned with the basis on which a business unit might achieve competitive advantage in its origin market and expand beyond it. (Cherutich, 2017). Hence, many of the top pharma industry operators have applied project management practices and expanded/extended their manufacturing, distribution and sales operations, out of their starting original countries, thus upgrading their status to Multinational corporation Status; Multinational corporation being a business that operates in many different countries at the same time (Birinci & Eren, 2017).

Various study findings revealed influence of project management practices and performance of projects. Analysis of ten surveys in the United Kingdom demonstrated dissatisfaction over project success and suggested necessary improvement of success rates, (Serra, 2012). Moreover, in Malaysia, in road construction industry, it was demonstrated that limitations in project management practices, due to financial limitations or lack of expertise, were leading to project failures (N.A Haron, 2017).

Daniel Ofori in Ghana in 2013, revealed that best project management practices, especially documentations and dissemination of critical success factors, influence the success and quality of project. (D. Ofori, 2013). In developing countries like Kenya most of the problems affecting the desired effect on the pharmaceutical industry are related to the project execution or practice challenges, namely, the difficulty in achieving the main objectives of the project. They can't achieve its objectives in cost, time, quality and other targets due to poor practices and ineptitudes in process execution. (Unido, 2010).

Moreover, In Rwanda, various studies demonstrated also the effect of project management practices on performance of different projects. According to G.M. Kanyago, construction projects in Rwanda are very constrained by poor project practice, especially inadequate planning skills or practice that result to a risky and ineffective implementation, with consequences on project failure and subsequent resources and time wastages for the project team. Besides, the author demonstrated that proper project management practices such as planning management, risk management, monitor and control mitigate project potential risks and failures. (G.M. Kanyago, 2017). Eric Mukeshimana revealed that project planning practices had a positive and significative effect on improving project performance of Huguka dukore akazi kanoze project (Eric Mukeshimana, 2022).The same effect of Project management practices and project performance was also demonstrated in health care projects in Rwanda, where Dorcas Sifa demonstrated that monitoring and evaluation as project management practice have a great and significative effect on performance of healthcare projects in Rwanda (Dorcas Sifa, 2022).

Evidently, with the increased competition in modern industries, project management practices are found to be applied in various organization and industry to ensure better and faster results. Though, results or effect on performance may vary industry to industry, or project to project, due to the practices application level by project teams. (Person, 2022).

The Rwandan pharmaceutical industry had generally undergone lots of transformation in the last two decades and has found itself in a situation of rapid growth of the trading sector in the industry with many multinational drug companies opting to either directly or indirectly enlists services of local trade partners as importers, promoters and distributors of their products (MOH, 2018). Especially, since its establishment, in February 2018, RWANDA FDA by promoting and strengthening safe and effective pharmacy regulatory system, it has inspired confidence to Pharmaceutical MNC's expansion projects. (USAID GHSC, 2021).

Even though, Rwanda has already registered the MNC expansions projects, more expansions projects may be attracted by the same market. And previous successful project management's practices and performance may serve as references to the new expansion projects. But, do we have enough references? And one would wonder what is the perception of local stakeholders on the performance of Pharmaceutical MNCs in Rwanda, in perspective of project management practices?

Not many studies have explained the differences in performance of Pharma MNC's expansion projects. Especially in RWANDA, we have not found any literature treating the subject, and analyzing the performance of Pharma MNCs in RWANDA in general.

Hence, this study attempted to assess the effect of Project Management Practices on performance of pharmaceutical MNCs in Rwanda, in the perspective of the perception of their local stakeholders AIGPHAR and RMRO members.

1.1 Study objectives

The study general objective is to assess the effect of Project Management Practices on performance of pharmaceutical multinational corporations' projects in Rwanda, in perspective of perception of stakeholders. And specifically, the study had the following objectives

1) To determine the effect of Project Planning practices on performance of Pharmaceutical Multinational corporations in RWANDA

2) To examine the effect of Project communication practices on performance of Pharmaceutical Multinational Corporations in RWANDA

3) To identify the effect of Project Risk Management practices on performance of Pharmaceutical Multinational Corporations RWANDA

4) To assess the effect of Monitoring and Evaluation practices on performance of Pharmaceutical Multinational Corporations in RWANDA

1.2 Significance of the Study

The study delivers high opportunity to the current and potential investors in the pharmaceutical industry in Rwanda to understand better the need for project management practices in their expansion decision making.

As well, it shall serve as a reference to local pharma establishments in Rwanda, and already existing Multinational pharmaceutical Corporations for the new opportunities capture, and practices alignment.

To the Society, regulatory board, the study provides insightful information to Rwanda Pharma industry, and improvement windows in the project management perspective.

In academic, the study helped the researcher to enrich the theoretical knowledge acquired thereby gaining practical experience from the field. Also, the study provides opportunity for further research exploration within project management strategy and practices subject as the

research was successfully conducted, and that one copy of the study shall be deposited in UoK library.

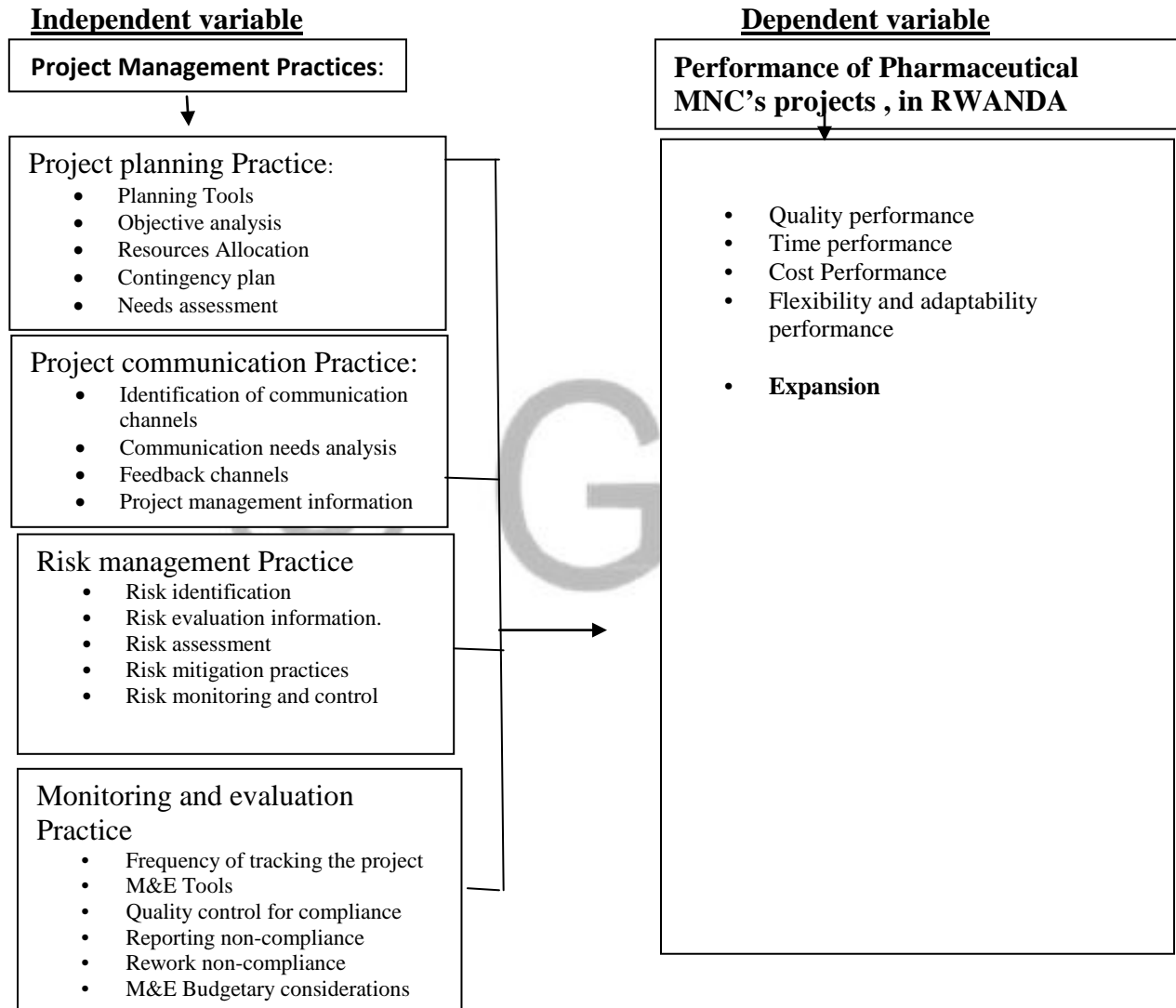## 2. LITERATURE REVIEW

2.1. Theoretical framework

This study adopted three theoretical frameworks to explain the effect of project management practice and performance of Pharmaceutical Multinational Corporations in Rwanda; resource-based theory was adopted as the theory contends that the possession of strategic resources, as Project Management practices, provide an organization with a golden opportunity to develop competitive advantages over its rivals. Hence, the theory was adopted to bring clear context on general objective of the study, to examine the project management practice effect as a resource on performance of pharma MNC's projects. Contingency theory was adopted in the study to bring out a clearer context on the fourth specific objectives of the study which was examination of the impact of Monitoring and evaluation practices on performance of multinational pharmaceutical expansion projects in Rwanda. System theory adopted because it brings out a clear explanation context about the general objective of overall performance of multinational pharmaceuticals in Rwanda, that is contributed with various performance on other organizational subsystems such as organizational planning, communication, control and evaluation and risk control and mitigation systems.

2.2. Empirical review

Empirical review part, demonstrated evidences of a causal effect of, in general, strategic management and/or project management practices, and in specific, project planning practices, project communication management practices, project risk management and Monitoring & evaluation practices, on the project's performance. The empirical review provided evidences that there is a relationship between study dependent variable, performance of Pharma MNCs in Rwanda, and independent variable that is project management practice; project planning, communication management, risk management and monitoring& evaluation practices. And, this relationship can be measured in dynamic context research, what is the objective of this research.

2.3. Conceptual framework

The study conceptual framework showed the relationship between variables; independent and dependent. The independent variables include project management practices such as project planning; project communication practices; risk management practices and M&E practices as independent variables while dependent variable is the Performance of Pharma MNC Corporations in RWANDA

Independent variable   **Dependent variable**

Project Management Practices:

Performance of Pharmaceutical MNC's projects , in RWANDA

Project planning Practice:
- Planning Tools
- Objective analysis
- Resources Allocation
- Contingency plan
- Needs assessment

Project communication Practice:
- Identification of communication channels
- Communication needs analysis
- Feedback channels
- Project management information

Risk management Practice
- Risk identification
- Risk evaluation information.
- Risk assessment
- Risk mitigation practices
- Risk monitoring and control

Monitoring and evaluation Practice
- Frequency of tracking the project
- M&E Tools
- Quality control for compliance
- Reporting non-compliance
- Rework non-compliance
- M&E Budgetary considerations

- Quality performance
- Time performance
- Cost Performance
- Flexibility and adaptability performance

- **Expansion**

Source: Researchers' Compilation (2022)

Figure 2.1: Conceptual framework

3. **METHODOLOGY**

3.1 Research Design, study population and target population

A descriptive survey design was used to carry out this study. The study also used an explanatory research design to gather and provide answers regarding the effect of project management practices on the success of Pharma MN Corporations projects in Rwanda, through correlation and regression analysis.

104 Pharma MN Corporation's stakeholders in Rwanda, were the study's target population. They are composed by 57 RMRO members, 47 AIGPHAR members, stakeholders of Pharma MN Corporations formally operating in RWANDA. Table below summarizes the population characteristic.

Table 3.1: Target Population

Categories	Population size
RMRO Members	57
AIGPHAR Members	47
Total	**104**

Source: RMRO, 2022

3.4. Data collection, instruments.

The researcher combined the use of questionnaire and interview guide during collecting primary data, and documentary review was used in collecting secondary data.

3.5. Validity and Reliability of research instruments

The further questionnaire was pretested to detect weakness in the instrumentation as well as design and improve the questionnaire, validity and reliability were evaluated and validated.

3.6. Data processing and analyzing

The data was being entered, edited, coded and analyzed, tabulated using SPSS Prior to processing. Descriptive statistics was used to describe the basic features of the data in the study in the tendencies and then replicated in tabular manner. It involves use of percentages, frequencies, mean and standard

deviation. Correlation analysis was developed to measure the strength and closeness each independent variable to dependent variable, thus the closeness between project Management practices and performance of Pharma MNCs expansion projects in RWANDA. And Regression analysis was used to determine the relevance of the effect of the independent variables on the dependent variable by using a multiple regression model.

Based on that, the researcher tested the effect of project management practices such as project planning; project communication practices; risk management practices and M&E on Performance of Pharma MNCs in RWANDA, as the following model:

$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_{3} + \beta_4 x_{4} + e$. Where: Y = Performance of Pharma MNCs expansion projects in RWANDA. {βi; i=1, 2, 3 and 4} = The coefficients representing the various independent variables. B_0 = the Y intercept. {Xi; i=1, 2, 3 and 4} = Values of the various independent (covariates) variables. $And\ e =$ the error term which is assumed to be normally distributed with mean zero and constant variance,

At 5% significance level, the statistically significant relationship was verified and found between the dependent variable which are Performance of Pharma MNCs in RWANDA and independent variable which are project planning practices; project communication practices; risk management practices and M&E practices from the model was accepted.

4. RESULTS AND DISCUSSION

Table 4.1: Correlations analysis

		X_1	X_2	X_3	X_4	Y
X1= Project planning	Pearson Correlation	1				
X2 = Project communication management practices	Pearson Correlation	$.615^{**}$	1			
X3= Risk management Practices	Pearson Correlation	$.438^{**}$	$.277^{**}$	1		
X4 = Monitoring and evaluation Practices	Pearson Correlation	.174	$.321^{**}$	.121	1	
Performance of Pharmaceutical Multinational Corporations	Pearson Correlation	$.561^{**}$	$.443^{**}$	$.449^{**}$	$.565^{**}$	1
	Sig. (2-tailed)	.000	.000	.000	.000	

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

The results from the table 4.10, indicated that there is significant moderate positive relationship between project planning and performance of Pharma MNCs as demonstrated by correlation (r= 0.561[**]; p-value=0.000<0.05), insignificant and weak positive relationship between project communication practices and performance of Pharma MNCs as shown by correlation (r= 0.443[**]; p-value=0.000<0.05) , a significant weak positive relationship between risk management practices and performance of MN Pharma Corporations in Rwanda as shown by correlation (r= 0.449[**]; p-value=0.000<0.05), lastly correlation analysis indicated that there is a significant moderate positive relationship between M&E and performance of pharmaceutical multinational corporations as demonstrated by correlation (r= 0.565[**]; p-value=0.000<0.05) .

4.2.Multiple linear regression analysis

The purpose of the regression analysis was used to determine the statistical significance of the attempted prediction and determine the strength of association between Pharma MNCs project performance and the multiple independent variables. In this section the coefficient of determination (R square) was used as a measure of the explanatory power, to show how the independent variables explain the dependent variable.

Table 4.2:Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.763[a]	.582	.565	.22924

a. Predictors: (Constant), X4 = Monitoring and evaluation Practices, X3= Risk management Practices, X2 = Project communication practices, X1= Project planning practices

The findings in Table 4.11, indicate that the model summary shows that adjusted R^2 (coefficient of determination) of 0.565 implies that 56.5% of the performance in pharmaceutical multinational corporations in Rwanda is explained by Monitoring and Evaluation practices, Risk Management Practices, Project communication Practices and Project Planning practices at 95% of confidence interval.

Table 4.3:ANOVA ANALYSIS

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.229	4	1.807	34.390	.000[b]
	Residual	5.203	99	.053		
	Total	12.432	103			

a. Dependent Variable: Performance of Pharma MN Corporations

b. Predictors: (Constant), X4 = Monitoring and evaluation Practices, X3= Risk management Practices, X2 = Project Communication Practices, X1= Project Planning Practices

The ANOVA table shows that F-calculated was greater than the F-critical and hence confirming linear relationship between the Project Management practices and performance of pharma multinational Corporations IN Rwanda, in the perspective of Stakeholders AIGPHAR and RMRO. In addition, because p-value=0.00 is less than 0.05 it depicts that there is a significant relationship between Project Management Practices such as Project planning, monitoring and evaluation, risk management practices, project communication practices as independent variable and performance of pharmaceutical Corporations in Rwanda. The overall regression model is significant indicating that project management significantly predict performance of pharma MN Corporations in Rwanda.

Table 4.4:Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	.890	.308		2.889	.005
X1= Project planning	.302	.069	.386	4.373	.000
X2 = Project communication management practices	.007	.067	.008	.097	.923
X3= Risk management practices	.156	.050	.225	3.101	.003
X4 = Monitoring and evaluation	.340	.049	.474	6.887	.000

a. Dependent Variable: Performance of Pharma MN Corporations in Rwanda.

The regression results from the table 4.13, revealed that project planning have significant positive effect on performance of Pharma MNCs in Rwanda as indicated by $\beta_1 = 0.302$, p-value=0.000<0.05, t= 4.373. The regression analysis revealed also that project communication management practices have insignificant positive effect on performance of Pharma MN Corporations in Rwanda as indicated by $\beta_2 = 0.007$, p-value=0.923>0.05, t= 0.097. Moreover, the regression results from the table 4.13, revealed that risk management practices have significant positive effect on performance of Pharma MN Corporations in Rwanda as indicated by $\beta_3 =$

0.156, p-value=0.003<0.05, t= 3.101. Furthermore, the regression analysis revealed that monitoring and evaluation have significant positive effect on performance of Pharma MN Corporations in Rwanda as indicated by β_4= 0.340, p-value=0.000<0.05, t= 6.887.

5. CONCLUSION

The study revealed that in the perspective of local stakeholders AIGPHAR and RMRO, the most significant Project Management Practices affecting positively and significantly the performance of pharma Multinational Corporations in Rwanda were, decreasingly, Monitoring and Evaluation Practices, Project Planning Practices and project Risk Management Practices, while Project Communication Management Practices even if they were identified to have positive effect, but on the other hand their effect was found to be insignificant to the performance of Pharma Multinational Corporations in Rwanda.

Finally, the study concludes that that Project Management practices affect positively and significantly the performance of Pharma Multinational Corporations in Rwanda. The study revealed that, at 95% of confidence interval, Project Management Practice provide 56,5% of the performance of Pharma MNCs projects in Rwanda.

6. RECOMMENDATIONS

The study recommends to Pharma MNCs to enhance stakeholder's effective participation to ensure stakeholders projects ownership and customer satisfaction.

The study recommends to Pharma MN Corporations in Rwanda, to improve communication channels with stakeholders, for message delivery and feedback, in both top-down and bottom-up communication. The study recommends also to Pharma MN Corporations in Rwanda to improve their integrated communications plan to improve project execution.

The study recommends to Pharma MNCs to develop more extensive use of risk analysis tools. Also, the study recommended more involvement and engagement of local stakeholders, AIGPHAR and RMRO, in project risk management practices.

Furthermore, the study further research on longitudinal study to eventually define the timelines at which the change in the predictor variable can lead to a change in the organization performance.

Finally, the study recommends a further research on assessment of other factors that may affect the performance of pharma MNCs in Rwanda, as well as the interaction between these factors.

Pharma MNCs or other researchers should also evaluate projects on other perspective to help them asses the weakness and strength of the performed projects. This will greatly assist in the planning of the future similar projects.

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