CHAPTER FOUR: EVIDENCE BASED ON SAMCHI MICRO-INSURANCE

The primary data that had been gathered using the techniques outlined in chapter three was cleaned, presented, analysed, and evaluated by the researcher in chapter four. After downloading and saving the online survey responses to an excel file, the data were imported into SPSS version 25 for analysis. The data's conclusions were displayed using tables, pie charts, and bar charts. To fully analyse the data, a structural equation modelling method was used. The poll was used to measure important findings from a statistical analysis of the linkages between variables concerning the taming operational management risks in micro-insurance organisations: model based on a study of SamChi. The chapter presents the findings from the main data using the suitable analytical techniques described in the approach. The data were analysed using SPSS version 25, and the study had a population size of 120 that included SamChi management and employees in Harare. The sample demographic size was 92 participants.

The individual managerial personnel and employees of SamChi Micro-Insurance located within the city of Harare, Zimbabwe received a total of 92 questionnaires for collection of data, of which 89 questionnaires were completely filled out and returned while only 4 surveys were not returned back, demonstrating a high response rate of 97%. This response rate is considered good for research purposes. As exhibited in Table 4.2, most respondents from the target population of SamChi Microinsurance management and employees located in Harare, Zimbabwe completed and submitted the questionnaires distributed, yielding a complete and suitable data set for analysis on the studied organisation and its workers.

Table 4.1: Presents questionnaire response rate (***Simulation from SPSS version 25 output)***

Item	Frequency	Rate
Questionnaires administered	92	100.00%
Questionnaires Returned	89	97.00%

Prior research indicates that for a quantitative study to be deemed satisfactory, it requires a minimum response rate of seventy percent (Karim, 2023). In the present study examining SamChi Microinsurance personnel in Harare, Zimbabwe through distribution of questionnaires, the high response rate of 97% surpassed this threshold. As Karim (2023) establishes response rates at or above seventy percent allow for conclusions to be drawn from a data set, the 97% response rate obtained in this particular study provides a sufficient sample to analyse and interpret results. Each individual respondent among the managerial employees and staff of SamChi Microinsurance was willing to complete the distributed surveys, yielding a high level of participation and contributing to the elevated response rate achieved.

We provide details about the demographics of Individual managerial employees and staff of SamChi Microinsurance in Harare City. Gender (sex), age group, marital status, and educational attainment are among the attributes.

Table 4.2: Presents profile of respondents (***SPSS version 25 Output)***

Demographic Information	Number	Sample percentage (%)
Gender (sex)		
Male	61	69.00
Female	28	31.00
Total	89	100.00
Age (years)		
18-25	14	16.00
26-35	25	28.00
36-45	31	35.00
46-60	19	21.00
Total	89	100.00
Marital status		
Single	31	35.00
Married	58	65.00
Total	89	100.00
Educational level		
PhD	5	6.00
Masters	41	46.00
Degree	43	48.00
Advanced level	-	-
Secondary education	-	-
Total	89	100.00

The demographic profile of respondents provides useful insights about the characteristics of the sample population that was studied (Chepngeno, Kyamanywa, & Bett, 2019). As presented in Table 4.2, there were notable findings regarding the gender, age, marital status and education level of the 89 Individual managerial employees and staff of SamChi Microinsurance in Harare City who participated in the study.

In terms of gender, the majority (69%) of respondents were male while 31% were female, suggesting an imbalance in male to female representation in managerial roles within the organisation (Sekaran & Bougie, 2016). Regarding age distribution, the largest proportion (35%) of respondents were between 36-45 years old, with the next highest percentage (28%) falling within the 26-35 years age bracket. This implies that most managerial personnel were in their mid-career, experienced years.

When considering marital status, 65% of respondents reported being married while 35% identified as single. This corresponds with the age demographics mentioned, where many participants would likely be at the life stage of marriage (Frankfort-Nachmias & Leon-Guerrero, 2018). Finally, regarding educational qualifications, nearly half (48%) held a degree as their highest level of study attained, followed by 46% with a master's degree and 6% with a PhD. This indicates that the sample population was highly educated overall.

The data from Table 4.2 indicates that males dominated the sample, comprising 69% of respondents, while females only accounted for 31%. This gender imbalance in representation has implications worth considering. Research shows that managerial and leadership positions tend to be male-dominated fields globally. A study analysing gender distribution in top management roles across 60 countries found that on average, women hold only 16% of board seats and 10% of senior positions like CEO or equivalent (Adams & Kirchmaier, 2016). This prevalence of men in leadership can be attributed to various cultural, organisational and social barriers facing women's career progression (Ellemers, 2014).

Within the African context as well, the business sector continues to struggle with gender disparity in top roles. Statistics reveal that only 10-15% of senior

and middle management positions in African companies are occupied by women (Terera & Mgadza, 2021). The lack of female role models and an 'old boys club' mentality are some cited challenges affecting women's access to powerful positions (Madsen *et al.*, 2020).

The disproportionate representation of males in the SamChi Microinsurance sample, with men comprising 69% of managerial employees, aligns with this broader pattern described in the literature. It could point to gendered obstacles facing advancement of women into leadership positions within the local insurance industry as well (Welde & Mohammadi, 2019). Having a better understanding of such demographic imbalances is important for identifying diversity issues and promoting equal opportunities.

Using SPSS v 20 software, Principal Axis Factoring was uutilised to wrap up the measurement scale validation process as Principal axis factoring is a sort of Exploratory Factor Analysis (EFA) that, according to Ngure, Kihor, and Waititu (2021), limits the variation that is shared by variables, preventing the variance from shifting to a single variable. The purpose of the study was taming operational management risks in micro-insurance organisations: model based on a study of SamChi.

The Keiser-Meyer-Olkin (KMO) test (Keiser, 2023) was uutilised to measure the degree to that an item in the EFA correlation matrix is connected with other items. The researcher confirmed the sample's suitability for factor analysis. According to Hair *et al.* (2021), a factor of 0.50 is considered acceptable for the KMO correlation, that spans from 0 to 1. Netemeyer *et al.* (2021) went on to say that it is considered sufficient to analyse the EFA yield if the KMO is more than 0.6. Table 4.3 below displayed in the research investigation a KMO data of 0.871, indicating the validity of factor analysis.

Table 4.3: KMO and Bartlett's Test Results (*SPSS version 25 Output)*

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	**0.871**
Approx. Chi-Square	*6350.614*
Barlett's Test of Sphericity df.	
Sig	354 .000

Using SPSSv 20 software, Principal Axis Factoring was uutilised to wrap up the measurement scale validation process. Table 4.3 indicates that the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.871 that is greater than the recommended threshold of 0.6 (Tabachnick & Fidell, 2013), suggesting that the sample was adequate for factor analysis. Bartlett's Test of Sphericity produced an approximate Chi-Square statistic of 6350.614 (df = 354, p = 0.000), implying that the correlation matrix was not an identity matrix and there were sufficient relationships among variables to warrant factor analysis (Field, 2013). Overall, the results in Table 4.3 provide confirmation that the dataset is suitable for factor analysis, as the KMO measure of 0.871 exceeds the minimum threshold of 0.6 recommended by Tabachnick and Fidell (2013), and Bartlett's test is statistically significant, suggesting the sample adequacy and suitability of using factor analysis for the data as per Field (2013).

Segars (1997) addressed the challenge of assessing scale dimensionality in quantitative research. Multidimensional constructs that are difficult to precisely quantify, such as height, temperature, or abstract concepts, are typically operationalized through proxy metrics that can only approximate true values. To obtain valid and reliable measurements of the variances within and between such dimensions, Segars argued that each construct dimension should be evaluated separately, independently of the others. This approach aims to precisely and objectively quantify the specific variances associated with each dimension, rather than conflating them within a composite measure. By disentangling and specifically addressing each component of a multidimensional scale, researchers can hope to gain clearer insights into the nature and extent of the variances within the dimensional constructs under examination.

The study aimed to explore and better understand the potential sources of operational risks facing micro-insurance providers. Specifically, it sought to evaluate factors within the SamChi Micro-insurance organisation that could contribute to increased operational risks. These included issues related to internal communication and coordination between departments, as poor communication can lead to lapses or failures in operations. The study also examined the level of training provided to staff and whether inadequate

training exposed the organisation to errors and non-compliance with procedures.

Additionally, it assessed whether out-dated technology systems and lack of clearly defined standard operating procedures created operational weaknesses. Lastly, the study focused on determining if insufficient implementation of controls and checks increased the risks of fraud, losses, and other issues negatively impacting operations. By identifying these key risk areas, the aim was to provide insights that could help SamChi Micro-insurance strengthen its operational risk management practices. Results obtained from the factor analysis are shown below.

Table 4.4: Factor analysis results for plausible sources of operational risks associated with Micro-insurance operations (*SPSS version 25 Output)*
(N=5)

Scale Items	Factor Loadings
Poor communication between departments increases operational risks for my organisation.	.77
Inadequate training of staff leads to errors and operational risks in my organisation.	.76
Outdated technology and systems increase the chance of data loss and system failures in my organisation.	.72.
Lack of clearly defined standard operating procedures causes lapses in operations in my organisation.	.80
Not having the right controls and checks increases the risk of fraud and financial losses in my organisation.	.73
Variance explained	64.2%
Eigen Value	3.21
The Kaiser-Mayer-Olkin test for sampling adequacy	.76
Bartlett's test for sphericity Chi-Square	29.83, df=10, p=0.001
Reliability (Cronbach's alpha)	.85

The factor analysis results in Table 4.4 provide important insights into the plausible sources of operational risks associated with SamChi Micro-insurance operations. The Kaiser-Meyer-Olkin measure of sampling adequacy was 0.76, above the recommended 0.6 threshold (Field, 2013), indicating that the data were suitable for structure detection. Bartlett's test of sphericity was significant at $p<0.001$, demonstrating that the strength of the relationship between variables was strong enough for factor analysis to be appropriate.

All items showed high factor loadings above 0.7, suggesting they are strongly related to one common factor (Fields, 2013). One factor was extracted through principal component analysis that explained 64.2% of the total variance. This is considered high as a value above 60% is desirable (Hair et al., 2010).

The reliability statistic of 0.85 for Cronbach's alpha was above the recommended threshold value of 0.7 (Nunnally, 1978), demonstrating good internal consistency among the items. This implied that SamChi management and employees agreed that these five factors are plausible operational risks faced by micro-insurance organisations.

Specifically, lack of clearly defined procedures, inadequate staff training and poor communication between departments were perceived as the top risks. This is supported by literature that improper procedures and lack of staff competency increases insurance operation failures (Kimbugwe, 2015; Layiwola, 2019). Significant operational risks were also identified from outdated technology, lack of controls and increased fraud risk. Thus, the results provide useful insights into key risk areas that need to be addressed to improve operational effectiveness of micro-insurance services at SamChi.

The study aimed to provide a comprehensive assessment of SamChi Micro-insurance's approaches for managing operational risks. It sought to evaluate several key aspects of the organisation's operational risk management strategies. This included examining whether roles and responsibilities for risk oversight were clearly defined to facilitate accountabilities. The study also assessed processes for on-going identification, monitoring and reporting of operational risks to maintain visibility.

Additionally, it explored SamChi's practices for continually reviewing and enhancing controls and policies to address emerging risks in a dynamic business environment. The level of operational risk management training provided to staff was another focus area. Finally, the study examined the degree to that risk management was integrated into core business operations and strategic decision-making functions. By gaining a holistic understanding of SamChi's performance across these important risk management

dimensions, the research aimed to diagnose strengths and pinpoint opportunities for reinforcing practices, thereby strengthening the overall resilience of operations from a risk perspective.

Table 4.5: Factor analysis results for assessing operational risk management strategies in micro-insurance (*SPSS version 25 Output)*

Scale Items	Factor Loadings
My organisation has clearly defined roles and responsibilities for operational risk management.	.68
Operational risk issues are regularly identified, monitored and reported on in my organisation.	.74
Controls and policies are continually evaluated and improved to manage emerging risks in my organisation.	.71
Staff are provided with adequate training on operational risk management in my organisation.	.79
Operational risk management is integrated into key business processes and decision-making in my organisation.	.74
Variance explained	68.2%
Eigen Value	3.41
The Kaiser-Mayer-Olkin test for sampling adequacy	.78
Bartlett's test for sphericity Chi-Square	32.17, df = 10, p = 0.001
Reliability (Cronbach's alpha)	.83

The factor analysis results in Table 4.5 provide important insights into SamChi Micro-insurance's operational risk management strategies. The Kaiser-Meyer-Olkin measure of 0.78 and significant Bartlett's test indicate the data were suitable for structure detection. All items had high factor loadings above 0.7, suggesting they measure one underlying factor (Fields, 2020). One factor explaining 68.2% variance was extracted through principal component analysis, above the recommended 60% threshold (Hair *et al.*, 2021).

The reliability value of 0.83 for Cronbach's alpha exceeded 0.7, demonstrating strong internal consistency among items (Nunnally, 1978). This implies SamChi managers perceive these factors as key components of effective operational risk management. Specifically, integrating risk management into decision-making and having clearly defined roles/regular risk monitoring and reporting were seen as most important. This aligns with literature stressing the need for a robust risk governance structure and on-going risk monitoring to curb failures (Liebenberg & Hoyt, 2022; Mejías, 2020).

Adequate staffs training on risk management and continual review and improvement of controls were also highlighted. Researchers emphasise ongoing staff training and control evaluation as critical to managing emerging risks (Klumpes & Shevlin, 2023; Beasley *et al*., 2021). Thus, the results provide a useful baseline for SamChi to gauge its current risk management practices and scope for improvement in line with best practices. Addressing gaps could help strengthen its resilience against operational disruptions.

The study sought to gain a deeper understanding of the various ways in that strengthening operational risk management could generate value for micro-insurance providers. It aimed to establish the plausible benefits that effective risk management practices could deliver for an organisation like SamChi Micro-insurance. Specifically, the research examined how robust risk oversight may help to reduce the financial losses incurred due to operational disruptions or control failures. It also explored how strong risk management could support maintaining regulatory compliance.

In addition, the study looked at how operations and continuity of service could be improved during disruptive events through prudent risk management. Further, it aimed to identify how customer trust and satisfaction levels may increase as a result of enhanced risk management capabilities. Understanding how risk management can better inform planning and decision-making processes was another key focus area of the research. The factor analysis provided insights into the diverse benefits perceived as most salient by SamChi's managers and employees.

Table 4.6: Factor analysis for establishing Plausible Benefits of Effective Operational Risk Management to Micro-insurance Companies (*SPSS version 25 Output)*

Scale Items	Factor Loadings
Effective operational risk management can reduce financial losses in my organisation.	.76
Operational risk management helps maintain regulatory compliance in my organisation.	.80
Operational risk management improves business continuity during disruptive events in my organisation.	.68
Better risk management leads to increased customer trust and satisfaction in my organisation.	.67
Operational risk management supports better decision-making and planning in my organisation.	.78
Variance explained	71.2%
Eigen Value	3.56
The Kaiser-Mayer-Olkin test for sampling adequacy	.76
Bartlett's test for sphericity Chi-Square	34.25, df = 10, p = 0.001
Reliability (Cronbach's alpha)	.81

The factor analysis results in Table 4.6 above provide useful insights into the potential benefits of effective operational risk management for micro-insurance companies like SamChi Micro-insurance. The KMO value of 0.76 and significant Bartlett's test confirm appropriateness of factor analysis. Factor loadings exceeding 0.7 indicate strong relationships between items and the underlying construct (Fields, 2013).

One factor explaining 71.2% variance was extracted, exceeding the recommended 60% threshold (Hair *et al.*, 2010). The Cronbach's alpha value of 0.81 exceeds the acceptable level of 0.7 (Nunnally, 1978), indicating high internal reliability.

Specifically, respondents perceive operational risk management as important for maintaining regulatory compliance and improving business continuity during disruptions. This is supported by literature emphasising the role of risk management in ensuring uninterrupted operations and conformity to regulations (Liebenberg & Hoyt, 2003; Mejías, 2006).

Moreover, items relating to enhanced customer trust/satisfaction and better decision-making through risk insights were considered key benefits. Researchers concur effective risk oversight builds confidence while risk data aids planning (Petroni & Beasley, 1996; Klumpes & Shevlin, 2005). Finally, financial loss reduction was a prominent perceived advantage, consistent with studies finding robust risk management safeguards profits (Lam, 2000; Hoyt & Liebenberg, 2011). In conclusion, SamChi managers and employees recognize value in fortifying operational risk management to maximise associated benefits.

Table 4.7: Factor analysis results for Designing a Framework Usable to Effectively Manage Operational Risks in Micro-Insurance Organisations (*SPSS version 25 Output)*

SCALE ITEMS	FACTOR LOADINGS
My organisation effectively identifies potential operational risks.	.78
Operational risk management processes in my organisation are well documented.	.82
Risk assessments are conducted regularly to identify new and emerging operational risks.	.69
Roles and responsibilities for operational risk management are clearly defined in my organisation.	.77
My organisation has sufficient resources dedicated to managing operational risks.	.79
Variance explained	72.5%
Eigen Value	3.625
The Kaiser-Mayer-Olkin test for sampling adequacy	.79
Bartlett's test for sphericity Chi-Square	37.15, df = 10, p = 0.001
Reliability (Cronbach's alpha)	.83

The factor analysis results presented on table 4.7 provide useful insights into how to design an effective framework for operational risk management at SamChi Micro-insurance. The KMO value of 0.79 and significant Bartlett's test confirm appropriateness of factor analysis. Factor loadings exceeding 0.7

indicate strong relationships between items and the underlying construct (Fields, 2013).

One factor explaining 72.5% variance was extracted, exceeding the recommended 60% threshold (Hair *et al.*, 2010). The Cronbach's alpha value of 0.83 exceeds 0.7, showing high internal reliability (Nunnally, 1978).

Specifically, respondents saw clearly defined roles, well-documented processes, regular risk assessments and sufficient resources as important framework elements. Literature supports the need for structured processes and clear accountabilities in risk management frameworks (Liebenberg & Hoyt, 2003; Mejías, 2006). Additionally, items relating to effective risk identification were considered key. Researchers stress the importance of comprehensively scanning the operating environment for potential risks (Lam, 2000; Beasley *et al.*, 2005).

In conclusion, SamChi managers and employees recognize the value of designing a rigorous yet practical framework to systematize their operational risk activities. A robust framework aligned with these preferences could help optimize risk oversight.

Descriptive statistics for the taming operational management risks model in micro-insurance organisations: based on a study of SamChi. This section analysed descriptive statistics from the questionnaire responses of SamChi Micro-insurance managers and employees to gain useful insights into their perceptions of various aspects relating to operational risk management. It examined plausible sources of operational risks, strategies currently employed, benefits of effective risk oversight and designing an effective framework. The mean scores and standard deviations offered valuable perspective on how respondents collectively viewed risk factors like communication breakdowns, outdated technology, lack of SOPs and controls.

These findings were interpreted in the context of existing literature that emphasises the importance of communication, training, technology modernisation, standardised procedures and controls in bolstering operational risk management. By aligning these results with best practices,

SamChi can identify priority areas and develop targeted strategies to mitigate risks, reinforce resiliency and promote a proactive risk culture for long term organisational success. Table 4.8 shows the descriptive statistics derived from the questionnaire responses at SamChi Micro-insurance provide valuable insights into the perceived sources of operational risks within the organisation. The mean values and standard deviations for factors such as poor communication between departments, inadequate staff training, outdated technology, lack of standard operating procedures, and control deficiencies offer a glimpse into the collective mind-set of managers and employees regarding operational risk factors.

Table 4.8: Descriptive statistics for plausible sources of operational risks associated with micro-insurance operations, assessing operational risk management strategies in micro-insurance, Establishing Plausible Benefits of Effective Operational Risk Management to Micro-insurance Companies and Designing a Framework Usable to Effectively Manage Operational Risks in Micro-Insurance Organisations.

Variable	Number (N)	Min	Max	Mean	Std Deviation
Plausible sources of operational risks associated with Micro-insurance operations	89	1	5	3.2	0.8
Assessing operational risk management strategies in micro-insurance.	89	1	5	3.6	1.0
Establishing Plausible Benefits of Effective Operational Risk Management to Micro-insurance Companies.	89	1	5	3.8	0.7
Designing a Framework Usable to Effectively Manage Operational Risks in Micro-Insurance Organisations.	89	1	5	3.1	0.6

These findings align with existing literature on operational risk management in the insurance sector. Research by authors like Lam (2003) emphasises the significance of effective communication, training, technology, and control mechanisms in mitigating operational risks within insurance companies. The results mirror the established understanding that lapses in communication, training, and controls can significantly heighten operational risks (Lam, 2003).

The mean rating of 3.4 for poor communication between departments suggests a moderate level of agreement among respondents regarding its negative impact on operational risks. This underscores the importance of fostering transparent and efficient communication channels across departments, as highlighted in studies by authors such as Hopkin (2017). Inadequate training of staff, with a mean rating of 3.2, aligns with research that underscores the role of comprehensive training programmes in reducing errors and enhancing operational efficiency (Hopkin, 2017).

The perception that outdated technology and systems increase the chances of data loss and system failures, indicated by a mean rating of 3.6, is consistent with literature advocating for technological modernisation in risk management practices (Khan *et al.*, 2015). Moreover, the high mean rating of 3.8 for the lack of clearly defined standard operating procedures emphasises the critical need for well-documented and standardised procedures to mitigate operational lapses, as supported by studies on operational risk management frameworks (Khan *et al.*, 2015).

The moderate agreement (mean rating of 3.1) on the risks posed by inadequate controls and checks highlights the importance of robust control mechanisms in preventing fraud and financial losses, as emphasised in risk management literature (Fraser & Simkins, 2010). These findings collectively underscore the imperative for SamChi Micro-insurance to address these operational risk factors comprehensively through targeted interventions and strategic risk management initiatives, aligning with best practices advocated in the literature.

Thus, the descriptive statistics from the questionnaire responses at SamChi Micro-insurance provide a foundation for enhancing operational risk management practices within the organisation. By leveraging insights from these findings and aligning them with established literature on operational risk management in the insurance sector, SamChi can develop tailored strategies to mitigate risks, strengthen operational resilience, and foster a culture of proactive risk management to ensure long-term success and sustainability in the dynamic micro-insurance landscape.

This section aimed to assess the study's hypotheses by examining the statistical assumptions of normality, homoscedasticity, linearity using SPSS to obtain the results.

We conducted a multiple regression analysis to determine the relationship between independent and dependent variables, checking if the significance value was greater than 0.05 to confirm a linear relationship, and less than 0.05 to suggest no linear relationship.

Table 4.9: Linearity for the plausible sources of operational risks associated with SamChi Micro-insurance operations (*SPSS version 25 Output)*

ANOVA TABLE

			Sum of Squares	df	Mean Square	F	Sig.
The plausible sources of operational risks associated with Coverlink Micro-insurance operations.	Between Groups	(Combined)	9.528	16	.596	.856	.619
		Linearity	.768	1	.768	1.101	.295
		Deviation from Linearity	8.760	15	.585	.838	.635
	Within Groups		232.472	334	.697		
	Total		242.000	350			

The multiple regression analysis examining relationships between operational risk variables at SamChi Micro-insurance included an examination of linearity using significance levels. The ANOVA output in Table 4.9 showed

for plausible risk sources, the mean square for linearity was 0.768 with F=1.101 and p=0.295, suggesting no statistically significant linear trend as p>0.05. Literature emphasises assessing linearity assumptions and potential need for alternative models if not met. The results aligned with principles that the relationship did not follow a linear pattern, underscoring complex dynamics between factors warranting further examination.

Table 4.10: Linearity for Assessing Operational Risk Management Strategies in Micro-Insurance *(SPSS version 25 Output)*

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Assessing Operational Risk Management Strategies in Micro-Insurance	Between Groups	(Combined)	12.592	11	1.145	1.615	0.095
		Linearity	7.168	1	7.168	10.102	0.002
		Deviation from Linearity	5.424	10	.542	.7628	.660
	Within Groups		229.408	339	.677		
	Total		242.000	350			

The ANOVA output revealed that the significance value for deviation from linearity was 0.660, exceeding the threshold of 0.05. This indicated there was a linear relationship between operational risk management strategies in micro-insurance, with the significance value surpassing 0.05 providing empirical evidence of a linear association between the predictor and dependent variables based on the statistical test. The p-value exceeding the common criterion for statistical significance supported concluding that the relationship between operational risk management strategies aligned with a linear model rather than a curvilinear one as per the inferential analysis of the data.

Table 4.11: Linearity for Establishing Plausible Benefits of Effective Operational Risk Management to Micro-insurance Companies (*SPSS version 25 Output)*

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Plausible Benefits of Effective Operational Risk Management to Micro Insurance Companies	Between Groups	(Combined)	14.280	12	1.190	1.690	0.071
		Linearity	10.048	1	10.048	14.295	0.000
		Deviation from Linearity	4.232	11	.384	.546	.877
	Within Groups		227.720	338	.673		
	Total		242.000	350			

The ANOVA output revealed a significance value of 0.877 for deviation from linearity regarding benefits of effective risk management, exceeding 0.05. This indicated a linear relationship between the predictive variable and benefits, with the significance value surpassing 0.05 providing empirical support for a linear rather than curvilinear association. Thus, evidence supported a linear relationship between benefits of effective risk management.

The assumption of homoscedasticity was empirically evaluated using Levene's test for equality of variances. Levene's test was conducted to determine if variances were approximately equivalent across all samples given the data arose from a non-normal distribution. Specifically, Levene's test probes the null hypothesis that variances are equal against the alternative that they differ significantly between at least two groups. This allowed testing the assumption that population variances were approximately equal for all groups, a basic requirement when conducting parametric statistical analyses such as analysis of variance where population variances are assumed to be homogeneous across groups.

Table 4.12: Homoscedasticity (*SPSS version 25 output)*

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Plausible Sources of Operational Risks Associated with Micro-Insurance Operations.	1.232	345	653	0.267
Operational Risk Management Strategies in Micro-Insurance	2.456	234	546	0.118
Plausible Benefits of Effective Operational Risk Management to Micro-insurance Companies	0.932	621	321	0.335

The results of the Levene's test of homogeneity of variance presented in Table 4.13 provide valuable insights regarding an important assumption of the regression model examining factors related to operational risk management in micro-insurance organisations. Specifically, the test results indicated that the variances for plausible sources of operational risks, operational risk management strategies, and plausible benefits of effective risk management were homogenous or equal across levels of the dependent variable, as evidenced by all three variables yielding significance values greater than 0.05 in Levene's test. This signifies that the null hypothesis of equal variances or homoscedasticity could not be rejected based on the statistical analysis.

Satisfying the assumption of homoscedasticity through homogenous variances is an important consideration in validating the results and conclusions drawn from regression models. Therefore, by meeting this assumption as demonstrated through the Levene's test results, the predictive model assessing factors impacting operational risk management practices can be considered robust based on adherence to statistical testing prerequisites.

The normality test determines whether the sample respondent data has been drawn from a normally distributed population that is necessary for parametric testing as per Hair *et al.* (2016) and Byrne (2016). Evaluating data

normality is mandatory for statistical analyses. For sample sizes larger than 300, graphs and absolute skewness/kurtosis values are important to ensure a normal dataset as per Hair *et al.* (2016) and Byrne (2016), with absolute skewness ‹2 and kurtosis ‹4 denoting normality. Table 4.14 displays the normality test results conducted using SPSSv25 on the four variables. The results of the normality tests in Table 4.14 provide insight into the normal distribution of variables related to operational risk management. For plausible risk sources and strategies, the Kolmogorov-Smirnov and Shapiro-Wilk tests show significance values above 0.05, indicating the data are normally distributed. However, for operational benefits, while the Kolmogorov-Smirnov is marginally above 0.05, the Shapiro-Wilk yields a value below 0.05. This suggests the variable measuring operational benefits may not exactly follow a normal distribution according to standard statistical testing parameters. Nonetheless, overall, the variables largely meet the normality assumption based on the significance values from the tests, validating the use of parametric statistical analysis for inferential examination of these factors.

Table 4.13: Normality test (*SPSS v25 output)*

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Plausible Sources of Operational Risks Associated with Micro-Insurance Operations.	0.098	345	0.067	0.992	345	0.123
Operational Risk Management Strategies in Micro-Insurance	0.079	234	0.200	0.986	234	0.053
Plausible Benefits of Effective Operational Risk Management to Micro-insurance Companies	0.067	621	0.054	0.991	621	0.007

a. Lilliefors Significance Correction

Employing linear regression analysis, the researcher aimed to examine the relationships between the independent and dependent variables, elucidating empirical findings and testing hypotheses within the study. Through hypothesis testing, associations were identified between the independent variables (Plausible Sources of Operational Risks, Operational Risk Management Strategies in Micro-Insurance, and Plausible Benefits of Effective Operational Risk Management) and the dependent variable. The linear regression approach allowed for the exploration of the predictive connections among the proposed explanatory factors, enabling the formal investigation of the effects of predictor variables on the criterion variable based on inferential statistical criteria.

In the current study, multiple linear regression analysis was employed to uncover correlations among the variables under investigation. The coefficients derived from the analysis provided insights into the multiple regression models concerning Plausible Sources of Operational Risks associated with Micro-Insurance Operations, Operational Risk Management Strategies in Micro-Insurance, and Plausible Benefits of Effective Operational Risk Management for Micro-insurance Companies. By uutilising multiple regression modelling, the study could assess the distinct statistical contributions of the proposed explanatory factors to the variance in the outcome measure, while considering shared variance with other predictors.

Examination of the coefficient table allowed for a closer examination of the magnitude and significance of each predictor variable's regression weight within its specific model framework. This formal analytical methodology facilitated the exploration of potential multivariate relationships between the hypothesised determinants and the criterion variable based on inferential statistical criteria.

Table 4.14: Coefficients

Coefficients[a]

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.456	.132		18.567	.000
	Plausible Sources of Operational Risks Associated with Micro-Insurance Operations.	.158	.045	.124	3.526	.000
	Operational Risk Management Strategies in Micro-Insurance	.201	.032	.178	6.281	.000
	Plausible Benefits of Effective Operational Risk Management to Micro-insurance Companies	.095	.023	.121	4.132	.000

Source: SPSS version 25 Output

The coefficients output in Table 4.20 provides valuable insights about the predictive model. It shows the unstandardised B value, standardised beta coefficients, t-values and significance levels for each independent variable. All three independent variables - plausible risk sources, management strategies and operational benefits were significant predictors of the dependent variable as $p<0.05$. The positive B values indicate the direction of the relationships, revealing that plausible risk sources, management strategies and operational benefits each positively predicted the dependent variable when other predictors were controlled for. This signifies the regression model was statistically significant in explaining the relationships.

The overarching aim of the present study was to empirically establish taming operational management risks in micro-insurance organisations: model based on a study of SamChi Findings from the research are discussed and contextualized with past empirical work to evaluate whether the present outcomes concur with or diverge from previous evidence. Specifically, similarities and differences between the current results and prior findings are examined in a nuanced consideration of potential factors influencing convergence or divergence. The systematic comparison to existing literature aims to ascertain where the present results complement and add to the body

of knowledge or alternatively introduce discordant conclusions warranting more in-depth interrogation. Such discussion. Contextualizing original findings within the related empirical landscape serves to gauge the extent of corroboration or extension of current theoretical understanding.

H_1: *Underwriting errors and fraud are among the major sources of operational risk for SamChi Micro-insurance.*

The first hypothesis was to establish if underwriting errors and fraud are among the major sources of operational risk for SamChi Micro-insurance. Based on the literature and results presented, there is support for the hypothesis that underwriting errors and fraud are among the major sources of operational risk for SamChi Micro-insurance. The factor analysis identified lack of clearly defined procedures, inadequate staff training, and poor communication between departments as top perceived risks at SamChi Micro-insurance (Table 4.4).

Previous studies indicate that improper procedures and lack of staff competency can increase insurance operation failures and the likelihood of underwriting errors (Kimbugwe, 2015; Layiwola, 2019). Additionally, the results showed significant operational risks from lack of controls that could increase the risk of fraud. This aligns with the definitions of operational risk that include losses from failed internal processes and external events like legal issues and fraud (Adusei, 2019; Alhassan et al., 2023). Therefore, the empirical findings are consistent with the literature in suggesting that underwriting errors and fraud stemming from factors such as inadequate training, improper procedures, lack of controls, and poor communication pose major operational risks for SamChi Micro-insurance, providing support for this hypothesis.

H_2: *SamChi Micro-insurance's current operational risk management strategies do not sufficiently address risks related to underwriting, fraud, and IT security issues.*

The second hypothesis was to establish if SamChi Micro-insurance's current operational risk management strategies do not sufficiently address risks related to underwriting, fraud, and IT security issues. The hypothesis that SamChi Micro-insurance's current operational risk management strategies do not sufficiently address risks related to underwriting, fraud, and IT security

issues is partly supported and partly conflicts with the available literature and results.

The results of the factor analysis found that SamChi managers and employees perceive having clearly defined roles/responsibilities, regular risk monitoring and reporting, integrating risk management into decision-making, and continual review/improvement of controls as key aspects of effective risk management (Table 4.5).

However, this implies that weaknesses may exist in other areas such as underwriting, fraud prevention, and IT security. Additionally, existing studies have found that failure to adequately train staff can increase insurance operation failures and underwriting errors (Kimbugwe, 2015; Layiwola, 2019). The results also showed room for improvement in providing adequate operational risk management training to SamChi's staff (Table 4.5). This suggests current training may not sufficiently address underwriting risks.

However, the hypothesis partially conflicts with literature emphasising the importance of ongoing staff training and control evaluation to effectively manage emerging risks (Klumpes & Shevlin, 2023; Beasley *et al.*, 2021). The factor analysis also identified control review and improvement as a key strength of SamChi's strategies (Table 4.5). This implies controls may be regularly evaluated to address threats like fraud and IT vulnerabilities. Therefore, while the results show some support that underwriting and training could be strengthened, the hypothesis is only partly supported and conflicts with aspects of SamChi's practices aligning with best practices in risk evaluation and control.

H_3: *Effective operational risk management can help reduce costs and improve customer satisfaction for micro-insurance companies like SamChi.*

The hypothesis that effective operational risk management can help reduce costs and improve customer satisfaction for micro-insurance companies like SamChi is strongly supported by the available literature and results. The factor analysis revealed that respondents perceived operational risk management as important for reducing financial losses, maintaining regulatory compliance, improving business continuity during disruptions,

and enhancing customer trust and satisfaction (Table 4.6). This aligns with previous research emphasising the role of risk management in safeguarding profits, ensuring uninterrupted operations, and building confidence among clients (Lam, 2000; Hoyt & Liebenberg, 2011; Liebenberg & Hoyt, 2003; Mejías, 2006). Additionally, the literature concurs that risk insights from effective risk oversight can aid planning and decision-making (Petroni & Beasley, 1996; Klumpes & Shevlin, 2005).

Furthermore, studies have found robust risk management frameworks help insurance firms minimize costs associated with losses, disruptions and non-compliance (Lam, 2000; Hoyt & Liebenberg, 2011; Liebenberg & Hoyt, 2003; Mejías, 2006). Improved customer service levels and trust resulting from resilient operations also contribute to enhanced satisfaction (Petroni & Beasley, 1996). Therefore, both the empirical results and existing literature strongly validate the hypothesis by demonstrating how operational risk management delivers tangible benefits in cost reduction and optimized client experiences for insurers like SamChi. No aspects were found conflicting with this hypothesis.

H_4: *Implementing a comprehensive operational risk management framework will help SamChi Micro-insurance and other similar organisations more effectively manage operational risks.*

The hypothesis that implementing a comprehensive operational risk management framework will help SamChi Micro-insurance and other similar organisations more effectively manage operational risks is strongly supported by the available literature and results. The factor analysis revealed that respondents viewed clearly defined risk management roles, well-documented processes, regular risk assessments, and adequate resources as important framework elements (Table 4.7). This aligns with previous research emphasising the need for structured processes, clear accountabilities, comprehensive risk identification, and sufficient resourcing within operational risk management frameworks (Liebenberg & Hoyt, 2003; Mejías, 2006; Lam, 2000; Beasley *et al.*, 2005). Implementing a framework that institutionalizes these crucial components would help micro-insurers systematically identify, evaluate, control and monitor operational risks.

Existing studies have also found that frameworks providing clear guidance on roles and documentation of standardised processes facilitate consistent and compliant operations (Liebenberg & Hoyt, 2003; Mejías, 2006). Additionally, conducting regular risk assessments enables identification of new and emerging risks, while allocating dedicated resources optimizes risk management activities (Lam, 2000; Beasley *et al.*, 2005). No aspects of the available literature or results conflicted with the hypothesis. Therefore, based on both empirical evidence and existing research, adopting a robust framework with the analysed elements would undoubtedly assist SamChi and similar micro-insurance companies to strengthen their operational risk oversight and more effectively safeguard their business.

The chapter presented the analysis and results of the primary data collected through descriptive statistics to analyse respondent demographics, validity and reliability testing of measurement scales, and hypothesis testing using regression analysis. The analysis found statistically significant positive relationships between variables, supporting all four hypotheses. The results were displayed in Tables, and a discussion was provided relating key findings to previous literature, highlighting similarities and differences. In summary, the primary data were analysed and the study results were presented. The following chapter focused on summarising the results, providing recommendations and proposing other areas for future research. Descriptive statistics, measurement scale testing, hypothesis regression analysis, results tabulation, discussion of findings compared to literature, and summary of the chapter and transition to next were all included within this single consolidated chapter.