A Study on Performance Analysis of Risk Management in Alpha Automation PVT LTD

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ABSTRACT:

This study intends to evaluate the impact of risk management strategies on overall performance in order to analyze the efficacy of these practices across a selection of organizations. Structured questionnaires were used to gather information from 110 respondents, including project leads, financial analysts, and risk managers. Crucial elements like risk identification, assessment, mitigation, and monitoring were the main highlights. The association between structured risk management practices and organizational outcomes like project success rate, financial stability, and strategic goal achievement was assessed using statistical tools like regression modeling and descriptive analysis.

The findings show that enhanced organizational performance and the adoption of thorough risk management procedures are significantly positively correlated. Better performance indicators were also shown by respondents who reported a higher level of maturity in their risk management practices, indicating that methodical risk planning helps to maximize opportunities and reduce losses. In order to improve risk management performance, this study emphasizes the significance of incorporating risk management into strategic planning and suggests ongoing training, stakeholder involvement, and technology adoption as critical enablers.

KEYWORDS: Risk Management, Technology Adoption, Risk Management Maturity, Strategic Planning, Risk Assessment, Risk Mitigation, and Organizational Performance.

INTRODUCTION:

Risk management is a methodical procedure that companies employ to recognize, evaluate, reduce, track, and share risks that could impede their goals. It helps decision-makers navigate uncertainty by facilitating risk-aware, well-informed choices. Risks can originate from a number of sources, such as operational failures, cybersecurity threats, financial markets, legal liabilities, environmental issues, and strategic misalignments. Enterprise Risk Management (ERM), a comprehensive approach, integrates risk awareness into the governance framework and organizational culture.

Even though risk management is becoming more and more important, many organizations still struggle to evaluate how well their risk frameworks are working. In order to address these issues, this study looks at how effective risk management techniques are at influencing organizational performance. It seeks to ascertain whether these tactics have a quantifiable impact on important indicators like overall resilience, growth, profitability, and operational efficiency.

The main goal of the study is to assess how risk management affects organization flexibility, productivity, and value generation. Along with examining the relationship between established risk practices and performance metrics like

customer satisfaction, business continuity, and reputational integrity, it also looks into the metrics used to evaluate risk performance. A comprehensive understanding of how risk management aids in strategic decision-making and long-term success will be provided through the use of both qualitative and quantitative analyses.

Risk management and performance analysis are crucial for strategic decision- making in the fast-paced, cutthroat world of today. This study investigates how this kind of integration improves operational effectiveness, resilience, and long-term success. Additionally, it highlights models and best practices that businesses can use to strike a balance between performance results and risk exposure.

Risk management success is examined in the study in relation to corporate culture, leadership commitment, technology support, and regulatory compliance. In addition to addressing industry-specific issues, it recognizes that different risk appetites and outside influences impact how well risk strategies work. The study's ultimate goal is to give executives, risk managers, and legislators insightful information they can use to create proactive, performance-driven risk management systems that promote resilience and sustainable growth.

OBJECTIVES OF THE STUDY:

Primary objective

- To study performance analysis of Risk Management

Secondary Objective

- To Measure the impact of Risk Management on Organizational Performance
- To Assess the Cost Benefit Analysis of Risk Management
- To Analyze the Role of Technology in enhancing risk management
- To Evaluate the Effectiveness of Risk Management Strategies

COMPANY PROFILE:

The principle activities of the company Offering our clients more sophisticated engineering services is one of the company's main goals. By carrying out our aim of providing our customers with Quality Solutions, they have established a

reputation for technical and service excellence in the industry. Our business has made an effort to precisely identify the demands and desires of our clients. To make sure that our consumers' fundamental demands and desires are met, they integrated systems into every aspect of our business operations. These services are provided in a very professional and morally upright way.

They have a large, well-constructed warehouse to support them, which guarantees that the range of products they have purchased is stored correctly and is not damaged. In addition, our procurement department, marketing and sales department, and quality monitoring department all function in perfect harmony and can quickly store and deliver large shipments. They are able to provide a wide range of electrical products in the market thanks to a talented and effective pool of professionals. Our quality inspectors make sure that there are no manufacturing or inherent defects in the range that was purchased. To provide a quality-assured range of electrical products on the market, these experts efficiently employ a variety of quality monitoring methods and equipment. These experts collaborate closely with clients and do everything in their power to ensure total client satisfaction.

Since quality is the foundation of success, we provide our customers with a premium selection of goods. Expert quality controllers assist the company, keeping a close watch on every stage of the procedure to guarantee that clients receive a range free of defects. Their unmatched range of products is the result of their strict adherence to uncompromising quality standards. Our customers now choose them over other options because of our quality-conscious approach**.**

COMPANY PROFILE

Name	:	Alpha Automation
Established	:	1995
Location	:	360/5, V.K. Main Road, Opp Indhu Nagar, Vilankurichi, Coimbatore – 641 035.
Email	:	alpha automation@ gmail.com
Nature of Business	:	Manufacture, Exporter, and Wholesale Number of Employée : 150 employees

REVIEW OF LITERATURE:

- **Maulana, A. Fitriyani, M., Sunaryo, D., Dwita, M., and Adiyanto, Y. (2024).** The need of proactive risk management—which includes effective internal controls and integrated mitigation plans—is emphasized in the study. It recommends additional research into new risks including cyberthreats and changes to regulations. The findings can help financial experts and banking executives improve their firms' resilience and financial performance.
- **Vellela, S., Mdot, Reddy, V., and Venkateswara Rao. N. Vullam, as well as Sk, K. A. (2023).** The banking industry has seen significant changes as a result of the expanding global population and the increase in online transactions. By employing Big Data Analytics (BDA) to assess trends and manage credit risk, banks are transitioning from a basic approach to a comprehensive risk management technique.
- **Ganesh, A. D. and P. Kalpana (2022).** This study Artificial intelligence (AI) and machine learning (ML) are suitable techniques for proactive and predictive risk management. By looking at publications from three databases, this study investigates the literature on the application of AI and ML approaches in SCRM. It presents challenges,

unexplored areas, and promising future possibilities.

- **I, Lee. 2021.** This article gives instances of continuous cybersecurity performance improvement and cyber investment cost analysis, outlines a risk assessment process, and offers a framework for managing cyber hazards. It addresses the challenges presented by privacy regulations and data protection while highlighting the importance of cybersecurity in digital transformation.
- **Manhart, P., Summers, J. K., and Blackhurst, J. (2020).** The study looks at how supply chain risk management is affected by buffering and bridging tactics, and it finds that both have a major impact on overall business performance. Cultural variations in the effectiveness of these tactics are noted, indicating that although they are generally relevant, their efficacy differs depending on the culture.
- **Shad, M. K. Lai, F. W. Fatt, C. L. Klemeš, J. J. Bokhari, A. (2019).** Using Stakeholders Theory and Modern Portfolio Theory, the study analyzes

secondary data from Thomson Reuters DataStream and annual reports to link ERM implementation with sustainability reporting.

DESCRIPTIVE RESEARCH DESIGN

The framework of research methods and strategies that researchers employ to set up their studies for success and fine-tune processes relevant to the subject matter is known as research design.

Descriptive research design is a method used to systematically describe a phenomenon, population, or situation without affecting variables. It gives a true picture of prevailing conditions, enabling researchers to examine patterns, trends, and relationships. This method is commonly applied in social sciences and business research to gain insight into behaviour, opinions, and traits. It encompasses techniques such as surveys, observations, case studies, and correlational studies to gather both qualitative and quantitative data. By depicting the state of affairs as they are, descriptive research facilitates the comprehension of past trends, evaluation of the current situation, and forecasting future results, thereby making it an effective tool for informed decision-making.

SAMPLE SIZE:

The number of population components that will be sampled. The research study's total sample size is 110.

METHOD OF DATA COLLECTION:

The data for this study are of two types: -

- Primary data
- Secondary data

Primary Data

primary data First-hand, unique, and customized information obtained straight from the source for a particular purpose is known as which guarantees the study's accuracy and freshness. For this project, I collected primary data using a structured questionnaire aimed at understanding performance analysis of risk management at Alpha Automation is performed.

The questionnaire included both closed-ended and open-ended questions, covering areas such as awareness of risk policies, training received, identification and reporting of risks, involvement in risk mitigation processes, and feedback of effectiveness. This employee-centered approach allowed the researchers to analyze real-time practices and challenges, thereby contributing valuable input for evaluating and improving the organization’s risk management performance.

Secondary Data

This study uses secondary data, or information that has essentially already been gathered, examined, and published by other researchers, organizations, and institutions, in addition to first-hand information. Journals, research papers, books, reports, and other reliable resources pertaining to risk management performance analysis are included in this category.

The research is enhanced by the use of secondary data, which offers a comprehensive viewpoint and insights from prior research and industry trends. It makes comparisons possible, validates results, and advances the study by connecting it to previously held beliefs. By citing these reliable sources, the study expands on its comprehension of how risk management performance analysis is conducted in diverse industries and workplaces.

PERIOD OF THE STUDY:

The period of the study will last for three months, from January 2025 to April 2025.

AREA OF STUDY:

The Sample Size chosen for conducting the study in Alpha Automation Pvt, Ltd, Coimbatore

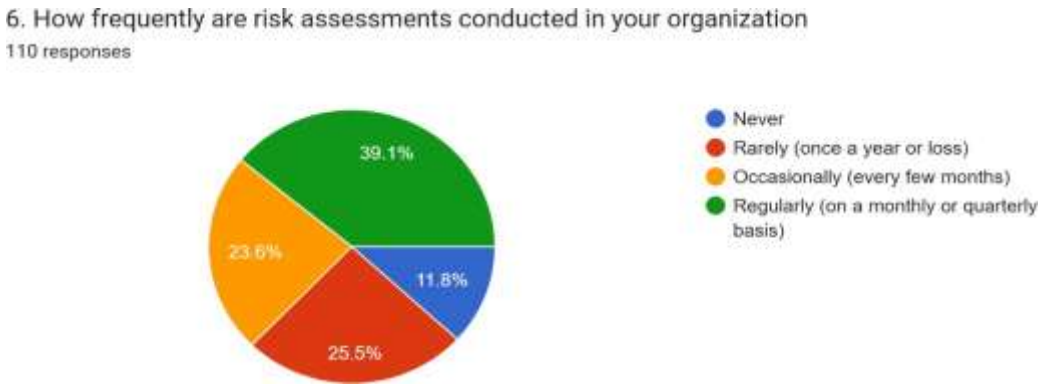
PERCENTAGE ANALYSIS:

Table: Showing Frequency of risk assessments in your organization

S. No	Particulars	Respondents	Percentage%
1	Never	13	11.8
2	Rarely (once a year loss)	28	25.5
3	Occasionally (every few months)	26	23.6
4	Regularly (on a monthly or quarterly basis)	43	39.1
Total		110	100

Source: Primary Data

CHART: Showing frequency of risk assessments in your organization



Interpretation:

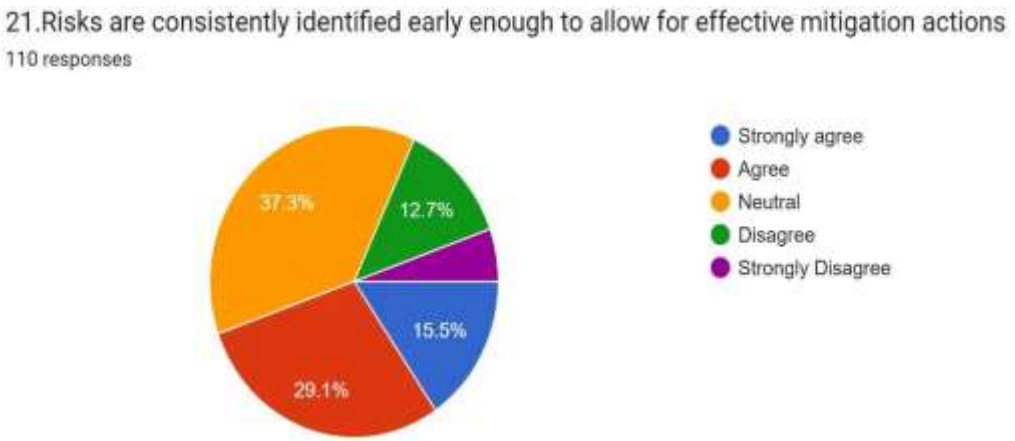
From the above table, it is represented that for the statement 'frequency of risk assessments in your organization', 11.8% of the respondents Never, 25.5% of the respondents Rarely (once a year or less), 23.6% are Occasionally (every few months), and 39.1% Regularly (on a monthly or quarterly basis).

Table: Showing Timeliness of risk identification for mitigation

S. No	Particulars	Respondents	Percentage%
1	Strongly agree	17	15.5
2	Agree	32	29.1
3	Neutral	41	37.3
4	Disagree	14	12.7
5	Strongly Disagree	6	5.5
Total		110	100

Source: Primary Data

Chart: Showing Timeliness of risk identification for mitigation



Interpretation

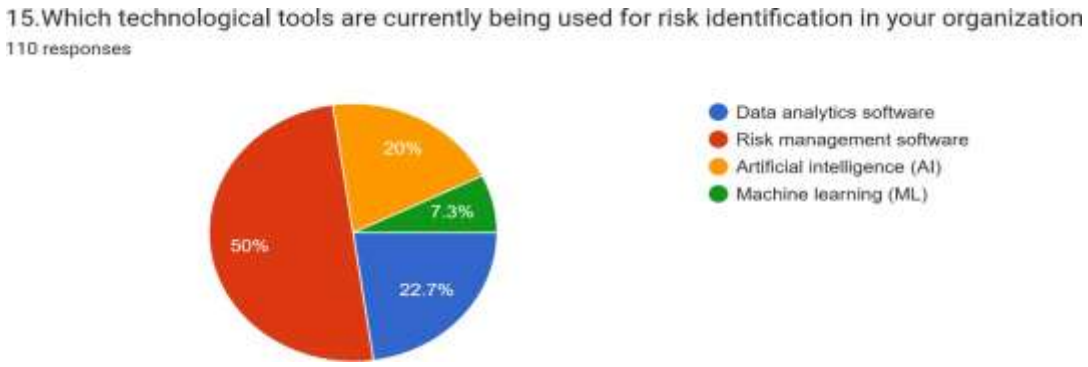
From the above table it is represented that for the statement 'timelines of risk identification for mitigation', 15.5% of the respondents Strongly agree, 29.1% Agree, 37.3% are Neutral, 12.7% in Disagree, and 5.5% Strongly Disagree

Table: Showing Technologies used for risk identification

S. No	Particulars	Respondents	Percentage%
1	Data analytics software	25	22.7
2	Risk management software	55	50
3	Artificial intelligence (AI)	22	20
4	Machine learning (ML)	8	7.3
Total		110	100

Source: Primary Data

Chart: Showing Technologies used for risk identification



Interpretation:

From the above table it is represented that for the statement 'technologies used for risk identification', 22.7% of the respondents Data analytics software, 50% Risk management software, 20% are Artificial intelligence (AI), and 7.3% Machine learning (ML).

STASTICAL TOOLS:

CHI - SQUARE TEST:

HYPOTHESIS 1:

H_0 (Null Hypothesis): There is no significant association between risk management and organizational performance.

H_1 (Alternative Hypothesis): There is a significant association between risk management and organizational

performance

Table 4.2.1: Table indicate **Relationship between risk management and organizational performance**

Case Processing Summary						
	Cases					
	N	Percent	N	Percent	N	Percent
Risk management and organizational performance *	110	100.0%	0	0.0%	110	100.0%

Risk management and organizational performance* **Crosstabulation**							
Risk management and organizational performance		Other roles					Total
		Agree	Disagree	Neutral	Strongly agree	strongly Disagree	
Never	Count	2	1	5	4	1	13
	Expected Count	3.3	1.9	4.6	1.9	1.3	13.0
Occasionally (every few months)	Count	5	4	12	3	2	26
	Expected Count	6.6	3.8	9.2	3.8	2.6	26.0
Rarely (once a year or loss)	Count	5	5	7	4	7	28
	Expected Count	7.1	4.1	9.9	4.1	2.8	28.0
Regularly (on a monthly or quarterly basis)	Count	16	6	15	5	1	43
	Expected Count	10.9	6.3	15.2	6.3	4.3	43.0
Total	Count	28	16	39	16	11	110
	Expected Count	28.0	16.0	39.0	16.0	11.0	110.0

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	18.083[a]	12	.113
Likelihood Ratio	16.837	12	.156

N of Valid Cases	110		
a. 12 cells (60.0%) have expected count less than 5. The minimum expected count is 1.30.			

INFERENCE: Since the p value (0.113) is less than 0.05. we reject Null hypothesis and we accept Alternative hypothesis. So, there is no significant association between risk management and organizational performance.

ANOVA:

HYPOTHESIS 2:

H_0 (Null Hypothesis): There is no significant between Technology play a significant role in enhancing risk management.

H_1 (Alternative Hypothesis): There is significant between Technology plays a significant role in enhancing risk management.

Table 4.3: Table indicates **Relationship between Technology play a significant role in enhancing risk management**

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	15	1.67	.617	.159	1.32	2.01	1	3
2	47	1.62	.610	.089	1.44	1.80	1	3
3	33	1.67	.645	.112	1.44	1.90	1	3
4	8	1.50	.535	.189	1.05	1.95	1	2
5	7	2.14	.378	.143	1.79	2.49	2	3
Total	110	1.66	.610	.058	1.55	1.78	1	3

ANOVA					
RESOURCES					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.924	4	.481	1.308	.272
Within Groups	38.630	105	.368		
Total	40.555	109			

INFERENCE: Since the p value (0.272) is greater than 0.05. we accept Null hypothesis and we reject Alternative hypothesis. So, there is no significant between Technology play a significant role in enhancing risk management.

CORRELATION:

AIM FOR TEST:

To find the relationship between the implementation of risk management strategies and their effectiveness in minimizing organizational risks

Table 4.4: Table indicate **relationship between the implementation of risk management strategies and their effectiveness in minimizing organizational risks**

Descriptive Statistics			
	Mean	Std. Deviation	N
Risk management strategies	3.36	1.064	110
discussion	3.53	1.090	110

Correlations		
	Risk management strategies	Discussion

Risk management strategies	Pearson Correlation	1	.039**
	Sig. (2-tailed)		.687
	N	110	110
discussion	Pearson Correlation	.039**	1
	Sig. (2-tailed)	.687	
	N	110	110
**. Correlation is significant at the 0.01 level (2-tailed).			

INFERENCE:

The result of the test is positive as we have ascertained a positive value of 0.039 rather than a negative value for the correlation test that is done by the SPSS

FINDINGS:

- 39.1% of the respondents stated that risk assessments are conducted regularly (on a monthly or quarterly basis) in their organization. Meanwhile, the lowest proportion, 11%, of the respondents, indicated that risk assessments are never conducted.
- 28.2% of the respondents agree that their ROI impacts on risk management. Meanwhile, the lowest is 10.9%, who strongly disagree.
- 50% of the respondents indicated that risk management software is used for risk identification. Meanwhile, the lowest is 7.3%reported using machine learning (ML) for this purpose.
- The p value (0.113) is less than 0.05. We reject the Null hypothesis and we accept an alternative hypothesis. So, there is no significant association between risk management and organizational performance.

- The p value (0.272) is greater than 0.05. We accept the Null hypothesis and we reject the alternative hypothesis. So, there is no difference between technology playing a significant role in enhancing risk management.
- The result of the test is positive as we have ascertained a positive value of

0.039 rather than a negative value for the correlation test that is done by the SPSS.

SUGGESTIONS

- The first thing is to enhance business goals. Starting by clearly defining risk management objectives. This aids in determining whether risk management initiatives are producing the desired results and advancing strategic success.
- Risk management quickly and precisely possible risks are identified to gauge the efficacy of risk identification procedures. In order to reduce uncertainties and prepare mitigation actions in advance, effective

identification is essential.

- The utilization of pertinent data, accuracy, and consistency in assessing the effectiveness of risk assessment methods. A thorough analysis of these methods helps assess the quality of the insights guiding decisions.
- Risk mitigation techniques are to determine how quickly and successfully threats are handled. It is possible to determine if mitigation plans are proactive or reactive by monitoring response time and results.

CONCLUSION:

Risk management is crucial for businesses because they can better control uncertainty and minimize negative outcomes when they proactively identify, evaluate, and address potential risks. When organizations practice effective risk management, they can protect assets, maintain stakeholder confidence, and make better strategic decisions.

One of the key benefits of a well-designed risk management system is its ability to foster resilience. When risks are recognized and minimized early on, disruptions can be controlled or even avoided entirely. This preparedness not only safeguards operations but also enhances organizational agility, enabling a quicker reaction to modifications in the external or internal environment.

Risk management facilitates regulatory compliance and enhances governance. It encourages accountability by outlining precisely who is in charge of risk oversight and ensuring that potential issues are located and appropriately escalated.

Risk is unavoidable in today's quickly changing global environment; it is also manageable. Companies that integrate risk management into their culture and decision-making processes are better able to capitalize on opportunities while avoiding or reducing harm. Risk management ought to be seen as a strategic tool that adds value and fosters sustained expansion.

The implementation of a strong risk management strategy is a clear indicator of a firm's maturity and forward-thinking approach. This strategy equips leaders with the confidence required to manage complexity, thereby securing both long-term success and survival.

REFERENCES:

- Maulana, A., Dwita, M., Fitriyani, M., Sunaryo, D., & Adiyanto, Y. (2024). Risk management as a determinant of Indonesian banking financial performance: A systematic literature approach. *Indo-Fintech Intellectuals: Journal of Economics and Business*, *5*, 8-11.
- VenkateswaraRao, M., Vellela, S., Reddy, V., Vullam, N., & Sk, K. B. (2023, March). Credit Investigation and Comprehensive Risk Management System based on Big Data Analytics in Commercial Banking. In 2023, the 9th International Conference on Advanced Computing and Communication Systems (ICACCS) (Vol. 1, pp. 2387-2391). IEEE.
- Ganesh, A. D., & Kalpana, P. (2022). The future of artificial intelligence and its influence on supply chain risk management–A systematic review. Computers & Industrial Engineering, 169, 108206.
- Lee, I. (2021). Cybersecurity: Risk management framework and investment cost analysis. *Business Horizons*, *64*(5), 659-671.
- Manhart, P., Summers, J. K., & Blackhurst, J. (2020). A meta-analytic review of supply chain risk management: assessing buffering and bridging strategies and firm performance. *Journal of Supply Chain Management*, *56*(3), 66-87.
- Shad, M. K., Lai, F. W., Fatt, C. L., Klemeš, J. J., & Bokhari, A. (2019). Integrating sustainability reporting into enterprise risk management and its relationship with business performance: A conceptual framework. *Journal of Cleaner production*, *208*, 415-425.