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Fostering organisational innovation in higher education: The mediating role of human resource competency in linking self-development and self-efficacy

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Orientation: In an increasingly competitive global landscape, innovation is critical for the sustainability of higher education institutions. This study investigated the human-centric factors that drive organisational innovation, moving from individual potential to institutional capability.

Research purpose: This study aime to examine the mediating role of human resources (HR) competency in the relationship between individual-level factors (self-development and self-efficacy) and organisational innovation within a private Islamic university in Indonesia.

Motivation for the study: The study is motivated by a measurable innovation deficit at the case study institution, which reflects a broader challenge for universities in developing nations to build sustainable innovation capabilities from within their HR.

Research design, approach and method: This research employed a quantitative survey method, with data collected from 293 academic and administrative staff. Path analysis was used to test the hypothesised structural model and the significance of the mediation pathways.

Main findings: All 11 hypotheses were supported. Self-development and self-efficacy have a significant direct influence on both HR competency and organisational innovation. Crucially, HR competency was confirmed as a significant partial mediator, translating the positive influence of individual factors into organisational outcomes.

Practical/managerial implications: University leaders should implement integrated strategies that simultaneously foster individual growth (self-development and self-efficacy) and build systemic HR competencies. This provides a practical framework for converting individual potential into measurable organisational innovation.

Contribution/value-add: This study addresses a significant literature gap by developing and validating an integrated, human-centric innovation model that uniquely emphasises individual psychological and behavioural factors in fostering organisational innovation. Applied in an Indonesian Islamic university context, the model demonstrates how HR competency mediates the relationship between self-development, self-efficacy, and organisational innovation, providing actionable insights for university leaders.

Keywords: higher education; HR competency; innovation; Islamic university; mediation; self-development; self-efficacy.

Introduction

In the age of globalisation, digitalisation and increased competition, higher education institutions (HEIs) all over the world feel under pressure to innovate. Innovation is no longer a choice but a necessary variable that determines whether a university will be sustainable, relevant and competitive in the market (Alfawaire & Atan 2021; Li, Liao & Albitar 2020). The challenge of navigating dynamic business disruptions and embracing new technology trends has become essential to the survival and growth of institutions. Understood in this way, innovation is not a technological process but an organisational ability that has to be intentionally developed and firmly established at the level of human resources (HR), understood as the main source of creativity and dynamism (Engelsberger et al. 2022; Parwita et al. 2021; Popa 2022). Organisations such as the Organisation for Economic Co-operation and Development (OECD) stress in reports that higher education systems contribute crucially to preparing innovative skills needed for economic, social and cultural development (Bakay 2022; Bouckaert 2023). Geopolitical conflicts and environmental

catastrophes are influencing the world, and education is being asked to build resilience in learners who must face the challenges of this complex world (Kriewaldt et al. 2025).

This international innovation drive has, in turn, driven a move towards more human-centred organisational transformation. Whereas product- or technology-push innovation is driven by technical output, human-centred innovation focuses on people, employees and customers (Lopez & Bhutto 2023; Patricio, Gomide & Rocha 2022). This philosophy acknowledges that maintaining the health and independence of people is not only an ethical obligation but also a strategic advantage for driving greater engagement, productivity and creativity (Alacovska & Bissonnette 2021; Zhanbayev et al. 2023). With empathy and by engaging more diverse teams, organisations can make products that truly address human needs. This demands a deeper understanding of the microfoundations of innovation: the individual actions that people take and what organisations do that combine to produce change (Bojesson & Fundin 2021; Fernandes et al. 2023). Thus, creating a culture of constant learning, honest communication and psychological safety is essential for any company wanting to be successful in an environment that can change rapidly.

For universities in developing and middle-income nations, the task of supporting innovation is more difficult; however, it is also driven by specific limitations. This is not to say that the aim is to recreate world-class universities in developed countries, but there does need to be substantial investment in local innovation capabilities (Kuzhabekova 2024; Lebdioui, Lee & Pietrobelli 2021). This means, as the World Bank puts it, identifying globally successful ideas and adapting them to local contexts to promote growth. Institutions in these contexts, however, face several challenges, such as insufficient and unequal funding, poor infrastructure development and maintenance and limited and untrained personnel (Moallemi et al. 2020; Morawska-Jancelewicz 2022). The pandemic has accelerated the digitalisation of higher education, exacerbating these inequities and creating a digital divide that could prevent access to new educational tools (Azıonya & Nhedzı 2021; Woldegiorgis 2022). Universities need comprehensive policies that build teacher capacity, provide the right digital resources and foster a data-driven culture to ensure technology supports educational goals and reduces disparities.

Amid this burgeoning environment, Islamic universities face a series of challenges and opportunities in managing the tension between legacy (tradition) and change (innovation; Dasuki 2025; Shofiyyah, Komarudin & Hasan 2023). Digitalisation's development momentum demands curriculum reform to keep pace with the needs of current learners, that is, productively utilising e-learning systems and interactive teaching methodologies while not losing sight of fundamental spiritual and ethical values (Ali et al. n.d.; Gorina et al. 2023). In contrast to how they have managed matters through the centuries, these institutions are now beginning to implement adaptive curricula that integrate modern science with Islamic thought, as well as utilise technology for academic enhancement. Guided by the Qur'an and Sunnah, Islamic universities have always been able to become innovative institutions in addressing modernisation with 21st-century skill-based HR, such as critical thinking, creativity or collaboration (Abbas 2025; Shofiyyah et al. 2023; Sugiarto 2025). This dual mandate – respect for the past and anticipation of the future – places Islamic universities as innovative institutions capable of adding brand-new ways to observe and understand higher education across the world.

Consistent with the national economic transformation into a knowledge-based economy, the importance of innovation in Indonesian higher education is increasingly critical (Bawono 2021). Pupils Universities are not only institutions that produce graduates but should also become centres for scientific and technological advancement, able to respond to the challenges of each era. Existing research suggests that many organisations still struggle with barriers to developing a sustainable culture of innovation. According to data from the Ministry of Research, Technology and Higher Education (2023), only 23% of companies in Indonesia have an HR development programme that is connected to their innovation programme.

Syekh-Yusuf Islamic University (UNIS), as the first private university in Banten Province, is a representative example of an institution facing this innovation challenge. Despite its long history and significant contribution to HR development in Banten, UNIS faces a measurable and tangible innovation deficit. Internal data reveal several fundamental problems hindering the organisation's innovation capacity:

- **Low research productivity:** The performance of faculty in producing scientific works, especially those with international recognition, is still very limited. As shown in Table 1, the average number of articles indexed in Scopus or WoS is only 10.81% of the total active faculty. This figure indicates a large gap between academic potential and measurable innovation output at the global level.
- **Limited senior academic structure:** UNIS faces a structural challenge, with a very minimal number of senior faculty members. Table 2 shows that out of 236 lecturers, none hold the academic rank of Professor, and only 5.51% have reached the level of Associate Professor

TABLE 1: Scientific publication performance of Syekh-Yusuf Islamic University faculty.

Scientific publication performance	Period (years) 2021/2022, 2023/2024		Average	
	n	%	*n*	%
National proceedings	4	1.69	8	3.90
International proceedings	7	2.97	0	0.00
Scopus and WoS indexed proceedings	6	2.54	0	0.00
Sinta-accredited articles	38	16.10	103	43.64
Scopus and WoS indexed articles	27	11.44	24	10.17
Intellectual property rights (Haki)	19	8.05	46	19.49
ISBN books	41	17.37	93	39.41
Active UNIS faculties	236	100.00	-	-

UNIS, Syekh-Yusuf Islamic University; ISBN, International Standard Book Number; WoS, Web of Science.

TABLE 2: Academic ranks of Syekh-Yusuf Islamic University faculty in 2024.

Academic rank	*n*	%
Instructor	20	8.47
Junior lecturer	70	29.66
Assistant professor	133	56.36
Associate professor	13	5.51
Professor	0	0.00
Total faculty	236	100.00

(Lektor Kepala). The dominance of Assistant Professors (Lektor; 56.36%) and Junior Lecturers (Asisten Ahli; 29.66%) indicates a lack of senior academic leadership that can drive research and innovation.

These data, shown in Table 1 and Table 2, strongly establish the urgency of this research: there is a clear and measurable innovation deficit that needs to be understood and addressed. The low research output, as shown in Table 1 and Table 2, directly reflects a lack of innovation at the organisational level. This deficit highlights the need for a deeper understanding of how internal HR factors, such as individual psychological and behavioural traits, contribute to fostering innovation. By focusing on HR competency, this study aims to explore how these factors can be harnessed to drive organisational innovation.

To understand the root of this problem, the study focuses on internal HR factors. The main argument is that individual psychological and behavioural factors are important drivers of innovation, but their influence is channelled and amplified through the mechanism of HR competency. This study examines the relationship between four key variables:

- **Self-development:** The systematic effort of an individual to improve their knowledge, skills and professional capabilities.
- **Self-efficacy:** An individual's belief in their ability to succeed in specific situations and overcome challenges.
- **HR competency:** The combination of knowledge, skills and attitudes that enables effective job performance.
- **Organisational innovation:** The organisation's capacity to implement new processes, products or ideas to create added value.

Previous research has extensively studied these variables separately or in different contexts (e.g. corporate or government sectors). Previous research has found that HR competency significantly impacts organisational performance, but not significantly through innovation as a mediator (Panuji, Ernawati & Poerwanto 2024). This opens up space for new research that re-examines the mediating variable position of HR competency in different contexts. Other research has found that competence and self-efficacy have a significant positive influence on innovative work behaviour among civil servants (Jan, Zainal & Lata 2021; Vitapamoorthy, Mahmood & Som 2021). This finding confirms the importance of both factors, but does not explicitly position competence as a mediator between self-efficacy and organisational innovation.

Self-efficacy has a positive effect on performance through increased innovative behaviour (Wardani, Zulaikha & Santosa 2024). This means that self-efficacy drives innovation, but there has been no discussion of how developing HR competencies can strengthen this pathway of influence. Other research places more emphasis on the aspects of organisational culture and leadership, showing that both organisational culture and transformational leadership encourage employee innovative behaviour through knowledge-sharing mechanisms (Phung, Hawryszkiewycz & Chandran 2019; Putri et al. 2023; Shao et al. 2012).

However, a significant research gap exists: there has been no integrative study examining the simultaneous influence of self-development and self-efficacy on organisational innovation, with HR competency as a mediating variable, especially in the context of a private Islamic university in a developing country like Indonesia. Most studies tend to focus on external factors, such as organisational culture or leadership, rather than exploring the internal mechanisms that link individual potential with organisational outcomes.

Several studies in HEIs have revealed that the self-development of lecturers and educational staff plays a crucial role in enhancing creativity and innovation (Narenji Thani et al. 2022; Suherman, Suherman & Anriani 2025). Other research shows that HR development significantly influences organisational innovation by fostering a culture of learning and knowledge sharing (Djikhy & Moustaghfir 2019; Naqshbandi, Meeran & Wilkinson 2023). These findings demonstrate that innovation stems not only from technical competence but also from strengthening the knowledge ecosystem and organisational learning.

Therefore, this study aims to test a structural model that positions HR competency as a key mediator in the relationship between self-development, self-efficacy and organisational innovation. Thus, this research is expected to provide a more nuanced and human-centric framework for fostering innovation in higher education.

Theoretical framework and hypothesis development

The individual roots of organisational capabilities

This study is based on the premise that the capabilities and performance of organisations are grounded in the attributes and behaviour of their members. The Human Capital Theory argues that investing in people (e.g. education and training) makes them more productive and, as a result, adds value to an organisation (Alnoor 2020; Aboobaker 2020; Chen, Lam & Zhu 2021). Consistent with this, Social Cognitive Theory posits the fundamental role of self-beliefs (self-efficacy) in motivating action, endurance in facing adversity and attainment of individual action based on Bandura's theoretical model (Pervaiz et al. 2025). Neither theory removes nor even emphasises the need to understand what is going on at the individual level to produce outcomes at the institutional level.

Antecedents of human resource competency

Human resource competency, defined as the combination of knowledge, skills and attitudes required for effective job performance, is not an inherent or static trait but is shaped by various individual and contextual factors. Personal development efforts, such as continuous learning, professional training and skill enhancement, play a pivotal role in shaping HR competencies (Hagen, Burat & Kahale 2024; Leonard, Agrawal & Kothari 2024). Employees who engage in these activities are more likely to acquire the knowledge and capabilities necessary to foster innovation. For instance, individuals who pursue lifelong learning or specialised training can develop the creativity and problem-solving skills needed to contribute to organisational innovation (Adeoye & Jimoh 2023; Seevaratnam, Gannaway & Lodge 2023). Furthermore, work experience significantly impacts HR competency, as exposure to diverse roles and tasks enables individuals to refine their skills and apply them in innovative ways. Those with varied work experience are often better equipped to approach problems from multiple perspectives, which is essential for driving creativity and innovation within the organisation (Chaubey & Sahoo 2022; Komara & Yustikasari 2025).

Career motivation and psychological conditions are critical in shaping HR competencies. Highly motivated employees, driven by both intrinsic and extrinsic factors, are more likely to engage in activities that develop their competencies, leading to higher levels of job satisfaction, engagement and innovation. This motivation enhances their ability to embrace change, take calculated risks and explore new ideas, all of which are essential for innovation (Soleas 2021). Psychological factors, such as self-efficacy, emotional intelligence and resilience, also play a vital role. Individuals with high self-efficacy are more likely to engage in innovative behaviour, as they have the confidence to overcome challenges and pursue new ideas (Widjaya & Komara 2023). Emotional intelligence enables effective collaboration and knowledge sharing, while resilience helps employees persist in the face of setbacks, which is crucial for sustaining innovation efforts (Singh & Singh 2025; Yousaf, Javed & Badshah 2024). Together, these individual factors contribute to HR competencies, which in turn support organisational innovation by enabling employees to generate creative solutions, challenge existing practices and help implement new processes, products or services that add value (Soleas 2021).

Self-development and human resource competency

The nurturing of oneself is a frank investment in humankind. Training, workshops, seminars and lifelong learning are among the activities that build the technical, theoretical, conceptual and moral knowledge on which HR competence is based. Hasibuan (2011) and Winedar and Wibowo (2019) suggest that the structured training process can contribute substantially to employees' professional abilities. Therefore, it is hypothesised that:

$\mathbf{H_1}$: Self-development has a significant positive effect on HR competency.

Self-efficacy and human resource competency

Self-efficacy serves as a psychological motivational factor in the formation of competencies. Highly self-assured individuals are more active in pursuing learning opportunities, have a higher level of persistence when engaging with difficult tasks and are less discouraged when facing failure. As Bandura (1989) pointed out, such a belief encourages people to try harder and to master skills and knowledge more quickly. Thus, it is hypothesised that:

$\mathbf{H_2}$: Self-efficacy has a significant positive effect on HR competency.

Together, the drive to improve (self-development) and the belief in success (self-efficacy) create the ideal conditions for the formation of superior competency.

$\mathbf{H_8}$: Self-development and self-efficacy jointly have a significant positive effect on HR competency.

Pathways to organisational innovation

Organisational innovation can be achieved through multiple avenues, including both direct pathways from individual factors and capabilities developed at the organisational level. The 'direct pathways' refer to the immediate and personal contributions of individuals, such as their self-development efforts, self-efficacy and competencies, which directly influence the organisation's capacity for innovation. Specifically, when individuals engage in self-development (such as learning new skills, enhancing knowledge or improving their professional capabilities), they directly contribute to the creation of new ideas, processes or approaches within the organisation (Narenji Thani et al. 2022). Likewise, self-efficacy, or the belief in one's ability to succeed, encourages individuals to take initiative, experiment with new ideas and persist through challenges, which are critical behaviours for fostering innovation at the individual level and can directly translate into organisational innovation (Dorfman-Furman 2024).

These direct pathways suggest that individuals with strong self-development efforts and high self-efficacy do not simply act as passive participants in the organisational innovation process; instead, they actively drive it. For example, a highly skilled employee with high self-efficacy may independently propose new methods for improving workflow or suggest innovative product ideas. Similarly, individuals who prioritise their professional growth are likely to bring new insights into their work, directly affecting the organisation's ability to innovate (Alateeg & Alhammadi 2024). These direct pathways highlight the importance of fostering individual-level competencies and self-belief as critical drivers of organisational change and innovation. However, these individual contributions need to be supported by broader organisational capabilities to ensure that innovation is scaled,

implemented and sustained across the organisation (Trivellato, Martini & Cavenago 2021).

Direct influence of individual factors

Individuals who actively engage in self-development tend to be more open to new ideas, have broader perspectives and be more supportive of change, making them key drivers of innovation. Research indicates that self-development plays a crucial role in fostering openness to new knowledge, broadening perspectives and facilitating innovative behaviour (Narenji Thani et al. 2022; Wardani et al. 2024). Additionally, high self-efficacy drives behaviours essential for innovation, such as calculated risk-taking, creative problem-solving and persistence in advocating for new projects. Individuals with high self-efficacy believe in their ability to overcome challenges, which makes them more willing to innovate and continue their efforts despite facing obstacles (Jan et al. 2021; Vitapamoorthy et al. 2021). Therefore, it is hypothesised that self-development and self-efficacy have a significant positive influence on organisational innovation:

- H_3: Self-development has a significant direct positive effect on organisational innovation.
- H_4: Self-efficacy has a significant direct positive effect on organisational innovation.
- H_9: Self-development and self-efficacy jointly have a significant direct positive effect on organisational innovation.

The central role of human resource competency

A skilled worker is the engine of creativity, playing a fundamental role in driving organisational innovation. Skills in key areas, such as complex problem-solving, social skills and systems analysis, are not only critical for addressing contemporary challenges but also for fostering a culture of innovation within organisations. The U.S. Department of Labor and Bureau of Labor Statistics have emphasised that these skills are essential for adapting to rapidly evolving technological and market landscapes, enabling businesses to remain competitive and resilient (Zoghi, Mohr & Meyer 2010). For instance, problem-solving skills allow employees to navigate complex situations, social skills enhance collaboration and communication and systems analysis enables the identification and implementation of innovative solutions. Moreover, studies have shown that organisations with a workforce skilled in these areas are more likely to adopt new technologies and processes that drive innovation successfully (Engelsberger et al. 2022; Patricio et al. 2022). While brilliant ideas are vital for innovation, they cannot be effectively implemented or scaled without the necessary competencies. Without a skilled workforce, even the most innovative concepts remain underutilised or fail to reach their potential (Bojesson & Fundin 2021). Therefore, investment in employee skills development is not just a matter of improving individual performance but is essential for ensuring the organisation's long-term success and sustainability in a competitive, fast-changing environment.

- H_5: HR competency has a significant positive effect on organisational innovation.
- H_{10}: Self-development, self-efficacy and HR competency jointly have a significant positive effect on organisational innovation.

The mediating mechanism of human resource competency

The fundamental theoretical basis of this study considers HR competency as the bridge connecting individual potential and organisational effectiveness. Self-development creates the possibility for innovation and self-efficacy engenders motivation (positive effect), yet it is HR competence that enables organisations to act on this potential and motivation, yielding innovative results such as the efficient use of resources, better services or creativity in products (Narenji Thani et al. 2022). Good intentions and even high confidence might not lead to effective organisational change if competency is lacking. Therefore, HR competency plays a mediating role in the impact of individual potential on organisational innovation:

- H_6: HR competency significantly mediates the relationship between self-development and organisational innovation.
- H_7: HR competency significantly mediates the relationship between self-efficacy and organisational innovation.
- H_{11}: HR competency significantly mediates the combined relationship between self-development and self-efficacy and organisational innovation.

Research methods and design

This study used a quantitative survey design with a cross-sectional approach. This method was chosen to test the causal relationships among variables in the hypothesised model. Path analysis was used as the primary analytical technique to examine the direct and indirect effects among variables. The research population consisted of the entire academic community of Syekh-Yusuf Islamic University (UNIS), including teaching staff (lecturers), educational staff and administrative staff, with a total population of 299 individuals. A census sampling technique was used, whereby all members of the population were included in the sample. From the total population, a final sample of 293 respondents who completed the questionnaire was obtained, resulting in a very high response rate. Data were collected through an online questionnaire distributed using Google Forms.

Research instrument

The four variables in this study were operationalised using a self-developed questionnaire with a five-point Likert scale (1 = Strongly disagree to 5 = Strongly agree):

- Organisational innovation (Y): Measured instrument based on indicators from Fiandi (2024), covering dimensions such as outcome innovation, process, marketing, mindset, collaboration and communication.

- HR competency (X3): Measured based on the framework by Michael Zwell (2013), including dimensions of *task achievement*, *relationship*, *personal attributes*, *managerial* and *leadership*.
- Self-development (X1): Measured based on dimensions proposed by Maslow (1943), such as self-awareness, motivation and focus.
- Self-efficacy (X2): Measured based on concepts from Santrock (2007) and Corsini (1994), covering cognitive, motivational and selection dimensions.

Validity and reliability of instruments

To ensure the quality of the instruments, two stages of testing were conducted. Firstly, construct validity was tested through expert judgement by three professors and doctors in the field of education. Based on their feedback, several improvements were made to ambiguous and non-standard sentences. Secondly, empirical validity and reliability tests were performed. The validity test results showed that all items were valid (r calculated > *r* table). The reliability test using Cronbach's alpha showed that all scales had good internal consistency, with alpha values exceeding the 0.70 threshold: Self-development (α = 0.750), self-efficacy (α = 0.748), HR competency (α = 0.752) and organisational innovation (α = 0.749).

Data analysis strategy

The collected data were analysed using SPSS version 27. Path analysis was used to test the 11 hypotheses. This analysis included testing the goodness of fit of the model using statistics such as chi-square and Normed Fit Index (NFI), as well as testing the significance of path coefficients using *t*-tests to determine the direct and indirect effects among variables.

Ethical considerations

Ethical clearance to conduct this study was obtained from the Universitas Islam Syekh-Yusuf Tangerang ethics committee (No. 081.EC/LPPM/UNIS/IV/2025).

Results

Descriptive statistics and correlation analysis

Initial analysis showed strong and positive relationships among the four research variables. As presented in Table 3, all Pearson correlation coefficients showed values above 0.80, which are categorised as *very strong correlations*. These positive correlation values indicate that an increase in one variable tends to be followed by an increase in the others, providing strong initial support for the hypothesised model.

Model fit and path analysis

Before hypothesis testing, a goodness-of-fit evaluation of the structural model was conducted. The results showed that the proposed model was an excellent fit for the empirical data. Statistics such as the *Standardized Root Mean Square Residual* (SRMR) showed a value of 0.000 (below the 0.08 threshold), and the *NFI* showed a value of 1.000 (above the 0.90 threshold), indicating an excellent model fit. This means that the theoretical model was able to represent the relationships among the variables in the data with great accuracy.

The main results of the path analysis are visualised in the path diagram (Figure 1), which shows all hypothesised paths along with their standardised path coefficients (β) and significance levels.

Hypothesis testing

The results for each hypothesis are shown in Figure 2 and summarised in Table 4. All 11 hypotheses proposed in this study were supported.

TABLE 3: Descriptive statistics and correlation matrix among variables (n = 293).

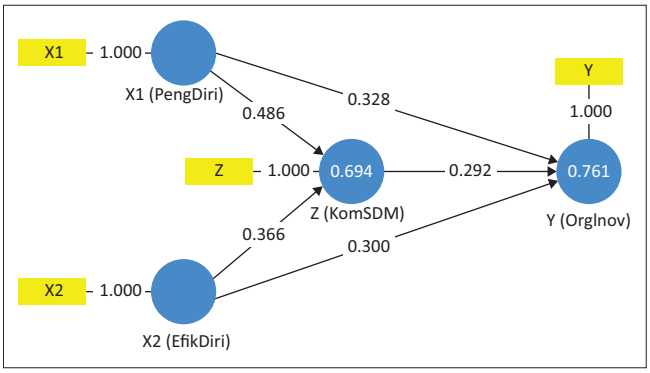
Number	Research variable	Mean	s.d.	1	2	3	4
1.	Organisational innovation	-	-	1.000	-	-	-
2.	HR competency	-	-	0.804	1.000	-	-
3.	Self-development	-	-	0.841	0.819	1.000	-
4.	Self-efficacy	-	-	0.835	0.809	0.911	1.000

HR, human resource; s.d., standard deviation.

Model fit criteria	Saturated model	Estimated model
SRMR	0,000	0,000
d_ULS	0,000	0,000
d_G	0,000	0,000
Chi-square	-0,000	0,000
NFI	1,000	1,000

SRMR, standardized root mean square residual; NFI, normed fit index.

FIGURE 1: Path coefficient significance test results.



X1, (PengDiri) refers to the variable or factor associated with 'Self-Development' or 'Self-Improvement' (translated from the Indonesian 'Pengembangan Diri').

X2, (EfikDiri) refers to 'Self-Efficacy' (or 'Efikasi Diri'), representing an individual's belief in their ability to achieve goals or overcome challenges.

Z, (KomSDM) refers to 'HR competency' (or Kompetensi SDM – Sumber Daya Manusia).

Y, (OrgInnov) represents 'organisational innovation', which is the dependent variable in this model.

FIGURE 2: Hypothesis testing.

TABLE 4: Summary of hypothesis testing results.

Hypothesis	Path	Coefficient (β)	*t*-statistic	*p*	Decision
Direct effects					
H_1	Self-development → HR competency	0.486	4.547	0.000	Supported
H_2	Self-efficacy → HR competency	0.366	3.276	0.001	Supported
H_3	Self-development → organisational innovation	0.328	2.949	0.003	Supported
H_4	Self-efficacy → organisational innovation	0.300	3.086	0.002	Supported
H_5	HR competency → organisational innovation	0.292	4.086	0.000	Supported
Indirect effects					
H_6	Self-development → HR competency → organisational innovation	0.142	2.778	0.006	Supported
H_7	Self-efficacy → HR competency → organisational innovation	0.107	2.650	0.008	Supported
Joint effects	-	-	*F*-statistic	*p*-value	-
H_8	(X1, X2) → X3	-	328.800	0.000	Supported
H_9	(X1, X2) → Y	-	402.158	0.000	Supported
H_{10}	(X1, X2, X3) → Y	-	306.998	0.000	Supported
H_{11}	(X1, X2) → X3 → Y	-	-	-	Supported

HR, human resource.

Direct effects

- H_1 and H_2 supported: Self-development (β = 0.486, $p < 0.001$) and self-efficacy ($\beta = 0.366, p < 0.01$) significantly predict HR competency.
- H_3, H_4 and H_5 supported: Self-development (β = 0.328, $p < 0.01$), self-efficacy (β = 0.300, $p < 0.01$) and HR competency (β = 0.292, $p < 0.001$) all significantly and positively predict organisational innovation.

Indirect effects (mediation)

- H_6 and H_7 supported: The indirect effects of self-development (β = 0.142, $p < 0.01$) and self-efficacy ($\beta = 0.107, p < 0.01$) on organisational innovation through HR competency were statistically significant. This confirms the partial mediating role of HR competency.

Joint effects and explained variance

- H_8, H_9, H_{10} and H_{11} supported: The joint effects of the independent variables on the dependent variables were also significant.
- The model has very high explanatory power. Self-development and self-efficacy together explain 69.2% of the variance in HR competency (adjusted $R^2 = 0.692$).
- The full model (self-development, self-efficacy and HR competency) explains 75.9% of the variance in organisational innovation (adjusted $R^2 = 0.759$).

Discussion

Interpretation of key findings

The most central outcome of this research is the support gained for the model, which confirms HR competency as a necessary and key factor through which individual potential fosters innovation at the organisational level. The most interesting finding arises from the partially mediated nature of the relationship. The significance of both direct and indirect routes to innovation implies a two-way process in promoting innovativeness at UNIS. The direct route suggests that those with strong motivation for self-development and a belief in self-efficacy could become 'innovators sparks'. An inspired teacher can develop new approaches to teaching in the classroom without guidance, or a confident administrator can devise better ways of performing their duties. This is an example of bottom-up innovation and individual agency in action.

The mediating role of Human Resource Management (HRM) capabilities underscores that individual innovations, while important, must be integrated and nurtured to achieve sustained organisational impact. Human resource competencies such as project management expertise, cross-functional collaboration and leadership serve as the organisational mechanisms that facilitate the scaling and institutionalisation of individual creativity. Without these capabilities, individual innovations may remain isolated, lacking broader organisational influence. Therefore, the model suggests that UNIS requires both individual contributions to innovation and an organisational framework that effectively channels and amplifies these contributions to drive long-term transformation.

Convergence and divergence with prior research

The facilitative role of self-efficacy in instigating creative behaviour and performance is well established. For instance, time-lagged field data reveal that self-efficacy mediates the relationship between leader–member exchange and employees' innovative behaviour (and climates that strengthen this link), pointing to its core importance as a microfoundation of innovation (Fernandes et al. 2023; Yildiz et al. 2021). Our findings extend this line of reasoning from innovativeness at the individual level to organisations. Our mediating findings dovetail with the literature on the 'soft-side' of innovation. A study in *R&D Management* highlights the role of HR practices in inbound open innovation, with intervening mechanisms of learning culture and knowledge-sharing logic, where ability and competency represent principal levels (Alassaf et al. 2020; Naqshbandi et al. 2023; Shahin et al. 2024). In line with these findings, our results reveal that enhancing HR competence enables personal resources to manifest as institutional innovation, adding to both a learning and knowledge-sharing culture.

Analyses in higher education and public sector settings demonstrate that knowledge sharing and related social processes are proximal facilitators of innovative work behaviours (Kim et al. 2025; Nishat & Haque 2025; Salehi & Sadeq Alanbari 2024; Shadmanfar & Makvandi 2024). Our model aligns with this work, but provides more specificity on how individual-level factors flow through competencies to influence innovation at a broader level than innovative work behaviour alone. Research relating HRM practices to performance often shows that the relationship is mediated either fully or partially by innovation, depending on the HRM practices and context under consideration (Cao, Le & Nguyen 2022; Lei, Khamkhoutlavong & Le 2021; Than et al. 2023). This partial mediation pattern accounts for the mixed evidence because the direct effects of individual psychology and learning investments on innovation persist, while HR competency accounts for more variance.

Theoretical implications

There are several theoretical implications of this research. This research expands the scope of both Human Capital Theory and Social Cognitive Theory within the innovation domain of higher education, a less-researched area compared to business literature. By conceptualising HR competency as a 'converter' that links individual potential to organisational outcomes, this study offers deeper insight into a more refined innovation model. It moves beyond simplistic models that connect single traits directly to organisational outcomes by empirically explaining how these connections are made. It expands simple models linking single traits directly to organisational outcomes by empirically clarifying the 'how' of such a link.

Most importantly, testing the model in the context of a private Islamic university in Indonesia challenges the notion that predominantly Western theories of management are necessarily universal. It is likely to involve additional inimical enemies, serving as a signpost for developing a system that cultivates the whole person and is based on 'inner churning'.

Practical implications

This study has applied the results of those psychometric analyses to workplace contexts, thus demonstrating that integrated capability pathways addressing ability, motivation and opportunity are essential. Higher education institutions must undertake the development of a competency framework that articulates transversal competencies required for innovation, for example, project management, cooperative problem-solving, data literacy and change leadership. This framework will ensure that recruitment, induction, appraisal and promotion processes are integrated with focused upskilling initiatives such as mentoring, micro-credentials, peer observation or grant-writing boot camps. Furthermore, HR architectures based on competencies have been found to incorporate higher levels of performance in organisations (Luo et al. 2022; Mathews et al. 2020). Once one's ability is in sufficient order, institutions need to develop their efficacy consciously, for example, emphasising mastery experiences, vicarious learning, persuasive feedback and maintaining a sense of psychological safety. Consistent with Social Cognitive Theory, such activities serve to build collective efficacy for change and explain how people can continue on their innovative paths when their programmatic efforts do not succeed.

Innovation also requires the availability of resources and social channels to be fulfilled. Formal routines for sharing knowledge, such as communities of practice (CoPs), open teaching and research asset repositories and cross-unit innovation sprints, are presented as highly efficient in stimulating knowledge flows that constitute a well-acknowledged antecedent of innovative behaviour in the higher education context. Ultimately, universities must reward the behaviours they wish to scale by integrating innovation metrics into their evaluation processes. Taking into account collaboration and knowledge-transfer contributions alongside tangible outputs is important for institutionalising innovation rather than at the individual level at which it may occur. Instead, competency development should be monitored over time and linked directly with innovation outcomes in a reinforcing loop.

Limitations and future research

The critical analysis and limitations must, however, be recognised. The extremely high intercorrelations among the constructs and the close-to-perfect fit indices of our model (e.g. SRMR = 0.000, NFI = 1.000) are atypical in organisational field studies and hence raise concerns regarding problems such as construct redundancy or overlap, saturation of the measurement model and residual common-method variance. To resolve this ambiguity, subsequent research may benefit from using more stringent tests of discriminant validity, multi-source or multi-wave designs and marker or latent-method variables to test for bias. Another limitation is the cross-sectional and single-site design, which limits inference of causality and generalisability. The particular context of a private Islamic university also comes with its structural determinants; for instance, rank distribution and the publication reward system may also have influenced the patterns presented herein.

Around such limitations, some new lines of research could be suggested. Longitudinal or quasi-experimental studies would help to infer causation and demonstrate whether innovation gains follow growth in competencies. Multilevel modelling would be appropriate to investigate the ways in which U-layer competencies or climates moderate the relations between I-agency and Oinnov. Researchers might also disassemble the mechanism by integrating knowledge-sharing and learning-culture variables as digitalised-mediated mediators, respectively, in the test of these 'soft-side' drivers of innovation, with interactive or complementary effects related to competency. Finally, it is suggested that efforts provide some validation of statements generated using this framework, whereby objective outcomes such as

external grant funding (where granted), curriculum accreditation, publications indexed in Scopus or WoS and IP filings should be used to validate innovation outcomes, along with possible additional analysis of whether these dynamics differ by role (staff versus faculty members) or career stage.

Conclusion

This study explored the critical role of HR competencies in fostering organisational innovation within HEIs. By examining the interplay between self-development, self-efficacy and HR competencies, the research offers important insights into how individual psychological factors can contribute to organisational outcomes. The findings underscore that while self-development and self-efficacy are vital drivers of innovation, they alone are insufficient for achieving transformative change within educational institutions.

The key contribution of this study lies in its demonstration that HR competency acts as a critical mediator in translating individual potential into measurable organisational success. Specifically, HR competencies – such as leadership, project management and cross-functional collaboration – provide the necessary structural and systemic capabilities to scale and institutionalise individual innovations. Without these capabilities, innovative efforts risk being fragmented and ineffective.

The scholarly value of this research lies in its integration of individual-level psychological factors with organisational HR practices, offering a nuanced model for understanding how personal growth and belief in one's abilities can be channelled through HR systems to drive sustained innovation in HEIs. This study not only advances theoretical discussions on HRM and innovation but also provides practical guidance for university leaders, emphasising the importance of developing HR competencies as a strategic tool to foster long-term organisational transformation.

Beyond the academic realm, the findings of this study have broader implications for the higher education sector, particularly in developing contexts. As universities strive to enhance their innovation capabilities, this research highlights the importance of building a supportive organisational framework that empowers individuals to contribute to innovation while ensuring these efforts are effectively integrated into the institution's overall strategic vision. Thus, the study's results provide valuable insights for policymakers and university administrators seeking to cultivate an innovation-driven culture within higher education systems globally.

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CRediT authorship contribution

Agus Suherman: Conceptualisation, Methodology, Formal analysis, Investigation, Writing – original draft. Syadeli Hanafi: Data curation, Writing – review and editing, Supervision. Nurul Anriani: Methodology, Writing – review and editing, Supervision. All authors reviewed the article, contributed to the discussion of results, approved the final version for submission and publication and take responsibility for the integrity of its findings.

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Data availability

The data that support the findings of this study are available from the corresponding author, Agus Suherman, upon reasonable request.

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