




# Leveraging Knowledge Management to Achieve Principled Performance: The Mediating Roles of Risk and Compliance

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**ABSTRACT:** This study examines the role of Knowledge (KM) as catalyst in realizing Principled Performance (PP) through the mediating effects of Risk Management (RM) and Compliance (CM). It elaborates on the specific nature of KM platform and aims to uncover the unique characteristics of PP in comparison to the conventional term of 'performance. The study employs a quantitative approach, utilizing purposive sampling from 36 companies with a total of 252 managers from Indonesian airports, each representing seven observation units focusing on activities within Indonesian airport companies. Data were analysed using the Partial Least Squares Structural Equation Modelling (PLS-SEM) program. Initial findings indicated that KM had a significant direct effect on PP and an indirect effect through RM and CM. KM provided essential actions in addressing uncertainties through RM and increasing compliance awareness and commitment via CM. Furthermore, the direct relationship between CM and PP is significant due to the influence of compliance obligation, while RM and PP did not show a significant relationship. However, CM and RM had a notable simultaneous effect as mediating variables when KM influenced PP. These results positioned KM as a foundational element of PP, emphasizing its importance in promoting sustainable performance outcomes. This study significantly enhances theoretical understanding and enriches practical discourse by integrating insights from various disciplines through empirical methodologies. It clarifies the critical interplay among KM, RM, and CM, demonstrating how they promote a balanced approach that improves performance. The PP strengthens organizational resilience and ensures long-term sustainability. Moreover, the results introduce an alternative conceptual model that practitioners can explore and refine. The study highlights the pivotal role of knowledge in navigating risk and compliance to achieve PP, which can lead to positive outcomes and greater confidence in an organization's capabilities and success. This study positions KM as a fundamental aspect of PP, highlighting its significance in reinforcing sustainable performance outcomes. To the best of the authors' knowledge about PP, no prior research has specifically used knowledge to enhance PP.

**Keywords:** knowledge platform, risk management, compliance, performance, principled performance.

## I. INTRODUCTION

A continuous transformation cycle directed towards the organization's growth and sustainability in adapting to the dynamic global environment has generated the necessity to judiciously and comprehensively manage its resources capabilities. A broad perspective on managing resources and capabilities includes sustainability practices and the company's vision by improving management attitudes and leveraging the economic, social, and environmental pillars [1, 2]. One aspect that needs to be considered is exploring human resource practices that utilize strengths and a passion for learning and skill acquisition to engage individuals

and boost performance [3]. The other aspect induces KM in business processes to promote knowledge sharing, improve communication, and leverage employee creativity and innovation [4]. In addition, renewing knowledge transfer methods is also important to address potential dynamic changes of context to foster creativity and innovation in realizing sustainable performance [5]. However, focusing on achieving sustainable performance requires competency and capacity to execute strategies that emphasize reaching business goals while simultaneously maintaining integrity, fairness, and a balance between economic profit, social welfare, and environmental preservation. To achieve this, an organization should promote cohesion by turning fragmented departments into unified operations, isolated personnel into collaborative teams, vague objectives into a clear culture, and narrow skills into a holistic approach [6]. Moreover, knowledge-oriented business processes are essential to integrate knowledge management and business process management in decision-making that responds to changes in market demand as a principled approach to realizing the performance of collaborative networks that integrate technology, social networks, geography, and markets [7].

KM has also become essential in decision-making under risk (RM), particularly when processes may involve diverse stakeholders with conflicting interests and values and where technical resources are limited [8]. Since the market response varies according to the type of event, addressing potential business risks should involve understanding the RM behavior that causes the event to influence future uncertainty [9-10]. An extensive viewpoint and a thorough perspective on the strategic management process can mitigate RM and capitalize on market opportunities to enhance performance, which in turn positively influences successful performance outcomes [11]. Therefore, the role of information sharing and exchanging through KM supports a proper risk-taking attitude [12]. Notwithstanding RM, KM assumes a pivotal role in cultivating a culture of CM and makes substantial contributions to promoting attitudes, which facilitates adherence to rules and regulations through an effective CM management system [13]. The primary challenges associated with the application of CM as an integrated systems approach involve fulfilling the necessity for adaptable regulations and effective risk treatment through extensive evaluations of governance, social considerations, and environmental impact requirements [14]. It addresses organizational needs, promotes environmental protection, and fosters ecological modernization [15]. Furthermore, a connected and integrated process to realize performance with principled approaches in ensuring uncertainty through RM and integrity through CM has redirected management's focus from merely focusing on performance to PP. It entails conducting business practices grounded in professionalism, values of ethics, compliance, transparency, and social responsibility [6]. Establishing PP involves strategy frameworks, stakeholder commitment, ethical development, and visionary leadership [16] that fosters flexibility and adaptability within a rapidly evolving environment, thereby supporting agile leadership [17]. Moreover, PP aligns professionalism with integrity by examining knowledge of performance [18] and considering emerging technology through KM [19].

Promoting performance requires KM to harness the value of innovation that contextualizes enterprise strategies [20] and enables interlinking between processes and outcomes through KM [21]. It promotes people empowerment through business strategy. Knowledge sharing also boosts entrepreneurial orientation, driving business growth through risk-taking [22]. The role of KM and RM promotes the reduction of negative innovation outcomes [23]. They provide a strategic way to overcome myopic cognition that prevents organizations from relying only on existing information [24] or overconfidence [25], leading to short-sighted or delayed strategic decision-making [26] and the impact of cognitive bias on strategic decisions [27]. Additionally, KM and RM ensure that the CM system adheres to governance principles [28] through the compliance obligations approach [29]. This study aims to address the shortcomings of the current framework for achieving PP by considering the vital role of KM in a systematic approach. Furthermore, this study could offer valuable insights into the interconnected roles of KM, RM, and CM in enhancing the realization and effectiveness of PP.

## II. LITERATURE REVIEW

### 1. KNOWLEDGE (KM)

Industrial disruption necessitates KM empowerment to foster sustainability practices in management attitudes and respond to economic, social, and environmental pillars [1]. KM balances organizational resources, capabilities, and the company's vision through knowledge sharing to improve communication and leverage employee creativity and innovation [4]. Once knowledge sharing is applied, absorptive capacity and ambidexterity emerge to address potential dynamics or disruption [30]. Ambidexterity enables organizations to embed strategic choices for managing dynamic and disruptive business environments by applying exploration and exploitation approaches, transforming the organization into an ambidextrous entity [31]. Such endeavors require multifaceted approaches, including technology and information development, to translate into technology-based value by involving a human rights framework and stakeholder empowerment [32]. The process entails the development of analytical skills and leverage capabilities to augment organizational performance [33] to support knowledge transfer to address potential dynamic changes in context by fostering creativity and innovation for realizing sustainable performance [5].

Besides, the role of KM induces a sustainable competitive advantage embodied by core competence [34]. It continually transforms to furnish organizational learning, influencing sustainable performance, creativity, and innovation through knowledge-based view theory [35]. A sustainable approach demands strategic execution to achieve innovative business goals while simultaneously upholding integrity, fairness, and a balance among economic profit, social welfare, and environmental preservation in fostering the relationship between knowledge transfer and sustainable innovation [5]. It also demands the existence and capability to extend KM beyond learning to address dynamics and capabilities [36] to generate potential sustainable competitive advantage. These sustainable approaches shift the paradigm of knowledge frontiers to organizational memory and its spillover effects [37], leading to knowledge-based value, or KBV [38]. It can be further leveraged to the resource-based view, or RBV, to support and leverage the existing capability of those sustainable competitive advantages [39].

However, the central role and huge scope of KM empowerment have become an integrated system to provide structured and comprehensive insights through the international standards of KM system requirements [40]. The adjacent disciplines of KM indicate that KM and RM have complementary roles in managing the tangible and intangible aspects that influence organizational operations. This is essential for enhancing business effectiveness and performance, supporting organizational governance, and improving reputation. KM is a bridge to induce RM governance through the RM principled-based approach, which calls for creating and protecting value [41]. Therefore, the role of KM has become essential to elaborate insights and ideas to address and monitor potential uncertainties in gaining organizational goals [42]. Furthermore, KM, by employing its KBV approach, nurtures core competencies to enhance sustainable performance, creativity, and innovation. This requires management support to develop a risk culture and performance by connecting the RM's strategy with its [43]. Indeed, KM positions itself as a foundation for addressing potential 'unknown unknown' phenomena in managing risk, offering appropriate assurance in tackling complex policy issues [8], and concurrently offering insights into the unpredictable behavior of the business environment [10]. Thus, KM has numerous opportunities to impact and improve RM regarding awareness and commitment, which reflects a risk-taking attitude [12]. By underscoring the importance of KM in addressing RM, we have formulated the initial hypothesis as follows:

- H1: KM has a positive impact on RM.

### 2. PRINCIPLED PERFORMANCE (PP)

The essence of PP differs from a single word of 'performance' despite their interrelation and complementary nature in defining how an organization undertakes its resources and capabilities to achieve goals. PP focuses on embodying business practices grounded in professionalism, with the principles of ethical values, integrity, transparency, and social responsibility by examining knowledge of performance [18]. Nevertheless, individual and collective performance behaviors and their corresponding outcomes significantly contribute to the connection between human capital and promoting a sustainable competitive

advantage within a resource-based context approach [44]. This is how PP broadens the scope for managing tensions between exploration and exploitation within an ambidextrous strategy as actionable practices in encountering turbulent environments [31]. The actionable practices encompass various facets of organizational resources and capabilities, which include culture, strategy, structure, IT, and routines, all of which predominantly occupy the internal framework context.

Considering the challenges presented by external contextual frameworks, such as competing firms or fluctuations in the market, it is imperative to consider ambidexterity and strategic agility simultaneously. Ambidexterity presents potential avenues for generating tensions between exploration and exploitation initiatives in establishing competitive advantage. In contrast, strategic agility emphasizes an organization's resources and capabilities to respond promptly to these tensions. Consequently, both approaches are essential to the organization's capacity to adapt swiftly to fluctuating circumstances and demands [45]. Strategic agility cultivates entrepreneurial agility, thereby enhancing the principle-based dimensions of organizational performance through environmental dynamism and open innovation [46]. Another way to grasp the ambidextrous approach to supporting PP is by utilizing the contemporary management principle of dialectical thinking [47]. This concept tackles the opposing ideas and perceptions surrounding ambidextrous tensions, ultimately leading to a balanced outcome. Rather than just addressing these tensions, it should also explore reflexive frameworks and innovative strategies for dealing with unpredictable elements and evolving goal achievement.

On the other hand, once KM is integrated into the realization of PP, it leverages entrepreneurial orientation and innovation, which are underpinned by risk-taking, innovativeness, and proactiveness and possess the capacity to impact performance optimization [48]. It also induces the existing organizational resources and capabilities by aligning strategy with business policy, human resource capabilities and readiness, and knowledge management strategies [49]. However, the alignment among strategy, policy, management, and assurance functions also enhances entrepreneurs' capabilities and their impact on business performance to foster confidence and environmental sustainability in stakeholders and entrepreneurs [50]. This approach drives the realization of PP by redirecting management's focus from merely focusing on performance to PP, which delineates a connected and integrated process for enhancing performance as a pathway to principled methodologies. These methodologies ensure the management of uncertainty via RM and the maintenance of integrity through applicable practices CM [6].

Considering the potential tension of ambidexterity, the opportunity to implement strategic agility and dialectical thinking encourages top management to adopt PP. Therefore, PP challenges the traditional performance management system by incorporating frameworks established by various interdependent entities that aim to create value through collaborative innovation efforts, resulting in mutually beneficial propositions. It transforms the value creation process to gain a shared value through an innovation ecosystem [51]. A shared value approach expands the role of PP to offer insights into human capital and entrepreneurship to nurture entrepreneurial competencies [52]. It impacts performance in partnership ventures by combining insights from learning and competitive dynamics between an organization and its business partner to enhance invention performance.

When an organization elects to enhance its corporate activities within alliances while adopting a coopetition strategy to facilitate growth and address its business competencies, its methodology for shared values orientation in realizing PP will exhibit variation. In this context, PP is crucial for maintaining its diverse principles. The organization may face potential repercussions from the risk of shortsightedness in executing the coopetition strategy, including knowledge leakage arising from technological and geographical overlaps [7]. Therefore, the essential role of KM becomes crucial in addressing this kind of risk of knowledge misappropriation.

An in-depth exploration of KM to enhance PP provides valuable insights into incorporating knowledge-based features that address potential uncertainties among stakeholders and various business partners to attain sustainable competitive advantages advantage [53]. These features consider both internal and external perspectives and the intermediary role of organizational creativity in promoting sustainable performance [11]. Creativity is essential for improving quality and efficiency, as it allows employees in a creative setting the freedom to explore. This enables organizations to cultivate skills, engage in strategic creativity, and foster



a strong business ethic, ultimately benefiting their growth in a principle-based environment manner. Additionally, the aim of KM is to foster sustained business growth by examining the strategic management process and analyzing the connection between organizational creativity and performance while emphasizing the diverse inclusiveness of stakeholders. Moreover, KM transcends the learning process to promote a sustainable competitive advantage and enable future sustainable performance by aligning business objectives and strategy to promote professionalism and integrity alignment as a pathway to achieve PP [6]. By underscoring the importance of KM in realizing PP, we have formulated the second hypothesis as follows:

- H2: KM has a positive impact on PP.

In addition to RM, KM plays a vital role in understanding and utilizing CM, which prompts individuals to exhibit commitment through their behavior, actions, and interactions. KM nurtures an organizational culture that promotes seeking, sharing, developing, and applying knowledge to meet compliance requirements and obligations [40]. On the other hand, the KM's orientation to realize PP needs to evolve CM, which starts from two important approaches: the attitude to comply as an integral part of KM culture and the capability to adopt the requirements of the CM management system [13]. The KM-based approach to developing the capability for adopting CM begins with establishing an administrative strategy grounded in compliance by meeting a set of criteria and continuously improving the process for evaluating compliance. CM's criteria assessment scope includes declaring, processing, and reporting compliance. These steps are essential for fostering CM's awareness, as the reporting stage is susceptible to conflicts of interest that can lead to illicit and deceptive behavior activities. The formation of CM's behavior promotes CM's cultural development that supports CM's obligation [29]. The framework perceived by the CM is fundamentally delineating compliance obligations through both mandatory and voluntary methods. This framework advocates for behavioral norms, thereby defining the culture of the CM, which is characterized by its values, ethics, and beliefs.

To successfully implement KM from the perspectives of CM and RM, organizations must foster a cultural shift that encourages knowledge-sharing and collaboration. This highlights the importance of prioritizing cultural transformation to improve KM effectiveness and ensure the successful implementation of CM and RM. However, addressing cultural change is complex; it requires careful consideration of its specific characteristics and strategies. Thus, exploring the connection between organizational culture and learning culture is essential in the context of knowledge-sharing initiatives and collaboration [54].

When KM is connected and integrated into governance to align the performance, RM, and CM policies under the check-and-balance of the assurance function. They form a Governance, RM, and CM framework known as the GRC framework as a pathway to PP [6]. Governance emphasizes collaborative principles influencing a company's entrepreneurial orientation by fostering proactiveness and innovative risk-taking to realize corporate performance and competitive advantage [55]. However, the initiatives outlined within the GRC framework concerning the promotion of PP must consider how an organization addresses social issues related to environmental and economic development from an integrity perspective and solutions pertaining to Corporate Social Responsibility (CSR) that impact society 5.0 [56]. This viewpoint and approach show that PP requires a corpus of KM to satisfy CM through its compliance obligation approaches [57] that integrate knowledge-sharing and ethical behavior.

This integration substantially augments the capacity to fulfill the established criteria for validating the perspective of agency theory. It provides a balanced approach to governance that supervises management and enhances the quality of reports in accordance with mandatory regulations. Furthermore, it guarantees the implementation of compliance in data sharing and has been primarily centered on informed consent, irrespective of complexity scarcity [58]. Furthermore, from the perspective of agency theory, publicly available financial reports will maintain high standards of integrity if the board and the supervisory committee possess the specific expertise to effectively oversee the integration and enforcement of both mandatory and voluntary CM-based practices approach [59].

By underscoring the essential role of KM, CM should not be regarded merely as a mandatory requirement. It also emphasizes the significant importance of KM in the context of culture to foster integrity-based thinking and practice through an individual's attitude and behavior. This approach has become a basis for combating potential types of fraud [60]. Additionally, continual knowledge development, readiness of

the system to detect fraud based on lessons learned, and having internal auditors well-versed in fraud are essential factors that must be considered [61]. Since KM fosters a relationship with CM and enhances organizational integrity, innovation, and adaptability while highlighting the complexity of compliance processes, we formulate the third hypothesis as follows:

- H3: KM has a positive impact on CM

### 3. RISK MANAGEMENT (RM)

The rapid changes and ongoing dynamics in the business environment have forced managers to adapt their strategies, resulting in the most beneficial developments for the firm performance [62]. It requires strategies adaption that encompasses entrepreneurial strategies, which are manifested through risk-taking as one of the fundamental dimensions of entrepreneurship orientation [63]. A significant enhancement in innovativeness and proactiveness has facilitated remarkable progress in entrepreneurial orientation concerning four distinct categories of responses to crises and three categories of responses to improvements in external conditions.

On the other hand, engaging in risk-taking constitutes a proactive endeavor necessitating heightened awareness, innovation, and preparedness; such practices are inherent to entrepreneurship and the basis for the decision-making process [64]. Nonetheless, the effectiveness of consultative decision-making lies somewhere between autocratic and group decisions. Many teams enhanced their decision-making by boosting direct involvement and transitioning from autocratic methods to consultative and group strategy decisions. Additionally, the consultative and group decision-making processes provide flexibility in decision-making and address the potential for neglecting or misunderstanding in designing appropriate and timely risk management strategies. Failing to grasp and act from this perspective may result in substantial repercussions for entrepreneurial approaches, leading to deterioration in performance [65].

Subsequently, focusing on implementing a comprehensive RM framework through an enterprise risk management (ERM) approach offers a significant structure that helps managers identify, assess, mitigate, and report risks comprehensively at the enterprise level. This approach provides organizations with an integrated strategy that enhances their ability to sustain a competitive advantage, thereby facilitating their performance growth [66]. Moreover, the preparedness and accessibility of vital infrastructure within an organization and its related technological and societal elements are crucial factors in risk management focused on fostering resilience and boosting performance resiliency [67]. This endeavor elaborates on adapting RM to a framework for resilience in critical infrastructure. It emphasizes organizational and technological resilience domains, which are most within reach for critical infrastructure operators to sustain and enhance performance effectively.

Besides being resilient in critical infrastructure, the RM is also commonly comprehended at an individual level, with global risk communication and governance initiatives focusing on an individual's comprehension and actions. Although it is valid to assert that individuals are impacted by their environment, the complexities of human interactions are indeed becoming progressively subject to analytical examination of risk-taking [68]. This approach assists RM with a thorough understanding of factors that enhance organizational resilience. It allows them to effectively tackle performance in response to disruptions [69] through the support from the intellectual structure of risk governance to ensure business continuity and organizational integrity [70].

However, a principle-based approach to RM implementation necessitates the execution of structured, comprehensive, and coordinated activities to effectively guide and manage an organization in addressing potential uncertainties related to its objectives [71]. The principles underlying RM emphasize value creation and protection through leadership and commitment to assessing, controlling, and reporting on the implementation of the RM program. RM also advocates for integrating strategy and performance, elucidating the significance of enterprise risk management in strategic planning and its incorporation throughout an organization [72]. Its principles cover aspects from governance to monitoring, and they are organized into five interrelated components: 1) governance and culture, 2) strategy and objective setting, 3) performance, 4) review and revision, and 5) information and communication reporting. By following these principles, management and the board can reasonably expect the organization to engage with RM to achieve

principle-based performance associated with its strategies and business objectives. Furthermore, the nuanced incorporation of Risk Management initiatives is recognized as risk-based thinking within the quality management system framework [73]. Risk-based thinking entails proactively addressing potential nonconformities, investigating those that arise, and implementing suitable measures to prevent future occurrences.

Through learning and experience optimization, the capability of risk-based thinking expands to promote the integration of RM within an organization, fundamentally offering foresight to alleviate the influence of risk on performance sustainability. However, attaining corporate sustainable performance is linked to the organization's capacity to engage in risk-taking and comply with rules and regulations. Considering RM's role in understanding and addressing uncertainties to enhance performance, we formulate the fourth hypothesis as follows:

- H4: RM has a positive impact on PP.

#### 4. COMPLIANCE (CM)

Achieving the vision professionally while simultaneously gaining integrity has become a main consideration to ensure the organization's growth and sustainability. However, realizing the aligned professionalism and integrity in addressing the emerging economic context has become complex and requires a multifaceted approach. It requires a clear and integrated relationship between managers' attitudes toward combating unethical behavior and achieving entrepreneurial intention [74]. Such unethical behavior is associated with a conflict of interest that can lead to corruption and various forms of fraud, ultimately resulting in performance deterioration and a loss of reputation. Organizations should proactively assess potential deviant behavior from employees' system readiness to detect fraud, and regular audits need to be established, monitored, and lessons learned [61]. Addressing the potential for deviant behavior in relation to fraud has prompted managers to swiftly create a comprehensive IT governance framework that supports and expedites the decision-making process while ensuring the necessary thoroughness in addressing uncertainties associated with CM. The framework facilitates navigating the complexities inherent in contemporary IT environments while mitigating risks and ensuring adherence to satisfy CM requirements [75].

Given that compliance constitutes an ongoing process indicative of an organization's ability to fulfill its obligations, it should be deeply embedded within the organizational culture, necessitating a transformation of the employees' attitudes and behaviors. Additionally, compliance is anticipated to maintain its independence to secure its advantages by being integrated with other management processes and operations. Subsequently, these advanced CM requirements have become firmly established regarding both awareness and ability to meet compliance obligations [29]. The compliance obligation signifies an organization's necessity to adhere to mandatory and voluntary requirements to achieve performance. However, additional requirements for ensuring the CM implementation extend beyond fulfilling these obligations [15]. This demand also compels managers to implement strategies that meet compliance obligation-based performance standards and requirements.

The compliance obligation within the compliance taxonomy has evolved into three distinct categories: purely mandatory, mandatory-voluntary but incentivized, and purely voluntary [76]. Any selected category choice is an obligation related to the duty of care that the boards have toward the company they manage. In the practical approach, the three types of compliance obligations have evolved into a spectrum of hybrid obligations. Nonetheless, this hybrid approach to compliance obligations facilitates the dynamics of compliance, internal controls, and ethics, which may produce tensions within the governance domain. Grasping these tensions' essence, consequences, and overall long-term view can improve the board's decision-making process [77]. Conversely, neglecting the tension within the governance domain can stimulate conflict of interest or other types of fraud [78]. Such detrimental behavior is provoked when trusted employees possess numerous responsibilities and hold an occupational position that permits them to manipulate their access.

Another phenomenon associated with this tension creates what is known as coercive pressure, compelling organizations to act against their preferred choices. This leads them to feel as though they have

limited options but to comply, resulting in homogeneous organizational compliance subject to enforcement uncertainty. However, owing to the disparities in their distinct legal, political, and social contexts, organizations can address tensions within the governance domain via a spectrum of under-coercive or semi-coercive pressures to ensure compliance obligations [79]. It illustrates how organizations with stronger political ties are less responsive to the risks of regulatory penalties, making them less likely to follow governmental regulations. Conversely, in relation to the social context of organizations, reduced public visibility results in diminished sensitivity to social sanctions, thereby decreasing the likelihood of CM with mandates and regulations.

The influence of semi-coercive pressure is further expanding, significantly affecting the disclosure of environmental, social, and corporate governance information as part of CM analysis. Organizations are being urged to provide comprehensive details concerning their ESG activities, thereby facilitating the submission of ESG reports through enhanced communication and transparency on their respective websites. This situation prompts an inquiry into the relationship between these ESG disclosures and the financial performance of the concerned companies' indicators.

On the other hand, understanding the key governance factors impacts the effectiveness of RM practices and CM with compliance obligations to enhance performance through its principled approach as PP [80]. The PP approach also highlights the significance of acknowledging CM's role within organizations, particularly those dependent on resources and needing an established compliance framework to maintain high adherence levels. As they enhance reliability, they will build greater credibility and legitimacy [81]. Furthermore, by adopting a holistic approach, the relationship between CM and corporate governance has emerged as a key factor in determining corporate performance [82]. It evaluates and measures the extent of CM in relation to established corporate governance codes and guidelines that originate from a globally recognized framework of governance principles. Additionally, it has been found that they have the potential to enhance corporate performance; therefore, the role of CM should be embedded as an aspect of integrity in designing policies to ensure sustainable practices in realizing PP [83].

This approach underscores that policies serve as a guiding framework for policymakers and policy entrepreneurs in pursuing integrity and sustainability practices. In this manner, policy entrepreneurship possesses the potential to implement policy change and illustrates how policy entrepreneurs can successfully pursue their objectives and goals [84]. By adopting CM, organizations are encouraged to integrate their business practices to proactively enhance performance while fostering internal controls with integrity that improve performance outcomes and ethical frameworks. Hence, we formulate the fifth hypothesis as follows:

- H5: CM has a positive impact on PP.

The hypotheses denoted as H1, H2, H3, H4, and H5 have been constructed to elucidate direct relationships. Consequently, we advocate for an in-depth examination of the indirect relationships that exist among these hypotheses. This will involve positioning RM and CM as mediating variables within the relationship between KM and PP, with the articulation of the sixth hypothesis as follows:

- H6: KM has a positive effect on PP through RM and CM simultaneously.

### III. METHODOLOGY

Based on our conceptual research methodology, we contend that the antecedent effects of KM delineate the role and interactions mediated by RM and CM in realizing PP as an essential outcome, as shown in (Figure 1).



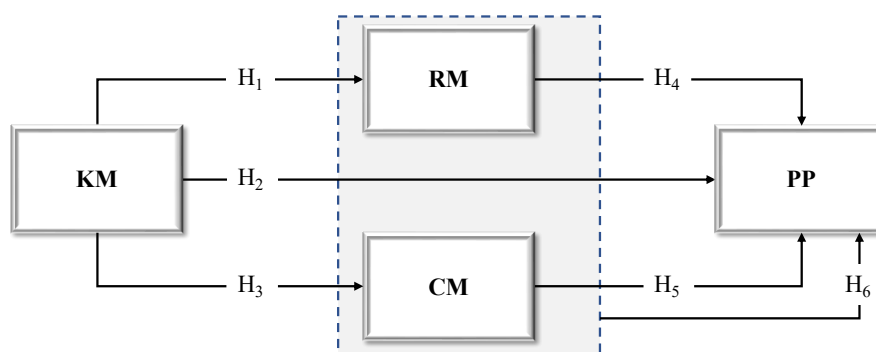


FIGURE 1. The research model and hypothesis.

Six hypotheses are anticipated to comprehensively demonstrate the direct and indirect influences between KM and PP and the mediating variables of RM and CM. The descriptions of all six hypotheses are as follows:

- H1: KM has a positive effect on RM.
- H2: KM has a positive effect on PP.
- H3: KM has a positive effect on CM.
- H4: RM has a positive effect on PP.
- H5: CM has a positive effect on PP.
- H6: KM has a positive effect on PP through RM and CM simultaneously.

## 1. SAMPLE AND DATA COLLECTION

The research analysis utilized quantitative methodologies, implementing purposive sampling of participants drawn from Indonesian airport companies, which are state-owned enterprises (SOEs). These enterprises manage both domestic and international operations. The sampling procedure is based on cluster sampling based on regional Airport operation in Indonesia that has 36 sites. Each of the site is stratified into seven observation units based on their specific management functions, namely Strategic, Financial, Operations, Risk, Human Capital, Marketing, and Legal units. The theoretical outcome (PP) and intervening variables (RM and CM) manifest at the sites level, while KM behaviors are captured at the management function roles. This multi-stage, stratified cluster design increases external validity across the sites and yields sufficient between-site variation to estimate mediated effects.

The quantitative analysis was conducted using a questionnaire with a 6-category Likert scale to eliminate the neutral option, enhance reliability [85], and allow nuanced capture of attitudes [86]. The questionnaire is designed based on respondents' respective job functions to encourage them to assess it based on their perceptions and experiences [87]. Originally, the questionnaire was designed in Bahasa Indonesia to ensure the ease and accuracy of respondents in determining the assessment scores. There was a total of 50 statements carried out with written approval from both Padjadjaran University and the Indonesian Airport Authority Companies. Additionally, all respondents who participated in the online questionnaire gave their written consent and provided demographic information. The research followed ethical standards and received approval from the ethics committee.

## 2. RESEARCH MODEL

The research model is shown in (Figure 2), which includes four variables, 16 dimensions, and 50 indicators. The code and description of the 16 dimensions are shown in (Table 1), while the 50 indicators are in (Table 2).

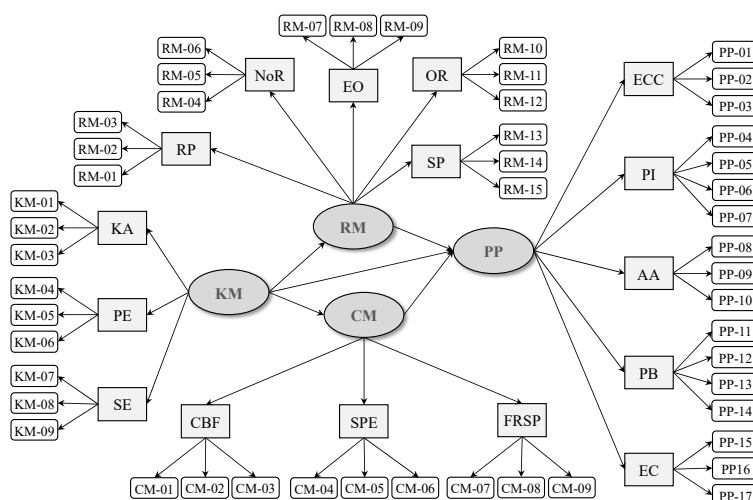


FIGURE 2. The relationships among variables, dimensions, and indicators.

Table 1. The code and description of the dimensions.

Code	Description	Code	Description
KA	Knowledge Approach	ECC	Entrepreneurs' Capacity and Confidence
PE	Performance	PI	Performance Integration
SE	Sustainability	AA	Ambidexterity Agility
RP	Reliable Performance	PB	Performance Behavior
NoR	Nature of Risk	EC	Entrepreneurial Competency
EO	Expected Outcome	CBF	Compliance Based Performance
OR	Organizational Resilience	SPE	Sustainable Practice Enhancement
SP	Sustainable Performance	FRSP	Fraud Risk Strategy Respond

Table 2. The code and description of the indicators.

Code	Description	Code	Description
KM-01	Learning processes	CM-02	Awareness to comply
KM-02	Learning techniques	CM-03	Integrated compliance criteria
KM-03	Learning outcomes	CM-04	Standard-based compliance
KM-04	Norm-based value acquisition	CM-05	Policy-based compliance
KM-05	Goal congruence	CM-06	Cultural-based compliance
KM-06	Problem solving	CM-07	Fraud treatment
KM-07	Resource acquisition	CM-08	Fraud internal control
KM-08	Quality culture	CM-09	Paradigm shifting to diminish fraud
KM-09	Communication capability	PP-01	Stakeholder relationship
RM-01	Risk architecture	PP-02	Information savvy
RM-02	Risk strategy	PP-03	Risk taking
RM-03	Risk appetite	PP-04	Worker cooperative
RM-04	Risk inclusiveness	PP-05	Customer focus
RM-05	Risk contexts	PP-06	Risk-based performance
RM-06	Stakeholders' expectation	PP-07	Organizational capacity
RM-07	Key objectives	PP-08	Transformational leadership
RM-08	Risk awareness	PP-09	Resource fluidity
RM-09	Capacity slack	PP-10	Learning capability

Code	Description	Code	Description
RM-10	Business scope	PP-11	Strategic performance
RM-11	Product scope	PP-12	Financial performance
RM-12	Updated risk universe inquiries	PP-13	Operational performance
RM-13	Updated business inquiries	PP-14	Ethical performance
RM-14	Updated social inquiries	PP-15	Idea and knowledge recombination
RM-15	Updated customer inquiries	PP-16	External resource acquisition
CM-01	Capabilities to comply	PP-17	Cognitive flexibility

### 3. RESEARCH ANALYSIS

#### 3.1 Quantitative analysis

The analytical methods employ a two-degree partial least squares structural equation modeling (PLS-SEM) framework comprising the structural and measurement model. It describes the key procedures for implementing and evaluating SEM-PLS analysis [88]. The assessment of indirect relationship is measured using the Sobel Test [89-90], which involves multiplying the path coefficient values of both the independent and dependent variables.

#### 3.2 The descriptive analysis

The descriptive analysis is organized into two orientations. One is based on data acquired from each of the four variables, and the other is based on the seven groups of respondents. This arrangement is intended to determine whether the data trends between them are different. Since both orientations involve the same respondents and the only difference lies in the focus of data analysis, we choose the test of difference based on the paired or dependent t-test methodology.

#### 3.3 Test of fitness in the measurement model

The fit test analysis aims to test the validity and reliability of the dimensions and indicators and expresses in 1) indicator reliability, 2) composite reliability, 3) convergent validity, and 4) discriminant validity assessments. Indicator reliability concerns how a construct explains its indicator's variance, and a recommended boundary is  $>0.70$ . Composite reliability (CR) is the degree of consistency of indicators used to measure the construct and is recommended to be between 0.60 and 0.70. Convergent validity explains the variance of its indicators using average value extraction (AVE) as a metric to evaluate it, and the recommended boundary is  $> 0.50$ . The discriminant validity deals with cross-loading validation among loading factors and the Fornell and Larcker criterion among the path coefficients of the latent variables. When cross-loading is greater than the internal outer loading, it indicates a discriminant validity problem. However, if the square root of AVE is smaller than the correlation value between latent variables, it indicates a discriminant validity problem.

#### 3.4 Test of fitness in the structural model

The structural model explains the relationship between latent constructs (KM, RM, CM, and PP). The  $R^2$  and Adjusted  $R^2$  values serve as quality criteria for the analysis.  $R^2$  values greater than 0.67 indicate a strong relationship, those between 0.67 and 0.33 indicate a moderate relationship, and values from 0.32 to 0.19 indicate a weak relationship.

## IV. RESULTS AND DISCUSSION

Out of the 252 questionnaires distributed to the observation units, 229 were completed, representing 91% valid.

### 1. THE RESULT OF DESCRIPTIVE STATISTICS

Descriptive information highlighting the differences between variable-based and function unit-based descriptive analysis results is shown in (Table 3).

**Table 3.** The results of descriptive analysis under variable and functional unit based.

Dimension	Variable-based Mean	Functional-based Mean
KA	4.17	4.22
PE	4.19	4.24
SE	4.29	4.33
RP	3.95	4.01
NoR	4.22	4.27
EO	4.33	4.38
OR	4.29	4.33
SP	4.10	4.10
CBF	4.12	4.03
SPE	4.48	4.52
FRSP	4.25	4.30
ECC	4.18	4.22
PI	4.29	4.36
AA	4.19	4.24
PB	4.33	4.36
EC	4.23	4.28

The descriptive analysis presented in (Table 3) is organized according to the results obtained for each variable and the associated group of respondents. Based on the paired two-sample t-test for means, as shown in (Table 4), the calculated t-statistic is -3.93, which is smaller than the critical t-value of 2.13, so the difference between the variable-based mean and the functional-based mean is not considered statistically significant. We also have found several notices upon this descriptive analysis based on the most preferred perception among each dimension of the variables, as:

- KM indicates that the most preferred perception is the dimension of Sustainability (SE), which explains the role and function of knowledge that can be transformed into capacity development to encourage creativity, innovation, and improve performance sustainability.
- RM indicates that the most preferred perception is the dimension of Expected Outcome (EO), which explains that the role and function of risk are oriented toward its definition: risk is the effect of uncertainty on objectives. Therefore, this definition aims to achieve the expected objectives.
- CM indicates that the most preferred perception is the dimension of Sustainable Practice Enhancement (SPE), which explains that CM's role and function are oriented toward compliance obligations. A compliance obligation focuses on an organization's ability to meet mandatory and voluntary requirements to achieve sustainability through professionalism and integrity.
- PP indicates that the preferred perspective is the dimension of Performance Behavior (PB), which explains that the role and function of PP in implementing the Governance, Risk Management, and Compliance (GRC) architecture serve as a pathway to PP. Governance's output shapes the performance behavior of senior leaders, enabling them to understand and embrace PP approaches rather than merely focusing on performance from common perspectives.

**Table 4.** The results of the t-test: paired two-sample for means.

Statistic	Variable-Based Mean	Functional-Based Mean
Mean	4.229333333	4.264666667
Variance	0.14778095	0.018355238
Observation	16	16
Pearson Correlation	0.961747433	

Hypothesized Mean Difference	0
df	15
t Stat	-3.934275995
P(T<=t) one-tail	0,001325302
t Critical one-tail	1.753050356
P(T<=t) two-tail	0,001325302
t Critical two-tail	2.131449546

## 2. THE RESULT OF THE MEASUREMENT MODEL ANALYSIS

Once the PLS-SEM program was run, we noticed that out of the 50 existing indicators, only 30 had indicator reliability >0.70 and were considered valid. The remaining 20 indicators were removed, and the final PLS-SEM results were obtained, as shown in (Figure 3).

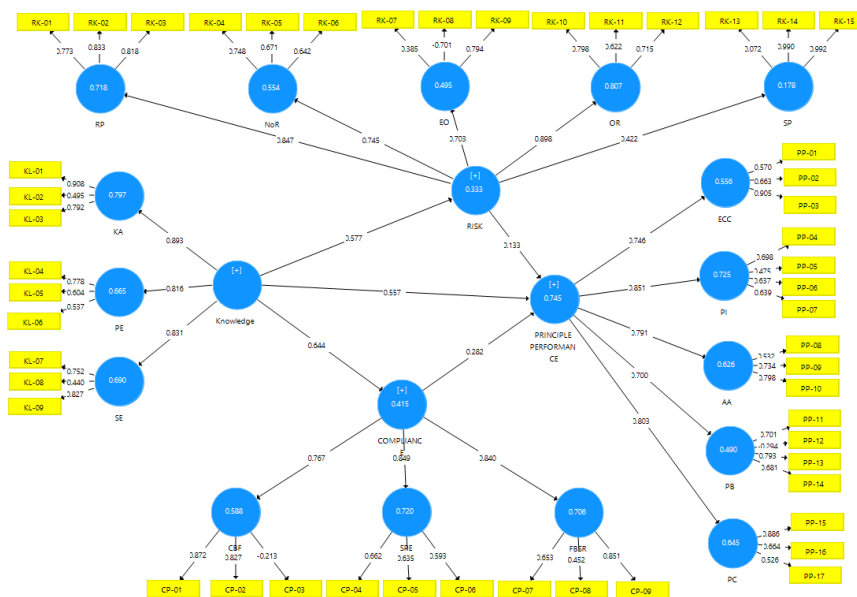


FIGURE 3. The smart pls run results.

The second step of SEM PLS run is shown Figure 4 below, which shows only 30 indicators out of 50 are valid (indicator reliability is > 0.70). The results of all validity tests concerning Composite Reliability (CR) and Average Variance Extracted (AVE) are satisfactory; therefore, they are considered valid, as shown in (Table 5).

Table 5. The validity test in the measurement model.

Dimension	Cronbach's Alpha	rho_A	CR	AVE
KA	0.779	0.779	0.901	0.819
PE	1.000	1.000	1.000	1.000
SE	0.795	0.796	0.798	0.664
RP	0.735	0.735	0.850	0.653



Dimension	Cronbach's Alpha	rho_A	CR	AVE
NoR	0.710	0.729	0.769	0.626
EO	1.000	1.000	1.000	1.000
OR	0.769	0.769	0.823	0.699
SP	0.981	0.988	0.991	0.982
CBF	0.761	0.769	0.855	0.746
SPE	0.713	0.743	0.835	0.718
FRSP	0.734	0.749	0.809	0.680
ECC	0.797	0.838	0.814	0.691
PI	0.780	0.706	0.758	0.613
AA	1.000	1.000	1.000	1.000
PB	0.777	0.777	0.825	0.703
EC	0.772	0.779	0.859	0.752

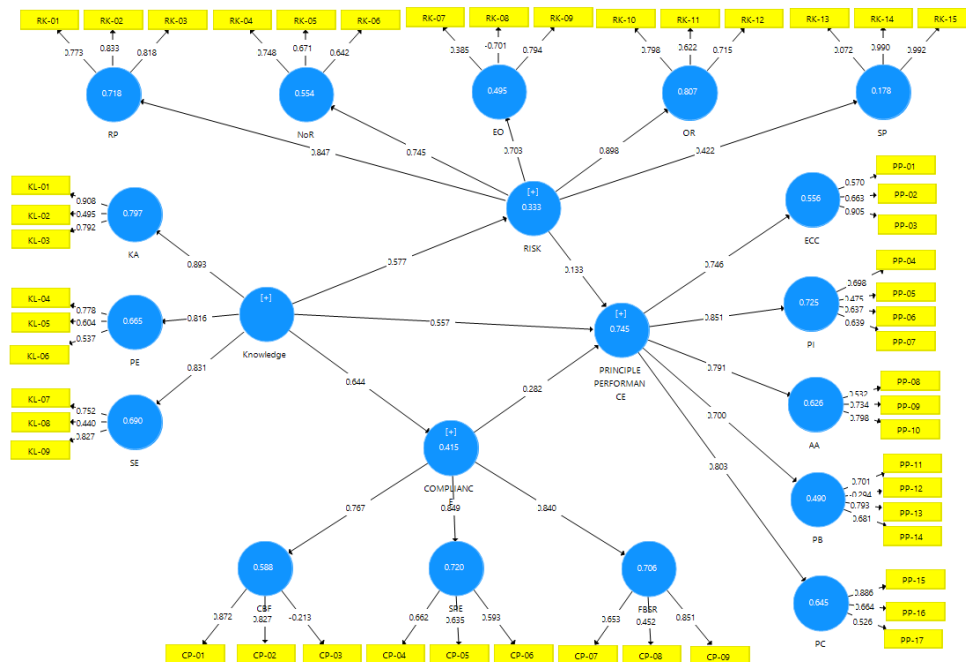


FIGURE 4. The second step of SEM PLS.

This indicates that all reflective indicators ensure consistency in measuring each construct's associated dimensions through CR values greater than 0.70. Furthermore, the information within each dimension is accurately represented by its corresponding latent variables through AVE values greater than 50%. The results of the cross-loading test indicate that each indicator has a higher loading factor for its corresponding dimension than for the other dimensions. This suggests that discriminant validity is not an issue; the results are shown in (Table 6)

**Table 6.** The discriminant validity test results using the cross-loading test.

	AA	CBF	ECC	EO	FBSR	KA	NoR	OR	PB	PC	PE	PI	RP	SE	SP	SPE
CP-01	0.424	0.883	0.222	0.296	0.255	0.361	0.294	0.331	0.399	0.470	0.385	0.323	0.291	0.277	0.283	0.277
CP-02	0.198	0.845	0.351	0.193	0.340	0.259	0.211	0.405	0.279	0.250	0.233	0.329	0.344	0.205	0.313	0.049
CP-04	0.091	0.105	-0.046	-0.037	0.261	0.245	0.248	0.117	0.290	0.121	0.135	0.369	0.151	0.084	0.313	0.801
CP-05	0.463	0.215	0.440	0.263	0.345	0.471	0.308	0.214	0.257	0.536	0.133	0.401	0.187	0.353	0.032	0.891
CP-07	0.471	0.208	0.431	0.165	0.783	0.524	0.150	0.310	0.229	0.418	0.314	0.252	0.468	0.350	0.148	0.228
CP-09	0.503	0.342	0.349	0.302	0.865	0.587	0.274	0.557	0.258	0.469	0.332	0.522	0.415	0.229	0.088	0.368
KL-01	0.575	0.445	0.543	0.259	0.661	0.904	0.269	0.494	0.250	0.711	0.456	0.663	0.298	0.526	0.066	0.434
KL-03	0.422	0.212	0.434	0.271	0.561	0.906	0.233	0.299	0.196	0.542	0.483	0.470	0.227	0.563	0.145	0.359
KL-04	0.326	0.357	0.405	0.202	0.392	0.514	0.271	0.435	0.347	0.239	1.000	0.339	0.422	0.420	0.121	0.157
KL-07	0.393	0.202	0.414	0.017	0.230	0.519	0.200	0.157	0.176	0.517	0.336	0.267	0.029	0.825	0.065	0.374
KL-09	0.210	0.259	0.439	0.272	0.329	0.461	0.424	0.516	0.127	0.187	0.349	0.285	0.349	0.804	0.184	0.072
PP-02	0.256	0.095	0.701	0.396	0.294	0.395	0.294	0.535	0.017	0.147	0.427	0.212	0.347	0.570	0.023	0.036
PP-03	0.530	0.371	0.943	0.193	0.454	0.501	0.381	0.531	0.392	0.533	0.315	0.535	0.365	0.398	0.157	0.327
PP-04	0.487	0.198	0.484	0.218	0.538	0.661	0.108	0.197	0.146	0.651	0.236	0.860	0.223	0.370	0.177	0.503
PP-07	0.287	0.440	0.271	0.005	0.169	0.263	0.146	0.226	0.363	0.346	0.313	0.698	0.149	0.125	0.313	0.159
PP-10	1.000	0.368	0.511	0.252	0.590	0.550	0.256	0.308	0.427	0.741	0.326	0.509	0.254	0.373	0.117	0.354
PP-13	0.439	0.221	0.278	-0.008	0.399	0.222	0.583	0.358	0.841	0.077	0.281	0.264	0.382	0.100	0.177	0.194
PP-14	0.276	0.446	0.250	0.132	0.095	0.190	0.399	0.196	0.835	0.217	0.300	0.235	0.411	0.214	0.371	0.341
PP-15	0.695	0.423	0.353	0.063	0.489	0.549	0.082	0.139	0.247	0.885	0.187	0.669	0.137	0.350	-0.052	0.432
PP-16	0.585	0.307	0.477	0.310	0.444	0.658	0.020	0.222	0.044	0.850	0.230	0.484	0.114	0.412	-0.039	0.286
RK-01	0.162	0.163	0.262	0.439	0.286	0.163	0.415	0.537	0.426	0.031	0.246	-0.009	0.782	0.249	0.171	0.151
RK-02	0.204	0.517	0.355	0.295	0.404	0.211	0.284	0.442	0.479	0.124	0.383	0.215	0.819	0.224	0.247	0.044
RK-03	0.250	0.222	0.389	0.578	0.590	0.326	0.135	0.653	0.251	0.195	0.396	0.380	0.823	0.083	0.116	0.281
RK-04	0.054	0.269	0.298	0.248	0.127	0.138	0.852	0.457	0.481	-0.042	0.127	0.093	0.342	0.229	0.201	0.400

	AA	CBF	ECC	EO	FBSR	KA	NoR	OR	PB	PC	PE	PI	RP	SE	SP	SPE
RK-05	0.402	0.191	0.362	0.007	0.321	0.330	0.725	0.298	0.450	0.167	0.334	0.167	0.182	0.400	0.423	0.118
RK-09	0.252	0.287	0.297	1.000	0.291	0.293	0.180	0.588	0.073	0.206	0.202	0.163	0.546	0.174	0.081	0.156
RK-10	0.168	0.335	0.364	0.547	0.424	0.413	0.333	0.838	0.247	0.117	0.457	0.169	0.649	0.272	-0.035	0.227
RK-12	0.241	0.373	0.665	0.434	0.478	0.317	0.483	0.833	0.307	0.226	0.270	0.273	0.482	0.411	0.188	0.110
RK-14	0.081	0.330	0.100	0.030	0.119	0.103	0.346	0.065	0.303	-0.083	0.147	0.268	0.222	0.141	0.990	0.141
RK-15	0.147	0.350	0.159	0.126	0.154	0.217	0.389	0.113	0.342	-0.024	0.094	0.314	0.210	0.158	0.992	0.213

**Table 7.** The discriminant validity test results using the Fornell-Larcker criterion test.

Fornell-Larcker Criterion	AA	CBF	ECC	EO	FBSR	KA	NoR	OR	PB	PC	PE	PI	RP	SE	SP	SPE
AA	1.000															
CBF	0.368	0.864														
ECC	0.511	0.327	0.831													
EO	0.252	0.287	0.297	1.000												
FBSR	0.590	0.341	0.465	0.291	0.825											
KA	0.550	0.362	0.539	0.293	0.675	0.905										
NoR	0.256	0.295	0.408	0.180	0.264	0.277	0.791									
OR	0.308	0.423	0.614	0.588	0.539	0.437	0.487	0.836								
PB	0.427	0.397	0.315	0.073	0.296	0.246	0.587	0.331	0.838							
PC	0.741	0.425	0.473	0.206	0.539	0.691	0.061	0.205	0.175	0.867						
PE	0.326	0.357	0.405	0.202	0.392	0.519	0.271	0.435	0.347	0.239	1.000					
PI	0.509	0.377	0.499	0.163	0.485	0.625	0.156	0.264	0.298	0.671	0.339	0.783				
RP	0.254	0.365	0.415	0.546	0.530	0.290	0.343	0.677	0.473	0.145	0.422	0.242	0.808			
SE	0.373	0.282	0.522	0.174	0.342	0.602	0.380	0.408	0.187	0.436	0.420	0.338	0.228	0.815		
SP	0.117	0.343	0.132	0.081	0.139	0.117	0.372	0.091	0.326	0.053	0.121	0.295	0.218	0.151	0.991	
SPE	0.354	0.197	0.270	0.156	0.368	0.438	0.349	0.202	0.319	0.419	0.157	0.454	0.201	0.278	0.180	0.847

The results of the Fornell-Larcker criterion test, shown in Table 7, indicate that each indicator has a higher loading factor for its own dimension than for other dimensions, suggesting no discriminant validity issue.

### 3. THE RESULT OF STRUCTURAL MODEL ANALYSIS

The result of the structural model analysis is shown in (Table 8), which presents the significance levels of direct and indirect relationships among the latent variables, as indicated by their path coefficients and p-values. The five direct relationships tested in the model show that the path coefficients are statistically significant (p-value < 0.05).

**Table 8.** The Direct and Indirect Relationships in the Structural Model Analysis

Relationship	Hypothesis	Path Coefficient	Sample Mean	p-values	Results
KM → RM	H1	0.490	0.471	0.018	Significant
KM → PP	H2	0.387	0.344	0.014	Significant
KM → CM	H3	0.649	0.643	0.000	Significant
RM → PP	H4	-0.027	0.025	0.901	Insignificant
CM → PP	H5	0.509	0.484	0.005	Significant
KM → RM and CM → PP	H6	0.317	0.342	0.007	Significant

### 4. THE DISCUSSION

This research enhances the understanding of PP and promotes several important ways to realize the direct and indirect relationships among KM, RM, and CM.

First, our findings indicate that each direct relationship of KM positively influences RM, PP, and CM, as demonstrated by their respective hypotheses of H1, H2, and H3 significance levels. This observation supports previous studies' findings that KM is a crucial aspect of coherence, facilitating the integration of processes and outcomes through knowledge sharing [21], improving communication to leverage employee creativity and innovation [4], and fostering sustainability practices [1]. Therefore, KM has shown its central role in combining RM and CM to cultivate a risk-taking attitude supporting a PP approach [12].

Second, the relationship between KM and RM has demonstrated positive and significant influences (H1), illustrating that KM empowers individuals to navigate uncertainty and align business objectives and strategy [49]. KM posits as a foundation to implement RM, offering appropriate assurance in tackling complex policy issues [8] and providing uncertain insights into the unpredictable dynamics of the business environment [10]. KM also induces RM governance through the principled approach, which calls for creating and protecting value [41] and elaborating insights and ideas to address uncertainties in achieving organizational goals [42]. Furthermore, it promotes a knowledge-based risk approach by aligning human, technological, and organizational factors to the RM effectiveness [91].

Third, the relationship between KM and PP demonstrates positive and significant influences (H2), highlighting that KM promotes a professional business practice rooted in ethical values, integrity, transparency, and social responsibility through a knowledge-based performance [18]. Thereby, it enhances reliable performance, increases productivity, and fosters innovation [92]. These features of KM consider multi-faceted perspectives to establish organizational creativity in promoting performance [11]. Furthermore, KM facilitates ambidexterity in navigating the rapid pace of business dynamics to ensure performance reliability [31] that provides fundamental competencies to enhance performance through creativity and [34], attaining a sustainable competitive advantage through knowledge-centric attributes [53]. Altogether, they align business objectives with strategy based on professionalism and integrity as a pathway to achieve PP [6].

Fourth, the relationship between KM and CM has demonstrated positive and significant influences (H3), indicating that KM fosters an attitude that prioritizes cultivating an integrity culture and enhances the

capacity to comply as an integral component of the CM management system [13]. It also underscores the importance of promoting organizational integrity to foster higher levels of understanding, resulting in better compliance outcomes [58]. Gradually, KM enhances the ability to adhere to compliance by integrating more challenging mindsets, an integrated management system, and advanced technology to ensure sustained performance that surpasses regulatory requirements [15]. Simultaneously, it deals with a comprehensive understanding and capability to consider the code of conduct [77], which aligns with the assessment of internal control based on an ethical framework and reports [93]. KM also promotes sustainable performance through this approach while enhancing appropriate assurance through CM to boost performance results and ethical standards [94].

Fifth, the relationship between RM and PP has shown negative and insignificant influences (H4), indicating that RM alone is insufficient to influence PP since both have different approaches to realizing value for the organization. RM and PP concentrate on value; however, their conceptual approaches and frameworks exhibit differences, although they remain complementary to one another. RM's core principle is creating and protecting value, whereas PP focuses on producing and preserving value [6].

RM focus on improving decisions making under uncertainty so the organization enables to create and protect value in pursuing upside (opportunities) while constraining downside (threats). This is the opening premise of ISO 31000:2018. On the other hand, producing and preserving value is the core of GRC (Governance, Risk Management, and Compliance) principle to realize PP through connected and integrated approaches. This is explicitly stated in the OCEG Red Book v3.5 to enable the balance outcomes between professionalism and integrity. Therefore, the core principle of RM and PP uncover the reality that role of RM will not satisfy the requirements to realize PP. Besides, PP encompasses diverse dimensions and prerequisites that transcend focus on continuous processes and harmonizing strategic objectives and policies [50]. Besides, effective RM implementation demands a proactive approach characterized by increased awareness, innovation, and readiness. These practices are fundamental to entrepreneurship and essential for decision-making [64] and they also take flexibility in decision-making into account [65]. Instead of PP, performance is seen as an ongoing process aligned with the organization's strategic goal. It may lack a principal connection to strategy, improvement, communication systems, ethical behavior, and complexity management [95]. Thereby, PP questions traditional performance management to cultivate shared value within the innovation ecosystem [51]. This explains the insignificant direct influence of RM on PP.

Sixth, the relationship between CM and PP has demonstrated positive and significant impacts (H5), emphasizing that CM underscores an integrity-based approach to align entrepreneurial intentions with managerial attitudes to promote PP that is devoid of potential conflicts of interest [96]. Additionally, the role of CM as a management system mandates the provision of compliance obligations to ensure PP by attaining a balance between mandatory and voluntary measures [29]. Once the function of the CM is endorsed by policy, it starts transforming into a framework that directs policy entrepreneurs in effectively pursuing their objectives [84] through sustainable practices [83]. In organizational context, a practical example in achieving PP can be demonstrated by introducing CM as an operational discipline rather than a paperwork exercise. CM is empowered as control requirements to legal and regulatory obligations (such as anti-bribery, sanctions, whistleblowing, due-diligence expectations) which are mapped to plain-language to promote better understanding. The CM can then be integrated into various processes and systems to induce PP, such as procurement to payments within an ERP system. It has the ability to detect and address contracts that automatically consider audit rights and anti-corruption clauses, or high-risk payments that require double approval.

Seventh, the relationship between KM and PP through both RM and CM simultaneously has demonstrated positive and significant influences (H6); this condition is consistent with the mediating role of RM and CM in addressing potential compliance risk events through sustainable practices [83]. The influence of KM on PP through RM and CM is further substantiated by the induction of a risk-based decision-making process and a risk-taking attitude [12] that prioritizes ethical risk [94] and enables adherence to address compliance risk [64].



## V. CONCLUSION

The findings of this study considerably advance theoretical comprehension and augment the academic landscape by synthesizing and interconnecting various fields through empirical analysis methodologies. It clarifies how the relationship between KM, RM, and CM can create a harmonious balance between achieving reliable performance and upholding ethical standards, thereby promoting PP that strengthens organizational resilience and sustainability. Additionally, it provides a valuable framework for professionals to investigate and improve, highlighting the essential role of KM. By optimizing this aspect, an organization can enhance its PP's effectiveness, leading to improved outcomes and greater confidence to grow and sustain. The specific actions or frameworks for practitioners and policymakers based on the study's findings, such as:

- For practitioners: it focuses on the reliability of operation, output (product and service), risk, and compliance. The orientation induces prompts to change, addresses uncertainties, and cultivates the updated control before closure. Furthermore, it ensures timely access of compliance obligation to relevant datasets and their analytic results.
- For policymakers: it focuses on the balance approaches of realizing professionalism and integrity in Principled Performance (PP). The orientation encourages comprehensive policy development, adoption standards and systems alignment including the monitoring and review actions. Therefore, it leverages learning velocity, near-miss conversion, and innovation yield alongside compliance outcomes to move cultures from fear of reporting to learning cultures.

The practical implementation for operationalizing the integration of KM, RM, and CM to foster PP that focuses on reliably achieve objectives, address uncertainty, and act with integrity require:

- A set of connected and integrated operating model, which clarifies role of people and accountabilities. The formal approach can be carried out by establishing a charter to committee or working group regarding authority, priorities, and metrics) and independent assurance.
- Backbone of connected and integrated among KM, RM, and CM to control and audit mechanism as assurance function. It can be carried out by mapping and maintaining compliance matrix, stakeholder matrix, risk register linkage, and knowledge artifact based on learning and experience.
- Instruments with connected and integrated metrics to outcomes. It can be realized by focusing PP as a composite approach through the metrics of:
  - knowledge flow index that is linked to creativity and innovation,
  - compliance effectiveness that is linked to top risk within appetite, traceable KPI (Key Performance Indicator) progress, comprehensive and punctual audit realization, and KII (Key Integrity Indicator), KRI (Key Risk Indicator) that is linked to risk and resilience.
- Alignment between culture and incentives. It can be realized by inducing commitment and awareness by linking to bonuses to stimulate knowledge sharing and acquisition that accelerates learning rather than paperwork.

This study presents certain limitations, as it concentrates specifically on Indonesian airport companies, thereby restricting its applicability to a wider context. Therefore, applying this research model to other industries or across industries need to observe and consider the unique processes and geographic characteristics of the unit of analysis. In respect to other industries, the causal interpretation will be dominated by the understanding and experience of respondents in providing their perceptions through the statements in the questioner. When the unit analysis is based on across industries, then the quantitative method through questioner needs to be applied with the qualitative method approach.

Future research could further elaborate on this KM role through subsequent improvement cycles, namely those that address practical actions that researchers move beyond cross-sectional associations to identify when, how, and for whom the KM improves outcomes. The outcomes can be translated into the quality of operational, innovation, compliance, resilience, and stakeholders' perception. Firstly, extends the KM mediated pathways to explore learning velocity or quality of knowledge in promoting resilience, innovation, and integrity. Secondly, focus on KM's moderated effect across industries, which deals with diverse aspects of critical KM and hotspots, high-leverage KM levers, and KM metrics. The diverse aspects are furthermore varying with several contexts, such as environmental degradation, regulation-intense, innovation led, etc.

Besides, KM's moderated effect can also be applied on geographies under the contexts of power-distance, geo-politics, digital maturity, social dispute, etc.

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### Author Contributions

Conceptualization, Subramaniam Anbanathan, Nury Effendi; methodology, Subramaniam Anbanathan, Nury Effendi, Aldrin Herwany; formal analysis, Subramaniam Anbanathan, Nury Effendi, Aldrin Herwany; investigation, Subramaniam Anbanathan, Nury Effendi, Aldrin Herwany; data curation, Subramaniam Anbanathan, Nury Effendi; writing—original draft preparation, Subramaniam Anbanathan, Aldrin Herwany; writing—review and editing, Subramaniam Anbanathan, Nury Effendi, Aldrin Herwany; visualization, Subramaniam Anbanathan, Aldrin Herwany; supervision, Nury Effendi, Aldrin Herwany; project administration, Subramaniam Anbanathan. All authors made an equal contribution to the development and planning of the study.

Subramaniam Anbanathan, Nury Effendi, Aldrin Herwany

### Conflicts of Interest

The authors declare no conflicts of interest.

### Data Availability Statement

Data are available from the authors upon request.

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