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ISO 31000 RISK MANAGEMENT IMPLEMENTATION IN SPORTIVO INDONESIA SPORTS SERVICE STARTUP PLATFORM

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Abstract: Digital sports services create opportunities for startups to integrate users, sports-facility providers, and supporting services within a single platform, while the early development stage of digital ventures also generates substantial business uncertainty. This study analyzes the implementation of risk management at Sportivo, a digital sports-service startup, using the ISO 31000:2018 framework. The risk-management process covers scope, context, and criteria establishment, followed by risk identification, analysis, evaluation, treatment, and reassessment based on likelihood and impact. The analysis identified 27 risks originating from internal and external environments. Nine risks were classified as very high and therefore prioritized for treatment, particularly those related to marketing, operations, finance, economic conditions, and technology. Risk responses were developed through mitigation strategies tailored to the characteristics of each exposure, including digital marketing, system reliability, partner-quality control, cash-flow management, and data-security measures. Post-mitigation evaluation indicated lower exposure for priority risks, although several risks continue to require ongoing monitoring. The findings show that integrating ISO 31000:2018 into operational and financial planning provides Sportivo with a structured basis for prioritizing uncertainty, supporting more measured decision-making, and strengthening business preparedness as the platform scales.

Keywords: Digital startup; ISO 31000; Risk management; Sportivo; Sports platform

INTRODUCTION

Public awareness of active and healthy lifestyles continues to expand in Indonesia, in parallel with increasing participation in recreational sports and fitness activities (Ministry of Youth and Sports of the Republic of Indonesia, 2024). Andani et al. (2024) explain that the growth of the digital economy has also encouraged the emergence of platform-based business models in Indonesia. Nevertheless, the search for and reservation of sports facilities are still frequently conducted manually through telephone calls or direct messages, so schedule availability and booking certainty are not yet optimally integrated. This condition creates an opportunity for Sportivo, an application-based sports aggregator platform that connects sports-facility owners with users while also providing access to coaches, playing partners, and other sports-support services within a single digital ecosystem.

Despite this opportunity, the development of a platform-based startup is exposed to uncertainty arising from both internal and external environments. Risks may emerge from market acceptance, operational continuity, human-resource availability, financial conditions, economic change, regulation, and technological development. For Sportivo, a business model that depends on technology and the participation of multiple parties within one ecosystem makes risk management an important component of business planning. Failure to identify, assess, and respond to risks from



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the early stages may hinder the achievement of objectives and business sustainability. Accordingly, risk management should not only reduce potential losses but should also support decision-making and organizational preparedness in responding to changes in the business environment (Anton & Nucu, 2020; Samsinar, 2025).

Previous studies have demonstrated the importance of structured risk management. Saputra et al. (2021) applied ISO 31000:2018 to a herbal-medicine partnership startup through risk identification, evaluation, treatment, monitoring, and reporting. Other evidence indicates that risk-management implementation is associated with improved firm performance through more systematic risk control (Al-Nimer et al., 2021). ISO 31000 has also been applied across different business characteristics to support the identification and control of risk (Mahmudin et al., 2026). However, a sports-platform startup has a distinctive risk profile because it combines dependence on digital technology, sports-facility partners, users, supporting services, and community interaction within one ecosystem. These characteristics indicate a need for a risk-management application specifically aligned with the business configuration of a sports platform from the planning stage.

Against this background, this study evaluates the implementation of risk management at Sportivo using ISO 31000:2018 by establishing the scope, context, and criteria; identifying, analyzing, and evaluating risks; and formulating appropriate risk-treatment strategies. The analysis also considers residual risk, monitoring and review mechanisms, recording and reporting, and the financial requirements of risk management. The purpose is to identify and map internal and external risks that may affect Sportivo, determine treatment priorities, and design mitigation measures that correspond to the characteristics of the identified risks. The analysis is expected to provide a systematic basis for risk governance that supports decision-making and the sustainability of Sportivo's business development.

METHODS

Sportivo's risk-management analysis applies ISO 31000:2018 as the framework for identifying, analyzing, evaluating, and treating risks that may affect business activities. The process begins with establishing scope, context, and criteria based on internal conditions covering marketing, operations, human capital, and finance, together with external conditions covering political, economic, social, technological, and other relevant factors. Each identified risk is assessed using a five-point Likelihood Level (LL) and Impact Level (IL). These values are combined to obtain a Risk Score (RS) and determine the inherent-risk category. Risks are then evaluated against Sportivo's risk appetite to determine treatment priorities and the mitigation strategy required. Following risk treatment, likelihood and impact are reassessed to establish the residual-risk level. The overall process is supported by communication and consultation, monitoring and review, and recording and reporting as components of continuous risk management (Saputra et al., 2021).

RESULT AND DISCUSSION

Sportivo's risk-management implementation was structured in accordance with ISO 31000:2018 and adjusted to the characteristics of a digital sports-service platform. Risk management is directed not only toward identifying events that may disrupt business activities but also toward establishing control mechanisms that are integrated with decision-making. The implementation encompasses risk-management objectives, principles and commitment, the risk-management framework, risk identification and evaluation, risk treatment, monitoring, and recording and reporting.

Risk Management Objectives



Sportivo's risk management is intended to support the achievement of organizational objectives by managing uncertainty that may arise during business development and implementation. Its application is not limited to short-term risk control but is aligned with medium- and long-term company objectives. Consequently, every development in business activity should be accompanied by identification of emerging risks and selection of appropriate mitigation measures. This approach positions risk management as part of decision-making and continuous improvement rather than merely as a corrective response after a risk event occurs. Annamalah et al. (2018) argue that integrating a risk-management framework with business strategy is important for creating and protecting organizational value. This principle is consistent with ISO 31000:2018, which places value creation and protection at the core of risk-management implementation.

Risk Management Principles and Commitment

Sportivo's risk-management application refers to the ISO 31000:2018 principles of integration, structured and comprehensive practice, customization, inclusiveness, dynamism, use of the best available information, consideration of human and cultural factors, and continual improvement. Integration is implemented by embedding risk management in company activities and involving each organizational unit in risk identification and mitigation. A structured approach is pursued through periodic consolidation of risks across units, while inclusiveness is reflected in the participation of employees and managers in implementing and monitoring risks within their respective areas of responsibility.

The system is also designed to remain responsive to changes in business conditions. Each work unit periodically updates its risk assessment using relevant information derived from historical data, experience, expert judgment, and projections. Al-Nimer et al. (2021) and Jurdi and AlGhnamat (2021) show that effective risk control must also consider human and cultural factors. Sportivo therefore treats risk management as a continuous-improvement process so that changes in internal and external conditions can be addressed through adjustments to mitigation measures.

Responsibility for risk-management commitment rests primarily with Sportivo's top management or Board of Directors. This commitment is reflected in company policies and the allocation of authority, duties, and responsibilities in accordance with organizational objectives. At the operational level, risk assessment involves each work unit and is monitored by the Risk, Legal, Audit & Compliance Department. This accountability structure is intended to ensure that risk management is not conducted in isolation but forms part of corporate governance and day-to-day operations.

Risk Management Framework

Sportivo's risk-management framework refers to ISO 31000:2018 by placing leadership and commitment at the center of five interconnected components: integration, design, implementation, evaluation, and improvement. The framework is intended to integrate risk management with governance, planning, and corporate decision-making. During the design stage, Sportivo considers internal and external contexts, assigns roles and responsibilities, allocates resources, and establishes communication and consultation mechanisms. Implementation is subsequently undertaken in accordance with this design by aligning timing, resources, and the decision-making processes required.

The effectiveness of the framework is planned to be evaluated every six months by assessing the alignment of objectives, implementation, and indicators with company targets. Evaluation results provide a basis for adaptation and continuous improvement when changes occur in Sportivo's internal or external environment. Ahmad and Teo (2024) emphasize that a risk-

management framework should be reviewed periodically to remain relevant to changes in business scale and complexity. This cycle enables Sportivo's framework to evolve along with such changes and remain aligned with organizational needs.

Figure 1. Sportivo Risk Management Framework



Source: Adapted from Sportivo Business Plan (2026).

Figure 1 shows that leadership and commitment form the center of Sportivo's risk-management framework and connect the processes of integration, design, implementation, evaluation, and improvement. The framework allows risk management to be continuously adjusted in response to changes in the company's internal and external conditions.

Risk Management Process

Once the framework is established, Sportivo applies the risk-management process systematically in accordance with ISO 31000:2018. The process begins with defining the scope, context, and criteria as the foundation for risk assessment. Risk assessment is then undertaken through three stages: risk identification, risk analysis, and risk evaluation. Evaluated risks are subsequently addressed through risk treatment according to their level and priority. The entire process is supported by communication and consultation, monitoring and review, and recording and reporting. These stages allow Sportivo's risks to be managed and monitored in a structured manner that corresponds to organizational needs.

Figure 2. Sportivo Risk Management Process



Source: ISO 31000:2018.

Figure 2 illustrates that Sportivo's risk-management process operates continuously from context establishment and risk assessment through risk treatment. All stages are supported by communication and consultation, monitoring and review, and recording and reporting.

The scope, context, and criteria are established to create a risk-management process that is consistent with Sportivo's needs and that supports reliable risk assessment and treatment. The scope covers the organization's principal functions, including finance, marketing, operations, and human resources. Risk context is divided into internal and external environments. The internal context includes financial, marketing, operational, and human-capital risks, whereas the external context considers political, economic, social, technological, and other factors relevant to Sportivo's industry. Risk criteria provide a consistent basis for assessing likelihood, impact, and overall risk magnitude. These criteria also consider risk appetite and risk attitude to represent the level of risk the company is prepared to accept before treatment priorities are established.

Sportivo's risk assessment follows ISO 31000:2018 and consists of risk identification, risk analysis, and risk evaluation. These stages are used to understand sources of risk, estimate likelihood and impact, and determine the risk level as a basis for decision-making. Assessment based on likelihood and impact supports prioritization according to the characteristics of each identified risk (Kitsios et al., 2022; Yang et al., 2018).

Risk identification covers events that may obstruct the achievement of Sportivo's objectives and considers both internal and external sources. Internal risks include marketing, operations, human capital, and finance, while external risks include political, economic, social, technological, and other factors. Siffa et al. (2026) show that tracing risk sources according to the characteristics of the business environment can help firms understand internal and external exposure more systematically. This classification therefore enables Sportivo to identify risk sources according to the environmental conditions that may affect its activities.

The identification process produced 27 risks, comprising 14 internal and 13 external risks. Internal risks consist of three marketing risks, three operational risks, three human-capital risks, and five financial risks. External risks comprise three political risks, three economic risks, three social risks, three technological risks, and one additional risk related to natural disasters.

Table 1. Summary of Sportivo Risk Categories

No.	Category	Risk Group	Total	Code
1.	Internal	Marketing	3	R001-R003
2.	Internal	Operations	3	R004-R006
3.	Internal	Human capital	3	R007-R009
4.	Internal	Finance	5	R010-R014
5.	External	Political	3	R015-R017
6.	External	Economic	3	R018-R020
7.	External	Social	3	R021-R023
8.	External	Technology	3	R024-R026
9.	External	Other (natural disaster)	1	R027
Total			27	

Source: Adapted from *Sportivo Business Plan* (2026).

The classification indicates that Sportivo's risk sources are relatively distributed between internal and external environments. Internal risks are slightly more numerous, with finance accounting for the largest number among internal categories. External risks are distributed across political, economic, social, technological, and natural-disaster factors. However, the number of risks in each category does not itself establish treatment priority because exposure is determined further through likelihood and impact analysis.

After internal and external risks have been identified, the process continues with risk analysis to determine the exposure level of each risk. Assessment is based on Likelihood Level (LL) and Impact Level (IL), each measured on a scale from 1 to 5. Likelihood indicates the probability of a risk event, while impact represents the magnitude of consequences for Sportivo's activities. The two values are multiplied to obtain a Risk Score (RS), which represents the inherent risk level before mitigation. Under Sportivo's criteria, risk scores are classified as very low (1-3), low (4-7), moderate (8-13), high (14-15), and very high (16-25).

The analysis is then used to evaluate and prioritize risk treatment. Based on the LL and IL calculations, nine risks fall within the very-high category, with scores ranging from 16 to 20. These risks arise from marketing, operations, finance, economic conditions, and technology. Their distribution shows that Sportivo's major exposures originate not only from internal activities but also from changes in the external environment. Very-high risks are treated as primary priorities because their combinations of likelihood and impact are greater than those in lower categories.

Table 2. Very-High Inherent Risks at Sportivo

Code	Risk	LL	IL	RS
R002	Low brand awareness	4	5	20
R004	System bugs/server disruptions	4	4	16
R005	Dependence on sports-facility partner quality	4	4	16
R006	Weak community features and user interaction	4	5	20
R010	Unstable cash flow during early operations	4	5	20
R014	Dependence on initial investor funding	4	4	16
R018	Declining purchasing power due to inflation/recession	4	5	20
R020	Competition from better-funded platforms	4	4	16
R025	User data security and privacy issues	4	5	20

Source: Adapted from *Sportivo Business Plan* (2026).

Following risk evaluation, risk treatment is determined by considering each risk level and Sportivo's capacity to implement controls. Mitigation focuses on priority risks through stronger digital marketing, improved system reliability, quality control for facility partners, development of user interaction, cash-flow management, and stronger data security. For example, low brand awareness (R002) is addressed through digital marketing campaigns involving influencers and sports communities; system disruption (R004) is treated through stress testing and server backup; and user-data security and privacy risk (R025) is addressed through security audits and penetration testing. Yang et al. (2018), Anton and Nucu (2020), and Jurdi and AlGhnamat (2021) explain that risk treatments tailored to the underlying business and technological sources of risk are important for effective risk control. Sportivo's mitigation strategies follow a similar principle by adjusting controls to the characteristics of the relevant exposure.

After mitigation, likelihood and impact are reassessed to determine residual risk. Evaluation shows a reduction in exposure among priority risks. For example, R002 declines from an RS of 20 to 15, R004 from 16 to 9, and R005 from 16 to 6. These reductions indicate that mitigation can lower risk exposure, although effectiveness varies across risk characteristics. Brand-awareness risk remains in the high category after mitigation because improvement requires a gradual process involving user growth and stronger market positioning.

Risk-management implementation is also supported by communication and consultation involving management and the risk owners within each function. This process is designed to be inclusive, transparent, and two-way so that information concerning risks and treatment measures can be understood by relevant stakeholders. Monitoring and review are undertaken periodically to assess changes in risk levels and the effectiveness of mitigation, while results are documented through recording and reporting to support subsequent evaluation and decision-making.

Risk Management Costs

Risk-management implementation requires cost allocations that correspond to the development of Sportivo's operating scale. These costs include digital audit and compliance related to personal-data protection, penetration testing, disaster recovery and backup systems, data-privacy training, and maintenance of office security equipment. Total projected expenditure increases from IDR 34.53 million at T0 to IDR 662.11 million at T5 and is treated entirely as operating expenditure



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(OPEX). These costs are integrated into Sportivo's financial projections and are therefore reflected in EBIT, net income, and operating cash flow. The increase corresponds to business growth and the greater level of risk control required as operations expand, making such expenditure part of the effort to maintain operational continuity and protect Sportivo's business value.

CONCLUSION

The implementation of risk management based on ISO 31000:2018 provides Sportivo with a systematic approach to managing uncertainty during business development. The identified risks originate from both internal and external environments, demonstrating that platform sustainability depends not only on operational capability but also on market acceptance, financial conditions, competition, and the reliability and security of technology. Prioritization based on likelihood and impact enables mitigation to focus on risks with the greatest exposure. Post-treatment evaluation indicates that controls tailored to the characteristics of individual risks can reduce exposure, although several risks continue to require ongoing monitoring. Integrating risk identification, evaluation, treatment, monitoring, and reporting with operational and financial planning can therefore provide Sportivo with a more measured basis for decision-making and improve business preparedness for changes in its internal and external environment.

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