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STRATEGIC MANAGEMENT

INFLUENCE OF CONTINGENCY IDENTIFICATION ON SURVIVAL OF HORTICULTURAL FIRMS IN NAIVASHA, KENYA

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ABSTRACT

Purpose of the study: The purpose of the study was to examine the influence of contingency identification on survival of horticultural firms in Naivasha, Kenya.

Research problem: Horticulture farming activities in Naivasha has been decreasing with many firms closing down their operations and others relocating to other countries such as Ethiopia. For instance, Karuturi flower farm became unsustainable in 2016 and shut down its operations. Besides, Oserian Ltd made a loss of Ksh.137 million in 2017 and further, the loss increased to 192 in 2018, which led to the firing of more than 400 employees to reduce the cost of production.

Research methodology: The study adopted a mixed research methodology. The researcher utilized a descriptive research design. The unit of observation was 195 respondents who included managers, supervisors and the staff. Qualitative data was analyzed thematically while quantitative data was done using descriptive and inferential statistics (correlation and regression).

Findings: The correlation results showed that contingency identification is positively and significantly associated with survival (r=.652, p=.000). The regression results showed that contingency identification is positively and significantly related to firm survival (β=.364 p=0.000).

Conclusion: The study concluded that contingency identification is positively and significantly related to firm survival. It was found a unitary improvement in contingency identification leads to an increase in survival of the horticultural firm by 0.364 units when other factors are held constant.

Recommendations: The study recommended that there should be the development of contingency planning policy statements and be done regularly with extensive consultation. The horticultural firms need to identify preventive controls and protection systems to be used in case of an emergency. The management should educate its employees on the principles of operation to be

adhered to when there is a need for an alternative course of action. The management within the horticultural firms needs to involve other employees in the development of contingency planning strategies. Moreover, horticultural firms need to best forecast future risks by analyzing previous and current occurrences affecting the firm.

Keywords: *Contingency identification, survival, horticultural firms, Naivasha, Kenya*

BACKGROUND TO THE STUDY

The survival of the agriculture firms is mostly determined by the revenue generated and the cost used to generate that revenue (Shinogi, Krishnankutty, Krishnanw, Srivastava, Gills & Balakrishnan, 2017). The aspect of employing a variety of strategies within the agricultural firms is to outsmart the competitors and continue with operations and further expand the market share (Tseng & Lee, 2014). The survival of agricultural firms can be influenced by the development of an effective recovery plan to be used in case an emergency occurs (Jorrigala, 2017). Sustainability of the agricultural sector in the Asian countries is significant as it has contributed to more than 30% of the total employment in many states, though the industry is faced with hurdles (AlSagheer & Ahli, 2016).

The elongated survival of the farmers can be achieved when the institutions establish mechanisms to deal with the uncertainties that might happen in the future (Mkonda & He, 2016). According to Matsane and Oyekale (2014), agricultural firms are supposed to mitigate the difficulties that may reduce the survival in the industry for long. Tefera, Bijman and Slingerland, (2017) revealed that the survival of agricultural firms is essential and becomes a source of employment for many people in developing countries. The survival of the firms, according to Tefera, Bijman and Slingerland (2017), Matsane and Oyekale (2014), Pujara (2016), Mkonda and He (2016), Korir (2013), Maundu and Karugu (2016) can be determined by contingency identification

Contingency identification refers to the situation in which the company identifies the future event or circumstance that is possible to alter the normal operations of the business but cannot be predicted with certainty the time it will happen (Dropulić, 2017). The contingency identification entails analyzing the functioning of the organization and determining the limitations that may alter the normal operations in the coming days to develop a mechanism that will deal with those shortcomings (Sankei, Naikuni & Kyuli, 2015). The contingency identification also entails identifying the relevant emergency protection systems and control equipment used in case of an emergency Muteti, 2014). According to Mohammed and Knapkova (2016), the contingency

identification entails understanding the principles of operation that will be adhered to when there is a need for an alternative course of action.

Contingency identification involves the development of the contingency planning policy statement (Albert & Matsom, 2014). The contingency planning plan statement must specify the organization's total contingency purposes as well as establish the business structure and responsibilities for contingency preparation (Brenda, Esther & Agnes, 2015). Besides, contingency identification involves establishment of contingency strategies to be used in times of an emergency (Kariuki & Kamau, 2016). The identification of the disaster risks involves establishing factors that cause disasters and preventive measures to those disasters (Bello & Odusami 2015).

The survival of horticulture farming in Kenya has been declining and farmers are shifting to other forms of agriculture (Kalui, 2016). For instance, Karuturi Flower Farm became unsustainable in 2016 and resulted in financial challenges that led to most of its assets been auctioned by CfC Stanbic in 2018 to cater for Sh1.8 billion debt (Anode, Onguso & Magoma, 2018). Besides, Oserian Ltd has been faced with a lot of challenges since 2017 has laid off more than 400 employees, pointing out reduced European market need and high cost of production. The closure of Kabazi Canners factory left farmers in the region without the market for their farm products. Based on this background, the conducting of the study was deemed to be worthy.

STATEMENT OF THE PROBLEM

There has been declining performance of some of the horticulture firms in Naivasha (Michura, 2019), for instance, the gross profits of Karuturi Flower Farm reduced from a Ksh 38.15 million in October 2010 to ksh. 22.7 million at the beginning of 2014 and made 1.30 million in 2018. Besides, Oserian Ltd made a loss of Ksh.137 million in 2017 and further, the loss increased to 192 in 2018, which led to the firing of more than 400 employees to reduce the cost of production (Chemirmir, Musebe & Nassiuma, 2018). Moreover, the Kabazi Canners factory made a loss of Ksh 74 million that lead to its termination of the activities in Naivasha (Michura, 2019). Empirical studies by Brenda et al., 2015, Mwangi, 2016 and Kalui, 2009 recommends for studies that focus on firms' strategies on anticipating and mitigating unforeseen events that might influence the firm's survival. Korir (2013) established that the risks that affected the farmers in Uasin Gishu included drought, market prices and the institutions risk. These studies present a conceptual gap because they focused on the risk management and organizational strategies while the current study

focused on contingency identuification. It is evidenced that a knowledge gap exists that need to be ascertained by examining the role of contingency identification on survival of horticultural firms in Naivasha, Kenya.

RESEARCH OBJECTIVE

To examine the influence of contingency identification on survival of horticultural firms in Naivasha.

LITERATURE REVIEW

Empirical Review

Schmidt, Zanini, Korzenowski, Schmidt and Benchimol (2018) sought to evaluate the viable practices in small and intermediate coffee farming enterprises in Southern Brazil. The variables of interest were to identify the primary practices of sustainability, including the values and transparency, training, risk identification, working environment, technology and value addition. A questionnaire was used to gather the data. Based on the analysis, it was observed that values and transparency, training, risk identification, working environment, technology and value addition were all key factors that stimulated the sustainability. The study recommended that the small and medium-sized coffee farming enterprises in Southern Brazil embrace value and transparency, train workers, look for the possible risks, develop a favorable working environment and advance to the modern technology for sustainability.

Tefera, Bijman and Slingerland (2017) conducted a study in Ethiopia to examine the effect of the agricultural cooperatives on the sustainability and growth of the farmers in Ethiopia. The researcher conducted the study to the cooperatives associated with the farming of the coffee, fruits, vegetables and dairy. The results of the study reported that cooperatives take an important role in ensuring the survival of farming and further study also reported that the survival of most agricultural cooperatives in the country was performing poorly because of poor management and lack of putting in place a contingency plan that may be used when another strategy is needed to be enforced.

Iyakaremye (2015) sought to examine the association between the performance and the management of the risks to the agricultural firms listed at NSE. The study conducted a census in which all the firms were included in the study. The justification for conducting the census was because the number of firms was few and manageable. The respondents were managers and

farmers who were also part of the employees of the firms. The results of the study noted that listed agricultural companies identify the possible causes of the risks in advance and enable them to put aside resources that will be used to mitigate the situation when it occurs. The study also indicated that the financial performance is much dependent on current ratio, debt to equity ratio and debt ratio and they signal the risks and bankruptcy in agricultural companies.

Mkonda and He (2016) investigated the effect of the efficacy of transforming agriculture for the survival of agricultural firms in Tanzania. The study utilized both the secondary data and primary data. The primary data was obtained by issuance of the questionnaire to the respondents. Both closed-ended and open-ended questionnaires were used for the purpose of comprehensive data collection. The findings of the investigation revealed that planning for the possible risks is vital and it included effective policies, plans and programmes put in place by the commercial agriculture sector in the country.

Anakpo (2014) analyzed the effect of output price risk on the survival of cassava farming in the Volta region of Ghana. Primary data were collected from 500 sampled cassava farmers using a structured interview schedule. The findings of the examination noted that crop diversification, off-farm business, varying harvesting time and reduce farm size were the critical risk management strategies used by the farmers in the study area. Also, the examination revealed that a shortage of readily available markets, inadequate processing facilities, the land tenure system, insufficient funds, and imperfect information regarding price changes were the significant constraints facing the survival of cassava farming.

Andrade, Makunde, Ricardo, Menomussanga, Alvaro and Gruneberg (2017) conducted a study on the elements influencing the survival of sweet potato vines in Mozambique. The study mainly looked at the impact risk assessment, allocation of funds to emergencies, competency of farmers and fertilizes used on production. The outcome showed that risk assessment, allocation of funds to emergencies, competency of farmers and types of fertilizes were critical in determining the survival of sweet potato vines in Mozambique. The study concluded that risk assessment, allocation of funds to emergencies, farmers' competency and types of fertilizers were positive and significant in determining the survival of sweet potato vines in Mozambique.

Theoretical literature review

The study was based on contingency theory. The proponent of the theory was Edward Fiedler in 1964. The theory establishes that the institution needs to develop a contingency plan and management should guide its subordinates on how to deal with the calamity in case it strikes the organization (Tellis & Fornell, 1988). Similarly, the theory reports the essence of developing a backup is to avoid the liquidation of the company during the crisis. The contingency plan needs to be adjustable from time to time, depending on the changes in the environments and factors of production (Grant, 1990). The backup plan needs to provide managers and all the employees with a wide range of methods to respond to an emergency to recover from the downfall as fast as possible. The theory reveals that the skills of a leader in an organization can be used as a basis to motivate other employees and further inspire their loyalty toward the organization (Maye & Engel, 2013).

However, the theory had some weaknesses. For instance, the theory suggests that company owner that implements contingency theory should enable their managers to flex plan and even bypass it if the conditions demand, but in some cases, the managers will misuse that privilege for the self-interest. Also, another weakness of the theory is that a leader might show up to his/her subordinates as inconsistent and also insincere due to often altering. Besides, the supervisor might not be adequately experienced to boost decisions as well as leadership styles to match various circumstances. The theory is relevant for decision making in organizations. Based on the theory, it is significant to understand how the qualities and abilities in developing the strategies of the organization. The theory reveals that the skills of a leader in an organization can be used as a basis to motivate other employees and further inspire their loyalty toward the organization. Therefore, the theory was much relevant in the study.

Conceptual Framework

Figure 1 illustrate the relationship between contingency identification and firm survival.

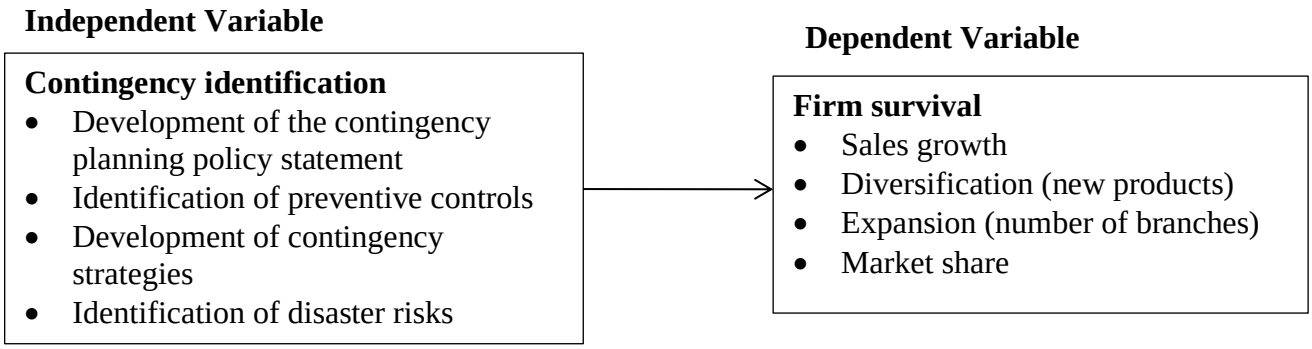

Figure 1: Conceptual Framework

RESEARCH METHODOLOGY

The study adopted a mixed research methodology that included carrying out the survey using both qualitative and quantitative methods of data collection and analysis. With a mixed triangulation method, extensive and comprehensive data was obtained that was more effective for making the deductions. The descriptive research design was applied in the study. The descriptive study design was deemed suitable since the researcher collected data based on the respondents' opinions. The target population included 14 large horticultural firms in Naivasha. The target population was 195 and the unit of observation included managers, supervisors and support staff. Census was conducted and all of the managers, supervisors and staff were included in the study. A stratified simple random sampling technique was used.

RESEARCH FINDINGS AND DISCUSSION

Response Rate

The response rate of the supervisors was 93.10% and that of the staff was 99.17%. Moreover, 12 managers out of 14 were interviewed. This represented a response rate of 85.71%. According to Mugenda and Mugenda (2003) and Kothari (2004), a response rate of above 50% is adequate for a descriptive study. Babbie (2004) also asserted that return rates of above 50% are acceptable to analyze and publish, 60% is good and 70% is very good and 80% is excellent. Based on these assertions from renowned scholars, the response rate from all the unit of observation in the current study was above 80% hence very good for the study for the analysis and making of the inferences.

Descriptive Statistics

This section presents the descriptive statistics of contingency identification. The study did the coding of 12 managers of the firms who were interviewed as follows; manager from Finlay Ltd

was manager1, Wildfire Ltd manager2, Longonot Horticulture Ltd manager 3, Oserian Ltd manager 4, Nini Limited manager 5, Agriflora Kenya Limited manager 6, Delamare Estate manager 7, Aquilla Development Co. Ltd manager 8, Delmare Pivot manager 9, Gorge Ltd manager 10, Tulaga M manager and Sulmac manager 12. The descriptive statistics of contingency identification is presented in Table 1

Table 1: Descriptive Statistics of Contingency Identification

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	SD
Development of contingency planning policy statement is done regularly with extensive consultation	2.80%	10.80%	10.20%	34.70%	41.50%	4.01	1.10
The firm has identified preventive controls and protection systems to be used in case of an emergency	4.00%	8.00%	3.40%	49.40%	35.20%	4.04	1.03
The management educates its employees on the principles of operation to be adhered to when there is a need for an alternative course of action.	2.80%	6.80%	10.80%	38.10%	41.50%	4.09	1.02
The management involves other employees in development of contingency planning strategies	3.40%	7.40%	4.50%	36.40%	48.30%	4.19	1.05
The Identification of disaster risks depends on the previous occurrence that has affected the firm	3.10%	8.50%	6.80%	50.00%	31.50%	3.94	1.10
Average						**4.05**	**1.06**

The field results (descriptive statistics) depicted in Table 1 indicate that 76.20% (34.70%+ 41.50%) of the respondent (supervisors and staff) disagreed the development of contingency planning policy statement is done regularly with extensive consultation while 13.60% (2.80%+10.80%) agreed with the statement and 10.20% remained neutral. This implied that the majority of the respondents disagreed that the development of contingency planning policy statements is done regularly with extensive consultation, as supported by the mean score of 4.01 with a standard deviation of 1.10. It was found that 84.60% of the respondents disagreed the firms have identified preventive controls and protection systems to be used in case of an emergency, while 12% agreed with the statement and 3.40% remained neutral. The mean score of the survey

question was 4.04 with a standard deviation of 1.03 and this signified that the majority of the respondents disagreed the firms have identified preventive controls and protection systems to be used in case of an emergency.

The study found that 79.60% of the respondents disagreed the management educates its employees on the principles of operation to be adhered to when there is a need for an alternative course of action and 9.60% agreed with the survey question while 10.80% remained neutral. This showed that majority of the respondents disagreed the management educates its employees on the principles of operation to be adhered to when there is a need for an alternative course of action as the mean score is 4.09 with a standard deviation of 1.02.

The study found that 84.70% of the respondents disagreed the management involves other employees in the development of contingency planning strategies, while 10.80% agreed with the statement with 4.50% remaining to be neutral. The mean score was 4.19, with a standard deviation of 1.05. It was found that 81.50% of the respondents disagreed the identification of disaster risks depends on the previous occurrence that has affected the firm, while 11.60% agreed with the statement and 6.80% remained neutral. The mean score of the survey question was 3.94, with a standard deviation of 1.10. Finally, the average mean score of the survey questions of contingency identification was 4.05, with a standard deviation of 1.06. This signified that the majority of the respondents disagreed with the majority of the survey questions.

Moreover, the researcher interviewed the managers of the firms to look at how the organization identified the future event or circumstances that are possible to alter the normal operations of the business and the findings is as follows; Manager 1 said, "*the organization has identified the future event or circumstances that are possible to alter the normal operations of the business by comparing what happened in the past and what is happening now and then predict the future*" Manager 1 [Key Informant, 2021]. Manager 2 depicted, "*Future events are identified by doing extensive research and analysis of the present and past evens"* Manager 2 [Key Informant, 2021]. Manager 3 noted, "*Future event possible to alter the normal operations of the business are identified through media reports from other firms offering same products and serv*ices" Manager 3 [Key Informant, 2021]. Manger 4 indicated, "*Future event possible to alter the normal operations of the business are identified through advice from research consultancy firms*" Manager 4 [Key Informant, 2021].

Furthermore, manager 5 said, "*Future events possible to alter the normal operations of the business are identified through research media reports and analyzing the past and presents events*" Manager 5 [Key Informant, 2021]. Likewise, manager 6 said, "*Future events possible to alter the normal operations of the business are identified through media reports and internal research*" Manager 6 [Key Informant, 2021]. In addition, Manager 7 reported, "*Future events possible to alter the normal operations of the business are identified through analyzing the past events and present*" Manager 8 noted, "*comparing the past and the present events facilities the firm to identify future events possible to alter the normal operations of the business"* Manager 8 [Key Informant, 2021]. Manager 10 reported, "*Future events possible to alter the normal operations of the business are identified through media reports and internal research"* Manager 10 [Key Informant, 2021]. Finally, manager 12 reported, "*Future events possible to alter the normal operations of the business are identified by analyzing the past and present*" Manager 11 [Key Informant, 2021].

The dependent variable in the study was survival and the descriptive statistics is presented in Table 2

Table 2: Descriptive Statistics of Survival

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	SD
The annual average sales of the firm has been increasing over years	5.10%	14.80%	8.00%	36.40%	35.80%	3.83	1.21
The organization has opened variety of branches in the last five years	4.50%	13.60%	6.80%	23.30%	51.70%	4.04	1.24
The organization has introduced new products in the market to increase the revenue	4.00%	8.50%	7.40%	43.20%	36.90%	4.01	1.07
The profitability level of the firm has been above the average in the last five years	5.10%	10.20%	5.70%	47.20%	31.80%	3.90	1.11
The market share of the organization has been higher than those of other firms in the region	1.70%	9.10%	5.10%	50.60%	33.50%	4.05	0.95
Average						**3.97**	**1.12**

The study reported that 72.20% of the supervisors and staff disagreed the annual average sales of the firm have been increasing over the years, while 19.90% agreed with the survey question and 8.00% remained neutral. The mean score of the survey question was 3.83, with a standard deviation of 1.21. The indicated that the majority of the respondents (supervisors and staff) disagreed the annual average sales of the firm have been increasing over the years. It was found that 75% of the respondents disagreed the organization has opened various branches in the last five years, while 18.10 agreed with the survey question and 6.80% remained neutral. Moreover, the study found that 80.10% of the respondents disagreed the organization has introduced new products to increase the revenue and 12.50% agreed with the statement, while 7.40% remained undecided. The mean score of the survey question was 4.01, with a standard deviation of 1.07. This implied that the majority of the supervisors and staff disagreed the organization has introduced new products in the market to increase the revenue.

Further, the study found that 79% of the supervisors and staff disagreed profitability level of the firm has been above the average in the last five years, while 15.30% agreed with the statement and 5.70% remained neutral. The mean score of the survey statement was 3.90, with a standard deviation of 1.11. This signified that the majority of the respondents disagreed profitability level of the firm has been above the average in the last five years. It was found that 84.10% of the respondents disagreed the market share of the organization has been higher than those of other firms in the region, while 10.80% agreed with the statement. The mean score of the survey question was 4.05, with a standard deviation of 0.95. The average mean score of the survey questions was 3.97 with a standard deviation of 1.12. This implied majority of the supervisors disagreed with the developed survey questions.

Moreover, the research interviewed managers of the different firms and manager 1 said, "*The annual average sales of the firm in the last three years has been average and sometimes increasing and other times decreasing"* Manager 1 [Key Informant, 2021]. Moreover, Manager 1 noted, "*the firm has opened one branch in the last five years and no new products have been introduced in the same period*" Manager 1 [Key Informant, 2021]. Manager 2 reported, "*The annual average sales has been declining and neither no other branches has been opened nor new products" Manager* 2 [Key Informant, 2021]. Manager 3 said, "*The average sales has been flattening and no other branches have been opened or new products introduced in the last five years"* Manager 3 [Key Informant, 2021]. Moreover, manager 4 said, "*The annual average sales have been decreasing*

with no new branched or products introduced in the last five years" Manager 4 [Key Informant, 2021]. Manager 5 said, "*The annual sales has been average with no new products or branches opened in the last five years"* Manager 5 [Key Informant, 2021].

Furthermore, Manager 6 reported, "*The annual sales has been decreasing with no new branches opened or new products introduced in the last five years"* Manager 6 [Key Informant, 2021]. Likewise, Manager 7 said, "*The sales has been declining but they have opened one branch in the last five years however, no new products introduced in the same period*" Manager 7 [Key Informant, 2021]. Manager 9 revealed, "*The annual average sales has been declining with no branches opened or new products introduced in the last five years"* Manager 9 [Key Informant, 2021]. Manager 10 said, "*The sales has been average and no new products or branches has been opened in the last five years"* Manager 10 [Key Informant, 2021]. Likewise, manager 11 argued, "*The sales has been decreasing and no new products or branches in the last five years"* Manager 11 [Key Informant, 2021]. Finally, manager 12 said, "*The annual sales has been average and no branches opened or new products introduced in the last five years*" Manager 12 [Key Informant, 2021].

Moreover, from the secondary data collected from the firms, it was noted that the average sales growth has been very low, with none of the firms recording the sales growth of above 1.2% since 2016. The average sales growth of Wildfire ltd between 2016 and 2019 was 1.027198%, Longonot Horticulture Ltd 1.062457%, Oserian Ltd 0.990931%, Nini Limited 1.005917%, Agriflora Kenya Limited 1.129268%, Aquilla Development Co. Ltd 0.974187%, Delamare Estate 1.016614%, Delmare Pivot 1.161459%, Gorge Ltd 1.013059%, Finlay Ltd 0.969797%, Carza Culture Ltd 1.067985%, Tulaga flower 0.993692%, May flower (k) Ltd 0.950375% and Sulmac Co. Ltd 0.976786% as presented in appendix VII. Moreover, only Delemare Estate and Finlay Ltd have introduced a new product and open a new branch, respectively. Thus, it can be noted that almost all of the horticultural firms are performing dismally.

Inferential Statistics

The inferential statistics entails the correlation analysis and regression analysis.

Correlation Analysis

The correlation results are shown in Table 3

Table 3: Correlation Results

		Firm survival	Contingency identification
Firm survival	Pearson Correlation	1.000	
	Sig. (2-tailed)		
Contingency identification	Pearson Correlation	.652**	1.000
	Sig. (2-tailed)	0.000	

The correlation results depicted in Table 3 establish a positive and significant association exists between contingency identification and firm survival (r=.652, p=.000). The results concur with the findings of Andrade, Makunde, Ricardo, Menomussanga, Alvaro and Gruneberg (2017), who notes risk assessment, allocation of funds to emergencies, farmers' competency and types of fertilizers are positively and significantly in determining the survival of sweet potato vines in Mozambique. Furthermore, Sugiharto, Sulistiowati and Nofiyanti (2018) revealed that contingency assessment is a significant factor determining the extent of sustainability. Further, Schmidt, Zanini, Korzenowski, Schmidt and Benchimol (2018) observed that values and transparency, training, risk identification, working environment, technology and value addition were all key factors that stimulated the sustainability. Tefera, Bijman and Slingerland (2017) reported that cooperatives take an important role in ensuring the survival of farming and further study also reported that the survival of most agricultural cooperatives in the country was performing poorly because of poor management and lack of putting in place a contingency plan that may be used when another strategy is needed to be enforced. Likewise, Mkonda and He (2016) revealed that planning for the possible risks is vital and it included effective policies, plans and programmes put in place by the commercial agriculture sector in the country.

Diagnostics Tests

The section entails linearity test, normality test and heteroscedasticity test.

Linearity Test

Linearity assumes a straight-line relationship between the predictor variables and the dependent variable. Linearity test was assessed by examination of a scatter plot of all the independent variables against the dependent variable to measure if there is a straight-line relationship. All the independent variables depicted a straight-line relationship with the dependent variable as shown in Figure 2

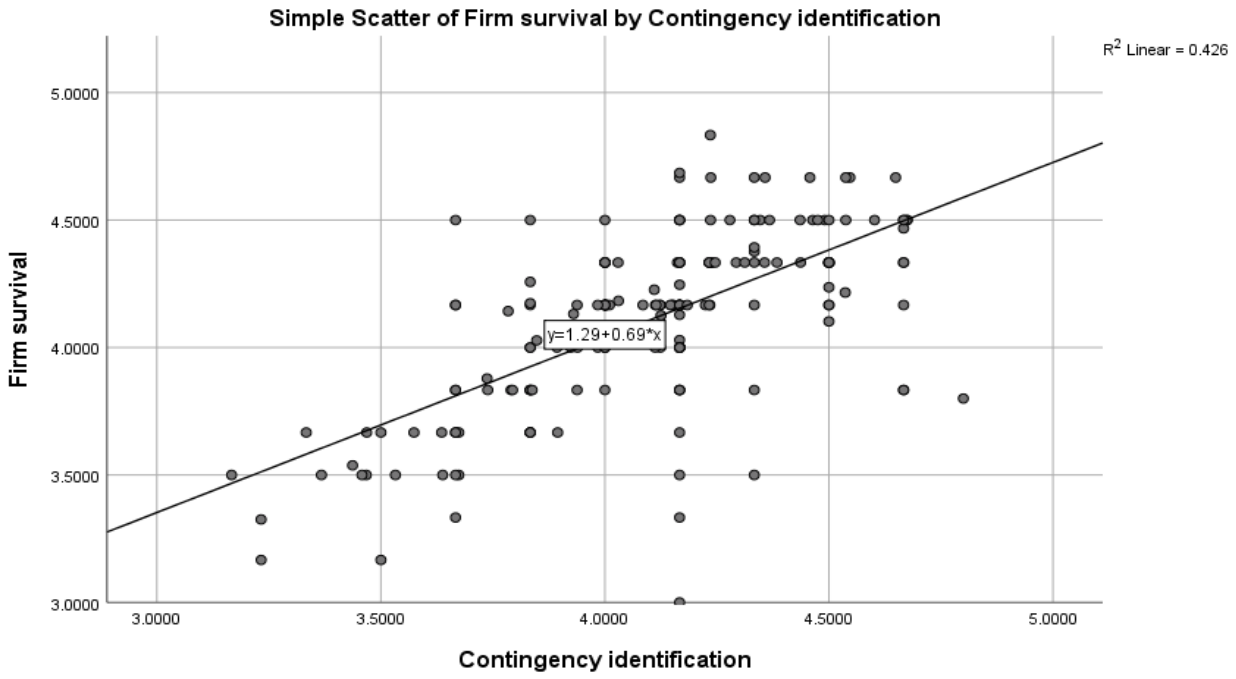

Figure 2: ***Scatter Plot of Contingency Identification against Firm Survival***

Figure 2 shows that contingency identification depicted a straight-line relationship with the dependent variable survival. In addition, the R-squared showed the percentage of the dependent variable variation that a linear model explains.

Normality Test

The normality of the variables was tested using the Kolmogorov–Smirnov test. The Kolmogorov–Smirnov test is used when the sample size is greater than 50 while Shapiro–Wilk test is used when the sample size is less than 50 or equal to 50. If the p-value is less than 0.05, the null of normality at the 5% level is rejected. The normality test is presented in Table 4

Table 4: Test for Normality

	Kolmogorov–Smirnov test.		
Variables	**Statistic**	**df**	**Sig.**
Contingency identification	.093	176	0.081

The results from Table 4 show that the data was normally distributed as the respective p values for all variables were greater than 0.05. Therefore, we can conclude that the data is normally distributed.

Heteroscedasticity Test

A heteroscedasticity test was run using Breusch-Pagan / Cook-Weisberg test to test whether the error terms are correlated across observations in the cross-sectional of the data. If the p-value is less than 0.05, the null hypothesis is rejected. Results are presented in Table 5

Table 5: Heteroscedasticity Results

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity		
Ho: Constant variance		
Variable: fitted values of Survival		
chi2(1)	=	4.59
Prob > chi2	=	0.322

Results in Table 5 show that the p-value is greater than 0.05. Then the null hypothesis was not rejected at a critical p value of 0.05 since the reported value was 0.322>0.05 and thus, the data did not suffer from heteroscedasticity.

Regression Analysis

The regressions of coefficient results are presented in Table 6

Table 6: Regressions of Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.44	0.246		-1.788	0.076
	Contingency identification	0.364	0.054	0.346	6.71	0.000

a Dependent Variable: Firm survival

The results from Table 6 shows that contingency identification is positively and significantly reacted to firm survival (β=.364 p=0.000). This was supported by a calculated t-statistic of 6.71 that is larger than the critical t-statistic of 1.96. This implied a unitary improvement in contingency identification leads to an increase in survival of the horticultural firm by 0.364 units when other factors are held constant. The results concur with the findings of Schmidt, Zanini, Korzenowski, Schmidt and Benchimol (2018) who observed that values and transparency, training, risk identification, working environment, technology and value addition are key factors that stimulate

sustainability. Moreover, Andrade, Makunde, Ricardo, Menomussanga, Alvaro and Gruneberg (2017) showed that risk assessment, allocation of funds to emergencies, competency of farmers and types of fertilizers are critical in determining the survival of sweet potato vines in Mozambique. Likewise, Mkonda and He (2016) revealed that planning for the possible risks is vital and it included effective policies, plans and programmes put in place by the commercial agriculture sector in the country. Further, Tefera, Bijman and Slingerland (2017) reported that cooperatives take an important role in ensuring the survival of farming and further study also reported that the survival of most agricultural cooperatives in the country was performing poorly because of poor management and lack of putting in place a contingency plan that may be used when another strategy is needed to be enforced.

CONCLUSION

The study concluded that contingency identification is positively and significantly reacted to firm survival. It was found a unitary improvement in contingency identification leads to an increase in survival of the horticultural firm by 0.364 units when other factors are held constant. The contingency identification includes the situation in which the company identifies the future event or circumstance that is possible to alter the normal operations of the business but cannot be predicted with certainty the time it will happen. The contingency identification also incorporates developing a contingency planning policy statement, identifying preventive controls and protection systems to be used in case of an emergency and developing contingency planning strategies. The study further concluded that contingency identification entails understanding the principles of operation that will be adhered when there is a need for an alternative course of action.

RECOMMENDATIONS

The study recommended that there should be the development of contingency planning policy statements and be done regularly with extensive consultation. The horticultural firms need to identify preventive controls and protection systems to be used in case of an emergency. It is further recommended that the management should educate its employees on the principles of operation to be adhered to when there is a need for an alternative course of action. The management within the horticultural firms needs to involve other employees in the development of contingency planning strategies. Moreover, horticultural firms need to best forecast future risks by analyzing previous and current occurrences affecting the firm

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