RISK MANAGEMENT AND PROJECT PERFORMANCE: A CASE OF COLUMBUS PROJECT IN BANQUE POPULAIRE DU RWANDA

(BPR Ltd)

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ABSTRACT

The purpose of this study was to determine the effect of projects risks management processes on the project performance of Banque Populaire du Rwanda Limited, The descriptive study was used while the target population was 250 staff members of Banque Populaire du Rwanda involved in the Columbus project and risks management and sample size was 152 workers. The purposive sampling technique was applied. The secondary data were obtained using the documentary technique. Descriptive statistics and correlative analysis were also converting primary data into quantitative and qualitative ones. The combined correlation of risks identification, risks assessment, response development and control with the Columbus project were significant at 0.000 p-values. As recommendations, any project undertaken should ensure that risks management process plays a paramount role in project management to enhance project performance and increase the benefits.

Key Word: Project risk, Project risks management, Project performance, Columbus Project.

1.0 Introduction

Since recent years, BPR Ltd like any modern organization working in banking industry opted for the project-oriented way of doing business that has overturned the regard, hierarchical and divided system of labour in years past as argued Malezyk (2016). Rather than relying on categorized workers to conduct single routine tasks, Banque Populaire du Rwanda Limited often relies on teams to connected experts to work together on holistic projects, focusing their energy on one goal at a time. Nevertheless, the performance of some of those projects is not reached as per the bank's expectations. Indeed, the BPR Ltd.'s project named Columbus aiming at automating and connecting successfully all its `branches, sub-branches and outlets to the same network, made the dream of having one bank becoming a reality. However, shortcomings were to be noted later on, firstly on the technical or implementation side of that project, and secondly on the process or reporting side (BPR, 2014). In 2014, the bank suffered from corruption of files and the loss of data entries. The year 2015 was also a very challenging one mainly due to the BPR Ltd.'s unstable core banking system and own inefficient operating environment (BPR, 2015). In addition, given the fact that uncertainty is inherent in the project objective and thus any project is exposed to risks, the best performance of those BPR Ltd.'s project is unavoidably linked to the successful managing risks in those projects. It seems therefore of the great importance for any company to ask and answer how the performance of projects could be improved. This research intended to answer that question by investigating the linkage between the way of managing risks and the projects performance using the data of BPR Ltd from 2012 up to 2014 and focusing especially on the Columbus Project.

2 LITERATURE REVIEW

2.1 Empirical Literature

According to the Rabechini and Marly (2020) with the presence of a risk manager there is a greater chance of project success. Indeed, risk manager is a new function established in the scope of project management, still little studied by the specialized literature on the subject. From the study of the authors on risk management practices in Brazilian companies, three factors have a significant impact

on the perception of project success: conceptual understanding and care with uncertainties; utilization of processes, techniques and tools; knowledge of the business. From the practical point of view, paying attention to uncertainties during the project, making use of the risk management techniques and deeply understand the business environment are critical success factors, demanding attention of the project managers and risk managers.
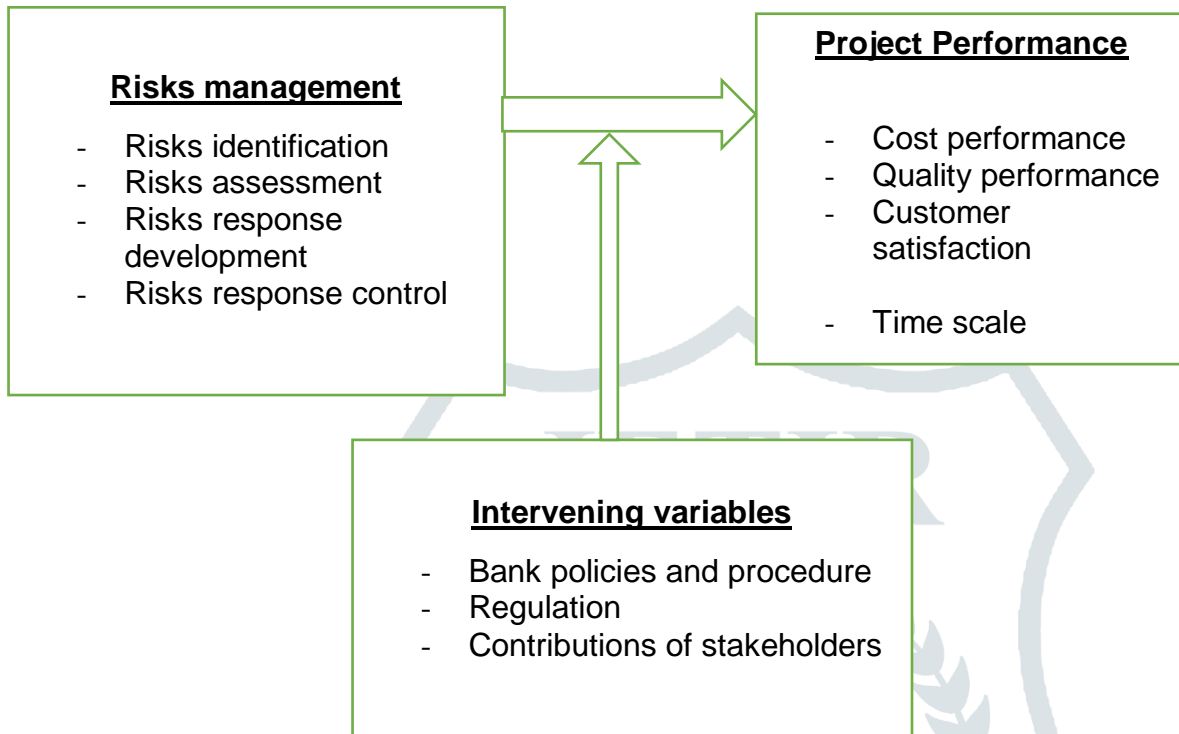
From findings of the research conducted in projects of an industrial company studied, Olsson (2018) noted the following: Risk management effectiveness has significantly increased in projects since the days of talking the first suffering steps to knowledge some six years ago. The risks attitude of the organization has significantly evolved, from being risk averse to becoming a risk mature organization. The organization now sees uncertainty as part of the way business is done, and realizes that it is possible to influence its outcome to positively affect project objectives. The overarching result is actually a cultural change within the organization as it today has a more preventive-minded approach.

Kirytopoulos *et al.* (2018) started that risk management can be a valuable support for SMEs, to better exploit their resources. The approach gave a very good approximation of the delivery date and the total cost. When the very optimistic initial schedule could have disastrous consequences for a small company. The risk management approach coped with the risks and uncertainties in a structured way and come up with estimation very close to real outcome of the project". Karel *et al.* (2018) stressed out that risk management contributes to project success, because the stakeholders are aware of the facts that there are risks, on the basis of which they adjust their expectations and behaviour accordingly. Moreover, based on the empirical evidence the authors above concluded that the fact that risk management practitioners pay attention to project risks was likely to have more impact on IT project success than following the steps prescribed in the risk management process.

2.2 Conceptual framework

Independent variable   **Dependent variable**

Risks management

- Risks identification
- Risks assessment
- Risks response development
- Risks response control

Project Performance

- Cost performance
- Quality performance
- Customer satisfaction

- Time scale

Intervening variables

- Bank policies and procedure
- Regulation
- Contributions of stakeholders

One which finds itself in a state of perpetual crisis is failing to manage risks properly. Failure to manage risks is characterized by inability to decide what to do, when to do it, and whether enough has been done. Throughout this study, the project risks management indicators include the risks identification, risks assessment, risks response development and risks response control. Anand (2018) stated that the project performance is measured by comparing the project execution to the performance baseline, which is an approved integrated plan for scope, schedule, and cost for the project, as per the following explanation:

Cost baseline: this is the planned budget for the project over a time period, used as a basis against which to measure, monitor, and control the cost performance of the project. The cost performance is measured by comparing the actual cost performance of the project over a time period; schedule baseline: this is a specific version of the project schedule developed from the schedule network analysis and the schedule model data. This is the approved version of the schedule with a start date

and a date and an end date, and it is used as a basis against which the project schedule performance is measured;

Scope baseline: this is the approved project scope that includes the approved project statement and the WBS based on the approved project scope statement. As per Ashley *et al.* (1987), Nguyen *et al.* (2014) as cited in Abdul *et al.* (2018) the definition of project success is based on cost, schedule, quality and satisfaction to the customers. Thus throughout this study, the project performance indicators include the following: scope, time, cost, and quality and customer satisfaction. According to Didraga (2018), the project success or failure depends on the contributions of stakeholders (top management, functional managers, customers, suppliers, contractors) and that is why stakeholders must be involved in the risk management process. In addition, in this research, the intervening variables embrace the policies and procedures of the organization together with the ruling regulations.

3.0 Research Methodology

1. Research Design

The researcher used a descriptive research design, where qualitative and quantitative approach used. In quantitative approach the research employed data in form of numbers collected from Columbus project team.

2 Target Population

The target population on which this study was carried out was 82 people including the Columbus project senior managers, the projects supervisors, and the projects lower staff members and the support staff responsible for the risks management in BPR Ltd. This target population was intended to answer the research questions by analyzing the linkage between the way of managing the Columbus project risks and this project performance using the data of the BPR Ltd. Solvin's formula allows a researcher to sample the population with a desired degree of accuracy. Therefore the sample size of the research was 152 employees of the Columbus Project in Banque Populaire du Rwanda Limited (BPR Ltd).The sampling technique used was purposive sampling and census method were the

researcher identifies the group of respondents who deemed capable of providing the information that

fulfilled the purpose of research.

3. Data collection methods

The questionnaire was used for collecting data based on the specific objectives for this study and semi-structured questionnaire was designed for data collection. For the qualitative data, open and ended questionnaires and interview guide were then used also. In addition, secondary materials from the studied system were extensively used during this research. Examples include minutes of meetings and documents.

4. Data Analysis Procedure

The descriptive statistics were done based on percentages and frequencies of respondents' views and opinions. These statistics was mean and standard deviation Kakooza (1996) define editing as a process where errors in a complete interview schedule and questionnaire will identified whenever possible.This technique was used to check the completeness, accuracy, uniformity and comprehensibility of the data. Pearson's Coefficients of Linear Regression was used to calculate the relationship project risks management process and project success.

4 Research Findings

TABLE 1 RESPONDENTS DISTRIBUTION IN PREVENTIVE MEASURES THAT WERE TAKEN WITHIN BPR LTD

REGARDING THE COLUMBUS PROJECT

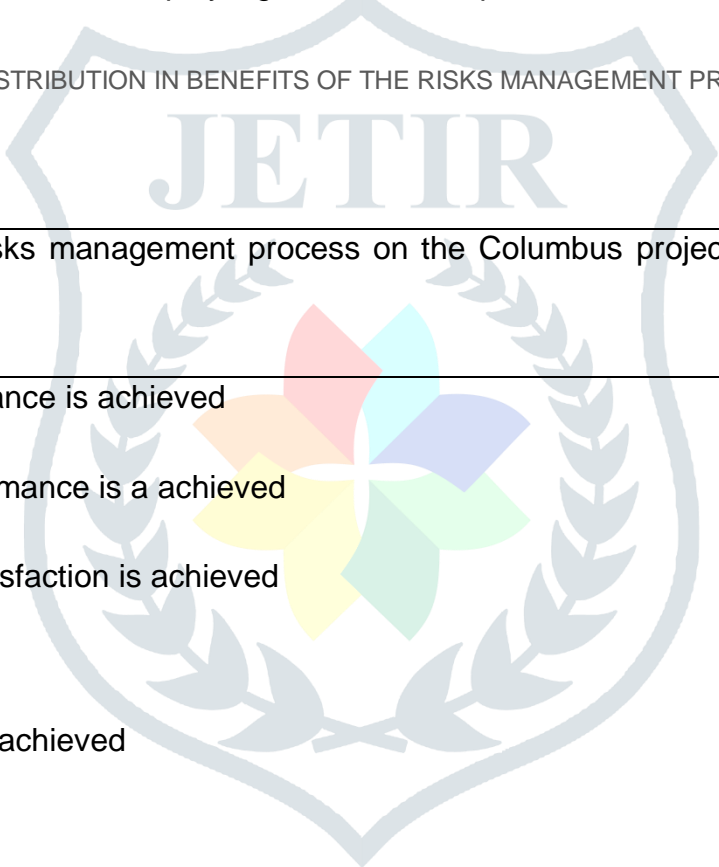| Preventive measures	Mean	SD
Risks management	1.894	.970
Risks identification	1.223	.589
Risks assessment	1.203	.531
Risks response development	1.210	.582
Risks response control	1.197	.527
Overall Mean	1.347	

Key: 5 not sure, 4 to no extent, 3 to small extent, 2 to a great extent, 1 to a very great extent, SD=

Standard Deviation

The results demonstrate the mean of 1.894 and SD of 0.970 shows that the respondents asserted that

the staff members representing the population of the research confirmed that risks management was

among preventive measures taken in BPR Ltd regarding the Columbus project to a very great extent.

The mean of 1.223 and 0.589 of SD shows that the respondents stated that risks identification was

also used as preventive measure to a very great extent. The mean of 1.203 and 0.531 of SD shows that the respondents were favorable for risks assessment as preventive measure taken in BPR Ltd to a very great extent. The mean of 1.210 and 0.582 of SD shows that the respondents stipulated that risks response development were respectively used as preventive measures to a very great extent. The mean of 1.197 and SD of 0.527 shows that a big number of respondents asserted that risks response control were respectively used as preventive measures promotes project performance to a very great extent. The qualitative data showed that the total of the 8 interviewees asserted that development of preventive measures play significant role in performance of their project.

TABLE 2 : RESPONDENTS DISTRIBUTION IN BENEFITS OF THE RISKS MANAGEMENT PROCESS ON THE COLUMBUS PERFORMANCE

Benefits of risks management process on the Columbus project performance	Mean	SD
Cost performance is achieved	1.085	.362
Quality performance is a achieved	1.078	.373
Customer satisfaction is achieved	1.756	1.196
Time scale is achieved	1.473	.582
Overall Mean	1.266	

Key: 5 not sure, 4 to no extent, 3 to small extent, 2 to a great extent, 1 to a very great extent, SD= Standard Deviation

The results show that the overall mean of 1.266 implies that a big number of respondents highlighted that the risks management process was significantly enhancing the Columbus project performance in the way that all activities had been planned in advance and the weekly risks assessment was ensured by the project team.

TABLE 3 CORRELATION ANALYSIS BETWEEN MANAGEMENT OF RISKS AND PROJECT PERFORMANCE

performance		Cost performance	Quality performance	Customer scale satisfaction	Time
Management of risks	Pearson Correlation	.851**	.806**	.786**	.837**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	152	152	152	152

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

The results show a strong positive and significant relationship between management of risks and cost performance (r=0.851 and sig=0.000), quality performance (r=0.806 and sig=0.000), risks and customer satisfaction (r=0.786 and sig=0.000) and time scale (r=0.837 and sig=0.000) at 0.01 level of significance.

TABLE 4 : RELATIONSHIP BETWEEN RISKS IDENTIFICATION, RISKS ASSESSMENT AND THE COLUMBUS PROJECT PERFORMANCE:

Statement regarding relationship between risks identification, risks assessment	Mean	SD
Identified the project risks earlier	1.506	1.016
Identified to a larger extent, issues before they occurred, and thereby we had more time to react	1.644	1.268
Talked more about risks and opportunities in the daily project	1.585	.959

management work		
Able to more freely assess about risks within project	1.993	1.193
Organization assess the risk by quantitative analysis methods	1.684	.999
Overall Mean	1.423	

Key: 5 not sure, 4 to no extent, 3 to small extent, 2 to a great extent, 1 to a very great extent, SD= Standard Deviation

The results show that the that risks identification and risks assessment plays a significant role on the performance of Columbus project in Banque Populaire du Rwanda Limited (BPR Ltd), which is supported by the findings of the research of Uwanyirigira and Rusibana (2020) who revealed that 77.3 of respondents agreed that their project meet deadlines due to risks identification, risks assessment and hence project performance.

TABLE 5 : CORRELATION ANALYSIS BETWEEN RISKS IDENTIFICATION, RISKS ASSESSMENT AND THE COLUMBUS PROJECT PERFORMANCE

performance		Cost performance	Quality scale	Customer satisfaction	Time
Risks identification and risks assessment	Pearson Correlation	.813[**]	.658[**]	.513[**]	.799[**]
	Sig. (2-tailed)	.000	.000	.000	.000
	N	152	152	152	152

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

The results show a strong positive and significant relationship between risks identification, risks assessment and cost performance (r=0.813 and sig=0.000), and quality performance (r=0.658 and sig=0.000), and customer satisfaction (r=0.513 and sig=0.000) at 0.01 level of significance.

TABLE 6 RELATIONSHIP BETWEEN RISKS RESPONSE DEVELOPMENT, RISKS RESPONSE CONTROL AND THE COLUMBUS PROJECT PERFORMANCE

Statement regarding relationship between risks response development and risks response control	Mean	Std.
Better risks response development in the project	1.322	0.646
Better risks control within the project	2.611	1.371
Plans for Avoiding project risks	1.065	0.274
Bank's regulations, policies and procedures promotes project performance	1.046	0.239
Contribution of stakeholders were enhancing the project performance	1.756	1.196
Overall Mean	1.445	

Key: 5 strongly disagree, 4 disagree, 3 not sure, 2 agree, 1 strongly agrees, SD= Standard Deviation

The results show the overall mean of 1.445 shows that a big number of respondents strongly agreed that relationship between risks response development and risks response control play a

significant role on performance of Columbus project in Banque Populaire du Rwanda Limited (BPR Ltd).

TABLE 7 CORRELATION ANALYSIS BETWEEN RISKS RESPONSE DEVELOPMENT, RISKS RESPONSE CONTROL AND THE COLUMBUS PROJECT PERFORMANCE

performance		Cost performance	Quality performance	Customer scale satisfaction	Time scale
Risks response development and risks response control	Pearson Correlation	.911**	.719**	.656**	.899**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	152	152	152	152

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

The findings revealed that there is a strong positive and significant relationship between risks response development, and cost performance (r=0.911 and sig=0.000), and quality performance (r=0.719 and sig=0.000), and customer satisfaction (r=0.656 and sig=0.000) risks response control and time scale (r=0.899 and sig=0.000) at 0.01 level of significance.

TABLE 8 CORRELATION ANALYSIS BETWEEN RISKS MANAGEMENT AND PROJECT PERFORMANCE

		Cost performance	Quality performance	Customer scale	Time satisfaction
Risks identification	Pearson Correlation	.851**	.816**	.786**	.837**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	152	152	152	152
Risks assessment	Pearson Correlation	.813**	.658**	.719**	.799**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	152	152	152	152
Risks response development	Pearson Correlation	.811**	.553**	.513**	.693**
	Correlation	.000	.000	.000	.000
	Sig. (2-tailed)	152	152	152	152
	N				
Risks response control	Pearson Correlation	.911**	.679**	.656**	.899**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	152	152	152	152

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

The results revealed a strong positive and significant relationship between risks identification and

cost performance (r=0.851 and sig=0.000), quality performance (r=0.816 and sig=0.000), customer satisfaction (r=0.786 and sig=0.000), and time scale (r=0.837 and sig=0.000), and cost performance (r=0.813 and sig=0.000), between risks assessment and quality performance (r=0.658 and sig=0.000), customer satisfaction (r=0.719 and sig=0.000), t and time scale (r=0.799 and sig=0.000), and cost performance (r=0.811 and sig=0.000) and quality performance (r=0.553 and sig=0.000)

5 Research Findings Discussion

The results of the current research revealed that risks identification and risks assessment plays a significant role on the performance of Columbus project in Banque Populaire du Rwanda Limited (BPR Ltd), which is supported by the findings of the research of Uwanyirigira and Rusibana (2020) who revealed that 77.3 of respondents agreed that their project meet deadlines due to risks identification, risks assessment and hence project performance. Thus both the results of descriptive and inferential statistics revealed that risks identification and risks assessment plays a positive and significant role in performance of Columbus project in Banque Populaire du Rwanda Limited which is supported by the results of the study of Sureh and Sivakumar (2019) who demonstrated that 0.596 and 0.588 of R2 and adjusted R2 shows 58.8% of variation in project management effective as explained by the indicators of risks identification and assessment plan. While, the p-value results were results that 0.05 level of significance which is 0.004, 0.000, 0.000 and 0.001 of proper allocation of risks identification and risks assessment, team incompetency, resource inventory, and raw data of risks management development activities availability.

These results are supported by the findings of the research of Tuyishime and Nyambane (2021) who indicated that a unit increase on targets and key performance indicators, setting objectives of risks management increase project performance by a factor of 0.183 and the unit increase in resource mobilization increases project performance by a factor of 0.144. The both findings concluded that the metrics of risks management process confirmed a positive linear relationship to project performance.

The regression analysis results of the current research have revealed that the predictors of risks management process such as risks identification, risks assessment, risks response development, risks response control, play a significant and positive effect on project performance of Columbus project in Banque Populaire du Rwanda Limited (BPR Ltd). These regression results are supported by the findings of the research of Shahzad, et al., (2018) which revealed β=0.467 and p<0.001 showing that project risk management has significant and positive effect on project performance. Thus, these imply that risks response control as predictor of project risks management process affect positively and significantly project performance of Columbus project in Banque Populaire du Rwanda Limited (BPR Ltd).

6 CONCLUSIONS AND RECOMMENDATION

The descriptive results are supported by the correlation results which proved that how risks were managed play a strong significant and positive relationship on performance of Columbus project in Banque Populaire du Rwanda Limited (BPR Ltd).

The descriptive results of the second objective were also supported by correlation results which revealed that relationship between risks identification and risks assessment plays a positive and significant role in performance of Columbus project in Banque Populaire du Rwanda Limited (BPR Ltd).

The descriptive results of the third objective showed that there is a big number of respondents strongly agreed that risks response development and risks response control play a significant role on performance of Columbus project. These descriptive results are also supported by correlation results which revealed that relationship between risks response development and risks response control play a significant and positive role on performance of Columbus project in Banque Populaire du Rwanda Limited (BPR Ltd). Lastly, the research findings underlined that the Columbus project brought many benefits in BPR Ltd like change the approach to conduct business, improve the quality and timeline of customer service & reduce the transactions cost, facilities self-service to BPR Ltd customers using ATM; and with the whole bank on work, work become more efficient and effective.

The study recommendations are expressed as follow: any project undertaken in BPR Ltd should ensure that the risks management process will play a paramount role in the project management to considerably enhance the project performance and increase the benefits of the project to BPR Ltd.

BPR Ltd should include in the risks department a unit exclusively responsible from projects risks management that will ensure risks identification and assessment, safeguard risks response development & control and take advantage of opportunities. This will sustain projects performance and thus BPR Ltd should more benefit from projects as the modern management way of doing business is more project-oriented. On the other hand, integrating units of project risks management in the commercial banks' structures and should be among general guidelines from regulators to those banks.

Throughout this study, the researcher focused on one project "Columbus" undertaken by BPR Ltd. On the other hand, the study was carried on one single commercial bank instead of multiple commercial banks. All these observations lead to following suggestions: further study should take into consideration more than one project and more than one bank to increase the generalization of the research findings. Indeed, it would be beneficial to try the results of the in other commercial banks settings and/ or extend it to other BPR Ltd project.

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