

GSJ: Volume 11, Issue 2, February 2023, Online: ISSN 2320-9186 www.globalscientificjournal.com

RISK MANAGEMENT PRACTICES AND PERFORMANCE OF COFFEE AGRI-BUSINESS SECTOR IN RWANDA; COFFEE EXPORTERS AND PROCESSORS ASSOCIATION OF RWANDA (CEPAR), KIGALI, RWANDA.

NTAKIRUTIMANA Innocent¹, Dr. AFOLABI LUQMAN (PhD)²

 ¹ Master of Business Administration, Project Management, University of Kigali Email: ntakirinocent35@gmail.com, Reg No: MBA/PM/21/01/6548
 ² School of Graduate Studies, Senior Lecturer, University of Kigali

ABSTRACT

The study is about the Risk Management Practices and Performance of Coffee Agri-Business Sector in Rwanda; Coffee Exporters and Processors Association of Rwanda (CEPAR), Kigali, Rwanda. The study was guided by four specific objectives. The first objective was to elaborate how the risk control can influence the performance of coffee agribusiness in Coffee Exporters and Processors Association of Rwanda. The second was to investigate how risk prevention can affect the performance of coffee agribusiness in Coffee Exporters and Processors Association of Rwanda. The third objective was about finding out how risk transfer as Management Practices can influence the performance of coffee agribusiness in Coffee Export and Processor Association of Rwanda. The last objective was to assess how risk retention can contribute to the performance of coffee agribusiness in Coffee Export and Processor Association of Rwanda. The researcher used qualitative and quantitative approach while descriptive and correlation analysis was used as research design. The researcher used both primary and secondary data collection methods to collect data. The targeted respondents were 170, while the current respondents were 164 who managed to respond to the questionnaires. The questionnaires and interviews were used as data collection instruments. For data processing, the researcher used editing, coding, classification and tabulation. The researcher used the SPSS (Statistical Package for the Social Sciences), will be used to process the statistical data. The first objective revealed that the risk control has the significant influence on the performance of coffee agribusiness where $\beta = .382$ at p<0.05. Second objective inferred that there is a significant correlation between the risk prevention and the performance of coffee agribusiness in Coffee Exporters and Processors Association of Rwanda because β = .68.7 at p<0.05 while objective three indicated that risk transfer can influence the performance of coffee agribusiness in Coffee Exporters and Processors Association of Rwanda. The last objective has significantly revealed that risk retention can contribute to the performance of coffee agribusiness in CEPAR as well as in Rwanda.

Key words: Risk Management Practices, risk control, risk prevention, risk transfer, risk retention and *Performance of coffee agribusiness sector.*

1.INTRODUCTION

A well accepted definition of risk given in projected management body of knowledge considers risk as "an uncertain event or condition that, if it occurs, has a positive (opportunity) or negative (threat) impact on project objectives" (PMI, 2008). However, for most practitioners project risk management seems to be about identifying and managing threats.

There are many scholars who defined risk management, as defined by Ferreira (2006), is achieving a healthy balance between taking advantage of possibilities for benefits and reducing losses. Risk management is a repeatable process that consists of actions that, when completed in the right order, promote better performance and decision-making (Ferreira, 2006). Risk is a phenomenon that cannot be completely eradicated by definition and by nature. Despite the fact that they are commonly used synonymously, risk and uncertainty are not the same. The definition of uncertainty does not know what will occur in the future. The degree of our pessimism about what will happen is, therefore, risk. (Fabozzi, F. J., & Peterson, P. P, 2003).

Culp defines risk in business as any random source that might negatively affect a company's profitability, cash flow from operations, or market value of its assets after deducting obligations (Culp, 2002). Scholars like Williams and Schroder argued that all sides of the risk equation should be understood. Risk management must thus be seen as a way of life.(J. Williams, W. Schroder, et al'1999).

Globally, effective Risk management aimed at providing reasonable assurance as to the achievement of company's objectives and helps the company in achieving its performance targets. Effective risk management continuously assesses and identifies risks and reduces surprises that affect the organization (Pezier, 2002). However, the aim of risk management is not limited only to minimizing risks and risky situations. Rather, having the fact in mind that business is always associated with exposures, the aim of effective risk management is also to maintain balance between risk and return. This enables the risk management process to be both defensive and offensive. Thus, risk management needs to be among the top corporate strategic objectives and it must be managers' permanent concern to balance between risk and opportunities associated with risks (Andersen, 2008). To implement effective risk management it needs huge resource mobilization. Hence, company expects better improvement in performance resulted from the risk management system employed (Pagach and Warr 2011). It is obvious that effective risk management enhance the company's understanding of exposures that are expected to potentially challenge the firm and treating risk as an opportunity than as a threat only. Thus, integrated and effective risk management expected to support a sound decision making, which ultimately improve company's performance by improving the precision in balancing the trade-off between risk and expected return (Gehner, 2008).

In developed countries, the study conducted from three developed countries like German, France, and UK. It was found that the better the organization understand its inherent risks the greater confidence it will develop in order to pursue opportunities. The effectiveness of risk management improves accountability among stakeholders; thereby enhance effectiveness of corporate governance and strategic competitive advantages. The results suggest that the establishment of an effective system of risk management and control by a firm has a positive influence on its management and performance. (Louai Ghazieh, Nadia Chebana, 2021)

In African context, the main risks identified, according to Denis Seudieu, include low productivity, an aging farmer population, old coffee trees, limited resources, weak farmers' companies, ineffective extension service delivery, low adoption of new technologies, poor infrastructure (roads, logistics), limited access to finance, limited access to inputs, ineffective marketing infrastructure, markets and price risks, political and legal risks, as well as exogenous factors. (Seudieu, 2018).

In Rwandan context, risks related to markets where input and output prices may be very volatile, especially in the case of commodity markets where local and global supply and demand dynamics are constantly changing. Additional market worries include the volatility of interest rates, currency exchange rates, counterparty risk, and default risk. These risks can affect performance in terms of bad quality and low quantity as well as a decrease in revenue. A few examples are the absence of self-capital

in finance, a lack of credit sources, a lack of capital for farmers, and inflation. Another concern is not having enough marketing knowledge. (NTIRENGANYA, 2018).

2. Problem Statement

Globally, agricultural risk affects millions of farmers as well as input suppliers, merchants, processors, banks, financial service providers, transporters, retailers, and government and non-governmental organizations (WORLD BANK GROUP, 2015). These writers listed the risk factors as follows: pricing risk, risk associated with production and storage, trading margin risk, basis risk, time risk, exchange rate risk, credit risk, quality risk, financial risk, legal risk, environmental and product specific risk (Kifle Wondemu and Benedict Kanu: 2018). Risk management plans contribute to agribusiness success by establishing a list of internal and external risks. According to Duggan T. (2022) effective risk management strategies on performance of coffee sector in Rwanda. It allows the agribusiness performer to identify the opportunities, threats, and weaknesses of your agribusiness. Making preparations for unforeseen events will help the business be ready to act when they do (Duggan, 2019). Oppositely, poor management of the risk can negatively affect the business. This paper is about elaborating the effect of the risk management practices and performance of coffee agribusiness sector in Rwanda, CEPAR, Kigali Rwanda as case study.

3. Objectives of the Study

In order to achieve the primary purpose, the followings are the specific research objectives:

- i. To elaborate how the risk control can influence the performance of coffee agribusiness in Coffee Exporters and Processors Association of Rwanda.
- ii. To investigate how can risk prevention affect the performance of coffee agribusiness in Coffee Exporters and Processors Association of Rwanda.
- iii. To find out how risk transfer as Management Practices influence the performance of coffee agribusiness in Coffee Export and Processor Association of Rwanda.
- iv. To assess how can risk retention contribute to the performance of coffee agribusiness in Coffee Export and Processor Association of Rwanda.

4. LITERATURE REVIEW

This chapter discusses literature which is associated with the study. The chapter reveals theoretical and conceptual framework

4.1. Theoretical Review

This paper is guided by two theories; the Enterprise Risk Management Theory (ERMT) and Expectancy Theory (ET).

4.1.1. Enterprise Risk Management Theory

According to Nocco and Stulz (2006), enterprise risk management (ERM) is a risk management methodology that supports measuring and managing important risks impacting a particular organization as a whole as opposed to managing each risk independently. Its main goal is to unite various risk management silos inside an organization into a single, comprehensive framework. This philosophy encourages everyone in the firm, not just one or two, to take part in risk management. (Hallowell, Molenaar, &Fortunato, 2013).

The ERM also underlines how important it is to manage risks according to established protocols and rules. According to Olson and Wu (2010), the theory also predicts that ten organizations would be more adept at identifying, evaluating, and managing risks if they adopted written rules that specified their risk appetite, strategic goals, tolerance, and procedures. The concept also stresses the creation of a risk management culture in which all stakeholders are given the power and duty to manage risks. According to Cormican (2015), the use of ERM approaches may increase a company's long-term sustainability, stakeholder trust, and competitive advantage.

According to Theuvsen L. (2013), it is typically believed that specific consistency relations exist between the decisions made from various sets of action options and that these sets fall under a specific category. It is claimed that two factors lead to the fundamental requirement for a theory of behavior

under uncertainty. The first relates to the decision-subjective maker's perceptions of incomplete knowledge in decision-making. The second point is that some observable events, such as insurance, cannot be well explained by the presumption that people behave with objective certainty. It is desired to adopt a broad strategy that takes into account the decision maker's perspectives on extra riches.

4.1.2. Expectancy Theory

According to Vroom (1964), a person's motivation is influenced by how they understand the link between their actions and rewards. The three categories that make up the theory are valence, expectancy, and instrumentality. The notion that a set amount of effort will be followed by a specified level of performance is known as expectation. Value expresses how significant a given outcome is to a person. The term "instrumentality" describes the connection between a first-level result, such as a promotion, and a second-level result, such as a raise. Business managers in the agricultural sector should also check to see if the intended level of performance is truly feasible and relate the desired outcome for the workforce to a specific performance. (Kerzner, 2004; Lock, 2002; Turner &Simister, 2000).

There are several reasons why businesses fail, according to researchers in the field of business management. There are two ways to define success or failure. The conventional measure of success is the ability to complete a task within the allotted time, budget, and quality parameters. The second criterion is more business-focused and includes factors like customer satisfaction, future operations, financial success, technical excellence, strategy consistency, ethical, safe, health-hazardous, and environmentally friendly business products, improving the company's reputation, and employee satisfaction, among others. (Kerzner, 2004; Lock, 2002; Turner &Simister, 2000).

4.2. Conceptual Framework

A conceptual framework is crucial to a research company since it aids in conceptual differentiation and the flow of ideas. Risk management strategies serve as the independent variable in this study because they have an impact on agribusiness performance, the study's dependent variable. Risk transfer, risk retention, risk prevention, and risk control are the primary independent variables.



Source: Research 2022

5. MATERIALS AND METHODOLOGY

This chapter describes the methodology that was used during the research process. It focuses on the research design, target population, sample design, data collection methods and data analysis procedure. This chapter also shows how information obtained, analyzed and interpreted to allow the researcher draw up conclusion on the research. The researcher highlighted the limitations encountered and the objectives were reached out.

5.1. Research design

A collection of rules for collecting, handling, evaluating, and reporting data in research investigations is known as a study design. It is the overarching plan for connecting theoretical research problems with pertinent (and practicable) actual research. In other words, the study design specifies how the required data were collected, the methods to be employed, and how all of these contributed to answering the research questions (Tesfaye Boru & Tesfaye Boru, 2018). In this researcher the descriptive and correlational designs were employed by the researcher.

5.2. Target Population

According to Barasa, Ikamari, Kiplang'at, and Oladipo (2015), a population is a group of people from whose research is conducted and has homogenous observable traits. The Coffee Exports and Processors Association of Rwanda (CEPAR) is among the key value chain actors in the coffee sector, comprising of 39 companies as members located in all provinces of the country. This association of processors and exporters occupy 90% of Rwandan Coffee. It includes 23 Managing Directors, 20 Chief of Finances, 20 Operation Managers, 15 Production Officers, Marketing and Sale officers, 25 Quality Controller officers, 25 CWS managers, and 25 Agronomist.

Department	Respondents	
Managing Directors	25	
Operation Managers	20	
Director of Finance	20	
Marketing and Sale Officers	15	
Production Manager	15	
Coffee Washing Station Managers	25	
Quality Control officer	25	
Agronomist	25	
Total	170	

Table 1. Target Population

Source: Researcher, 2022

5.3. Sampling Technique

The researcher chose the respondents using a technique known as universal or census sampling. According to Hajizadeh (2017), universal sampling is the practice of choosing samples from which every member of the population has an equal chance of being included. Due to the magnitude of the population, the researcher selected a universal sampling approach. Depending on the sort of analysis

5.4. Sample size

There are various writers that have offered a formula for choosing the sample size. For Small Populations, a census can be used. One strategy is to sample the entire population. A census gives information on every person in the population while eradicating sampling error. In order to obtain a desired level of precision, almost the entire population would need to be sampled in small populations. (Kish L. & Verma V., 1986). In the light of the above clarification, it shows that this study was conducted into entire 170 respondents from 39 company members of CEPAR.

5.5. Data Collection and Instruments

In order to gather data, the researcher employed both primary and secondary data collecting techniques. Primary data is information that has been produced by the researcher themselves, such as surveys, interviews, and experiments created specifically to help identify and address the current research issue. (Wagh, S, 2022). The researcher consulted reports, books, journals, articles, and electronic sources to gather secondary data. The main information utilized to control the data collection through questionnaires, interviews, and documentation.

5.5.1. Questionnaires

According to Cresw, Kausha and Singh (2017) a questionnaire is an inquiry tool used in collection of data in order to find answers of a set of research questions. The structured questionnaires were to answer the study research questions. For this particular research, a questionnaire was designed, administered and distributed to respondents. This questionnaire was composed by the set of questions in form of open, closed to provide the necessary information on the effect of the risk management on the coffee agribusiness sector performance in coffee sector.

5.5.2. Interview

According to Krlinger (2017), an interview is a discourse in which researchers aim to elicit information from their subjects. The researcher asked qualitative questions in regard to the study goals in order to obtain direct information from respondents. Both structured and unstructured interviews were used. The interview was administered to Managing directors and Finance directors, for other the questionnaires were distributed to all remaining respondents from 39 companies as members of CEPAR.

5.6. Reliability and validity of the measurement instruments

Before data collection it is important to test for reliability and validity of research instruments as shown in the section below.

5.6.1. Validity of the measurement instrument

Validity is the degree to which tools measure what they are designed to measure. The validity of this research instrument was measured through the opinion of experts especially the research supervisor, who is knowledgeable in this field.

The validity was tested using Content Validity Index (CVI).

 $CVI = \frac{No. \text{ of items regarded relevant by judges}}{Total No. of items}$

For this study the calculated CVI was

CVI= 164/170=0.96

If the calculated CVI is greater than 0.60 (Newing, 2018) the questionnaire was considered valid. Hence, this study is greater than 0.60, the questionnaire is valid.

5.6.2. Reliability of the measurement instrument

The reliability is done using Cronbach's Alpha Model on SPSS and that consistency is the assessment of the degree to which study instrument gives reliable results or data after repetitive trials. Reliability: The estimation of reliability used ascertained by pilot testing the instrument and applying a statistical package for social science (SPSS) and Cronbach's alpha coefficient test was used to measure internal consistency of the research questionnaire. Should Cronbach's alpha coefficient>0.7 therefore the instrument was considered reliable (Orodho & Kombo, 2002). The pilot study was carried out at SEAD project.

Table 2: Reliability Statistics

Cronbach's Alpha	N of Items
0.964	164

The findings indicated that al variables had a coefficient of 0.789. All constructs depicted that the value of Cronbach's Alpha are above the suggested value of 0.7 thus the study was.

5.7. Data analysis

The analysis of data allows the researcher to organize the data collected during the study in order to assess and evaluate the findings so as to arrive at some reasonable, valid and relevant conclusion. This study employs a descriptive statistical method for representing and inferential statistics such correlation analysis and multiple regression analysis (Creswell, 2009).

Descriptive statistics: Descriptive statistics was used to describe the practices of the risk management and the performance of coffee Agribusiness in CEPAR by using percentages, frequencies, mean and standard deviation.

Multiple linear regressions: With multiple regression analysis, we can assess the effects of multiple predictor variables (rather than a single predictor variable) on the dependent measure. A multiple regression model was used to test the significance of the effect of the independent variables on the dependent variable.

6. FINDINGS

Statistical analysis is the collection and interpretation of data in order to uncover patterns and trends. It is a component of data analytics. Statistical analysis can be used in situations like gathering research interpretations, statistical modelling or designing surveys and studies.

6.1. Correlation Analysis

The table 3 below revealed that there was a significant positive relationship between independent variables which are predicators of dependent variables.

	Risk Control and	Risk Prevention	Risk Transfer and	Risk Retention
Risk Control and	1			
	164			
Risk Prevention	.851**	1		
	.000			
	164	164		
Risk Transfer	.825**	.825**	1	
	.000	.000		
	164	164	164	
Risk Retention	.874**	. 874**	.893**	1
	.000	.000	.000	
	164	164	164	164
Coffee Agribusines	s .815**	.836**	.845**	.841**
Performance Sector.	.000	.000	.000	.000
	164	164	164	164

Table.3. Summary of Correlation

Correlation is significant at the 0.01 level (2-tailed). Source: Data analysis, 2022

This table shows the statistical significant positive correlation between risk control and coffee agribusiness performance where (R1= .815, p<0.01). It implies that when there is a decrease of risks as they are controlled, the performance increases. According the statistical findings mentioned in the table above, when the risks decreases at 81.5%, the performance of coffee agree business increases at 81.5%.

The results show that there is a strong positive correlation between risk prevention and coffee agribusiness performance as R2=.836, p<0.01). It implies that when the companies tried to minimize the risks by preventing them at 83.6% the performance of the business can increase at 83.6%. The correlation results indicates that there is the performance of coffee agribusiness increase at 84.5% as the risks are managed throughout risk transfer practices as it is shown by R3=.845 and p<0.01. Finally, the table reveals that the performance of coffee agribusiness significantly increases at 84.1% when there is reduction of the risks by applying risk retention practice as it is shown that R4= .841, p<0.01.

6.2. Multiple regression analysis

Multiple regressions are statistical technique that can be used to analyze the relationship between a single dependent variable and several independent variables. The objective of multiple regression analysis is to use the independent variables whose values are known to predict the value of the single dependent value.

Table.4. Multiple regression analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.839a	.732	.689	3.5414

a. Dependent Variable: Coffee Agribusiness Performance Sector

b. Predictors: (Constant), Risk Control Risk , Risk Prevention, Risk Transfer, and Retention

The results from the table above indicates the A multiple linear regression analysis was done to examine the relationship of the independent variables with the dependent variable. The adjusted R2 is the coefficient of determination. This value clarifies how coffee agribusiness performance varied with risk management practices like risk control, risk prevention, risk transfer and risk retention. The model summary table shows that four predictors can explain 0.732 (73.2%) of change in agribusiness performance was namely due to risk control, risk prevention, risk transfer and risk retention; an implication that the remaining 26.8% of the variation could be accounted for by other factors not involved in this research.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	772.103	4	258.9019	14.087	.000b
Residual	229.7769	159	13.14		
Total	1001.88	163			

a. Dependent Variable: Coffee Agribusiness Performance Sector

b. Predictors: (Constant), Risk Control Risk , Risk Prevention, Risk Transfer, and Retention

The results of the findings above revealed that the level of significance was 0.000(b) this implies that the regression model is significant in predicting the relationship between risk management related practices (i.e.: risks control, risk prevention, risk transfer and risk retention) and coffee agribusiness performance. The findings also showed level of fitness model of 14.087 which is positive with p-value of 0.000b less than both standard significance levels of 0.05 and 0.01.

Table 6: Regression Coefficientsa

	Unstandardized Coefficients		Standardized Coefficients		
Model	В	Std. Error	Beta	t	Sig.
(Constant)	.706	3.301		.214	.003
Risk Control	.460	.851	.382	.576	.000
Risk Prevention	.843	.803	.687	0.978	.001
Risk Transfer	.480	.650	.475	.917	.000
Risk Retention	.674	.437	.366	.487	.000

a. Dependent Variable: Coffee Agribusiness Performance Sector

b. Predictors: (Constant), Risk Control Risk, Risk Prevention, Risk Transfer, and Retention

The results of the findings above revealed that the level of significance was $0.000^{(b)}$ this implies that the regression model is significant in predicting the relationship between risk management related practices (i.e.: risks control, risk prevention, risk transfer and risk retention) and coffee agribusiness performance. The findings also showed level of fitness model of 14.087 which is positive with p-value of 0.000^{b} less than both standard significance levels of 0.05 and 0.01.

The study revealed that the coefficients of $Y = a + \beta X_1 + \beta X_2 + \beta X_3 + \beta X_4 + \epsilon$. Therefore, Y represents the performance of coffee agribusiness; α is the regression constant which shows the value of dependent variable without involving in predictors variables, X1 represents Risk Control, X2 is indicating Risk Prevention, X3 symbolizes Risk Transfer, and X4 represents. The result from the table above indicates that all the "p" values of the unstandardized coefficients (B) were less than 0.05 therefore they were all statistically significant predictor of coffee agribusiness performance as the dependent variable.

Thus we have; $Y = a + \beta X_1 + \beta X_2 + \beta X_3 + \beta X_4 + \epsilon$, where Y = 0.706 + 0.460 + 0.843 + 0.480 + 0.674 + 3.301

The multiple linear regression equation predicted that the performance of coffee agribusiness will be determined by the constant factor of 0.706 but there is the presence of other factors in risk management

related practices. The other variables illuminate that when there is a change of one unit risk management related practices lead to 0.460-unit for X1, also 0.843-unit for X2, again 0.480-unit for X3, and 0.674-unit change on the performance of coffee agribusiness in CEPAR as well as in Rwanda, respectively with standard error of 3.301 in the model.

It is revealed that the risk control has the significant influence on the performance of coffee agribusiness where β = 0.382 at p<0.05. It means that the null hypothesis was rejected and alternative hypothesis ((HA1) is accepted because it was found that there is there is a significant relationship between risk control and the performance of coffee agribusiness in Coffee Exporters and Processors Association of Rwanda. It is decided that risk control has a significant effect on coffee agribusiness performance.

The result found that Risk prevention has β = 0.68.7 at p<0.05 to indicate that the null hypothesis was rejected and alternative hypothesis is accepted. Thus, there is a significant correlation between the risk prevention and the performance of coffee agribusiness in Coffee Exporters and Processors Association of Rwanda. It is concluded that risk prevention has a significant effect on coffee agribusiness performance.

The third hypothesis was to test if there is or not relationship between risk transfer and performance of coffee agribusiness in Coffee Exporters and Processors Association of Rwanda. It was also found that the null hypothesis was rejected because Risk transfer has β = 0.475 at p<0.05 to imply that the researcher has accepted alternative hypothesis whereby there is significant relationship between risk transfer and performance of coffee agribusiness in Coffee Exporters and Processors Association of Rwanda. It is concluded that risk transfer has a significant effect on coffee agribusiness performance.

Finally, it is inferred that the null hypothesis was rejected and alternative was accepted because risk retention β = 0.154 at p<0.05. It is inferred that in this study all null hypothesis were rejected and alternative hypothesis were accepted. It implies that there is a significant relationship between risk management practices and the performance of coffee agribusiness in Coffee Export and Processor Association of Rwanda.

7. CONCLUSION AND RECOMMENDATION

7.1. Conclusion

This study aimed at finding out the relationship between the risk management practices and performance of coffee agribusiness sector in Rwanda, CEPAR, Kigali Rwanda as case study. It was agreed by the respondents at 70.6% risk management practices including risk control, risk prevention, risk transfer and risk retention have the positive effect on coffee agribusiness performance in Rwanda. The risk control including the risk identification, risk classification, risk assessment has the great influence on the performance of the coffee business in Rwanda. It was found that if the risks are controlled it can positively affect the performance of the coffee business in terms of customer satisfaction, productivity, revenue growth, client retention rate.

The Risk Prevention and Coffee Agribusiness Performance was the second objective of the study. It was found and agreed that the risk prevention includes, infrastructure on coffee washing stations, dry mill and laboratories and installation of safety systems against any event that may lead to business delay, the use of alternative plan and inspects on-going business to ensure activities are not delayed, training the company team to ensure that business runs within the allocated time schedule and the contingency plan to ensure that business activities are keep running are most elements of risk prevention. It was shown that risk avoidance helped with time management, cost management, return on investment and service quality and customers satisfaction.

In this study, the researcher found that risk prevention includes Insurance Policy use, using legal agreement to transfer risk to third part, and outsourcing have significant influence on coffee agribusiness performance. It also showed that risk transfer techniques including high-risk premiums, signing contracts, and outsourcing had an impact on how well the firm's IT initiatives performed.

The final objective of the study was about risk retention and coffee agribusiness performance. It is revealed by the findings that the risk retention includes: planning and implementing the selected opportunities and alternatives, taking actions on risks perceived for company resilience, adopting self-insurance to avoid occurrence of events that may affect business, exploring opportunities for meeting goals and objectives, and setting measures for adopt risks to not destroy the business performance. It was concluded that risk retention has an influence on the coffee agribusiness performance.

It is concluded that risk management practices comprise risk control, risk prevention, risk transfer and risk retention while coffee agribusiness performance is determined by customer satisfaction, productivity, revenue growth and client retention rate. It was inferred that risk management practices and performance of coffee agribusiness sector are significantly correlated because risk management practices have the effect on coffee agribusiness performance.

7.2. Recommendation

- It is recommended that the member of CEPAR is suggested to implement risk management practices in their daily business like risk control, prevention, transfer, and retention.
- Academically, for the future area of study, it is recommended to conduct research on the risk management practices in other sectors like construction, IT, social-economic projects; to assess how risks are managed in public studies.
- It is highly recommended to conduct research on other factors that can affect the performance of business.
- NAEB and MINAGRI as regulator of coffee sector in Rwanda is recommended to encourage every company to have risk management system to ensure that the coffee sector is safe and strong for sustainable export.

REFERENCES

- Boudreaux, K. C. (2011). Economic Liberalization in Rwanda's Coffee Sector: A Better Brew for Success. In &. M. P. Chuhan-Pole, Yes Africa Can Success Stories from a Dynamic Continent (pp. 185-200). Washington: The World Bank.
- Cook, M. L., & Chaddad, F. R. (2000). Agroindustrialization of the Global Agrifood Economy: Bridging Development Economics and Agribusiness Research. Agricultural Economics, 207-218.
- Cook, T. A. (2011). Mastering Purchasing Management for Inbound Supply Chain. USA: CRC PRESS.
- Cormican, K. (2014). Integrated Enterprise Risk Management: From Process to Best Practice. *Modern Economy, Vol.5 No.4*.
- Culp, C. L. (2002). A vocabulary of Risk The Art of Risk Management: Alternative Risk Transfer, Capital Structure, and the Convergence of Insurance and Capital Markets. Canada: John Wiley & Sons, Inc.
- Duggan, T. (2019, February 19). Why Is Risk Management Important to Project Success? Retrieved from CHRON: https://smallbusiness.chron.com/risk-management-important-project-success-56920.html
- Eisenhart, M. (1991). Conceptual Frameworks for Research Circa 1991: Ideas from Cultural Anthropologist ; Implications for Mathematics Education Researchers. Virginia: Blacksburg Press.
- Fabozzi, F. J., & Peterson, P. P. (2003). *Financial management and analysis*. (Vol. 100): John Wiley & Sons Inc.
- ICO. (2015). Sustainability of the coffee sector in Africa. *International Coffee Council* (p. 2). London, United Kingdom: ICO (accessed from: https://ico.org/documents/cy2014-15/icc-114-5eoverview-coffee-sector-africa.pdf).
- Jules Ngango, Seung Gyu Kim. (2019, July 22). Assessment of Technical Efficiency and Its Potential Determinants among Small-Scale Coffee Farmers in Rwanda. *Agricultural*, p. 1.

Kish L. & Verma V. (1986). Complete Censuses and Samples . 381-395.

- Louai Ghazieh, Nadia Chebana. (2021). The effectiveness of risk management system and firm performance in the European context. *Journal of Economics, Finance and Administrative*.
- MINAGRI. (2009). Strategic Plan for the Transformation of Agriculture in Rwanda Phase II. . Kigali: MINAGRI.
- NAEB. (2021). Annual report FY2020/2021:Rwanda Agricultural Export Performance. KIGALI: NAEB.
- Nguyen, N. C., Wegener, M., Russell, I., Cameron, D., Coventry, D., & Cooper, I. (2007). Risk Management Strategies by Australian Farmers: Two Case Studies. *Australian Farm Business Management Journal*, 4(1/2), 23.
- Ntirenganya, E. (2018, March 13). *Coffee dealers cry foul over Rwf4.5bn in unpaid arrears*. Retrieved from The New Times: https://www.newtimes.co.rw/section/read/230008
- PMI. (2003). A Guide to Project Management Body of Knowledge, 3rd Ed.,. Pennsylvania: Newtown Square.
- Seudieu, D. (2018, 2 5). PPPs, a strategic tool for addressing challenges facing the coffee sector in Africa". Grand-Bassam, Côte d'Ivoire.
- Tesfaye Boru & Tesfaye Boru. (2018). Research Design And Methodology. University of South Africa.
- Theuvsen, L. (2013). *Risks and Risk Management in Agriculture*. Germany : Georg August University of Goettingen.
- TUOVILA, A. (2020, May 28). *Sampling*. Retrieved from Investopia: https://www.investopedia.com/terms/s/sampling.asp
- Wagh, S. . (2022, April 22). Public Health Research Guide: Primary & Secondary Data Definitions. Retrieved from researchguides.ben.edu: ttps://researchguides.ben.edu/c.php?g=282050&p=40 36581 (visited on 24th June 2022
- Williams, J., & Schroder, W. . (1999). Introducing risk Agricultural Price Risk Management The principle of commudity trading. United Kingdom: Oxford University Press.
- World Bank Group . (2015). Aglicultural Global Practice Discussion Paper 02: Risk and Finance in the Coffee Sector. A Compendium of Cases Studies Related to Improve Risks Management and Access to Finance in Coffee Sector. Washington DC, USA: World Bank Group.
- World Bank Group. (2016). Agricultural sector risk assessment: methodological guidance for practitioners. Washington, d.c. 20433 usa: world bank group.