

Risk-Based Business Continuity Strategy for a Newspaper Printing Company: a Qualitative Case Study

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Abstract: The continuing decline of the print media industry has caused increasing pressure on newspaper printing companies and threatens their long-term business continuity. PT Mediacetak, a newspaper printing company that still heavily dependent on a single internal client and operates with single-unit production equipment, has no formal risk management system and is therefore vulnerable to both internal and external risks. This study aims to identify the company's key business risks, assess their likelihood and impact, and develop mitigation strategies that support its business continuity. This study adopts the ISO 31000:2018 framework using a qualitative single-case study approach. Primary data were collected through semi-structured interviews with five key respondents and a risk scoring questionnaire completed by six employees across functional areas. Interview data were analysed using deductive thematic analysis, while risk levels were determined by multiplying the average likelihood and impact scores. The findings identified 23 risks across six categories, which are strategic, operational, financial, supply chain, human resource, and external and technology risks, of which 13 were classified as priority risks. Treatment strategies were developed for all priority risks, including preventive maintenance, backup supplier arrangements, pricing adjustment mechanisms, and business diversification. Residual risk analysis indicates that the proposed treatments reduced most priority risks to the Moderate level, although several strategic and external risks remained at higher levels because they are driven by factors beyond the company's control. The study concludes that while operational risks can be managed through internal improvements, the company's long-term business continuity depends heavily on successful diversification beyond newspaper printing.

Keywords: risk assessment, risk mitigation, business continuity, ISO 31000, thematic analysis

Abstrak: Penurunan permintaan berkelanjutan pada industri media cetak menimbulkan tekanan yang semakin besar terhadap perusahaan percetakan surat kabar dan mengancam keberlangsungan bisnisnya dalam jangka panjang. PT Mediacetak, perusahaan percetakan surat kabar yang masih sangat bergantung pada satu klien internal dan beroperasi dengan satu peralatan produksi, belum memiliki sistem manajemen risiko formal sehingga rentan terhadap risiko internal maupun eksternal. Penelitian ini bertujuan mengidentifikasi risiko utama yang dihadapi perusahaan, menilai tingkat kemungkinan dan dampaknya, serta menyusun strategi mitigasi untuk mendukung keberlangsungan bisnis. Penelitian ini menggunakan kerangka ISO 31000:2018 dengan pendekatan studi kasus tunggal kualitatif. Hasil penelitian mengidentifikasi 23 risiko dalam enam kategori, yaitu risiko strategis, operasional, keuangan, rantai pasok, sumber daya manusia, serta eksternal dan teknologi, dengan 13 di antaranya dikategorikan sebagai risiko prioritas. Analisis risiko residual menunjukkan strategi mitigasi mampu menurunkan sebagian besar risiko prioritas ke tingkat Moderate, meskipun beberapa risiko strategis dan eksternal tetap berada pada tingkat lebih tinggi. Penelitian menyimpulkan bahwa keberlangsungan bisnis jangka panjang perusahaan sangat bergantung pada keberhasilan diversifikasi di luar percetakan surat kabar.

Kata kunci: penilaian risiko, mitigasi risiko, keberlangsungan bisnis, ISO 31000, analisis tematik

Introduction

The advance of digital technology has transformed the way people access and consume information. In Indonesia, 72.78% of the population had accessed the internet by 2024, up from 69.21% in 2023, with the number of internet users reaching 221.56 million people (Badan Pusat Statistik, 2025). This shift has increased direct pressure on print media. Data compiled by the Serikat Perusahaan Pers show that the total circulation of newspapers in Indonesia declined from its peak of 25.3 million copies in 2011 to 4.9 million copies in 2022, a fall of approximately 81%

over eleven years. This decline was accompanied by a reduction in the number of print media publications from 1,329 in 2011 to 538 in 2022 (Murti, 2024). These figures indicate that the decline is not a temporary fluctuation but a structural transformation of the industry. The same condition is reflected in the closure of several established newspapers such as Sinar Harapan, Suara Karya, and Jakarta Globe during the 2010—2022 period (Supadiyanto, 2020).

For printing companies that depend on newspaper production, this transformation creates both strategic and operational risks. On the strategic side, companies face uncertain demand and pressure on profitability. On the operational side, newspaper printing demands a tightly controlled production process because a newspaper is a time-sensitive product with daily deadlines. Prior research has identified 27 operational risks that may disrupt the newspaper printing process, including the procurement of paper, ink, and printing plates through to distribution (Raffa Sandito, Nurfitri Rahma, Utami Tyastuti, Soraya Putri, & Sutopo, 2022). Machine reliability is also a critical aspect, where repeated failures of printing machine components within a single year were shown to disrupt effective working time and underline the importance of preventive maintenance (Patiapon, 2021).

Risk management gives a structured framework for confronting such uncertainty. Risk is understood as the effect of uncertainty on the achievement of organisational objectives (Aven, 2016). ISO 31000:2018 provides a risk management process consisting of establishing the context, risk identification, analysis, evaluation, and treatment, accompanied by continual monitoring (Risk Management — Guidelines, 2018). The framework is generic, making it applicable to organisations of various scales, including small and medium-sized enterprises (Purdy, 2010). In small firms, risk assessment usually rely on the knowledge and judgement of employees directly involved in day-to-day operations because historical risk data are limited (Falkner & Hiebl, 2015). Once risk treatment has been developed, an organisation still faces residual risk, which is the level of risk remaining after controls have been applied, so that the comparison between inherent and residual risk becomes an indicator of mitigation effectiveness (Tiusanen, 2018). In the newspaper printing context, disruption to the raw-material supply chain is also an important concern because dependence on a single supplier increases the vulnerability to any supply disruption (Tang, 2006).

PT Mediacetak, a pseudonym used to keep the confidentiality of the company, is a printing and publishing company in Bandung established around the 1960s and originally founded to serve the printing needs of a media group. The company employs around 26 people with a lean organisational structure, in which strategic, financial, and procurement decisions are centralised in the director. The production process depends on a single Computer-to-Conventional Plate (CTCP) unit and a single main printing machine, making both pieces of equipment critical points of production. Paper is the main raw material, accounting for 60—70% of total raw-material costs, ordered through a single main supplier with price renegotiation every three months. The company

maintains an inventory threshold of five tonnes of paper, equivalent to roughly five days of production. On the revenue side, the company remains heavily dependent on clients within its internal media group, while diversification efforts through commercial printing, book printing, and laser engraving services still contribute only modestly.

These external and internal conditions place the company in a vulnerable position. Externally, the company faces declining market demand, uncertain raw-material prices, and regulatory uncertainty, especially regarding the possible imposition of value-added tax on paper following the increase of the VAT rate from 11% to 12% (Direktorat Jenderal Pajak, 2024). Internally, the company faces dependence on a single machine, a single supplier, and a single client. Internal financial data show highly volatile net profit growth over 2021–2025, with consecutive declines of 76.53% in 2024 and 37.46% in 2025 after a recovery in 2023 that was largely derived from the collection of prior-period receivables rather than from consistent operational growth.

Amid these vulnerabilities, the company has no formal risk management framework. A number of controls are indeed already in place, such as daily machine maintenance, coordination with suppliers, quality inspection, and temporary cooperation with other printing companies when disruptions occur. However, these controls are not integrated within a formal framework, so risks are not identified, measured, or linked to a mitigation plan in a consistent manner. The company also has neither a risk register nor a dedicated function to handle risk, so its response to disruption tends to be reactive rather than preventive.

Based on the above, the problem addressed in this study is that PT Mediacetak faces increasing strategic and operational risks amid the decline of the newspaper printing industry, yet it has no structured risk management framework to identify, assess, prioritise, and mitigate the risks that may disrupt its business. This study aims to identify and classify the key risks faced by the company, to measure the likelihood, impact, and priority of those risks, and to formulate appropriate mitigation strategies to support the company's business continuity.

Method

This study employs a qualitative design with a single-case study approach, which chosen because the research objective is to explore and understand business risks within a specific organisational context, a condition well suited to research that poses "what" questions about a phenomenon in a real-life setting (Yin, 2018) and that seeks to understand the meaning individuals or groups ascribe to an organisational problem (Creswell, 2009). The research subject is PT Mediacetak, a newspaper printing company in Bandung that has around 26 employees, and informants were selected purposively based on their direct involvement in functions relevant to the risks under study. Primary data were collected through two instruments. First, face-to-face

semi-structured interviews with five informants, including the director, the CTCP operator, a human resource representative, a procurement staff member, and a finance staff member; the director was interviewed on a broader scope because the company's major decisions are centralised in that role, while the other informants were interviewed according to their functional areas. The small sample size is methodologically appropriate in qualitative case studies because it allows deeper engagement with informants (Crouch & McKenzie, 2006), even when informants are very few in number, provided they possess comprehensive knowledge of the research topic (Boddy, 2016). Second, a risk scoring questionnaire completed by six employees from the procurement, finance, human resource, production, and marketing functions; respondents assessed only the risks relevant to their area of expertise, and the final score for each risk was computed as the average of the available responses. Secondary data comprised internal financial data for 2021–2025 in aggregate percentage form as well as academic literature and industry reports. Validity and reliability were maintained through triangulation of four sources of evidence, namely interviews, the questionnaire, internal financial data, and the literature, with the provision that a risk was considered confirmed when it was mentioned by more than one informant from different functions and was consistent with the scoring results (Yin, 2018). Research ethics were applied through informed consent obtained orally from all informants before the interviews and through the anonymisation of the identity of both the company and the informants, so that only functional positions are stated and financial data are presented as percentages rather than actual values. Data analysis followed the ISO 31000:2018 risk management process. Interview transcripts were analysed using deductive thematic analysis through the six phases of Braun and Clarke (2006), with coding guided by six risk categories established from the literature, namely strategic, operational, financial, supply chain, human resource, and external and technology risks; each relevant excerpt was summarised into a keyword, translated into a code, and then classified into the appropriate risk theme (Naeem, Ozuem, Howell, & Ranfagni, 2023). The identified risks were then analysed using a five-point qualitative scale for likelihood (L) and impact (I), with the risk score computed as the product of the average likelihood and the average impact, producing a score range of 1 to 25. The qualitative scoring approach was chosen because the company has neither historical risk records nor quantitative risk measurement data, a condition common in small firms (Falkner & Hiebl, 2015). The scoring results were plotted onto a 5 × 5 risk matrix and classified into five levels, namely Low (1–4), Moderate (5–9), High (10–14), Very High (15–19), and Extreme (20–25). Because the company has no formal risk appetite statement, the treatment threshold was established through discussion with company representatives, and risks at the High level and above were designated as priority risks requiring treatment. Treatment strategies were formulated based on the four ISO 31000:2018 options, namely risk mitigation, transfer, avoidance, and acceptance, taking into account the level of each risk, its causes, the controls already in place,

and the resources available. The final stage was residual risk analysis, in which the likelihood and impact of each priority risk were reassessed on the basis of the expected effect of the proposed treatment and then compared with the inherent risk to measure mitigation effectiveness (Tiusanen, 2018). The indicators of the study's attainment are the production of a cross-source verified list of priority risks and the demonstrated reduction of residual risk levels compared with inherent risk across the majority of priority risks.

Results and Discussion

The risk assessment was conducted in four stages in accordance with ISO 31000:2018, namely identification, analysis, evaluation, and treatment, and was then closed with a residual risk analysis to test the effectiveness of the proposed strategies. The assessment context was shaped by internal conditions in the form of a lean organisational structure with decision-making centralised in the director and the absence of a risk management division, together with external conditions in the form of a continually declining print media market, fluctuating raw-material prices, and tax regulatory uncertainty.

The deductive thematic analysis of the interview transcripts of the five informants produced 23 risks distributed across six categories. The operational category contributed the largest number of risks with seven, followed by the strategic and financial categories with four risks each, the supply chain and external and technology categories with three risks each, and the human resource category with two risks. This distribution confirms that the company's vulnerability is not concentrated on a single dimension but is spread from the level of daily operations to its long-term strategic position. The complete list of identified risks is presented in Table 1.

Table 1. Risk identification of PT Mediacetak

Category	Code	Risk name
Strategic	S.1	Decline in newspaper printing demand
	S.2	High dependence on the internal media group client
	S.3	Limited product and market diversification
	S.4	Competition from digital media and digital printing
Operational	O.1	CTCP machine failure
	O.2	Main printing machine failure
	O.3	Laser component failure
	O.4	Production delay due to slow client file delivery
	O.5	Internet disruption forcing manual file transfer
	O.6	Print quality defects requiring reprinting
	O.7	Production delay due to spare-part unavailability
Financial	F.1	Rising paper costs due to market price fluctuation
	F.2	Late or defaulted payment from external clients

Category	Code	Risk name
Supply chain	F.3	Revenue decline due to reduced printing volume
	F.4	High fixed costs relative to declining revenue
	SC.1	Delivery delay from the main paper supplier
	SC.2	Dependence on a single paper supplier
	SC.3	Ink supply disruption
Human resource	HR.1	Dependence on key operators
	HR.2	Difficulty replacing skilled operators
External and technology	E.1	Changes in government regulation
	E.2	Absence of a formal risk management system and SOP
	E.3	Workplace safety incidents in the production area

Source: Compiled from interview results (2026)

The analysis and evaluation stage was carried out by computing the risk score from the product of the average likelihood and the average impact assigned by the six questionnaire respondents. The results show that the company has no risks at the Low level. Thirteen risks are classified as priority and require treatment, comprising one Extreme risk, four Very High risks, and eight High risks, while the remaining ten risks fall at the Moderate level and are judged acceptable under current operating conditions although they still require monitoring. The complete analysis and evaluation results are presented in Table 2.

Table 2. Risk analysis and evaluation results

Code	Risk name	Avg. L	Avg. I	Score	Level
S.4	Competition from digital media and digital printing	4.60	4.80	22.08	Extreme
S.2	High dependence on the internal media group client	4.00	4.40	17.60	Very High
E.1	Changes in government regulation	4.00	4.40	17.60	Very High
F.1	Rising paper costs due to market price fluctuation	4.00	4.17	16.68	Very High
F.4	High fixed costs relative to declining revenue	3.83	4.17	15.97	Very High
F.3	Revenue decline due to reduced printing volume	3.50	3.83	13.41	High
S.3	Limited product and market diversification	3.40	3.80	12.92	High
O.2	Main printing machine failure	3.33	3.83	12.75	High
SC.2	Dependence on a single paper supplier	3.60	3.40	12.24	High
S.1	Decline in newspaper printing demand	3.60	3.20	11.52	High
O.1	CTCP machine failure	3.33	3.33	11.09	High
SC.3	Ink supply disruption	3.20	3.40	10.88	High
O.3	Laser component failure	3.00	3.50	10.50	High
O.5	Internet disruption forcing manual file transfer	3.00	3.33	9.99	Moderate
F.2	Late or defaulted payment from external clients	3.00	3.17	9.51	Moderate
HR.2	Difficulty replacing skilled operators	2.40	3.60	8.64	Moderate
O.6	Print quality defects requiring reprinting	2.83	3.00	8.49	Moderate

Code	Risk name	Avg. L	Avg. I	Score	Level
HR.1	Dependence on key operators	2.80	3.00	8.40	Moderate
SC.1	Delivery delay from the main paper supplier	2.40	3.20	7.68	Moderate
O.4	Production delay due to slow client file delivery	3.00	2.50	7.50	Moderate
E.2	Absence of a formal risk management system and SOP	2.20	3.20	7.04	Moderate
O.7	Production delay due to spare-part unavailability	2.33	3.00	6.99	Moderate
E.3	Workplace safety incidents in the production area	1.80	3.00	5.40	Moderate

Source: Compiled from the risk scoring questionnaire (2026)

The only risk at the Extreme level is competition from digital media and digital printing (S.4), with a score of 22.08. This highest score reflects respondents' conviction that the shift from print newspapers to digital media is a long-term trend that is difficult to reverse, and this is highly significant for the company because its core business still rests on newspaper printing. The four Very High risks, namely dependence on the internal media group client (S.2), changes in government regulation (E.1), rising paper costs (F.1), and high fixed costs relative to declining revenue (F.4), have both high likelihood and high impact and are largely driven by external factors. S.2 and E.1 obtained an identical score of 17.60, indicating that respondents regard client concentration and the potential imposition of VAT on paper as equally serious threats to the company's survival.

The eight risks at the High level display a different pattern. Operational risks such as main printing machine failure (O.2), CTCP machine failure (O.1), and laser component failure (O.3) relate directly to production continuity because the company depends on single-unit equipment without backup units. Unlike the external risks, these operational risks are more controllable because the company can reduce their likelihood or impact through preventive maintenance, spare-part planning, and contingency procedures. The other High risks, namely revenue decline due to reduced printing volume (F.3), limited diversification (S.3), dependence on a single paper supplier (SC.2), decline in printing demand (S.1), and ink supply disruption (SC.3), show that the pressure faced by the company comes not only from internal operations but also from market decline, customer concentration, and raw-material dependence.

Risk treatment was formulated for all 13 priority risks with the aim not of eliminating risk but of reducing it to a level that is acceptable and manageable with the company's current capabilities. The selection of treatment options considered the level of each risk, its root causes, the controls already in place, and the company's operational and financial constraints. A summary of the treatment strategies for all priority risks is presented in Table 3.

Table 3. Priority risk treatment strategies

Code	Level	Treatment option	Summary of proposed actions
S.4	Extreme	Mitigation	Develop a formal diversification roadmap specifying target market segments, investment needs, timelines, and revenue targets; increase laser engraving machine utilisation; strengthen commercial printing client acquisition; explore order-based printing segments such as packaging, labels, and educational materials
S.2	Very High	Mitigation	Set a target ratio of internal to external client revenue, moving gradually towards a 70:30 or 60:40 composition over the medium term; establish structured sales and marketing efforts to attract commercial clients; formalise service packages and pricing for commercial clients
E.1	Very High	Mitigation and acceptance	Add contingency pricing clauses to client agreements so that prices can be adjusted if paper VAT or other major costs change; prepare a pricing adjustment plan to anticipate potential VAT on paper; monitor regulatory developments periodically; accept part of the residual risk because regulatory change is beyond the company's control
F.1	Very High	Mitigation and transfer	Pass cost increases on to clients through a pricing adjustment mechanism; strengthen buffer inventory planning when market prices are low; monitor paper price conditions periodically as a basis for quarterly renegotiation
F.4	Very High	Mitigation	Review the fixed cost structure periodically so that it remains proportional to production volume; increase machine utilisation through commercial orders; re-evaluate overhead cost components that can be made more efficient
F.3	High	Mitigation and acceptance	Set a minimum monthly revenue target and conduct a management review if the target is missed for two consecutive months; grow commercial revenue to replace part of newspaper printing revenue; accept part of the risk as a consequence of operating in a declining market
S.3	High	Mitigation	Transform diversification efforts that have so far been peripheral into a formal strategy with clear ownership and targets; actively market alternative segments so that they can grow into a significant source of revenue
O.2	High	Mitigation and transfer	Develop a written preventive maintenance SOP for the main printing machine covering daily, monthly, and quarterly checklists; maintain a priority stock of frequently replaced spare parts; ensure that the cooperation agreement with backup printers covers main-machine failure scenarios
SC.2	High	Mitigation	Reassess a secondary paper supplier and negotiate an agreement even at a slightly higher price so that it can be activated quickly; formalise the buffer inventory policy into a written procedure with a clear reorder point and minimum stock level; explore a delivery guarantee clause with the main supplier
S.1	High	Mitigation and acceptance	Strengthen diversification to reduce the impact of declining demand; maintain the remaining niche market of newspapers and community publications; accept that the demand decline is structural and cannot be fully prevented
O.1	High	Mitigation and transfer	Formalise the preventive maintenance schedule into a written SOP with checklists and maintenance records; strengthen the cooperation agreement with backup printers through clearer response-time and pricing provisions; maintain a buffer stock of critical CTCP spare parts so that repair downtime falls from 2—3 days to under 24 hours
SC.3	High	Mitigation	Establish a minimum ink buffer inventory policy for two weeks of production; formally assess an alternative ink supplier so that it can

Code	Level	Treatment option	Summary of proposed actions
O.3	High	Mitigation	be activated without a sudden search; set clear communication expectations with the main supplier, including an obligation to give early notice of delays Establish a written laser cleaning and inspection schedule with clear frequency and ownership; provide at least one spare laser component; train a backup operator in laser maintenance and calibration to reduce dependence on a specific individual

Source: Compiled from research results (2026)

Residual risk analysis was conducted to assess the extent to which each priority risk can be reduced if the proposed treatments are implemented. The risk level before treatment is termed inherent risk, while the risk level expected after treatment is termed residual risk. Consistent with the qualitative nature of this study, the residual risk level was determined through justified estimation, in which the likelihood and/or impact of each risk was reassessed on the basis of the expected effect of the treatment strategy and the controls already in place (Tiusanen, 2018). The comparison of inherent and residual risk is presented in Table 4.

Table 4. Comparison of inherent and residual risk

Code	Inherent risk	Residual risk	Treatment effect
S.4	Extreme	Very High	Structured diversification lowers the long-term impact, although the industry shift remains beyond the company's control
S.2	Very High	High	Diversifying external clients reduces revenue concentration, lowering both likelihood and impact
E.1	Very High	High	Contingency pricing clauses and regulatory monitoring reduce impact, but likelihood stays relatively high because the risk is externally driven
F.1	Very High	High	Pricing adjustment mechanisms and buffer inventory planning reduce margin exposure and transfer part of the impact to clients
F.4	Very High	High	Fixed-cost review and higher machine utilisation reduce impact, although structural cost pressure remains
F.3	High	Moderate	Revenue monitoring and diversification reduce financial impact even as demand continues to decline
S.3	High	Moderate	A structured diversification plan lowers likelihood and impact by creating alternative revenue sources
O.2	High	Moderate	Preventive maintenance SOP lowers likelihood, while external backup arrangements lower impact
SC.2	High	Moderate	A formalised backup supplier and buffer inventory policy lower likelihood and impact
S.1	High	Moderate	Diversification reduces impact even as external demand continues to fall
O.1	High	Moderate	Maintenance SOP, spare-part availability, and backup printing arrangements lower likelihood and impact
SC.3	High	Moderate	Ink buffer inventory and a qualified alternative supplier lower likelihood and impact
O.3	High	Moderate	Scheduled maintenance and spare laser component availability lower likelihood and disruption duration

Source: Compiled from research results (2026)

This comparison shows that the proposed treatment strategies are able to shift the priority

risks to a lower level. Before treatment, all priority risks were concentrated at the High, Very High, and Extreme levels. After treatment is applied, eight risks fall to the Moderate level, four risks fall from Very High to High, and one Extreme risk falls to Very High.

This reduction pattern reveals the main finding of this study, namely a fundamental distinction between risks that can be controlled internally and risks that are driven by external factors. All priority operational and supply chain risks, namely O.1, O.2, O.3, SC.2, and SC.3, were successfully reduced to the Moderate level because their causes lie within the company's control and can be addressed through preventive maintenance, spare-part provision, buffer inventory policies, and the qualification of alternative suppliers. Conversely, the five risks that remained at the Very High and High levels after treatment, namely S.4, S.2, E.1, F.1, and F.4, are all strategic and external in character. These risks are driven by the structural shift towards digital media, changes in tax regulation, and global commodity price fluctuations that the company cannot control. This finding is consistent with the understanding that risk management does not aim to eliminate all risk but to manage uncertainty to a level acceptable to the organisation (Aven, 2016), and it underlines the importance of continual monitoring and periodic review of mitigation effectiveness as an expression of the continual improvement principle in ISO 31000:2018.

The implications of this pattern are strategic. Internal improvements, even when implemented consistently, can address only part of the company's risk exposure. The greatest vulnerability lies instead in the structural dependence on a single declining market segment and a single dominant client. Diversification, whether in product segments or in the client base, is therefore not merely one of many mitigation strategies but a prerequisite for long-term business continuity. As long as the company's revenue remains concentrated in newspaper printing for internal clients, the strategic and external risks will remain at a high level regardless of how well its daily operations are managed.

The findings of this study also reinforce prior literature on the risk profile of newspaper printing. The concentration of operational risk in machine reliability and raw-material availability is consistent with the identification of operational risks in the newspaper printing supply chain (Raffa Sandito et al., 2022) and with the finding regarding the crucial role of preventive maintenance for offset printing machines (Patiapon, 2021). The dependence on a single supplier identified as a High risk also confirms that supplier concentration amplifies vulnerability to supply disruption (Tang, 2006). Meanwhile, the practice of risk assessment resting on the judgement of employees directly involved in daily operations, as applied in this study, reflects the characteristics of risk management in small firms, which generally lack historical risk records (Falkner & Hiebl, 2015).

Conclusion

This study identified 23 business risks faced by PT Mediacetak, comprising four strategic

risks, seven operational risks, four financial risks, three supply chain risks, two human resource risks, and three external and technology risks. The assessment of likelihood and impact placed 13 of these as priority risks requiring treatment, including one Extreme risk, four Very High risks, and eight High risks, while the remaining ten risks fell at the Moderate level. The highest risk is competition from digital media and digital printing, followed by dependence on the internal media group client, changes in government regulation, rising paper costs, and high fixed costs relative to declining revenue.

The mitigation strategies proposed for all priority risks include preventive maintenance formalised into written procedures, the preparation of backup suppliers and a buffer inventory policy, pricing adjustment mechanisms to anticipate raw-material cost increases and tax regulatory changes, and the diversification of products and the client base. The residual risk analysis shows that these strategies are able to reduce all priority operational and supply chain risks to the Moderate level, but five strategic and external risks remain at the Very High and High levels because they are driven by factors beyond the company's control. This finding underlines that operational risks can be managed through internal improvements, whereas the company's long-term business continuity ultimately depends on successful diversification beyond newspaper printing.

The company is advised to implement the mitigation strategies in stages, prioritising actions that require limited resources yet deliver high impact, such as the formalisation of maintenance SOPs and the qualification of backup suppliers, while in parallel building a diversification roadmap that specifies target segments, investment needs, and measurable revenue targets. Future research is advised to broaden the scope of respondents to include external parties such as suppliers and clients in order to enrich the risk assessment perspective, to test the effectiveness of the proposed mitigation strategies through longitudinal research, and to develop multiple-case studies across several newspaper printing companies so that the findings can be generalised more broadly.

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