Government Policies as a Moderator of Resource Capabilities and Industrial Competitiveness Toward Malaysian Private Higher Education Institution Performance: A Theoretical Framework

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INTRODUCTION

The private higher education sector has emerged as a crucial part of Malaysia's higher education framework. However, managing a private higher education institution has become increasingly intricate. PHEIs are required to attract students, skilled faculty, industry collaborations, and ensure financial viability while adapting to technological advancements, curriculum changes, and regulatory requirements. In this context, institutional performance is unlikely to hinge on a singular factor. Instead, it is likely to arise from the interplay of an institution's resources, how it utilises them, its response to competition, and its effectiveness in navigating the regulatory landscape.

This perspective aligns with strategic management literature, especially the Resource-Based View (RBV), which posits that an organisation’s performance can be impacted by the resources and capabilities it manages and cultivates (Barney, 1991; Wernerfelt, 1984). From this standpoint, resources are not inherently valuable due to mere ownership; their strategic worth is contingent upon the institution's capacity to leverage, combine, and renew them to create value and sustain a competitive edge.

In the context of higher education, this viewpoint holds particular significance as the resources of institutions are predominantly knowledge-driven. Factors such as academic personnel, programme offerings, organisational knowledge, technological prowess, research capabilities, and innovation efforts can shape how an institution distinguishes itself from its rivals. Mainardes et al. (2011) similarly contended that competitive advantage in higher education should be viewed through the lens of the interplay between internal resources, external circumstances, and stakeholders rather than solely from an internal viewpoint.

Concurrently, the external environment is also significant. PHEIs function in a marketplace where students are able to compare institutions based on programmemes, fees, facilities, academic reputation, and employment prospects. Recent research in Malaysia illustrates that students’ perceptions and expectations can impact how PHEIs formulate their academic and marketing approaches (Krishnaswamy et al., 2023). More recent findings also reveal that factors such as institutional reputation, faculty credentials, programme availability, financial aspects, and career development weigh heavily in students' choices when selecting Malaysian private higher education institutions (Chain et al., 2025).

The significance of internal capabilities has also gained renewed focus. For instance, Chan and Muthuveloo (2022) explored the connections among people capabilities, strategic agility, and institutional performance within Malaysian private higher education institutions. Their results indicate that the link between organisational resources and performance may not always be straightforward, emphasising the necessity of understanding the mechanisms and circumstances that enable capabilities to be translated into performance.

Innovation provides another important example. Recent studies involving Malaysian PHEIs have examined how intellectual capital, information technology capabilities and frugal innovation can help institutions respond to financial and technological constraints (Jayabalan & Dorasamy, 2024; Jayabalan et al., 2024). These studies

reinforce the view that PHEIs need to continuously develop and reconfigure their capabilities rather than rely solely on existing resources.

However, internal capabilities and competitive conditions do not operate in isolation. PHEIs are also strongly influenced by government policies, regulatory requirements, accreditation mechanisms and other institutional arrangements. Recent higher education policy research indicates that the effects of government policies on universities are often complex and may vary according to organisational and contextual conditions (Salmon, 2025). This observation provides an important theoretical basis for examining government policy not merely as another external factor, but as a condition that may change the strength of relationships between organisational capabilities, competitive conditions and institutional performance.

Therefore, this article proposes a theoretical framework in which Government Policies function as a moderator between Resource Capabilities, Industrial Competitiveness and PHEI Performance.

THEORETICAL FOUNDATIONS

2.1 Resource-Based View

The Resource-Based View emerged from earlier studies regarding firm growth and the strategic value of organisational resources (Penrose, 1959; Wernerfelt, 1984). Barney (1991) further advanced the resource-based perspective by detailing how resources that are valuable, rare, hard to imitate, and non-substitutable can form the foundation for a lasting competitive edge.

This viewpoint is especially pertinent to higher education because institutions vary in the resources and capabilities they hold, and, more critically, in how they leverage those resources. Two schools might provide comparable programmemes yet yield different results due to variations in their academic personnel, organisational structures, innovation abilities, reputation, connections within the industry, and strategic methodologies.

Within the current framework, the Resource-Based View serves as the theoretical basis for three dimensions of Resource Capabilities: Courses Offered, Human Resource Capabilities, and Innovation. Therefore, the framework posits that institutional resources can enhance performance when they are effectively developed and strategically utilised. Nevertheless, this relationship should not be seen as automatic. Simply having resources does not ensure better performance; the organisation, deployment, and alignment of these resources with environmental demands are equally crucial.

2.2 Theory of Industrial and Territorial Competitiveness

The second theoretical foundation originates from the competitive strategy tradition linked to Porter (1980, 1985) and the application of competitive thinking to higher education as developed by Mainardes et al. (2011).

Mainardes et al. (2011) modified various business strategy viewpoints for the higher education sector and introduced a model where competitive advantage is shaped by internal resources, external competitive forces, regional relationships, and stakeholders.

Their framework illustrates that a higher education institution cannot be understood in isolation from the context in which it functions.

This viewpoint is especially pertinent to private higher education institutions (PHEIs), as these organisations compete in an environment that includes other higher education institutions, students, employers, government entities, and industry partners.

Consequently, competition encompasses more than just attracting students; it also involves factors like institutional reputation, programme differentiation, academic quality, collaborations, and the capacity to adapt to shifts in the higher education landscape.

The current framework incorporates this external viewpoint through three dimensions: Competition, Student Bargaining Power, and Industrial Linkage.

RESOURCE CAPABILITIES AND PHEI PERFORMANCE

Resource Capabilities refer to the internal resources and organisational abilities that enable a PHEI to provide educational services, respond to environmental changes and achieve institutional objectives. In this framework, three dimensions are considered: Courses Offered, Human Resource Capabilities and Innovation.

3.1 Courses Offered

Courses Offered represent an important strategic resource because academic programmemes constitute one of the primary services through which PHEIs attract and retain students. A programmeme portfolio that is relevant to student expectations, labour-market requirements and industry development may strengthen an institution's attractiveness.

The importance of programmeme characteristics is supported by recent research in Malaysia. Krishnaswamy et al. (2023) found that students from Malaysian private universities differed in their perceptions of factors such as smart classrooms, peer support, partnerships and perceived benefits. Their findings suggest that students do not evaluate institutions based solely on the existence of a qualification; they also consider the broader educational experience.

More recently, Chain et al. (2025) identified programmeme availability and location, institutional reputation, faculty qualifications, financial considerations and career progression among the factors influencing students' decisions when selecting Malaysian private HEIs. These findings indicate that programmeme provision needs to be considered together with the wider value Hypothesis offered by an institution.

From the Resource-Based View, Courses Offered can therefore be regarded as an organisational resource when programmemes are appropriately designed, differentiated and aligned with market and societal needs. The theoretical expectation is that institutions with a relevant and strategically managed programmeme portfolio may be better positioned to attract students and strengthen institutional outcomes.

H1: Courses Offered are positively associated with PHEI Performance.

3.2 Human Resource Capabilities

Human Resource Capabilities encompass the knowledge, skills, experience, and organisational capacity of academic and administrative personnel. In higher education, these capabilities are particularly vital because teaching, research, student support, and institutional management rely heavily on people.

The relationship between personnel and organisational performance in Malaysian private higher education has been studied by Chan and Muthuveloo (2022). Their research explored the connections between people capabilities, strategic agility, and organisational performance among private higher learning institutions. Notably, their findings did not support a straightforward direct relationship between human resources and organisational performance. This suggests that people-related resources may require additional organisational mechanisms to effectively translate into performance outcomes.

This insight is theoretically valuable for the current framework. It indicates that Human Resource Capabilities should not simply be viewed as resources that automatically lead to better performance. Instead, the value of human resources may depend on how effectively an institution develops, integrates, and utilises those capabilities.

Recent research on Malaysian private higher education institutions (PHEIs) also underscores the significance of human capital in fostering innovation. Jayabalan et al. (2024) examined the role of intellectual capital and open frugal innovation in Malaysian private universities and found that different components of intellectual capital do not necessarily have the same effects on innovation. These findings reinforce the importance of assessing the

quality and strategic application of organisational capabilities rather than merely counting the available resources.

H2: Human Resource Capabilities are positively associated with PHEI Performance.

3.3 Innovation

Innovation describes an institution's capacity to introduce, adopt, or enhance ideas, processes, technologies, educational methods, and organisational approaches that generate value.

For private higher education institutions (PHEIs), innovation can encompass areas such as curriculum development, digital learning, teaching methods, administrative processes, research initiatives, student services, or new strategies for industry collaboration.

The significance of innovation is increasing as institutions navigate an environment marked by technological advancements, shifting student expectations, and limited resources.

Jayabalan and Dorasamy (2024) contend that frugal innovation offers a potential solution to the financial difficulties encountered by higher education institutions (HEIs) by enabling them to utilise their intellectual capital and information technology resources more efficiently.

In a similar vein, Jayabalan et al. (2024) discovered that structural and relational capital was markedly linked to open frugal innovation within Malaysian PHEIs, while human capital did not exhibit a statistically significant correlation in their analysis.

These results are crucial as they indicate that innovation goes beyond merely having inventive employees; it relies on the effective combination of organisational knowledge, relationships, technologies, and other resources.

From the Resource-Based View perspective, innovation can thus be seen as a dynamic capability that allows PHEIs to refresh their existing resource base and adapt to evolving environmental conditions.

H3: Innovation is positively associated with PHEI Performance.

INDUSTRIAL COMPETITIVENESS AND PHEI PERFORMANCE

While Resource Capabilities focus on internal conditions, Industrial Competitiveness captures the external pressures and relationships that influence PHEI operations. The present framework focuses on Competition, Student Bargaining Power and Industrial Linkage.

4.1 Competition

Competition represents the rivalry among PHEIs for students, academic talent, partnerships, reputation and financial sustainability.

In a competitive higher education environment, institutions need to differentiate themselves through programmeme quality, academic expertise, student experience, employability outcomes, research activities and institutional reputation. Competition may therefore encourage PHEIs to improve their services and respond more closely to market expectations.

Recent Malaysian evidence supports the importance of institutional positioning. Chain et al. (2025) found that institutional reputation and faculty qualifications were among the factors considered important by experts when examining student decisions concerning private HEIs. This indicates that competitive positioning extends beyond price and includes the broader perceived value of the institution.

Competition can therefore create pressure for PHEIs to continuously improve their resources and services. However, competition can also increase the pressure on institutions to maintain enrolment, control costs and differentiate their programmemes.

H4: Competition is associated with PHEI Performance.

4.2 Student Bargaining Power

In the present framework, Student Bargaining Power refers to the ability of students, as consumers of higher education services, to influence institutional decisions through their choices, expectations and evaluations.

Students have greater access to information about institutions than in the past. They can compare programmeme structures, fees, facilities, reputation, learning experiences and employment prospects across institutions. This creates pressure for PHEIs to understand student expectations and respond to changes in demand.

The Malaysian evidence presented by Krishnaswamy et al. (2023) demonstrates that different groups of students may perceive elements of the PHEI experience differently. Chain et al. (2025) further identified several factors influencing students' decisions, including reputation, faculty qualifications, programmeme availability, financial considerations and career progression.

From a competitiveness perspective, student choice therefore represents an important external force. PHEIs that fail to respond to changing student expectations may face difficulties in attracting and retaining students.

H5: Student Bargaining Power is associated with PHEI Performance.

4.3 Industrial Linkage

Industrial linkage pertains to the relationships and collaborations between Private Higher Education Institutions (PHEIs) and industry. These partnerships can encompass a range of activities, including internships, industry-based learning, joint research, knowledge transfer, curriculum development, and professional engagement. The significance of industrial linkage has grown, as higher education institutions are increasingly expected to demonstrate their relevance beyond traditional classroom settings. Strong ties between universities and industry can provide students with valuable exposure to workplace requirements, while simultaneously enabling institutions to acquire insights from external organisations. Recent research supports the value of these collaborations. In a study by Bamford et al. (2024), an empirical investigation into university-industry partnerships revealed that effective knowledge transfer and collaboration can lead to tangible organisational impacts. However, successful collaboration necessitates active facilitation, openness, and expert involvement. Additionally, a systematic review by Cohen et al. (2025) highlights that university-industry collaboration can yield a variety of impacts, including academic, organisational, technological, and societal outcomes. Notably, the review underscores that these impacts are multidimensional and may vary based on the specific context and mechanisms through which collaboration occurs. For PHEIs, fostering industrial linkage can enhance institutional performance by promoting curriculum relevance, facilitating knowledge exchange, encouraging innovation, and improving employability outcomes.

H6: Industrial Linkage is positively associated with PHEI Performance.

PHEI PERFORMANCE

PHEI Performance is treated in this framework as a multidimensional construct rather than a single financial indicator.

This approach follows Yaakub and Mohamed (2020), who proposed a Balanced Scorecard-based model for measuring Malaysian PHEI performance. Their study identified 22 measurement items across four dimensions, providing an alternative to relying solely on conventional institutional rankings.

Based on the framework developed in the original study, PHEI Performance comprises four dimensions:

1. Dimension Effectiveness;
2. PHEI Rating;
3. Research Capacity and Capabilities; and
4. Perceived Financial Performance.

The multidimensional approach is important because PHEIs perform several functions simultaneously. Financial performance is important for institutional sustainability, but it does not fully capture educational effectiveness, research development or institutional standing.

Recent Malaysian research continues to support multidimensional approaches to PHEI performance. Krishnaswamy et al. (2023) examined students' perceptions of factors associated with PHEI performance, while Ramasami and Al-Malami (2025) found a significant positive relationship between strategic resilience and organisational performance among Malaysian private universities.

Therefore, the present framework treats PHEI Performance as a broad organisational outcome reflecting the ability of a PHEI to achieve educational, institutional, research and financial objectives.

GOVERNMENT POLICIES AS A MODERATING VARIABLE

Government Policies represent a distinctive element of the proposed framework. In the original Mainardes et al. (2011) model, government regulation is positioned within the external competitive environment of higher education. The present framework extends that logic by giving Government Policies a specific moderating role.

A moderator does not necessarily act as a direct cause of the dependent variable. Instead, a moderator changes the strength or direction of the relationship between an independent variable and an outcome variable (Memon et al., 2019). In this study, Government Policies are therefore conceptualised as a contextual condition that may strengthen, weaken or otherwise alter the relationship between organisational capabilities, competitive forces and PHEI Performance.

This distinction is important. The argument is not simply that "government policies affect performance." Rather, the theoretical argument is that the effect of institutional capabilities and competitive conditions may differ under different policy environments.

Recent research supports the need to examine policy effects in a more contextual manner. Salmon (2025) reviewed 100 studies examining the relationship between national-level policies and university organisational behaviour and concluded that policy impacts are often ambiguous, involve unintended consequences or are complicated by other organisational and contextual factors.

This observation provides a useful theoretical basis for positioning Government Policies as a moderator.

6.1 Government Policies and Resource Capabilities

Government policies can influence how PHEIs develop and utilise their internal capabilities.

For example, regulatory requirements may influence programmeme approval, curriculum structures, quality assurance, staffing requirements and institutional governance. Policies relating to funding, student financing, accreditation and digital education may also influence the resources available to institutions and the ways in which those resources can be deployed.

The relationship can therefore be expressed as follows: strong Resource Capabilities may contribute to PHEI Performance, but the magnitude of this contribution may depend partly on the policy environment.

An institution may possess capable academic staff, innovative practices and relevant programmemes, but regulatory constraints or policy requirements may influence how quickly or effectively these capabilities can be converted into institutional outcomes. Conversely, a supportive policy environment may provide institutions with greater opportunities to deploy their capabilities.

Therefore, Government Policies are theoretically expected to moderate the relationship between Resource Capabilities and PHEI Performance.

H7: Government Policies moderate the relationship between Resource Capabilities and PHEI Performance.

6.2 Government Policies and Industrial Competitiveness

Government policies can shape the relationship between industrial competitiveness and the performance of private higher education institutions (PHEIs). In Malaysia, PHEIs operate within a regulatory and quality assurance environment governed by the Malaysian Qualifications Agency (MQA) and the Malaysian Qualifications Framework (MQF). The MQF provides a national reference for qualification levels, learning outcomes and credit systems, while MQA establishes quality assurance requirements for higher education institutions and academic programmes (Malaysian Qualifications Agency [MQA], 2024). Consequently, competition among PHEIs does not take place in a completely unrestricted market, as institutions must consider applicable regulatory requirements when developing programmes and positioning themselves within the higher education sector.

The regulatory environment may influence how PHEIs respond to competitive pressures, student expectations and industry needs. Mainardes et al. (2011) highlighted the importance of considering external competitive forces, institutional relationships and the broader environment when examining competitive advantage in higher education. In Malaysia, students' choices are also influenced by factors such as programme availability, institutional reputation, faculty qualifications and financial considerations (Chain et al., 2025). These factors suggest that the relationship between competition and PHEI performance should be examined within the market and regulatory conditions in which institutions operate.

Furthermore, industrial linkages may be influenced by policies and institutional arrangements that facilitate university–industry collaboration, work-based learning, innovation and knowledge transfer. Research on university–industry collaboration indicates that such partnerships can generate academic, organisational, technological and societal outcomes, although their effects may vary according to the context and mechanisms involved (Cohen et al., 2025). Bamford et al. (2024) similarly examined the organisational impacts of university–industry collaboration and highlighted the importance of effective knowledge transfer and collaborative processes.

In the Malaysian context, MQA accreditation requirements and the quality assurance provisions outlined in the MQF form part of the regulatory environment within which PHEIs develop their programmes and respond to stakeholder expectations (MQA, 2024). Therefore, the effects of competition, student bargaining power and industrial linkage on PHEI performance may vary according to the regulatory and policy conditions under which institutions operate. Government policies should consequently not be viewed solely as an independent variable that directly influences institutional performance. Instead, they may function as a moderating variable that influences the extent to which industrial competitiveness is associated with PHEI performance

H8: Government Policies moderate the relationship between Industrial Competitiveness and PHEI Performance.

INTEGRATED THEORETICAL FRAMEWORK

The proposed theoretical framework brings together two theoretical perspectives.

First, the Resource-Based View explains how internal resources and capabilities can contribute to institutional performance. Within the present study, these capabilities are represented by Courses Offered, Human Resource

Capabilities and Innovation.

Second, the Theory of Industrial and Territorial Competitiveness explains the importance of the external environment in shaping institutional competitiveness. In the present framework, this dimension is represented by Competition, Student Bargaining Power and Industrial Linkage.

The framework then introduces Government Policies as a moderating variable.

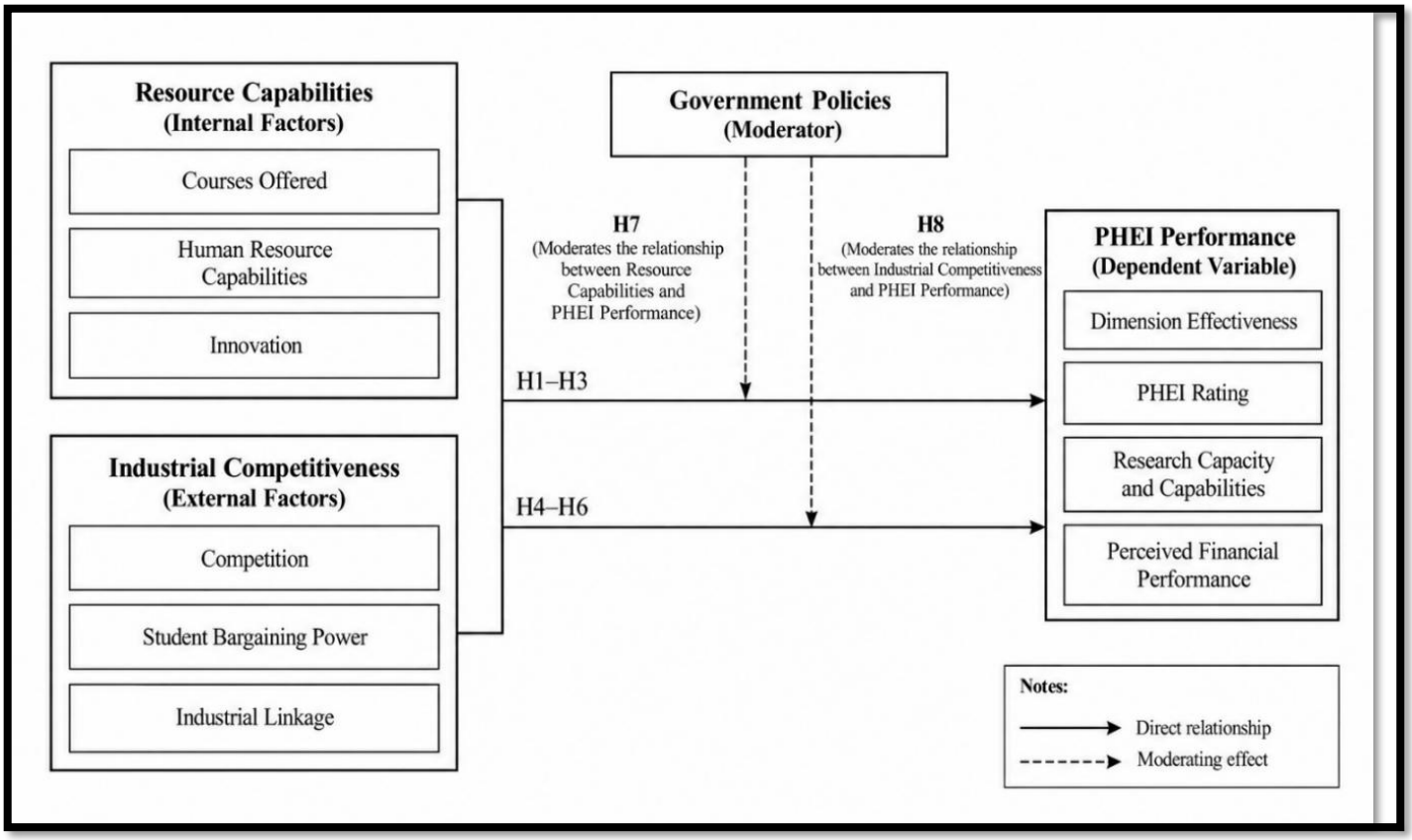


Figure 1. Extended Theoretical Framework for PHEI Performance in Malaysia

Source: Developed by N. Ahmad et al., adapted from Mainardes et al. (2011) and incorporating the PHEI performance dimensions of Yaakub and Mohamed (2020), with further extension through the inclusion of Government Policies as a moderating variable.

This is an important distinction from simply adding government policy as another predictor. The framework proposes that the relationship between institutional capabilities and performance, as well as the relationship between competitive conditions and performance, may depend on the policy environment. Conceptually, the framework can be represented as figure 1.

Figure 1 presents the theoretical framework developed for this study, which draws on the competitive advantage model introduced by Mainardes et al. (2011). This model highlights the significance of both internal resources and external competitive factors in understanding the competitive advantage of higher education institutions. The current framework further builds on the PHEI performance measurement model formulated by Yaakub and Mohamed (2020), which defines PHEI performance through a multidimensional lens rather than relying solely on institutional rankings.

By integrating these two foundational models, the framework is tailored to the Malaysian private higher education landscape, positioning Resource Capabilities and Industrial Competitiveness as the two primary explanatory dimensions of PHEI Performance. Resource Capabilities include Courses Offered, Human Resource Capabilities, and Innovation, while Industrial Competitiveness encompasses Competition, Student Bargaining

Power, and Industrial Linkage. Additionally, Government Policies are introduced as a moderating variable to capture the regulatory and institutional context in which PHEIs operate.

Consequently, hypotheses H1–H3 outline the proposed relationships between the three dimensions of Resource Capabilities and PHEI Performance, while H4–H6 explore the relationships between the three dimensions of Industrial Competitiveness and PHEI Performance. H7 suggests that Government Policies moderate the relationship between Resource Capabilities and PHEI Performance, whereas H8 posits that Government Policies also moderate the relationship between Industrial Competitiveness and PHEI Performance. Thus, the framework serves as an adaptation and extension of existing theoretical perspectives to clarify PHEI performance in the Malaysian context.

PROPOSED THEORETICAL CONTRIBUTION

The proposed framework offers several theoretical insights into the performance of Private Higher Education Institutions (PHEIs). Instead of viewing institutional performance as merely the result of separate internal or external elements, the framework delivers a comprehensive explanation of how institutional capabilities, competitive circumstances, and government policies interact to influence PHEI performance.

To begin with, the framework merges internal capability and external competitive viewpoints into a cohesive interpretation of PHEI performance. The Resource-Based View (RBV) serves as a basis for understanding how valuable institutional resources and capabilities enhance performance, while the competitive perspective underscores the significance of external market forces, competitive pressures, and institutional relationships. By consolidating these viewpoints, the framework transcends explanations that primarily credit PHEI performance to either internal resources or external competitive contexts. This integration acknowledges that the performance of PHEIs is contingent not only on their internal assets and abilities but also on the effective use of these capabilities in reaction to the competitive landscape.

Secondly, the framework furthers the competitive advantage perspective established by Mainardes et al. (2011) by clearly defining Government Policies as a moderating element. While Mainardes et al. (2011) consider government regulation within the wider competitive setting, the current framework offers a more precise theoretical delineation of the role of government policies. Instead of viewing policy as a broad contextual factor, the framework posits that Government Policies may either enhance or diminish the connections between institutional capabilities, competitive dynamics, and PHEI performance. This presents a clearer understanding of the boundary conditions that determine how institutional capabilities and competitive strategies translate into performance outcomes.

Thirdly, the framework promotes a relational perspective on the connection between institutional capabilities and competitive conditions. Pre-existing views may regard internal capabilities and external competition as relatively separate factors affecting organisational performance. Conversely, the proposed framework acknowledges that PHEIs function within a setting where internal capabilities must consistently adapt to external competitive requirements. As a result, institutional resources and capabilities are not assumed to independently yield performance. Their impact on performance is anticipated to be contingent on the institution's capability to align and apply these resources in response to evolving competitive circumstances. This delivers a more dynamic interpretation of how competitive advantage may develop in the PHEI context.

Fourthly, the framework reconceptualises Government Policies as a conditioning factor rather than simply an external environmental aspect. In the realm of higher education, government policies can affect institutional operations, strategic decisions, regulatory standards, quality expectations, and the competitive landscape in which PHEIs function. Consequently, the theoretical role of government policies extends beyond merely affecting institutional performance. The proposed framework suggests that policy conditions can dictate the degree to which institutional capabilities and competitive tactics can be successfully transformed into performance outcomes. This approach offers a more refined perspective on the relationship between institutional-level elements and the wider regulatory framework.

Fifthly, the framework broadens the use of the Resource-Based View by situating institutional resources and capabilities within their larger environmental context. Conventional applications of RBV typically focus on how valuable, scarce, difficult-to-replicate, and non-substitutable resources contribute to organisational advantage. Nonetheless, in the PHEI context, possessing valuable resources and capabilities does not automatically guarantee superior institutional performance. PHEIs function within a highly regulated and competitive landscape where the value of institutional capabilities may rely on external conditions. By integrating competitive dynamics and Government Policies, the proposed framework thus advances a more contextually grounded application of RBV, where the performance outcomes of institutional capabilities are assessed relative to the environment in which they are employed.

Lastly, the framework provides a context-sensitive theoretical account of PHEI performance within the Malaysian higher education setting. Recent studies on private higher education in Malaysia have explored a variety of factors, including strategic agility, student perceptions, innovation, organisational resilience, and institutional performance (Chan & Muthuveloo, 2022).

THEORETICAL HYPOTHESES

Based on the preceding theoretical arguments, eight hypotheses are proposed:

H1: Courses Offered are positively associated with PHEI Performance.

H2: Human Resource Capabilities are positively associated with PHEI Performance.

H3: Innovation is positively associated with PHEI Performance.

H4: Competition is associated with PHEI Performance.

H5: Student Bargaining Power is associated with PHEI Performance.

H6: Industrial Linkage is positively associated with PHEI Performance.

H7: Government Policies moderate the relationship between Resource Capabilities and PHEI Performance.

H8: Government Policies moderate the relationship between Industrial Competitiveness and PHEI Performance.

PROPOSED RESEARCH METHODOLOGY

The proposed methodology provides a pathway for testing the eight hypotheses. It should not be interpreted as evidence that the relationships or moderation effects have already been empirically established.

Partial least squares structural equation modelling (PLS-SEM) is considered as justified by the research objectives, measurement model and data characteristics. The analysis should assess the measurement model before testing the structural relationships and interaction terms for moderation. Reliability, convergent validity, discriminant validity and collinearity should be evaluated using appropriate criteria. The choice of analytical method and measurement scales should be finalised only after the constructs and items have been specified and justified.

Where possible, measurement items should be adapted from previously validated scales and reviewed by subject-matter experts for relevance to Malaysian PHEIs. A pilot study could be conducted to assess item clarity and questionnaire usability. The final sample size should be determined using an appropriate statistical power assessment and the requirements of the proposed analytical technique, rather than an arbitrary rule of thumb.

The questionnaire should operationalise the constructs in accordance with the framework. Resource Capabilities would cover Courses Offered, Human Resource Capabilities and Innovation. Industrial Competitiveness would cover Competition, Student Bargaining Power and Industrial Linkage. PHEI Performance would be assessed through Dimension Effectiveness, PHEI Rating, Research Capacity and Capabilities, and Perceived Financial

Performance. Government Policies would be measured as a contextual moderator, with its operational definition and items established from relevant literature and Malaysian policy and quality assurance requirements.

The target respondents could comprise senior personnel with knowledge of institutional strategy, academic programmes, human resource management, quality assurance and industry engagement. Potential respondents include presidents or vice-chancellors, chief executive officers, deans, senior managers and relevant quality assurance or accreditation officers in Malaysian PHEIs. Respondent selection should ensure that participants have sufficient organisational knowledge to assess the constructs under investigation.

To examine the proposed framework empirically, a quantitative research design could be adopted in a future study. A cross-sectional survey would enable the researcher to assess the relationships between Resource Capabilities, Industrial Competitiveness and PHEI Performance, as well as the moderating role of Government Policies. This section outlines a proposed approach; no empirical data are reported in the present theoretical paper.

CONCLUSION

PHEI performance is a complex organisational outcome that cannot be adequately explained through a single internal or external factor. PHEIs need appropriate academic programmemes, capable human resources and innovation capabilities, but they must also respond to competition, changing student expectations and relationships with industry.

The theoretical framework developed in this article combines these two perspectives through the Resource-Based View and the Theory of Industrial and Territorial Competitiveness. More importantly, it positions Government Policies as a moderator rather than merely another explanatory variable. This positioning recognises that institutional capabilities and competitive pressures do not operate independently of the regulatory environment.

The framework therefore provides a basis for future empirical research examining whether government policy conditions strengthen or weaken the relationships between Resource Capabilities, Industrial Competitiveness and PHEI Performance in Malaysia. Such an approach may provide a more nuanced understanding of why institutions with apparently similar resources or competitive conditions can experience different performance outcomes.

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