
Assessing Risk-Aware Culture in Philippine Private Higher Education: A Quantitative Case Study

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Abstract: Despite the widespread adoption of enterprise risk management (ERM) frameworks, empirical evidence on how risk-aware culture manifests in Philippine private higher education institutions (PHEIs) remains limited. This study examined the extent of risk-aware culture and whether perceptions differ across demographic and organisational groups. Data from 212 respondents were gathered with the use of a quantitative descriptive-comparative design for analysis through seven dimensions (leadership and commitment, governance structures, communication, training and education, resources, regulatory pressures, and external pressures) for which risk aware culture was measured. Data analysis involved both descriptive statistics, independent samples t-tests and one-way analyses of variance (ANOVA) which indicated that the level of risk awareness was generally well developed in relation to all seven dimensions. Regulatory pressures and leadership commitment emerged as the two most significant factors in terms of driving the development of risk-aware culture. Overall, however, there were a number of statistically significant differences in relation to the perception of risk-aware culture based on years of service and role within the organisation, particularly in relation to resources allocated for risks and external pressures. The results highlight the need for organisations to strengthen organisational alignment of resources and external risk drivers to improve their resilience and organisational performance. This research provides an empirical evidence-base which is both context-specific and will serve as a resource for institutional leaders who want to develop a more ingrained and equitable risk culture throughout their organisations.

Keywords: Risk-Aware Culture, Enterprise Risk Management, Private Higher Education, Philippines, Institutional Resilience

I. INTRODUCTION

Higher Education Institutions (HEIs) operate in a VUCA environment where they must navigate through numerous external pressures (e.g., technological advancement, developing regulatory authorities, competitive environment, and growing stakeholder expectations) [1],[2],[3]. In the Philippines, due to the substantial pressure of digitalisation, the need for changes in our funding models, regulatory requirements from the Commission on Higher Education (CHED), and other stakeholders, it is critical that HEIs are continuously working toward strategic resilience [1],[4],[5].

In addition to external pressures on the structure and finances of private higher education institutions – sustainability, demographics, quality assurance, and competitiveness in a changing environment – private higher

education institutions (PHEIs) are also barred from receiving government support [6],[7]], as compared to public colleges/universities; therefore, PHEIs rely on student tuition/fees and other sources of internal revenue, making them uniquely vulnerable to the adverse effects of enrolment declines and economic downturns [8],[9]. The COVID-19 pandemic has exposed these vulnerabilities, leading to the closure/merger of some PHEIs due to financial difficulties, thereby underscoring the critical need for PHEIs to develop a risk-aware organisational culture that supports resilience and prioritises sustainability [10],[7].

The activities related to risk management in an organization are influenced by what is known as the risk culture, which is a set of shared values, beliefs, knowledge, attitudes and assumptions related to risk held by the organization's members [11] [12]. Risk culture awareness is more than just a compliance requirement with policies and procedures; it becomes part of the thinking that underlies all decisions made within the organization - strategy to operations - [13] [14].

The relationship between risk culture and organizational performance has emerged as a critical issue following the failure of organizations due to the failure to integrate risk management cultures into their operations, rather than any failure in risk management practices in general. Recent studies demonstrate that the factors which enhance the effectiveness of Enterprise Risk Management (ERM) frameworks also support a culture of risk awareness in organizations (i.e., organizations with a risk-aware culture are more likely to succeed in responding to incidents, achieve compliance, and operate effectively).

Many higher education institutions (HEIs), especially private higher education institutions (PHEIs), are struggling to develop a risk-aware culture in their institutions, despite the increasingly prominent recognition of the need to do so. The centralised governance structures that most often characterise such institutions, and which are often dominated by the founder or ownership group's interests, impede the integration of risk management practices into the institution's operations [1],[23],[24],[25].

Theoretical/Conceptual Framework

The existing body of literature establishes systemic impediments to a risk-aware culture in higher education institutions in particular, in developing countries generally. Institutions will use risk management systems to enhance their legitimacy, which is therefore associated with a risk-aware culture that is at best symbolic [22],[26]. The impediments manifest in four domains: weaknesses in leadership and governance, misalignment of risk management structures, cultural/behavioural resistance, and resource constraints as well as pressures from external entities [22]. Although maturity models have been established to measure the risk culture, but have not yet been empirically validated, with this study being the first in the Philippine context. This research contributes in this regard by providing quantitative evidence on risk-aware culture and its association with groups within an organisation.

The theory that underpins a risk-aware culture within an organisation comprises complementary theoretical perspectives that account for this phenomenon. Institutional theory accounts for a range of extra organisational factors, including the regulator [26]. Organisations are also cultures. The values that are shared may be at risk. The High Reliability Organisation theory accounts for commitment by the leadership and effective communication in fostering a risk-aware culture. Contingency theory relates to factors like structure and processes that align with the risk environment in which the organisation operates [29]. Systems theory looks at organisations as a whole in which a change in one system has implications for all other systems [30]. Behavioural theories account for factors like an individual's attitude towards risk, their perceived control over a situation, as well as the corresponding pro- and preventative engagement with risk management practices [31]. Collectively, the theories account for how structural, cultural, and behavioural factors interact to influence a risk-aware culture.

Based on the theory, a risk-aware culture is measured on seven factors: leadership/governance; communication; training; resources; regulatory/external pressures; and governance structures. The extent to which differences in perception on these factors by various organisational demographic groups is assessed is also regarded in this research, acknowledging that the risk-aware culture may also be perceived through the individual's perspective as well.

Statement of the Problem

Even with increasing adoption of risk management frameworks in higher education institutions, there is limited empirical research on what the implementation of a risk-aware culture looks like in Philippine private higher education institutions, especially in relation to demographic and organisational differences. This study

addresses this research gap by assessing the level of risk-aware culture across seven dimensions and investigating whether there are any statistically significant differences across respondent profiles. Specifically, the study aims to: (1) Describe the demographic and organisational characteristics of respondents; (2) Determine the level and relative ranking of risk-aware culture across dimensions; and (3) Analyse differences in perceptions across demographic and organisational groups. By empirically examining these dimensions, the study contributes context-specific evidence to the growing literature on risk culture in higher education and offers insights to strengthen institutional resilience.

II. DESIGN & METHODOLOGY

The following part presents the research methods employed to understand the difficulties experienced by educational institutions when establishing a risk-aware culture as applied to their performance. The chapter details the research design features including the respondents, data collection methods, and instruments used on the research participants, along with the statistics that supported the analysis of the data. This chapter presents a narrative describing the collection and analysis of the data with the goal of establishing the research findings with validity, reliability and rigour.

A. Research Design

The study employed a quantitative descriptive-comparative research design. The descriptive element of the study was used to establish the level of risk-aware culture and could accomplish this through the operationalised constructs in risk-aware culture. The comparative part of this study was designed to explore whether there were differences in how respondents perceive barriers identified in the literature in relation to demographic and organisational characteristics.

B. Research Locale and Participants

The study was conducted at private higher education institutions (PHEIs) located in Region 1 of the Philippine and based on the size, affiliation, and context of the institution. The study included a total of 212 respondents who were sampled through stratified random sampling based on the following inclusion criteria: (1) currently employed in a PHEI in the Philippines, (2) in any type of position from an executive leader to an administrative staff, and (3) voluntarily willing to participate. All levels and areas of the organisation were represented in the sample for this study, thus providing a range of responses that offered an understanding of the culture of risk awareness from many different perspectives. By using stratified random sampling, each department and position had a proportionate number of respondents, thus enhancing some level of generalisability of the findings across the organisation.

C. Research Instrument

In this study, data were obtained with a self-administered questionnaire that was created through a thorough literature review. The instrument contained two main sections with Part 1 providing demographic information about the respondents, including age, gender, education, length of service, department, and current position. This information allows for a general characterisation of the respondents and provides for the comparative analyses that are detailed in the research design.

Part 2 of the instrument consisted of 35 statements intended to measure the seven dimensions of a risk-aware culture. Five items were designed to measure each of the seven dimensions, with respondents evaluating each statement using a 4-point Likert-type scale. There was no neutral midpoint on the scale purposefully to reduce central tendency bias and increase the clarity and interpretability of the respondent's assessments.

D. Data Gathering Procedure

The surveys were distributed to the participating institutions only after the researcher received written and formal permission to do so. Surveys were administered to respondents either face-to-face or electronically, based on the preferences and logistical issues of the participating institutions and the respondents. Respondents completed the survey in full confidence and were informed that their names would never be disclosed and that outside influences would not affect their responses to the survey.

E. Data Analysis

Data were analysed using the SPSS statistical program (version 27). Frequencies and percentages were computed using descriptive statistics to summarise the respondents' perceptions of a risk-aware culture. Frequency and percentages were used to summarise the demographic characteristics of the respondents for an overall profile of the sample. Likert-type measures were computed to determine the mean score and standard deviation for each survey item and dimension of risk-aware culture.

Inferential statistics were used to test for differences in mean scores between groupings. Independent sample t-tests were compared between two groupings (i.e., gender and employee category); one-way ANOVA for three or more groupings (i.e., age, age brackets, length of service, and department).

To assist in the interpretation of the mean scores, Table 1 provides a descriptive scale established to interpret the average level of risk-aware culture in the participating organisations, the average mean score range in the organisations, and the average of each risk-aware practice across the organisations. The information presented in Table 1 will give a consistent basis upon which to evaluate the extent that risk awareness is an integrated component within the organisation.

TABLE 1
INTERPRETATION OF MEANS SCORES FOR RISK-AWARE CULTURE

Scale	Statistical Range	Descriptive Equivalent	Interpretation
4	3.26-4.00	High	Risk-aware culture is firmly established and consistently practiced across all organizational units.
3	2.51-3.25	Moderate	Risk awareness is present in most operations but still requires strengthening in some areas.
2	1.76-2.50	Low	Risk-aware practices are limited and are at an early stage of consistent application.
1	1.00-1.75	No Risk-Aware	Risk-aware culture is absent or poorly understood across the organization.

F. Ethical Considerations

This research study used established criteria when conducting the research. All participants donated their time voluntarily; and all participants were told that they had the right to withdraw from the research at any time without being penalised in any way. The return of a completed survey was interpreted as a participant's implied consent to participate in this research. All data collected are held in strict confidentiality, with responses being anonymised so that no one can identify an individual participant or his/her institution.

III. PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This section presents the findings from the study, according to the two main research questions. Each section contains a summary table, extensive statistical and theoretical analysis, and application of relevant literature and frameworks.

A. Profile of Respondents

A total of 212 respondents were used for this study, which was achieved through stratified random sampling. The profile of the respondents that were used for this study was defined according to variables such as age, sex, education level, years of service, department and current position within the organisation; providing an adequate overview of the study sample that would be used to subsequently estimate the values of the risk aware culture dimensions.

TABLE 2
DEMOGRAPHIC AND ORGANIZATIONAL PROFILE OF RESPONDENTS

Profile Variable	Category	Frequency (n)	Percentage (%)
Age	20-30 years old	90	42.5
	31-40 years old	48	22.6
	41-50 years old	43	20.3
	51 years old and above	31	14.6
Sex	Male	75	35.4
	Female	137	64.6
Educational Attainment	Associate Degree	0	0
	Bachelor's Degree	137	64.6
	Master's Degree	39	18.4
	Doctorate Degree	36	17.0
Years of Experience	Less than 1 year	36	17.0
	1-5 years	64	30.2
	6-10 years	53	25.0
	11-15 years	30	14.2
	16-20 years	8	3.8
	21-25 years	6	2.8
	25 years and above	15	7.1

Department	Academe (Teaching)	151	71.2
	Student Affairs	13	6.1
	Finance and Admin	15	7.1
	Human Resources	11	5.2
	Information Technology	6	2.8
	Operations	6	2.8
	Research	2	0.9
	Others	8	3.8
Current Position	Executive Leadership	5	2.4
	Senior Administration	18	8.5
	Middle Management	39	18.4
	Faculty/Instructor	109	51.4
	Administrative Support Staff	41	19.3

Table 2 presents the demographic and organisational profile of the 212 respondents in terms of gender, age distribution, education, tenure, department and position. The sample was predominantly female (64.6%), with male (35.4%). The age distribution of the sample was 20-30 years (42.5%), 31-40 years (22.6%), 41-50 years (20.3%), 51 years or older (14.6%). The bulk of the sample held a bachelor's degree (64.6%), followed by those who held a master's degree (18.4%), then those who had a doctoral degree (17.0%). In terms of tenure, most of the sample (30.2%) had 1-5 years, followed by those who had 6-10 years (25.0%), and those who were just starting their tenure (less than 1 year) at (17.0%). However, the sum of those who had between 6 and 15 years (12.9%) amounts to a significant 42.1%, suggesting that many of the respondents have long enough tenures to be familiar with their organisations and therefore be able to assess their organisational practices through multiple cycles (cf. [27]). However, the 47.2% of the sample that has five or less years of tenure may be less inclined to do so, focusing on contemporary expectations as opposed to historical precedents.

The departmental distribution was heavily in favour of Academe (71.2%), followed by Distance Learning (14.9%), Graduate School (9.2%), Instructional Support Services (3.6%), Library Services (3.6%), Research and Development (0.9%), School of Law and Medicine (0.5%), and University Student Services (0.5%). The positional distribution of the sample was heavily in favour of faculty members (51.4%), followed by administrative support staff (19.3%), and middle management (18.4%). This departmental and positional distribution may limit the generalisability of the findings, which will likely represent a bottom-up perspective of organisational culture and risk perception, and therefore may not reflect the views of senior leaders or operational staff (10.9%).

B. Level of Risk-Aware Culture Across Dimensions

As shown in Table 3, ratings for all seven dimensions of risk-aware culture were high ($M = 3.28-3.51$), demonstrating that the emphasis on risk awareness is widespread throughout the institution. The highest average ratings were for Regulatory Pressures ($M = 3.51$) and Leadership and Commitment ($M = 3.50$), showing that risk awareness is associated with the influence of compliance requirements and that visible leadership support is the main driver of risk awareness. Such findings are in line with the perspectives of Institutional Theory, which examines the role of the regulatory environment in shaping organisational practices [26], and with other studies which show that leadership is a key influence on organisational culture [34], [38].

TABLE 3
SUMMARY OF RISK-AWARE CULTURE DIMENSIONS (RANKED)

Rank	Dimension	Mean	Std. Deviation	Descriptive Equivalent
1	Regulatory Pressures	3.5113	.47423	High
2	Leadership and Commitment	3.5028	.40023	High
3	External Pressures	3.4264	.90667	High
4	Governance and Structures	3.4198	.53661	High
5	Training and Education	3.4142	.42436	High
6	Resource Allocation	3.3349	.46865	High
7	Communication	3.2774	.53330	High

With high ratings assigned to the External Pressures, Governance and Training dimensions, it is evident that the supportive structures and learning processes which reinforce the risk culture are perceived to be present. Nevertheless, Resource Allocation and Communication, also rated highly, represented the lowest ratings overall, suggesting some potential areas for development, particularly in relation to the relative resource burdens and

information flow processes. Previous research correlates with the current study’s findings, identifying resource constraints as well as gaps in communication as common weaknesses within enterprises seeking to implement an enterprise-wide risk management process [41], [42], [43]. The pattern of rankings suggests that risk awareness is largely focused upon external requirements and hierarchically determined processes at present, with less focus upon the operational structure that would be required to support day-to-day risk management practices.

The generally low variability of risk perceptions across the majority of dimensions suggests a fair level of cohesion and shared understanding between respondents regarding the nature of the risk culture in their organisation. However, the significantly higher standard deviation of External Pressures ratings (SD = .91) suggests that ‘boundary spanners’ within the organisation may be perceiving these external impacts upon the risk culture differently than others within the organisation. Overall, with means clustering in the lower part of the “High” range, the risk-aware culture that is emerging is one which is clearly established with respect to compliance requirements, and leadership processes, but one that also indicates a number of areas which may require further development in relation to operational processes, and communication networks if such a culture is to be fully integrated into everyday practice within the organisation.

C. Group Differences in Risk-Aware Culture

This section investigates whether the perceptions of risk aware culture differ significantly by demographics and organisational features of a subset of the participants. Inferential statistics were conducted to assess whether differences in mean scores should be attributed to the research question rather than chance. These findings help to understand if and how organisational role, level of experience and other demographics impact how a risk aware culture is understood within the institution. This section presents the findings regarding sex-based differences.

TABLE 4
INDEPENDENT SAMPLES T-TEST RESULTS FOR DIFFERENCES IN RISK-AWARE CULTURE BY SEX

Dimension	t	df	p-value	Mean Difference	Interpretation
Leadership and Commitment	3.748	174.50	<.001	0.1999	Significant
Governance and Structures	3.555	176.10	<.001	0.2009	Significant
Communication	1.625	210	.106	0.1090	Not Significant
Training and Education	-0.535	210	.593	-0.0698	Not Significant
Resource Allocation	1.403	210	.162	0.1073	Not Significant
Regulatory Pressures	3.173	171.89	.002	0.2033	Significant
External Pressures	1.752	210	.081	0.1344	Not Significant

The independent samples t-test showed statistically significant differences between male and female respondents in their perceptions of Leadership and Commitment (t = 3.748, df = 174.50, p < .001), Governance and Structures (t = 3.555, df = 176.10, p < .001), and Regulatory Pressures (t = 3.173, df = 171.89, p = .002). Male respondents reported higher perceptions than female respondents in these areas, as indicated by the positive mean differences (0.1999-0.2033). The degree of difference between males and females ranged from small to moderate (Cohen's d ≈ 0.50), indicating meaningful differences between the groups.

There were no statistically significant differences in perceptions of Communication (t = 1.625, df = 210, p = .106), Training and Education (t = 0.535, df = 210, p = .593), Resource Allocation (t = 1.403, df = 210, p = .162), or External Pressures (t = 1.752, df = 210, p = .081); therefore, there appears to be no difference between male and female perceptions of these aspects of risk aware culture.

This study found that males differ from females in their perceptions of leadership visibility, governance structures, and regulatory pressures, but no in their perceptions of communication processes, training opportunities, resource support, or external pressures. The size of the mean differences (≈ 0.20) indicates there is a moderate level of perceptual differentiation between male and female employees based on management practices. No statistically significant differences across the four operational aspects suggest that informal communication processes, capacity development practices, operational supports, and so on, are experienced similarly by male and female employees within the organization, lending support to the consistency of these organisational practices.

In conclusion, there were statistically significant differences between the genders in three domains—Leadership and Commitment; Governance and Structures; and Regulatory Pressures—with males having higher scores in each domain. Leadership visibility; governance processes; regulatory expectations were all likely

experienced differently by male and female employees, potentially due to differences in their role occupancy, access to information, or professional socialisation in the organisation.

According to role congruity theory, leadership behaviour can be evaluated by gender [44]. However, the absence of differences in the four domains shows that all employees have the same set of operational practices concerning communication, training, resources, and external issues, which shows the homogeneity of the organisation’s risk culture and supports the overall framework. Future studies could be designed to examine the specific behaviours of the leadership/governance that create gender differences in the perception of these constructs by going to an item level or, in the case of qualitative studies, in how these practices operate in a higher education organisational context in the Philippines, where more hierarchical and relational norms (i.e., personalism, authority deference) are likely to impact how these practices are experienced.

TABLE 5
DIFFERENCES IN RISK CULTURE PERCEPTIONS BY DEPARTMENT

Dimension	F (df ₁ , df ₂)	p-value	η ²	Interpretation
Leadership and Commitment	F(7, 204) = 1.57	.145	.051	Not Significant
Governance and Structures	F(7, 204) = 1.41	.204	.046	Not Significant
Communication	F(7, 204) = 2.79	.009	.087	Significant
Training and Education	F(7, 204) = 0.65	.713	.022	Not Significant
Resource Allocation	F(7, 204) = 1.43	.195	.047	Not Significant
Regulatory Pressures	F(7, 204) = 2.12	.043	.068	Significant
External Pressures	F(7, 204) = 2.38	.023	.076	Significant

The one-way ANOVA indicated significant departmental differences in Communication (F(7, 204) = 2.79, p = .009, η² = .087), Regulatory Pressures (F(7, 204) = 2.12, p = .043, η² = .068), and External Pressures (F(7, 204) = 2.38, p = .023, η² = .076), while perceptions of Leadership, Governance, Training, and Resource Allocation remained statistically comparable across departments. Effect sizes for the significant dimensions were small to medium (η² = .068–.087), indicating that the departmental context explains 7–9% of the variance in these perceptions. Post-hoc multiple comparisons using Tukey’s HSD test revealed that for External Pressures, faculty reported significantly higher perceptions than executive leaders, suggesting that operational pressures, demand from students, accreditation, and engagement with the community may be felt more acutely in academic departments at the frontline of university operations than in departments headed by senior leaders.

These findings are in line with evidence that both the subculture of the organisational unit and its functional role affect the interpretation of risk management practices within higher education institutions [25, 36]. Differences in perceptions of regulatory responses and communication channels, for instance, likely reflect departmental differences in how compliance requirements and stakeholder engagement are experienced—at the administrative level through reporting, audits, and external requirements; and at the academic departments through accreditation agencies, curriculum oversight, and community engagement. Past research has similarly argued that risk culture is not homogenous across organisational units and that customised communication strategies can enhance risk management outcomes [45].

The lack of significant differences in departmental perceptions of Leadership, Governance, Training, and Resource Allocation, however, reinforces the finding from the descriptive statistics (Table 3), as well as the suggestion from the inferential analysis that these dimensions are viewed as stable across departments. Overall, despite localised variations in communication, regulatory, and external pressures, the largely non-significant findings across most dimensions support the presence of a broadly shared and moderately developed risk-aware culture within the institution.

TABLE 6
DIFFERENCES IN RISK CULTURE PERCEPTIONS BY YEARS OF SERVICE

Dimension	F(df)	p-value	η ²	Interpretation
Leadership and Commitment	F(6, 205) = 3.02	.008	.081	Significant
Governance and Structures	F(6, 205) = 5.20	< .001	.132	Significant
Communication	F(6, 205) = 8.12	< .001	.192	Significant
Training and Education	F(6, 205) = 3.49	.003	.093	Significant
Resource Allocation	F(6, 205) = 13.34	< .001	.281	Significant
Regulatory Pressures	F(6, 205) = 5.86	< .001	.146	Significant
External Pressures	F(6, 205) = 5.93	< .001	.148	Significant

A one-way ANOVA showed that there were significant differences among all seven dimensions of how risk-aware cultures can be defined, by years of service, indicating that time in service has a strong effect on how people view these dimensions of risk-aware cultures. The size of the effect was moderate to large ($\eta^2 = .081 - \eta^2 = .281$); the largest effect was for the dimension of resource allocation ($\eta^2 = .281$), followed by communication ($\eta^2 = .192$), indicating that the time in service significantly contributed to how well people view whether resources are being provided adequately and how well the information is being shared. There were also large indications of the impact of governance ($\eta^2 = .132$), regulatory pressures ($\eta^2 = .146$), and external pressures ($\eta^2 = .148$) as influencing how people view risk-aware cultures, while there were moderate levels of effect for both training and education ($\eta^2 = .093$) and leadership and commitment ($\eta^2 = .081$).

Further analysis using Tukey’s HSD test showed that a consistent pattern developed, where people with longer years of service generally provided higher scores for the appropriate dimensions compared to people with shorter years of service. This significant pattern was also seen in the dimensions of resource allocation (the dimension with the largest mean differences), where 21 years or more of service produced higher scores than compared to less than six years of service, indicating a stronger reliance on institutional memory and familiarity with budget processes.

A similar pattern was established for communication, governance and regulatory pressures between employees that had served the longest (16-20 years and 21+ years) compared to employees that had served the least (less than one year and 1-5 years). These findings suggest that people in an organisation interpret risk practice differently based on their past experience within an organisation. Employees with a longer tenure rely on both institutional memory and prior exposure to policy changes, crises or compliance processes, providing a more mature view of risk management systems, whereas employees with a shorter tenure typically depend primarily on written orientation and current policies. Research where an organisation learns has further identified that time in service is a significant mechanism by which to develop a continual appreciation for risk awareness and cultural understanding over time [27, 46].

These conclusions also coincide with the results seen previously in Table 5 of the departmental level results, where individuals within frontline academic functions provided higher scores for the various external pressures than other functions or departments. Together, this indicates that both job function and tenure in service impact the way employees developed their perceptions of organisational risk culture, thus reinforcing the continued need to provide differentiated, yet integrated, risk-communication, education and training practices between employees that have been employed at the organisation for varying lengths of time. This study provides practical implications that when organisations are developing risk management programs, the experiences of older employees, who have accumulated significant years of service, should be used in conjunction research found at [7] to provide a new and unique perspectives from newly employed staff and develop for the organisation a sustainable risk culture through organisational learning.

TABLE 7
DIFFERENCES IN RISK CULTURE PERCEPTIONS BY POSITION

Dimension	F (df1, df2)	p-value	Eta ²	Interpretation
Leadership and Commitment	0.791 (4, 207)	.532	.015	Not Significant
Governance and Structures	1.530 (4, 207)	.195	.029	Not Significant
Communication	1.872 (4, 207)	.117	.035	Not Significant
Training and Education	1.270 (4, 207)	.283	.024	Not Significant
Resource Allocation	4.789 (4, 207)	.001	.085	Significant
Regulatory Pressures	1.753 (4, 207)	.140	.033	Not Significant
External Pressures	2.707 (4, 207)	.031	.050	Significant

The one-way ANOVA indicated that perceptions of risk-aware culture differed significantly across position groups for Resource Allocation ($F(4, 207) = 4.79, p = .001, \eta^2 = .085$) and External Pressures ($F(4, 207) = 2.71, p = .031, \eta^2 = .050$), while no significant differences were observed for Leadership, Governance, Communication, Training, or Regulatory Pressures ($p > .05$). Effect sizes were small to medium, with Resource Allocation showing a medium effect ($\eta^2 = .085$) and External Pressures showing a small-to-medium effect ($\eta^2 = .050$), suggesting that position explains a small but statistically significant amount of variance in perceived resource availability and external stakeholder pressures.

Post-hoc comparisons using Tukey’s HSD test (see Table 5) confirmed these findings. Faculty compared to all other groups showed significantly higher ratings than middle managers for Resource Allocation. This finding

may be explained by differences in vantage points: middle managers may have a more realistic understanding of resource availability due to their involvement in budgeting and resource allocation decisions, while faculty may assess availability based on their immediate needs. Differences between faculty and executive leaders were also significant for External Pressures, suggesting that frontline academics are more aware of the expectations of parents, students, and other stakeholders than are leaders at the top of the hierarchy, who may be shielded to some extent from these day-to-day demands.

The lack of findings for the other dimensions suggests that these dimensions are indeed core cultural norms that are institutionalised and communicated throughout the organisation. Findings in the by position analysis are consistent with those in the by department analysis (Table 5), in which faculty also reported higher ratings than other groups for External Pressures. However, the presence of significant findings for External Pressures, but not for the other dimensions, suggests that frontline academic positions are particularly vulnerable to external demands, regardless of department.

Overall, these findings are consistent with organisational theory and suggest that hierarchical position does indeed affect access to information and exposure to constraints, leading to variance in expectations primarily in operational and environmental dimensions rather than in cultural dimensions [22, 41, 47]. However, even modest differences in expectations for Resource Allocation and External Pressures suggest that positional awareness may be valuable in designing risk communication and resource allocation processes.

Limitations of the Study

This study was conducted in private higher education institutions across Region 1 in the Philippines. Even though a representative sample of these institutions will allow all schools to be included in this report, the study results should not be able to be generalized to all private higher education institutions in the Philippines, all public colleges/universities or all other countries that have their own unique organizational structures and regulatory frameworks. Additionally, the organizational structures, regulatory environments and resources of individual institutions may differ between regions or between countries. These differences may ultimately have an impact on risk-aware culture at the various segregated locations. Because the study design was cross-sectional and only evaluated perceptions at one point in time, it does not provide the researcher with the ability to determine causation or if the risk culture is changing over time. Another limitation is the use of self-report surveys as a sole instrument for gathering data which may introduce a common method bias since all data is from a single source. Therefore, future studies using longitudinal designs, multiple methods of gathering data (such as document analysis, observational methods) and of varying geographic areas will be necessary to overcome these limitations and improve external validity.

IV. CONCLUSIONS

This study examined the level of risk-aware culture in private higher education institutions and sought to determine whether perceptions of this culture differ across respondent groups. The findings reveal that risk-aware culture is generally well established across all measured dimensions, with all seven dimensions rated in the "High" range ($M = 3.28-3.51$). The findings indicate that leadership commitment, governance structures, regulatory compliance, and training practices have been successful in institutionalising risk management and establishing a shared understanding that risk management is essential to organisational performance and resilience.

However, it also identified significant variations within the sample, particularly in the resource allocation and external pressure dimensions. These variations were most pronounced by years of service, with longer service employees perceiving the culture to be risk-aware on all seven dimensions, and departmentally, with faculty in non-administrative departments perceiving external pressures to be higher than their leadership or administrative colleagues. These findings suggest that tenure and organisational context moderate the experience of risk-aware culture, even when shared values are established.

Overall, the findings indicate that while the building blocks for a risk-aware culture are established, strengthening its effectiveness across organisational contexts requires ongoing effort. By addressing disparities in resource distribution and leveraging the familiarity of longer service employees with at risk management practices, and reinforcing the integration of external risk drivers into all management processes, higher education organisations can further strengthen their ability to identify and respond to threats to their operation and performance.

This study extends the body of knowledge on risk culture in higher education by establishing empirical links between organisational context and the perception and experience of risk-aware practices. Future research may

build on these findings by examining longitudinal changes in risk culture, exploring its direct relationship with institutional performance outcomes, or employing mixed-method approaches to capture the contextual factors underlying observed statistical differences.

Recommendations

Based on the findings, the following actions are recommended to further strengthen risk-aware culture in private higher education institutions:

- 1) Channel Resources Equally: As there were multiple responses regarding allocated resource distributions, colleges should review resources previously allocated for risk management on a periodic basis and collaborate with long-term employees to gain institutional history, along with new employees identifying current gaps.
- 2) Focus on Risk Communication That Is Targeted: Since the perception from staff regarding the quality of communication regarding risk varies greatly between departments and length of service, colleges should tailor communication strategies about risk according to their various audiences while establishing consistent core messages concerning regulatory changes, stakeholder concerns, and future risks across all departments. Cross-departmental forums and digital means should be utilized to strengthen inter-departmental information sharing regarding risk.
- 3) Offer Training/Engagement by Role: Since faculty are primarily impacted by the economy, colleges should support faculty in interpreting and responding to changing accreditation standards, student needs, and regulations. Long-term staff's experiential knowledge can be increased by providing them with mentoring opportunities, where a long-term staff member can mentor a new employee; and/or allowing staff access to risk committees, which have representation from both long-term and new employees.
- 4) Include Risks in the Strategic Planning Process: Colleges should incorporate risk considerations when developing their strategic planning, so a proactive rather than reactive approach is taken to risk management. Scenario planning can assist in developing effective risk management strategies given potential changes in technology, the demographic makeup of students, or the environment.
- 5) Periodically Conduct Risk Culture Assessments: Colleges should periodically evaluate their risk culture to determine progress, recognize new perceptual deficiencies in their risk culture, and assess the effectiveness of current risk management programs. Assessment data can also be utilized to recognize early indicators of risk culture fragmentation or lack of access to shared resources.

It is anticipated that following these practices will result in a strengthened resilient institution by producing improved decision-making and consistent risk management amongst colleges; therefore, ultimately increasing their overall performance and sustainability.

Practical Implications

The findings provide several practical insights for institutional leaders, risk managers, and policymakers in higher education. The generally high level of risk-aware culture suggests that existing governance structures, leadership practices, and regulatory frameworks are effective in promoting risk-conscious behaviour. However, the observed differences in perceptions related to resource allocation and external pressures indicate that risk culture is experienced unevenly across organisational contexts.

Strengthening risk-aware culture across all units can yield several positive outcomes. First, improved congruence in risk perception will streamline decision-making processes, simplify the identification of risk, and streamline its management at all levels within the institution. Second, the adjustment of resources to be adequate and equitable will improve the state of responsiveness and resilience of institutions in the event of disruptions or crises. Third, the better integration of external stakeholder expectations into the practices of an institution will enhance it in terms of compliance, transparency, and stakeholder satisfaction.

In a shifting and competitive higher education environment, institutions with a solid and well-founded risk culture will be better able to anticipate challenges, adjust to changes in the regulatory environment, and maintain the respect of their stakeholders. These observations suggest that Philippine PHEIs have developed a solid foundation of risk management practices, but that many more advantages regarding institutional agility, reputation, and sustainability will accrue from specifically addressing perceptual disparities as well as issues relating to resource equity.

In summary, all of these factors will contribute to yet stronger, more resilient institutions that are better able to support their students and faculty, and that are more capable of rethinking and reimagining their operations in a dynamic and changing environment.

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