Risk Management and Business Continuity for a Poultry Farm in Villa El Salvador, Lima, Peru

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ABSTRACT

Risk management is vital in any organization, as the proper identification, assessment, and mitigation of potential impacts can ensure business continuity and sustainability. It is necessary to identify and control threats that arise in the company's day-to-day operations in a timely manner; therefore, this study aims to establish the relationship between risk management and operational continuity at a poultry company in Villa El Salvador, Lima, Peru. A quantitative, correlational, and cross-sectional approach was employed. The dimensions of risk management were evaluated to determine the company's ability to maintain stable operations in the face of adverse events. Duly validated and structured questionnaires were administered to a representative sample, and the data were analyzed using SPSS statistical software. The findings indicated significant positive correlations between operational continuity and each of the dimensions of risk management. More specifically, risk assessments proved to be the dimension most positively correlated ($r = 0.888$, $p = 0.000$), followed by risk identification ($r = 0.878$, $p = 0.000$). These findings justify the need to emphasize processes for managing risks in a more structured and standardized manner, such as those prescribed by the International Standards ISO 31000 and ISO 22301. It was concluded that special attention must be paid to how risks are managed, as this is critical to the company's growth and sustainability.

Keyword: Risk assessment, sustainability, business development, operational monitoring, risk identification

INTRODUCCIÓN

Risk management should not be taken lightly in organizations, since it enables the recognition, analysis, and mitigation of factors that could halt operational activities. Given the rise in financial crises and supply-chain disruptions, implementing business continuity plans that guarantee the organization's continued operation is essential. If risks are not managed appropriately, a company may suffer consequences ranging from the loss of a large portion of its capital to permanent cessation of operations (Mora, 2022).

Venezuelan importing SMEs face financial risks that require internal risk-management systems and strengthened technical and strategic capacities to achieve business sustainability and inclusive economic development (Coelho et al., 2025).

The concept of risk management for business continuity has gained prominence globally in recent years. One study report that approximately 70% of companies in the United States have developed business continuity plans to avoid interruptions to their critical processes (Weikert, 2021). In Central America and the Caribbean, 65% of organizations have adopted risk-management policies oriented to operational resilience, reflecting a positive trend toward strengthening response capacity during crises (Comisión Económica para América Latina y el Caribe [CEPAL], 2021a). These figures primarily demonstrate the role of risk management in securing the stability and sustainability of business operations. Furthermore, risk management should be participatory,

involving all stakeholders in the design of protocols and monitoring-and-control programs (Vega & Salinas, 2025; Javier et al., 2025).

The region has begun to prioritize business continuity recently, having been affected by economic crises, social unrest, and natural disasters (CEPAL, 2021b). Emerging leaders in the region include Mexico and Brazil; some studies estimate that 65% of companies will assume some form of infrastructure to face such eventualities (Organization of American States, 2020). Nevertheless, certain particularities and unmet needs persist, hindering many organizations from instilling a risk-aware culture among their workers.

In Peru, risk management for business continuity has gained greater emphasis within companies, particularly in areas requiring continuous operation. According to CCL estimates, about 45% of medium and large companies have some form of risk-management system, although only 30% implement it formally and structurally (ComexPerú, 2021). It has been argued that these systems can improve operational efficiency across the company during unpredictable events, indicating the need for more firms to establish anticipatory strategies to address operational stoppages (Correa, 2024).

Locally, the company under study exhibits specific problems in risk management that compromise the continuity of its processes. The company faces issues related to supply-chain failures, demand variability, and stringent hygienic conditions required for its operations. In particular, performance in recovery after catastrophic events is a critical aspect for ensuring resilient operations, as it minimizes downtime and operational losses.

This research poses the general problem: how is risk management related to the business continuity of a poultry company in Villa El Salvador during 2024? From this question, the following specific problems are posed: How is risk identification related to the business continuity of a poultry company in Villa El Salvador? How is risk assessment related to the business continuity of a poultry company in Villa El Salvador? How is response planning related to the business continuity of a poultry company in Villa El Salvador? How are risk monitoring and control related to the business continuity of a poultry company in Villa El Salvador?

THEORETICAL FRAMEWORK

As international antecedents, Mora (2022) analyzes current challenges in risk management across organizations in diverse sectors. His study aimed to verify how environmental complexity and constant change affect management's ability to detect, assess, and manage risks effectively. The methodology was qualitative, focusing on literature review and theoretical models related to risk management, including standards such as ISO 31000 and the COSO framework, among other reference models. Findings showed that 65% of the organizations studied face significant challenges due to unpredictability, and 40% require urgent updates to their management models. The implementation of algorithmic controls was found to strengthen response capacity to emerging risks in 75% of evaluated cases, while organizations with a robust risk culture reported a 60% increase in organizational resilience. A notable conclusion is that improving risk culture and adopting innovative control measures, such as algorithmic controls, is crucial for enhancing an organization's adaptive and responsive capabilities to emerging threats.

Armijo (2022) designed a management tool aimed at business continuity and risk management for Costa Rican agri-food companies. The objective was to provide industries with a tool to assist risk management and ensure continuity in an uncertain environment. The methodology was qualitative with a non-experimental design and was conducted in two stages. First, an analysis of the agri-industry context based on reports, articles, and other publications for 2010–2020 was performed, focusing on risks, disasters, and climate change; more than 72% of the industries studied reported supply-chain suspensions due to these issues. In the second stage, the management tool was designed in accordance with ISO 31000 and ISO 22301, adapting ISO guidance for SMEs. Results indicated that global policies, climate variability, and the COVID-19 pandemic were considerable threats to the food production supply chain, accounting for 60% of critical interruptions during the period. The tool allows risk evaluation, assessment, and treatment and, after implementation in companies, reduced the impact of disruptive events by 40%.

Similarly, Campos et al. (2021) analyzed institutional continuity at the University of Costa Rica, Western Campus (UCR-SO), aiming to identify opportunities to improve essential service continuity. The methodology was quantitative, non-experimental, and descriptive. Data were collected through audits of five international ISO standards and an organizational climate census applied to 150 staff members from different areas, representing 75% of administrative personnel. Results reflected a low level of development in UCR-SO's management systems, with tentative compliance in key standards - 2% compliance with INTE/ISO 22301 and 20% with INTE/ISO TS 22317. Additionally, 60% of surveyed staff considered current strategies insufficient to ensure business continuity. The study concluded the need to establish a solid, standardized management model to guarantee continuity and quality of essential services. As a contribution, the study represents a first step toward implementing a continuity-management system at UCR-SO, which could serve as a reference for other educational institutions in Costa Rica.

Zurita (2021) used a quantitative, descriptive, non-experimental approach grounded in the COSO ERM 2017 standard and employed matrices for identifying and measuring risks in two selected SMEs. Results revealed 42 risks, 71% of which were low-level and 24% classified as critical or high; after treatment actions, risks were primarily reduced to low and moderate levels. The companies reported average annual revenues of USD 400,000, with 92% categorized as small enterprises. The study concluded that SMEs present deficiencies in operational risk management and are highly exposed to losses from processes, people, and technology; however, the COSO ERM 2017–based methodology significantly improved control and mitigation, also reducing reputational impacts by 42%.

Sánchez and Santamaría (2016) analyzed the technical and economic viability of unit U2400, focusing on maximizing electricity sales and optimizing operational efficiency. The methodology followed a quantitative approach with an applied descriptive design, using the Analytic Hierarchy Process (AHP) to analyze various operational scenarios for the unit at the Barrancabermeja refinery. In the most favorable scenario (Case 4), total generation reached 188 MW, with projected sales of 175,200 MWh annually and estimated economic benefits exceeding USD 12 million per year. The projected net present value (NPV) was 18,673 million Colombian pesos, while the internal rate of return (IRR) was not calculable due to its large positive magnitude. The study concluded that the operational continuity of unit U2400 is technically and economically viable, with a significant impact on the refinery's reliability and revenues.

At the national level, Trebejo (2024), in his study on enterprise risk management and decision-making, aimed to understand how such management affects key aspects of decision-making to improve organizational response. The methodology was quantitative, applied, non-experimental, and explanatory. The sample comprised 108 managers responsible for the administration of commercial enterprises, selected by simple random sampling, representing 70% of active firms in Huaura. Data were collected through surveys, interviews, and observation, and processed using descriptive statistics and the chi-square test with SPSS software. Results indicated that 82% of respondents acknowledged that risk management significantly influences decision-making, particularly in the stages of planning (75%), organizing (68%), execution (70%), and control (65%) of strategic decisions. As a contribution, the study highlights that integrating risk management with strategic decision-making reduces firms' vulnerability to internal and external factors, improving response capacity to uncertainty by 45%.

In Lambayeque, Alejandría (2023), in her study on risk management to improve safety performance, sought to enhance the company's safety performance indicators. A quantitative preexperimental approach with a descriptive level was used, employing document analysis, observation, and the IPERC matrix as primary instruments. The population consisted of 45 company employees in the Lambayeque region who participated in an initial diagnosis and in the implementation of the risk plan. Prior to the intervention, the company's safety compliance level was 37% and it presented a high mechanical risk (36%), with 75 incidents and 16 disabling accidents. After implementing the plan, compliance with safety guidelines rose to 77%, obtaining an "Approved" status. The study demonstrates that implementing a risk management plan increases occupational safety and reduces incidents, thereby fostering a safe and efficient work environment.

imilarly, Pinedo (2023), in his work on risk management, formulated a strategy to improve risk-management practices in the Municipality of Huamanga, using investment projects as a means to strengthen the municipality's capacity to withstand both natural and man-made disasters; the objective was to reflect a more proactive approach to disaster risk management that could help reduce the region's vulnerability to disasters. The approach was descriptive in nature; in addition to reviewing 120 previously approved technical documents, the strategy identified risk factors including, but not limited to, landslides (45%), floods (35%), and erosion (20%). To this end, an integrated approach was proposed in which risk-management characteristics are incorporated into the financial budgeting for public projects, with a recommendation to allocate at least 15% of total investment to prevention and mitigation initiatives. Results showed that only 10% of evaluated projects included risk-management elements, which increases critical sectors' exposure in Huamanga by 70% to disruptive events. As a contribution, the study proposes incorporating specialized personnel and preventive strategies into public investment projects, achieving an estimated 50% improvement in the municipality's resilience and response capacity to disasters.

Likewise, Bazo and Flores (2021), in their study on operational risk management, developed an operational risk-management method intended for implementation in the B2B business of a telecommunications company. This methodology was designed to be scalable and replicable throughout the organization, optimizing risk management across different business units. A qualitative, non-experimental, descriptive approach was used and structured through strategic, functional, and operational components. They also developed management matrices classified into six levels that allow for risk self-assessment and business continuity. As a significant contribution, the proposed model enables adaptable risk management that could be extended to other organizational areas, improving operational resilience in the telecommunications sector by 45%.

Finally, Gómez (2020) developed a study on risk management aimed at designing a risk-management model to increase the quality of patient care processes in the emergency department. A quantitative, descriptive, non-experimental approach was adopted. Surveys and document analysis were used as instruments, and the sample was selected non-probabilistically by convenience, including both patients and the emergency service environment. Results showed patient satisfaction in emergency care reached 52.9%, while for outpatient consultation it was 46.8%; shortcomings in risk management were identified, such as the lack of indicators related to what patient's value and recurring problems like delays in pharmacy service (54.4%) and at the cashier (53.9%). The study concluded that risk management was practically non-existent and suggested a model based on ISO 31000:2018 and PMI methodologies to mitigate risks, improve service quality, and reduce adverse events.

V1. Risk management is understood as the systematic approach to identifying, assessing, and controlling factors that may compromise an entity's operability (ISO 31000, 2018). For Palacios (2021) such management also includes a set of actions that prevent risks and their effects, thereby helping the organization maintain operational stability and increase its capacity to respond to crises. The risk-management approach is divided into several dimensions. The first dimension, risk identification, suggests that instances in which undue interference may occur during commercial operations should be recorded; this is indicated by the frequency of reviews of the existing risk assessment (Ramirez et al., 2024). Rigorous risk identification is the primary input for anticipating challenges and improving organizational response; thus, implementing internal risk-management systems is determinant for achieving sustainability and economic development, and a strong risk culture increases organizational resilience (Palacios, 2021).

The second dimension, risk assessment, allows analysis of all risks associated with a project, process, or activity in terms of probability and impact context; recent studies assert that risk management is decisive in allocating resources and efforts to address higher-risk situations (Cano et al., 2021). It also enables prioritizing efforts for events of greater impact and probability, which is vital for the survival of firms with complex supply chains, thereby significantly reducing critical disruptions and improving institutional reputation (Hernabe, 2019).

The third dimension, response planning, involves creating measures aimed at reducing or eliminating the effects that risks may have on organizational activities (Escobar et al., 2023); in this regard, it is important that this

dimension includes precise response mechanisms and available resources for their execution, allowing the organization to adapt key processes flexibly in the face of financial crises or natural disasters (Gutiérrez, 2018).

Finally, the fourth dimension, risk monitoring and control, includes risk supervision, i.e., different plans are generated depending on threat evolution; this dimension includes critical indicators such as routines related to risk supervision and records of mitigation of undesired events that have occurred, ensuring the company not only withstands the impact but also maintains long-term economic and social stability (Tovar, 2022).

V2. Business continuity. This expresses quantitatively an organization's capacity to maintain the operation of the most critical business functions during an interruptive event and to restart operations in the shortest possible interval (ISO 22301, 2019). This relates to what Cano et al. (2021) describe as operational capability: the capacity to implement plans and measures to minimize losses and ensure operation under adverse conditions. Its first dimension, recovery capability, is defined as the time needed for the organization to reactivate critical business processes after an event; indicators include the established recovery time objective (RTO) and the percentage of processes restored within the allocated time (Torabi et al., 2016).

The second dimension, interruption reduction, concerns strategies aimed at decreasing the frequency and duration of operational interruptions; according to Herbane (2019), this dimension focuses on analyzing the effectiveness of preventive and reactive measures to lower firms' exposure to risk in unstable contexts. The third dimension, operational resilience, refers to an organization's capacity to maintain and adapt critical processes through difficult events, including evaluating process elasticity and staff responsiveness to change. Studies argue that flexibly and rapidly modifying key processes while personnel are on duty is important to sustain operations during critical moments (Barrón & Sánchez, 2022).

These aspects of risk management and business continuity highlight fundamental elements for an organization's survival under extreme scenarios. Recovery refers to the time necessary for an entity to resume its basic functions, whereas restoring business interventions seeks to reduce the severity of events (Valque et al., 2023). Increasing operational resilience measures an organization's adaptability and agility, aimed at process sustainability and continuity. The theoretical justification of this research lies in its contribution to practice and methods: theoretically, it delimits knowledge about risk management and continuity operations, establishing conditions for future research on organizational resilience.

Risk management models mentioned include:

- Review of ERM and research agenda (Jabbour, 2024): discusses Enterprise Risk Management (ERM) from an institutional-work perspective, identifying emerging topics and improvements in organizational risk management.

- ERM as a strategic framework enhancing corporate sustainability (Al Lawati, 2025): identifies, assesses, and responds to risks across the organization aligned with strategic objectives and non-financial metrics such as sustainability and social responsibility.

- Mathematical and statistical models (Poliukhovych et al., 2022).

- Specialized cultural or emerging models. Enterprise risk management requires diverse methods and models to effectively identify, analyze, and evaluate risks, maximizing gains and minimizing risk magnitude (Kulinich & Malena, 2024).

Regarding business continuity, its origin is linked to the generally accepted accounting principle of the going concern, which indicates that a company should continue indefinitely unless imminent extinction is disclosed in financial statements. It is also framed within economic growth theory for firms, which posits that every economic unit should be designed to expand sustainably over time using the necessary resources.

This work is methodologically justified because the study focuses on evaluating risk identification, assessment, and control and their impact on operational continuity, which can serve as a reference for building business models in other fields. Practically, this research is important because it highlights the critical importance of attending to risks generated within the company, enabling organizations in vulnerable situations to address disruptive events more effectively and rapidly, thus protecting economic and social stability.

The objective of the present study was to determine the relationship between risk management and the operational continuity of a poultry company in Villa El Salvador, 2024. Specific objectives include:

Determine the correlation between risk identification and the operational continuity of a poultry company in Villa El Salvador. b) Establish the correlation between risk assessment and the operational continuity of a poultry company in Villa El Salvador. c) Establish the correlation between risk response planning and the operational continuity of a poultry company in Villa El Salvador. d) Determine the correlation between risk monitoring and control and the operational continuity of a poultry company in Villa El Salvador.

MÉTODO

Type and Design

The present study employs a quantitative approach, as it seeks to systematically and objectively describe data related to risk management and operational continuity. According to the nature of the knowledge pursued, it is classified as applied research, given its orientation toward solving specific problems within a poultry company in Villa El Salvador (Hernández & Mendoza, 2018).

Regarding the measurement planning, this study is considered cross-sectional, as the information was collected at a single point in time. With respect to the researcher's intervention, the design is non-experimental, since the study variables were not manipulated (Hernández & Mendoza, 2018). Consequently, the adopted research design is correlational, as it aims to describe the variables and analyze the relationship between risk management and operational continuity within the organization.

Population, Sample, and Sampling

The population consists of 45 employees from a poultry company located in Villa El Salvador, Lima. A common characteristic among them is their work in areas such as risk identification, risk assessment, risk response planning, and risk monitoring, as well as in the implementation of business continuity strategies. In this context, the population is defined as “a set of people, records, objects, documents, etc., with which something is intended to be investigated, whereas the sample is the part of the population with which the research is conducted, and it is recommended that it be representative of the latter” (De la Cruz, 2022, parr. 19). For this study, a sample of 30 workers was selected, specifically those employees involved in the company's decision-making and risk management processes. This research utilizes convenience sampling, as these individuals are easily accessible and are crucial for achieving the research objectives. Inclusion criteria encompass employees with at least one year of experience in the company who are also responsible for risk management and business continuity. Exclusion criteria include temporary workers and those not associated with the aforementioned areas of interest, or who are unwilling to participate in the research (Tamayo, 2012).

Hypotheses

General hypothesis: The evaluation of risk management is significantly correlated with the operational continuity of a poultry company in Villa El Salvador.

Specific hypotheses: a) There is a significant correlation between risk identification and the operational continuity of a poultry company in Villa El Salvador, b) There is a significant correlation between risk assessment and the operational continuity of a poultry company in Villa El Salvador, c) There is a significant correlation between risk response planning and the operational continuity of a poultry company in Villa El

Salvador, d) There is a significant correlation between risk monitoring and control and the operational continuity of a poultry company in Villa El Salvador.

Variables and Operationalization

Table 1 Operacionalización V1. Risk Management

Definition	Dimensions	Indicators	N°	Item
Definition Conceptual Set of processes through which an organization identifies, evaluates and manages the risks that affect its objectives (ISO 31000, 2018). **Operational definition:** Risk management implies the identification, evaluation, response planning and the monitoring and control of risks.	D1. Risk identification	Percentage of identified and classified risks.	1	Risks are always identified in the work area.
			2	There are clear procedures to classify risks according to their impact and probability.
			3	Operational, health-related, and supply chain risks are prioritized in the analyses.
			4	The company encourages staff participation in risk identification.
			5	Critical risks are recorded in a database system.
	D2. Risk assessment	Average rating of probability and impact.	6	Identified risks are evaluated in terms of probability and impact.
			7	There are standardized criteria to prioritize the most critical risks.
			8	Risk assessments are reviewed periodically.
			9	Risk assessment helps make strategic decisions.
			10	Risks are re-evaluated after significant changes in operations.
	D3. Response planning	Number of strategies implemented to mitigate risks.	11	The company has response plans for identified risks.
			12	Response plans include specific strategies for identified critical risks.
			13	Simulations or tests of response plans are conducted.
			14	Response plans are reviewed and updated regularly.
			15	Employees are trained to implement the response plans.
	D4. Risk monitoring and control	Frequency of supervision and audits carried out.	16	Regular monitoring is performed to identify new risks.
			17	Risk monitoring indicators are supervised periodically.
			18	Risk control measures have significantly reduced risk exposure.
			19	There is constant feedback on monitoring results.
			20	Monitoring records are used to improve management processes.

Table 2 Operacionalización V2. Operational Continuity

Definition	Dimensions	Indicators	N°	Ítem
Definition Conceptual The capacity of an organization to maintain and recover critical	D5. capacity of Recovery	Time average recovery capacity (RTO)	1	The company has defined procedures to recover critical functions.
			2	Recovery time between interruptions is within the objectives established. Recovery resources are available at all times.
			3	Impact analyses are performed to define

functions in the event of interruptions (ISO 22301, 2019). **Operational definition:** This variable is measured with 3 dimensions and 9 indicators (total of 15 items).				recovery priorities.
			4	Recovery capacity has improved in recent years.
			5	The company implements clear strategies to minimize operational interruptions.
	D6. Reduction of interruptions	Number of interruptions registered and average duration	6	Recorded interruptions have decreased in frequency and duration.
			7	Preventive measures are implemented to avoid interruptions.
			8	There is a documented registry of operational interruptions and their causes.
			9	The company regularly evaluates the effectiveness of preventive measures.
			10	The company's critical processes are flexible and adaptable.
	D7. Operational resilience	Percentage of adaptable critical processes and employees prepared for incidents	11	Personnel receive training to face disruptive events.
			12	The company has developed resilience strategies for high-impact events.
			13	There is an organizational culture that promotes proactive risk management.
			14	Systems and processes are designed to operate under adverse conditions.
			15	The company has defined procedures to recover critical functions.

Instruments or Materials

The survey technique was employed to systematically analyze the variables of risk management and operational continuity within a poultry company in Villa El Salvador. A survey is utilized to gather information from a sample representing the population and can be conducted in person, via telephone, online, or by email.

The assessment instrument used was a structured questionnaire, composed of 25 items distributed across the dimensions of the main variables: risk identification, risk assessment, response planning, risk monitoring and control, recovery capability, disruption reduction, and operational resilience. The items were developed using a 5-point Likert-type scale (1 = Strongly Disagree, 5 = Strongly Agree), which enabled the measurement of participants' perceptions and levels of agreement regarding the evaluated aspects.

The consistency matrix, questionnaires, expert validations, and database are available at the following link: https://researchbox.org/6602 (Code: FWDSYV)

Procedures

For the development of this research, a questionnaire was designed and administered to the respondents using a five-point Likert scale. This questionnaire was directed at a specific group of employees selected from the poultry company under study, who were chosen based on predefined criteria of importance to the study.

The instrument was prepared to collect quantitative information related to risk management and business continuity within the organization. It was duly validated by three experts and subjected to the Cronbach's Alpha reliability test. The data collection process involved administering the questionnaire to the selected subjects, who were instructed on the time and effort required for its completion. Prior to its use in the study, the instrument underwent a validation process that included expert review and a pilot test to ensure the clarity of the questions

and the reliability of the results. The collected data were subsequently processed using specific tools, and the information was ultimately analyzed in alignment with the study's stated objectives.

Data Analysis

Data collection was performed by administering the instruments to employees of the poultry company in Villa El Salvador under analysis. The data analysis was divided into two main parts. First, a descriptive analysis was conducted to understand the collected data using the Likert-type scale. Subsequently, an analysis based on statistical measures, including measures of central tendency, was performed to describe the group's general perceptions regarding risk management and business continuity.

Furthermore, a cross-sectional analysis was applied to determine the type of relationship between the risk management and business continuity variables. This approach was achieved using various statistical tests aimed at determining the significance between the dimensions of both variables. This methodology not only allowed for the description of employee opinions but also facilitated the establishment of relevant relationships between the analyzed variables, thereby supporting the testing of the hypotheses proposed in the study.

Ethical Aspects

Throughout the data collection and analysis, ethical standards were scrupulously maintained. All individuals involved in the study signed an informed consent form that specified the study's objectives, the confidentiality of the collected data, and their right to withdraw from the research. Furthermore, all information was treated confidentially, and the results were presented in an aggregated format to ensure the anonymity of the participants. The study was conducted in accordance with existing ethical and legal regulations, as well as the policies established by the institution and Peruvian law on research.

RESULTS

Cronbach's alpha measures the reliability of a research questionnaire by determining the correlation or consistency of its items. A Cronbach's alpha of 0.75 or higher is considered reliable.

Table 3 Instrument reliability

Instrument	Alpha Cronbach	Number of items	Reliability
V1. Risk Management	0.836	20	Good
V2. Business continuity	0.978	15	Very good

It should be noted that both instruments are suitable for application to the sample, as the first one proved to be an indicator of good reliability and the second instrument has a reliability of very good.

Table 4 Frequency Ranges

Dimension or Variable	N° of items	Minimum score	Maximum score	Bad/Low	Regular	Good/High
V1 Risk Management	20	20	100	9 to 20	21 to 33	34 to 45
D1 Risk Assessment	5	5	25	3 to 6	7 to 11	12 to 15
D2 Risk Identification	5	5	25	3 to 6	7 to 11	12 to 15
D3 Response planning	5	5	25	3 to 6	7 to 11	12 to 15
D4 Monitoring and control						
V2 Operational Continuity	15	15	75	9 to 20	21 to 33	34 to 45
D5 Recovery capacity	5	5	25	3 to 6	7 to 11	12 to 15
D6 Interruption Reduction	5	5	25	3 to 6	7 to 11	12 to 15
D7 Operational Resilience	5	5	25	3 to 6	7 to 11	12 to 15

Establishing the ranges is of great importance to understand how the ranges have been established to determine the frequencies of each variable and their respective dimensions.

Table 5 V1. Risk Management (Grouped)

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	regular	6	20.0	20.0	20.0
	Good	24	80.0	80.0	100.0
	Total	30	100.0	100.0	

As noted, 80% of respondents indicated that Risk Management is good, while for 20% of them Risk Management is fair, this denotes a good performance of the company.

Table 6 V2. Operational Continuity (Grouped)

		Frequenc y	Percentage	Valid percentage	Cumulative percentage
Valid	Regular	12	40.0	40.0	40.0
	Good	18	60.0	60.0	100.0
	Total	30	100.0	100.0	

It appears that 60% of respondents consider the company's operational continuity to be good, while 40% rate it as fair, indicating that the company is managing its operational continuity adequately.

Table 7 Frequencies of the dimensions of V1

	D1. Risk identification		D2. Risk assessment		D3. Response planning		D4. Risk monitoring and control	
	frec .	%	frec .	%	frec.	%	frec.	%
Low/Bad	0	0	0	0	0	0	0	0
Regular	6	20	12	40	12	40	9	30
High/Good	24	80	18	60	18	60	21	70
Total	30	100	30	100	30	100	32	100

The survey indicates that risk identification is considered good by 80% of respondents, while 20% rate it as fair, implying that the company is attentive to the risks it faces. 60% of respondents believe the company adequately assesses risks, while 40% consider this assessment to be fair.

Similarly, 60% of respondents rated response planning as good, while 40% rated it as fair, indicating that the company plans its responses adequately. Finally, 70% of respondents rated risk monitoring and control as good, while 30% rated it as fair, suggesting that monitoring is consistent within the company.

Table 8 Frequencies of the dimensions of V2

	D5. Recovery capacity		D6 Interruption Reduction		D7 Operational Resilience	
	frec.	%	frec.	%	frec.	%
Low/Bad	0	0	0	0	0	0
Regular	6	20	12	40	12	40
High/Good	24	80	18	60	18	60
Total	30	100	30	100	30	100

The company's resilience was considered good by 80% of survey participants, while for 20% it was fair, which shows that the company knows how to manage its working capital.

For 60% of respondents, the company manages its reduction of interruptions adequately, while for 40% it is average, which indicates that the company manages the reduction of interruptions adequately.

For 60% of respondents, operational resilience is good, and for 40% it is fair, indicating that the company manages its operational resilience adequately.

Table 9 Normality tests

	Shapiro-Wilk		
	Statistical	gl	Next.
V1. Risk Management	,864	30	,001
V2. Business continuity	,802	30	,000

Wilk statistic is used, which indicates that the significance of the variables is less than 0.05, denoting that the data are not normally distributed. Therefore, Spearman's Rho coefficient must be used for the correlation test of the variables.

General Hypothesis

HG1 The risk management assessment is significantly correlated with the operational continuity of a poultry farm in Villa El Salvador

HG0 The risk management assessment does not correlate significantly with the operational continuity of a poultry farm in Villa El Salvador.

Table 10 Correlation V1 – V2

		V2. Operational Continuity
V1. Risk Management	Spearman 's rank correlation	.813
	Bilateral sign	,000
	N	30

Similarly, the level of statistical significance (p = 0.000) further confirms that this relationship is highly significant. The correlation results presented confirm the study's overall hypothesis, which states that risk management is significantly correlated with business continuity in the company studied. Spearman's rank correlation coefficient (r = 0.813) attests to an extremely strong positive relationship between the two variables.

As can be seen, the significance is 0.000, less than 0.05, which implies accepting the direct and very strong correlation of 0.813 between the variables Risk Management and operational continuity.

Specific Hypothesis Test 1

HE1 There is a significant correlation between risk identification and operational continuity of a poultry farm in Villa El Salvador

HG0 There is no significant correlation between risk identification and operational continuity of a poultry farm in Villa El Salvador.

Table 11 Correlation between D1 – V2

		V2. Operational Continuity
D1. Risk identification	Spearman 's rank correlation	.878
	Bilateral sign	,000
	N	30

The Risk Identification dimension and the operational continuity variable have a highly positive correlation, as demonstrated by a Spearman coefficient of 0.878. The data (p=0.000) shows that with a low p-value, this correlation can be considered significant (p< 0.01), which in turn reinforces confidence in the observed relationship.

Specific hypothesis test 2

HE2 There is a significant correlation between risk assessment and the operational continuity of a poultry farm in Villa El Salvador

HE0 There is no significant correlation between risk assessment and operational continuity of a poultry farm in Villa El Salvador.

Table 12 Correlation between D2 – V2

		V2. Operational Continuity
D2. Risk assessment	Spearman 's rank correlation	.888
	Bilateral sign	,000
	N	30

It is observed that the risk assessment is related to operational continuity with an indicator of 0.888, given that the significance obtained is 0.00, which is less than 0.05, therefore the research hypothesis is accepted.

Specific hypothesis test 3

HE3 There is a significant correlation between risk response planning and operational continuity of a poultry farm in Villa El Salvador.

HE0 There is a significant correlation between risk response planning and operational continuity of a poultry farm in Villa El Salvador.

Table 13 Correlation between D3 – V2

		V2. Operational Continuity
D3. Risk Response Planning	Spearman 's rank correlation	.780
	Bilateral sign	,001
	N	30

It can be seen that at a significance of 0.001 less than the margin of error of 0.05, it can be stated that response planning is directly and very strongly related to the company's operational continuity with an indicator of 0.780.

Specific hypothesis test 4

HE4 There is a significant correlation between risk monitoring and control and the operational continuity of a poultry farm in Villa El Salvador.

HE0 There is no significant correlation between risk monitoring and control and the operational continuity of a poultry farm in Villa El Salvador.

Table 14 Correlation between D4 – V2

		V2. Operational Continuity
D4. Risk monitoring and control	Spearman 's rank correlation	.857
	Bilateral sign	,000
	N	30

The correlation between the Risk Monitoring and Control dimension and the Operational Continuity variable shows a Spearman's rank correlation coefficient of 0.857, indicating a very strong positive relationship. The significance (p=0.000) indicates that this correlation is highly significant (p<0.05), statistically supporting the correlation between these dimensions.

DISCUSIÓN

This study is important because it confirms the essential role of risk management as a critical approach to ensuring the operational continuity of the poultry company in Villa El Salvador. The strong positive relationships found between the risk-management construct —comprising risk identification, risk assessment, risk-response planning, and risk monitoring and control— and business continuity support the acceptance of the hypotheses and compare favorably with results from other studies in the field. Consequently, optimizing operational continuity requires internal control systems, a preventive culture, and risk-management training (Fonseca et al., 2024).

With respect to the general objective, the study evaluated how risk management relates to the operational continuity of a poultry company in Villa El Salvador. Findings indicated a significant positive correlation (r = 0.813, p = 0.000), highlighting risk management as a critical factor for operational sustainability. These results align with Mora (2022), who found that a robust risk-management approach improves organizational resilience by 60% in the firms studied. Similarly, Zurita (2021) showed that implementing systematic risk-management methodologies reduced critical interruptions by 45% in the SMEs analyzed, underscoring the importance of structured and proactive management. This study reinforces the relevance of adopting comprehensive strategies based on international standards such as ISO 31000 and ISO 22301 to strengthen operational continuity in organizations like the one examined.

Regarding Specific Objective 1 —the relationship between risk identification and operational continuity— results revealed a direct correlation (r = 0.878, p = 0.000). This finding supports the view that effective risk analysis is critical because it helps anticipate challenges and design measures to improve organizational resilience; evidence indicates that properly conducted risk identification helps maintain the company's operational continuity, justifying the importance of this dimension in resilience-building strategies, as noted by Mora (2022). Mora also indicates that adequate risk identification can mitigate up to 75% of operational setbacks and increase companies' response capacity. In the same vein, Armijo (2022) reports that effective risk management begins with early risk identification and can reduce critical interruptions by up to 40%, reinforcing the need for robust preventive strategies in business environments.

Specific Objective 2 —examining the relationship between risk assessment and operational continuity— showed the highest correlation (r = 0.888, p = 0.000). This result emphasizes that evaluating risks in terms of probability and impact is crucial for prioritizing organizational strategies. Campos et al. (2021) support this finding, noting that sound assessment facilitates control of the most significant risks and can increase business viability by up to 50%. Zurita (2021) reports that systematic evaluation methods reduce negative effects by 42%, improving operational sustainability. The data corroborate that conducting systematic, well-organized risk assessments increases operational sustainability, validating their necessity within the entity's risk-management framework.

Thus, this result underscores the importance of continuing efforts to improve and standardize assessment procedures to ensure the company's operational sustainability.

For Specific Objective 3 —the relationship between risk-response planning and operational continuity— results indicated a strong positive correlation ($r = 0.780$, $p = 0.001$). This finding reinforces the need for well-structured and tested designs to address identified risks. Sánchez and Santamaría (2016) argue that appropriate design improves operational efficiency and reduces downtime during adverse events. Likewise, Bazo and Flores (2021) add that effective designs strengthen organizational resilience, ensuring stable operations in crises. Statistical evidence confirms that risk-response planning is a vital component of overall risk management and has direct effects on business continuity. The result also indicates that these plans require continuous improvement to remain effective and increasingly resilient to potential disruptive events.

Concerning Specific Objective 4 —the relationship between risk monitoring and control and operational continuity— a very high correlation was detected ($r = 0.857$, $p = 0.000$). This recurring result evidences that control, maintenance, and timely adjustments are incentives for operational stability. Gómez (2020) and García (2022) argue that continuous supervision enables immediate intervention on elements that require change, contributing to greater flexibility and reduced idle time. The data support that, broadly, risk monitoring and control are critical to risk management, substantially enhancing operational resilience. This result emphasizes the need to strengthen and maintain these strategies and practices as part of the overarching strategy to guarantee operational stability and sustainability.

CONCLUSIONS

A direct dependence was determined between the poultry company's risk management and its capacity to maintain operations, indicating that risk management is not merely an administrative process but the primary means by which the organization continues functioning during crises. Therefore, it is concluded that as the company increases internal controls, its permanence and market stability also increase.

It is also concluded that timely hazard identification is the poultry company's first line of defense; by precisely knowing which factors can affect the supply chain or sanitary processes, the company shifts from reactive to preventive action. Thus, risk identification enables constructing an organizational structure capable of withstanding incidents without interrupting service.

Detailed analysis of the probability and impact of each risk proved most influential for business continuity, demonstrating that merely knowing a risk exists is insufficient; prioritizing those that may cause the greatest harm is fundamental. This allows the company to allocate resources and efforts intelligently, focusing on protecting processes vital to daily operations.

Additionally, having well-structured response plans ensures a rapid and orderly reaction; planning not only reduces chaos during an interruption but also minimizes downtime. This confirms that a prepared company with rehearsed protocols and trained personnel is far more likely to recover successfully than one that improvises.

Finally, constant surveillance and control of risks are important components for maintaining operational flexibility. Continuous monitoring enables the poultry company to detect new failures or environmental changes before they become severe problems. Consequently, monitoring not only controls known issues but also generates learning that strengthens organizational resilience over the long term.

Limitations

Gaps persist in integrating social and economic dimensions into risk management and in institutionalizing preventive practices, especially in SMEs and vulnerable regions (Hunorfi & Farkas, 2025).

Key limitations include the company's size: it is a microenterprise, and the study was limited to the analyzed poultry company's employees, which may constrain generalizability. Similarly, the cross-sectional research

design limits the possibility of evaluating changes in risk-management practices and continuity management over time.

Future Research Recommendation

Although this study used a quantitative approach, future research should include a qualitative component to capture a broader perspective on the effectiveness of risk-management strategies and to measure their impact on companies' operational continuity. It is also necessary to apply these findings to other companies in the industry to generalize the results.

Conflicts Of Interest

The authors declare no conflicts of interest.

REFERENCES

1. Al Lawati, A. (2025). The impact of enterprise risk management on firm performance and non-financial outcomes. Risks, 13(10). https://doi.org/10.3390/risks13100199
2. Alejandría, H. A. (2023). Gestión de riesgos para mejorar el desempeño en seguridad en la Empresa de Telecomunicaciones Inversiones PG [Tesis de maestría, Universidad Católica Santo Toribio de Mogrovejo]. Repositorio de tesis USAT. http://hdl.handle.net/20.500.12423/7174
3. Armijo, O. (2022). Diseño de una herramienta para la gestión de riesgos y continuidad de negocio en la producción agroalimentaria. Revista e- Agronegocios, 8(1). https://doi.org/10.18845/ea.v8i1.5673
4. Barrón, J. G., & Sánchez, M. L. (2022). Resiliencia organizacional: una revisión teórica de literatura. Estudios Gerenciales, 38(163), 235-249. https://doi.org/10.18046/j.estger.2022.163.4912
5. Bazo, A. J. R., & Flores, C. E. (2021). Propuesta de un modelo de gestión de riesgo operacional en el negocio B2B de una empresa de telecomunicaciones [Tesis de maestría, Universidad Peruana de Ciencias Aplicadas]. Repositorio Académico UPC. http://hdl.handle.net/10757/658321
6. Campos, L., Esquivel, J., & Varela, D. (2021). Evaluación de la gestión de continuidad de los servicios: Universidad de Costa Rica, Sede de Occidente. Estudios de la Gestión, 10(1), 139-162. https://doi.org/10.32719/25506641.2021.10.7
7. Cano, E., Plaza, I. H., & Ramírez, E. K. (2021). Gestión de la continuidad de negocio: Caso Ravmar Freight del sector logístico. Revista de Ciencias de la Gestión, 1(6), 1-15. https://doi.org/10.18800/360gestion.202106.014
8. Coelho, C. S., Laguna, M. V. C., & Coelho, C. S. (2025). Riesgos financieros en PYMES importadoras venezolanas: una perspectiva de gestión sostenible alineada a los ODS 8 y 9. Star Of Sciences Multidisciplinary Journal, 2(1), 1-13. https://doi.org/10.63969/arygmd93.
9. ComexPerú. (2021). Las micro y pequeñas empresas en el Perú: Resultados en 2021. Comex Perú. https://www.comexperu.org.pe/upload/articles/reportes/reporte- comexperu-001.pdf
10. Comisión Económica para América Latina y el Caribe. (2021a). Desastres y desigualdad en una crisis prolongada: hacia sistemas de protección social universales, integrales, resilientes y sostenibles en América Latina y el Caribe. CEPAL. https://repositorio.cepal.org/server/api/core/bitstreams/dd010520-af35- 4c2d-b8c7-5c4fb869ca6b/content
11. Comisión Económica para América Latina y el Caribe. (2021b). Instituciones resilientes para una recuperación transformadora pospandemia en América Latina y el Caribe: Aportes para la discusión. CEPAL. https://repositorio.cepal.org/server/api/core/bitstreams/a50be37d-9674- 4faa-92d2-81455949aee5/content
12. Correa, W. D. (2024). Diseño e implementación de una Red BGP para un plan de contingencia en el sistema de comunicación de la empresa Grupo Faysal S.A.C, 2023 [Tesis de pregrado, Universidad Tecnológica del Perú]. Repositorio de la Universidad Tecnológica del Perú. https://hdl.handle.net/20.500.12867/9229
13. De la Cruz, D. (2022). Glosario de términos científicos. Instituto científico empresarial Blog. https://100tificosuap.blogspot.com/2022/07/posteado-por-de-la-cruz-montoya-david.html

14. Escobar, B. R. P., Vento, P. P., Ramirez, J. G. P., Ramos, S. P. V., & Rivera, R. J. C. (2023). Business networks and the drive to include small and medium-sized producers in new markets: a study from a higüera education perspective. Editorial Grupo Compás. https://dialnet.unirioja.es/servlet/articulo?codigo=8886025
15. Fonseca, A., Moscatto, J., De Sá Filho, L., Dassow, L., & De Carvalho, M. (2024). Análise do sistema APPCC: implementação, vantagens e desvantagens no processo produtivo. Brazilian Journal Of Health Review, 7(9), 1-18. https://doi.org/10.34119/bjhrv7n9-507.
16. García, S. (2022). La resiliencia de las organizaciones: El secreto está en el sistema. España: Libros de Cabecera. https://librosdecabecera.com/wp- content/uploads/descargas/capitulo-gratis/capitulo-gratis-la-resiliencia- de-las-organizaciones.pdf
17. Gómez, L. (2020). Propuesta de modelo de gestión de riesgos para mejorar el nivel de calidad del proceso de atención al paciente en el área de emergencia de un hospital, Lima-2020 [Tesis de pregrado, Universidad Continental]. Repositorio de la Universidad Continental. https://repositorio.continental.edu.pe/bitstream/20.500.12394/9880/2/IV_ FIN_108_TI_Gomez_Samaniego_2020.pdf
18. Gutiérrez, H. E. (2018). Manual de análisis cuantitativo del riesgo e introducción al uso del @RISK V7.5.1 versión 2.0 [Tesis de pregrado, Universidad de Lima]. Repositorio Universidad de Lima. https://repositorio.ulima.edu.pe/handle/20.500.12724/6984
19. Herbane, B. (2019). Rethinking organizational resilience and strategic renewal in SMEs. Entrepreneurship & Regional Development, 31(5), 476–495. https://doi.org/10.1080/08985626.2018.1541594
20. Hernández, R., & Mendoza, C. (2018). Metodología de la investigación: las rutas cuantitativa, cualitativa y mixta. Mc Graw Hill Education.
21. Hunorfi, P., & Farkas, T. (2025). Az operatív technológia kiberbiztonsága kritikus infrastruktúrákban. Belügyi Belügyi Szemle, 73(1), 65-81. https://doi.org/10.38146/bsz-ajia.2025.v73.i1si.pp65-81.
22. ISO 22301. (2019). Security and resilience – Business continuity management systems – Requirements. International Organization for Standardization. https://www.iso.org/standard/75106.html
23. ISO 31000. (2018). Risk management – Guidelines. International Organization for Standardization. https://www.iso.org/iso-31000-risk-management.html
24. Jabbour, M. (2024). Enterprise risk management: An institutional work perspective. Journal of Risk and Financial Management, 13(281), 1–22. https://doi.org/10.1080/01559982.2024.2439640
25. Javier, A., Jiménez, C., & Torres, J. (2025). Reflexiones conceptuales sobre la gestión del riesgo educativo en Centros Educativos Urbanos Marginales. Educateconciencia, 33(1). https://doi.org/10.58299/edutec.v33i1.323.
26. Kulinich, T., & Malena, V. (2024). Methods and models of enterprise risk management. Investytsiyi Praktyka Ta Dosvid, 5(1), 111-115. https://doi.org/10.32702/2306-6814.2024.5.111.
27. Mora, Ó. E. (2022). Gestión de riesgos: un desafío para las organizaciones. Administración & Desarrollo, 52(1), 4-19. https://doi.org/10.22431/25005227.vol52n1.1
28. Organización de Estados Americanos. (2020). Ciberseguridad: Riesgos, avances y el camino a seguir en América Latina y el Caribe. OEA. https://www.oas.org/es/centro_noticias/comunicado_prensa.asp?sCodigo=AVI-095/20
29. Palacios, E. B. (2021). Sistema de gestión de riesgos en seguridad y salud en el trabajo. Paso a paso para el diseño práctico del SG-SST (2ª ed.). Ediciones de la U.
30. Pinedo, A. (2023). Propuesta de mejora de la gestión del riesgo de desastres en la Municipalidad Provincial de Huamanga, periodo 2021-2023 [Tesis de pregrado. Universidad Continental]. Repositorio de la Universidad Continental. https://hdl.handle.net/20.500.12394/11628
31. Poliukhovych, N., Raicheva, L., & Ivanov, A. (2022). Mathematical modeling of risk assessment of enterprise management. Baltic Journal Of Economic Studies, 8(3), 166-173. https://doi.org/10.30525/2256-0742/2022-8-3-166-173.
32. Ramirez, J., Ruiz-Salazar, J., Vargas-Tumaya, J., Ochoa-Tataje, F., & De-la-Cruz-Cámaco, D. (2024). A Detailed Investigation of Implementing Artificial Intelligence and Business-to-Employee (B2E) e-business Model for Improving Customer Services. CRC Press. https://doi.org/10.1201/9781003532026

33. Sánchez, N. D., & Santamaria, J. R. (2016). Estudio de la continuidad operativa de la unidad de generación U2400 en la gerencia Refinería Barrancabermeja [Tesis de pregrado, Universidad Autónoma de Bucaramanga]. Repositorio Universidad Autónoma de Bucaramanga. http://hdl.handle.net/20.500.12749/1208
34. Tamayo, M. (2012). El Proceso de la Investigación Científica (4ª ed.). Noriega editores.
35. Torabi, S. A., Giahi, R., & Sahebjamnia, N. (2016). An enhanced risk assessment framework for business continuity management systems. Safety Science, 89(1), 201-218. https://doi.org/10.1016/j.ssci.2016.06.015
36. Tovar, F. (2022). Mapeo de los indicadores de gestión de la seguridad y salud en el trabajo en los procesos constructivos de las obras de centros educativos. Revista del Instituto de Investigación de la Facultad de Minas, Metalurgia y Ciencias Geográficas, 25(49), 339-344. https://doi.org/10.15381/iigeo.v25i49.23007
37. Trebejo, R. C. (2024). La gestión del riesgo empresarial y la toma de decisiones en las empresas comerciales de la provincia de Huaura [Tesis doctoral, Universidad Nacional José Faustino Sánchez Carrión]. Repositorio Institucional - UNJFSC. https://repositorio.unjfsc.edu.pe/bitstream/handle/20.500.14067/9026/TESIS.pdf?sequence=1
38. Valque, R. Y. B., Vega, M. J. L., Ramirez, J. G. P., Casco, R. J. E., & Cruz, R. R. A. (2023). Neuroleadership and its application in the administrative management of human resources in educational centers. Editorial Grupo Compás. https://dialnet.unirioja.es/servlet/articulo?codigo=8886022
39. Vega, G., & Salinas, R. (2025). Avaliação e gerenciamento de riscos escolares: um modelo integrado para comunidades escolares vulneráveis. Revista InovaEducaTech, 1(1), 1-18. https://doi.org/10.63103/wthfcr69.
40. Weikert, F. (2021). Infraestructura resiliente: un imperativo para el desarrollo sostenible en América Latina y el Caribe. Serie Comercio Internacional N° 160 (LC/TS.2020/177). Comisión Económica para América Latina y el Caribe. https://repositorio.cepal.org/server/api/core/bitstreams/1e61262e-7887-4cfd-8efc-cf4626e0056c/content
41. Zurita C, G. del R. (2021). Diseño de una metodología para la gestión del riesgo operativo en las Pymes del sector servicios de asesoría en Ecuador [Tesis de maestría, Universidad Andina Simón Bolívar]. Repositorio de la Universidad Andina Simón Bolívar. https://repositorio.uasb.edu.ec/bitstream/10644/8320/1/T3615-MFGR- Zurita-Dise%C3%B1o.pdf