International Journal of Modern Education
EISSN: 2637-0905
Volume: 8 Issue: 31 (September 2026) PP. 1938-1952



INTERNATIONAL JOURNAL OF MODERN EDUCATION (IJMOE)
www.gaexcellence.com/ijmoe

HUMAN CAPITAL DEVELOPMENT IN UNIVERSITY – BUILDING THROUGH SOFT SKILLS: A CONCEPTUAL FRAMEWORK

Noor Malinjasari Ali[1], Siti Fatimah Mardiah Hamzah[2]*, Suzila Mat Salleh[3], Raslina Mohamed Nor[4], Hasmida Mohd Noor[5], Ruzaidah Sulong@A. Rashid[6], Roszainora Setia[7], Rahayu Izwani Borhanuddin[8], Kardina Kamaruddin[9], Hasmi Mokhlas[10]

[1]Faculty of Business & Management, Universiti Teknologi MARA, Cawangan Terengganu, Malaysia
noorm726@uitm.edu.my https://orcid.org/0009-0006-0162-8133
[2]Faculty of Business & Management, Universiti Teknologi MARA, Cawangan Terengganu, Malaysia
sfatimah@uitm.edu.my https://orcid.org/0000-0003-0608-5458
[3]Faculty of Business & Management, Universiti Teknologi MARA, Cawangan Terengganu, Malaysia
suzilamsalleh@uitm.edu.my https://orcid.org/0000-0001-5170-0187
[4]Faculty of Business & Management, Universiti Teknologi MARA, Cawangan Terengganu, Malaysia
raslina@uitm.edu.my https://orcid.org/0009-0006-1417-1988
[5]Faculty of Business & Management, Universiti Teknologi MARA, Cawangan Terengganu, Malaysia
hasmidam@uitm.edu.my https://orcid.org/0009-0004-6554-0208
[6]Faculty of Business & Management, Universiti Teknologi MARA, Cawangan Terengganu, Malaysia
ruzai019@uitm.edu.my https://orcid.org/0009-0009-8054-7324
[7]Academy of Language Studies, Universiti Teknologi MARA, Cawangan Terengganu, Malaysia
roszainora@uitm.edu.my https://orcid.org/0000-0002-7994-7015
[8]Faculty of Accountancy, Universiti Teknologi MARA, Cawangan Johor, Malaysia
rahay823@uitm.edu.my https://orcid.org/0009-0001-2840-1012
[9]Faculty of Business & Management, Universiti Teknologi MARA, Cawangan Kedah, Malaysia
kardina@uitm.edu.my https://orcid.org/0009-0003-5385-4720
[10]Faculty of Business & Management, Universiti Teknologi MARA, Cawangan Melaka, Malaysia
hasmi@uitm.edu.my https://orcid.org/0009-0008-1064-2679
*Corresponding Author

Article Info:

Article history:
Received date: 03.08.2026
Revised date: 18.08.2026
Accepted date: 20.09.2026
Published date: 30.09.2026

Abstract:

The development of quality graduates requires higher education institutions to prepare students with capabilities that extend beyond academic knowledge. Although previous studies have examined various soft-skill dimensions, these capabilities are frequently investigated separately, limiting a comprehensive understanding of

International Journal of Modern Education
IJMOE
EISSN: 2637-0905
Volume: 8 Issue: 31 (September 2026) PP. 1938-1952

To cite this document:

Ali, N. M., Hamzah, S. F. M., Salleh, S. M., Nor, R. M., Noor, H. M., Rashid, R. S. A., Setia, R., Borhanuddin, R. I., Kamaruddin, K., & Mokhlas, H. (2026). Human Capital Development in University – Building Through Soft Skills: A Conceptual Framework. *International Journal of Modern Education, 8*(31), 1938-1952.

their contribution to graduate quality. This conceptual paper addresses this gap by proposing an integrated framework that conceptualises soft skills as comprising generic competencies, innovation ability and positive work attitudes. Drawing on Human Capital Theory, the framework positions these capabilities as forms of human capital developed through higher education and proposes that they contribute to graduate quality. Generic competencies support graduates' ability to communicate, manage information and engage in lifelong learning; innovation ability supports critical thinking, problem-solving and the generation of new solutions; while positive work attitudes contribute to responsible, reliable and collaborative workplace behaviour. The novelty of the framework lies in integrating these cognitive, innovation-related and behavioural dimensions within a single conceptualisation of soft skills and linking them explicitly to graduate quality. The proposed framework provides a theoretical basis for future empirical testing and offers practical implications for curriculum design, graduate assessment, employability development and university–industry engagement.

DOI: 10.35631/IJMOE.831113

Keyword:

Higher Education Institutions, Human Capital Development, Quality of Graduates, Soft Skills

© The authors (2026). This is an Open Access article distributed under the terms of the Creative Commons Attribution (CC BY NC) (http://creativecommons.org/licenses/by-nc/4.0/), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited. For commercial re-use, please contact ijmoe@gaexcllence.com.

Introduction

Cultivating graduates with higher-order thinking skills who can adapt to future societal developments and respond effectively to complex real-world challenges has become an important mission of contemporary educational reform (Yan & Nasri, 2025). Within higher education, this responsibility extends beyond the transmission of academic knowledge to the development of human capital capable of responding to changing organisational and societal demands. The transformation of higher education, particularly alongside developments in information and communication technology (ICT) and globalisation, has further increased expectations for universities to produce graduates who are credible, adaptable and competitive. Consequently, graduate quality has become an important concern for higher education institutions, as universities not only produce and expand knowledge but also develop students as important intangible assets (Canibano & Sanchez, 2004; Norman et al., 2026).

Human capital encompasses the abilities, knowledge, skills and experience possessed by individuals that contribute to organisational capacity and performance (Nelson, 2007; Ali et al., 2023; Ali et al., 2025). As Malaysia continues to develop as a knowledge-based economy, students in higher education represent an important investment in human capital that can create value for organisations and contribute to broader economic development (Azmi et al., 2018; Norman et al., 2026). In this context, MARA University of Technology (UiTM), as one of

International Journal of Modern Education
IJMOE
EISSN: 2637-0905
Volume: 8 Issue: 31 (September 2026) PP. 1938-1952

Malaysia's largest higher education institutions, has an important role in developing quality human capital. This requires attention not only to academic knowledge but also to the broader competencies and personal qualities that enable graduates to contribute effectively to organisations and society.

Academic and technical knowledge alone may not be sufficient to represent the overall quality of graduates. Employers and other stakeholders increasingly expect graduates to possess non-academic competencies that enable them to communicate, collaborate, solve problems, adapt to change and demonstrate appropriate workplace behaviour. These competencies are commonly associated with soft skills, which include generic and cognitive abilities as well as non-academic attributes such as positive values, leadership, teamwork, communication and lifelong learning (Rahman et al., 2019; Kamaruddin et al., 2025). From a quality perspective, these competencies are important because graduate quality involves meeting the expectations of multiple stakeholders, including government, universities, parents, employers and society. Quality, in this respect, concerns the extent to which expectations and established standards are satisfied (Wan Jaafar, 2006).

Existing literature has examined various competencies associated with graduate development, including digital competencies, technology adoption, innovative pedagogies, active learning, collaboration and employability skills (Ali et al., 2025; Norman et al., 2026; Rahmat et al., 2022). Research has also emphasised the growing importance of soft skills in employability and early career development, suggesting that technical competencies alone may not adequately prepare graduates for workplace expectations (Rahman et al., 2019). Despite this growing recognition, an important conceptual problem remains. Existing studies have largely examined particular graduate competencies separately, resulting in a fragmented understanding of how broader dimensions of soft skills contribute to graduate quality. In particular, an emphasis on generic, analytical and problem-solving competencies may not sufficiently account for graduates' capacity for strategic innovation and the positive attitudes required in the workplace. Consequently, there is a need for a more integrated conceptualisation that considers generic skills, strategic innovation and positive attitudes in relation to graduate quality and, ultimately, human capital development (Ali et al., 2025; Norman et al., 2026).

Addressing this gap is important because developing quality human capital requires more than the possession of knowledge or individual competencies. Graduates must be able to apply generic skills across different situations, respond innovatively to changing demands and demonstrate positive attitudes in their professional roles. Considering these dimensions together can provide a more comprehensive understanding of the qualities expected of university graduates and how graduate quality contributes to human capital development.

In this paper, soft skills are viewed as an important intangible asset in the development of graduate quality. Generic competencies, innovation ability and positive works attitude are considered important components of soft skills associated with the quality of graduates. These competencies are also consistent with industry expectations, including those highlighted by the Federation of Malaysian Manufacturers (FMM), regarding the qualities expected of graduates. Accordingly, this paper has two main objectives: first (1), to enhance understanding of the relationship between soft skills and the quality of graduates; and second (2), to propose an integrated conceptual framework linking generic competencies, innovation ability and positive work attitudes to graduate quality and human capital development. Figure 1 presents the main

International Journal of Modern Education
IJMOE
EISSN: 2637-0905
Volume: 8 Issue: 31 (September 2026) PP. 1938-1952

components of competencies and their relationship with graduate quality and human capital development.

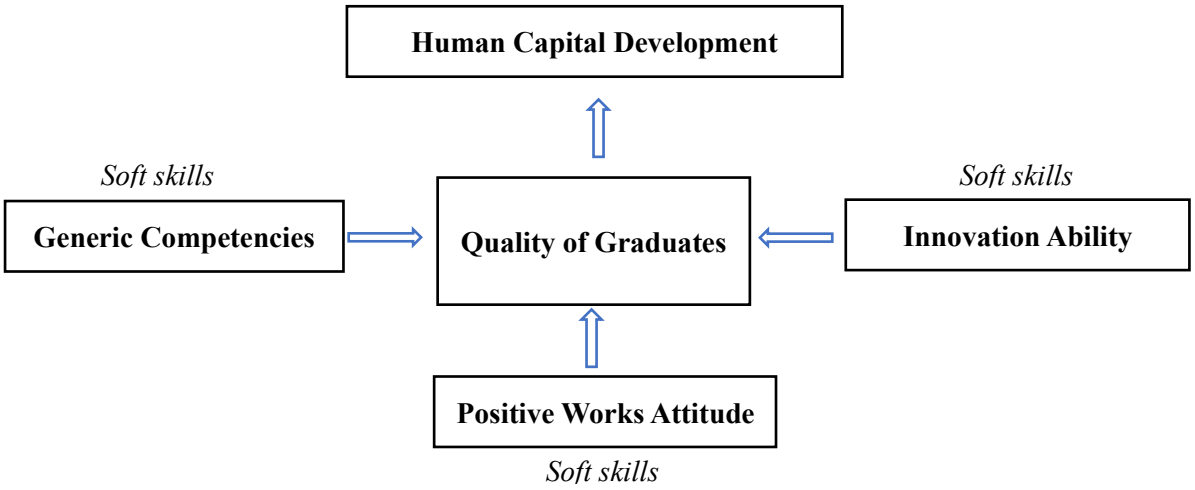


Figure 1: Main Components of Soft Skills.

Literature Review

Quality of Graduates

Graduate quality refers to the overall capability of graduates to demonstrate the knowledge, competencies, innovative capacity and behavioural attributes required to perform effectively in employment and contribute positively to organisations and society. Graduate quality represents a broader outcome of higher education rather than a single skill or competency. It reflects graduates' preparedness to apply their knowledge and capabilities effectively in real-world contexts. Graduate quality is therefore conceptually distinguished from soft skills. Soft skills represent specific transferable capabilities developed through education and experience, whereas graduate quality represents the broader outcome reflected in graduates' ability to apply these capabilities effectively. Azmi et al., (2018) stressed that the personality of candidates is the significant factor in graduates' employability, apart from self-management and teamwork. Hossain et al., (2018) listed traits that have important relationships with and influence graduates' employability: responsible, selfless and positive, and willing to give and take. Even though many studies support the relationship between quality of graduates and soft skills, but in certain cultures, the social background is deemed to be more important than the quality of graduates. For example, in China, the marketability of the graduates does not have significant relationship with graduates' skills but depending on the social background and networking relationships (Chan, 2012).

Future employers recruit employees who are equipped with good technological skills, communication skills including proficiency in a third language, time management, analytical skills, problem solving and leadership skills, as well as creative, innovative and reflective skills (Caglar et al., 2026; Ali et al., 2025; Norman et al., 2025; Rahmat et al., 2022; Rahman et al., 2019). Olichi and Pyiki (2019) and Lakshmi and Siddharda (2019) stressed that good competencies are important but to have graduates that could use the human capital will have a positive impact to the organisation. The literature therefore suggests that graduate quality

International Journal of Modern Education
IJMOE
EISSN: 2637-0905
Volume: 8 Issue: 31 (September 2026) PP. 1938-1952

extends beyond disciplinary knowledge. It incorporates a combination of transferable competencies, cognitive capabilities and behavioural attributes that enable graduates to perform effectively in workplace contexts. These observations provide a basis for examining soft skills as an important dimension of graduate quality.

Soft Skills

Generic Competencies

Generic competencies refer to transferable capabilities that enable graduates to communicate, manage information, engage in lifelong learning and interact effectively with different individuals and groups. In the present framework, generic competencies include communication skills, information management and lifelong learning, networking, and understanding of societal issues. These competencies are transferable across academic disciplines and occupational contexts. Zahid (2006) mentioned that apart of 3M skills - which refer to the foundational competencies of reading *(Membaca),* writing *(Menulis)* and arithmetic *(Mengira)* - and computer skills, graduates should possess good communication skills, especially in English and an inner motivation for lifelong learning (Kamaruddin et al., 2025). Zahid (2006) further noted that lifelong learning requires a knowledge-based environment and skills such as information literacy and the ability to use information for decision-making, technological skills, networking skills across various disciplines, an understanding of societal issues, as well as organisational and entrepreneurial skills. This aligns with Kamaruddin et al., (2025) and Rahman et al., (2019) who revealed that graduates need communication, presentation, lifelong learning, and information-seeking skills. In this era of globalisation, the need for faster information is very crucial (Bovee & Thill, 2005). Soft skills are needed because, in the development of human capital, these generic skills that shape students with perseverance in today's competitive world. In Islam, the Qur'an also emphasises knowledge and information, as stated in Surah Az-Zumar (39:9), which conveys the meaning that "*Is there the same between knowledgeable person and non-knowledgeable person"*, (39:9).

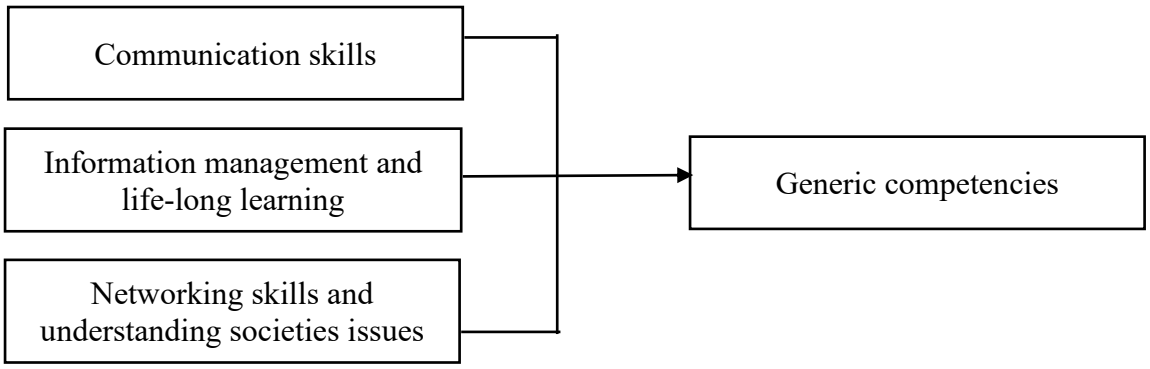


Figure 2: Generic Competencies

Generic competencies can be developed through curriculum-based activities, presentations, research assignments, collaborative projects, internships and other experiential learning opportunities. Such activities provide students with opportunities to practise communication, information management, lifelong learning and networking in genuine contexts. Research activities can prepare students to read and learn effectively. This is because, before conducting

International Journal of Modern Education
EISSN: 2637-0905
IJMOE
Volume: 8 Issue: 31 (September 2026) PP. 1938-1952

research, students need to read a wide range of articles to carry out a literature review and develop a research problem and problem statement. Critical thinking and problem-solving skills are also developed during the research design and data analysis processes. In addition, research activities can support students in acquiring lifelong learning and information management skills, as learning is not limited to classroom activities alone. Students' communication skills, such as language proficiency will also be evaluated through their research reports (Wan Ruzainun, 2007). Integrity among students can be developed by enforcing strict anti-plagiarism policies and encouraging respect for intellectual property. Asking them to write short stories can also help develop this skill.

For networking skills and understanding societal issues, students can be encouraged through university initiatives such as industrial training, internships, and student exchange programmes with overseas institutions. However, these programmes may have limitations in terms of budgeting. This issue can be addressed by allowing students to seek their own financial support, while ensuring that their efforts are properly recognised and appreciated. In a nutshell, these generic skills prepare graduates with essential survival skills for the future. Communication, information management skills, lifelong learning, networking skills and understanding of societal issues are key components of graduate's quality required by employers (Rahman et al., 2019; Rido, 2020).

Conceptually, generic competencies contribute to graduate quality by enabling graduates to communicate knowledge effectively, manage and evaluate information, continue learning beyond formal education and interact appropriately with different stakeholders. These capabilities enhance graduates' ability to apply disciplinary knowledge across changing academic and workplace contexts. Therefore, generic competencies are proposed as an important dimension contributing to graduate quality.

Innovation Ability

Innovation ability refers to the capacity of graduates to generate, evaluate and apply new ideas, approaches and solutions to address problems and respond to changing circumstances. In the context of higher education, innovation ability encompasses critical thinking, problem-solving, creativity, opportunity recognition and entrepreneurial thinking. These capabilities enable graduates to move beyond the reproduction of existing knowledge and apply knowledge in new and practical ways.

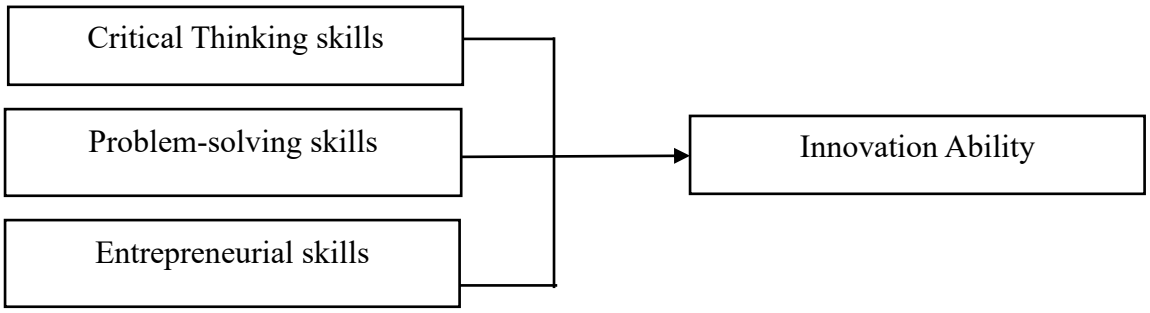


Figure 3: Innovation Ability

International Journal of Modern Education
IJMOE
EISSN: 2637-0905
Volume: 8 Issue: 31 (September 2026) PP. 1938-1952

In achieving strategic innovation, priorities must be given to value-added activities such as group projects, knowledge sharing, risk management, experimentation, tolerant for noncritical mistakes, adaptability to ambiguity as changes can happen drastically and good orientation towards market and customer needs (Graetz et al., 2006; Senadheera & Wisenthige 2026). These value-added practices will generate economic growth and impart positive impact to the society and nation. The focus of innovation is not to outperform rivals, but rather to create a new niche that could be followed by others (Ismail & Hassan, 2019; Juhdi et al., 2010).

The innovation skills also refer to critical thinking and problem-solving skills. In the learning process, critical thinking and problem-solving skills can be developed through career planning tasks, handling domestic or international issues, discussing case studies and encouraging forum with the industry professionals or alumni (Vlachopoulos & Tsitiridou, 2026). For graduates, innovation ability is particularly relevant because contemporary work environments require individuals to analyse problems, generate alternative solutions and adapt existing knowledge to new situations. Critical thinking and problem-solving therefore represent important elements of innovation ability, while entrepreneurial thinking supports opportunity recognition and proactive action. Together, these capabilities strengthen graduates' capacity to respond to workplace challenges and contribute to organisational improvement. Postgraduate students, in particular, are encouraged to develop new methods or theories and to create new products, especially in science and technology. Innovation in new product development should be awarded high merit as an incentive.

Apart from that, entrepreneurship programmes play an important role in developing students' skills. By participating in training organized by MASMED UiTM through courses such as ENT300 (Fundamentals of Entrepreneurship) or ENT530 (Principles of Entrepreneurship), students can enhance their entrepreneurial skills. Entrepreneurial traits beneficial to individuals includes persistence, information-seeking, initiatives, opportunity recognition and action, commitment to work, emphasis on high-quality output, efficiency orientation, and systematic planning (Ali et al., 2023; Rido, 2020).

Strategic innovation is important for preparing dynamic graduates with critical thinking skills, problem-solving skills and entrepreneurial skills. Accordingly, innovation ability is expected to contribute to graduate quality by strengthening graduates' capacity to analyse complex situations, solve problems, generate new ideas and adapt to changing workplace requirements.

Positive Work Attitudes

The third skills higlighted by FMM in 2005 is a positive attitude toward job or work, which is grounded in core values namely integrity, perseverance and sincerity. Zahid (2006) outlined eight criteria for a positive works attitude, and his report is supported by subsequent studies (Norman et al., 2026; Akbar et al., 2026; Rido, 2020; Rahman et al., 2019). Positive work attitudes explained by behavioural and personal attributes that influence how graduates approach their responsibilities, interact with others and respond to workplace demands. In this framework, positive work attitudes include reliability, commitment, integrity, perseverance, responsibility, teamwork and willingness to improve. These attributes influence how effectively graduates translate their knowledge and competencies into workplace behaviour.

International Journal of Modern Education
IJMOE
EISSN: 2637-0905
Volume: 8 Issue: 31 (September 2026) PP. 1938-1952

(i) Resolution to produce excellent products as long time journey and maintain the standard that had been achieved.
(ii) Sincerity in terms of seriousness, politeness, and motivated for organization excellent.
(iii) Committed to quality and high standard performance.
(iv) Reliability.
(v) Clear thinking and always seek to find ways to solve the problems.
(vi) Wanted to quit bad habits and learn to control oneself.
(vii) Fast and ready to take risk politely.
(viii) The priority in working as a team.

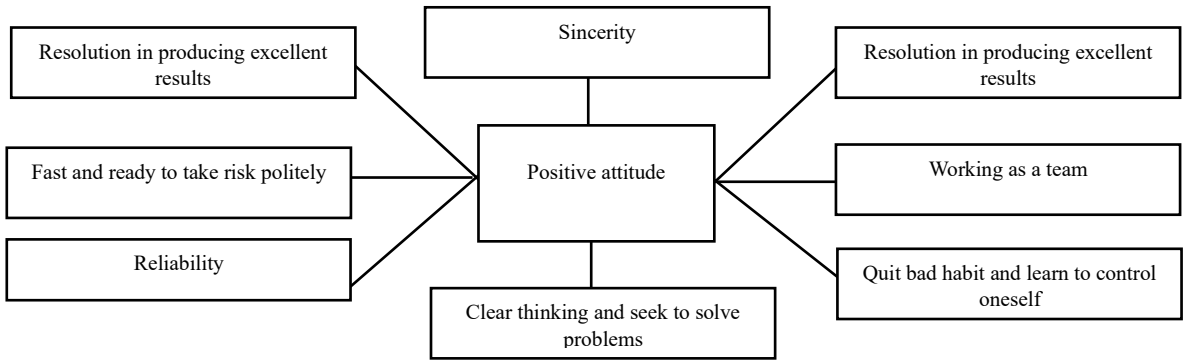


Figure 4: Eight Criteria of Positive Works Attitude

These criteria collectively highlight the behavioural dimension of graduate quality. While generic competencies describe what graduates are capable of doing and innovation ability describes their capacity to generate and apply solutions, positive work attitudes describe how graduates approach their responsibilities and interact with others when applying these capabilities.

Positive work attitudes can be developed through curricular and co-curricular activities that provide students with opportunities to practise responsibility, teamwork, leadership, communication and self-management. Experiential learning, community engagement, student organisations and workplace exposure may provide contexts in which such attitudes can be developed and observed. These soft skills can be developed with the support of the Student Affairs Department. Monitoring of student activities can be implemented through three approaches, namely:

- Periodic approach;
- Continuous approach; and lastly
- Customized approach

A periodic approach can be implemented on a larger scale through activities such as organising seminars, dialogues, and forums, whereas a continuous approach requires regular implementation, such as weekly or biweekly discussions, workshops, and training sessions. A customised approach refers to programmes tailored to specific target groups, for example, community service initiatives for students with behavioural issues, as practised by some universities in South Korea. (Yan & Nasri, 2025).

International Journal of Modern Education
IJMOE
EISSN: 2637-0905
Volume: 8 Issue: 31 (September 2026) PP. 1938-1952

To ensure that undergraduates participate effectively, they should be given incentives such as certificates or an additional one-hour credit for co-curricular activities that promote positive attitudes. Lecturers or academicians can also incorporate classroom activities that support the development of students' positive character and attitudes. For first-year students, programmes that expose them to different personality types and leadership qualities are suitable, while for final-year students, the focus should be on refining professional attitude and interview presentation skills. Developing positive values in individuals is challenging; however, universities play an important role in ensuring that students cultivate positive attitudes, especially for their future employers. Human capital development is grounded in strong values that shape the identity of a nation. Graduates are valuable assets who must be nurtured. (Ismail & Hassan, 2019; Rahman et al., 2019; Norman, 2026).

The Human Capital Theory as Theoretical Foundation

Human Capital Theory provides the theoretical foundation for the proposed relationship between soft skills and graduate quality. The theory conceptualises education and training as investments that develop individuals' knowledge, skills, capabilities and attributes, which can subsequently generate value for individuals, organisations and society. In the context of higher education, universities contribute to human capital development by providing students with opportunities to acquire disciplinary knowledge and develop transferable capabilities through formal education, experiential learning and social interaction.

The human capital theory has been extensively studied in relation to graduates' marketability (Azmi et al., 2018; Ma'dan et al., 2018). The theory is based on an individual's capabilities and strengths, which serve as intangible assets. These assets, such as habits, social attributes, and personality, add economic value to both individuals and organisations. Human capital theory clarified how knowledge can improve worker productivity and efficiency. There are three important aspects to this theory; first, the new generation needs to be exposed to the knowledge accepted by the older generation; second, the new generation need to learn how to use the knowledge to develop new product, new process or new method; and third, individuals must be encouraged to develop new ideas, product, process and method through creative approaches (Olaniyan & Okemakinde, 2008). Hamat and Nordin (2012) identified education and training as essential aspects in developing the human capital.

Although Human Capital Theory provides a useful explanation of the relationship between education, capabilities and economic value, it does not fully capture all social and contextual factors influencing graduate outcomes. For instance, it cannot fully explain how education can improve productivity, how salaries cannot be justified or how to explain the role of social class (Ma'dan et al., 2019). This theory stated that assets or qualities that cannot be listed in company accounts in value form can only be classified as economic value in terms of experience and workers experience including asset like education, training, wisdom, skills, health and others that often been valued by employers like loyalty and time management (Ma'dan et al., 2019; Hamat & Nordin, 2012). Nevertheless, the theory provides an appropriate foundation for the present framework because the study focuses specifically on capabilities developed through higher education and their contribution to graduate quality.

In the context of this study, the university's ability to nurture quality human capital through dynamic curriculum, that could produce graduates that are highly skilled with good soft skills like good attributes, problem-solving skills and innovation strategies will become a company

International Journal of Modern Education
IJMOE
EISSN: 2637-0905
Volume: 8 Issue: 31 (September 2026) PP. 1938-1952

gem. Within the proposed framework, generic competencies, innovation ability and positive work attitudes represent complementary forms of human capital developed through higher education. Generic competencies enable graduates to communicate, manage information and continue learning; innovation ability enables them to analyse problems, generate ideas and develop solutions; while positive work attitudes influence how graduates apply their knowledge and capabilities through responsible, reliable and collaborative behaviour. From this perspective, investment in these capabilities enhances the overall quality of graduates and strengthens their preparedness for employment and organisational participation.

Methodology

This conceptual study employed a structured literature search to identify and synthesise research relevant to human capital development, soft skills, graduate quality and employability at preliminary stage. This method was adopted because it provides a clear view of the phenomenon surrounding these key concepts. Although this technique originated in clinical and healthcare research, but currently it is widely used in the humanities research (Lubna et al., 2017). Literature searches were conducted using Google Scholar, Scopus, ScienceDirect and SpringerLink. The search employed combinations of keywords including “human capital development”, “soft skills”, “graduate quality”, “graduate employability”, “employability skills”, “employer expectations” and “higher education”. This principle of literature search helped the study in getting some of the articles that could defining the objectives of this study. The search initially identified 120 articles published between 2012 to 2026. The articles were screened based on their relevance to higher education, graduate quality, employability, soft skills and human capital development. Articles that did not directly address these themes were excluded. Following the screening process, 31 articles were retained for conceptual analysis. The selected literature was analysed thematically to identify recurring soft-skill dimensions, their relationship with graduate outcomes and the theoretical relevance of Human Capital Theory. The findings from the literature synthesis were subsequently used to develop the proposed conceptual framework.

Proposed integrated Framework of Soft Skills, Graduate Quality and Human Capital Development

A review of the literature indicates that existing studies have predominantly examined graduate competencies as separate areas of competency. Although these studies provide valuable insights into individual competency dimensions, the fragmented approach provides limited understanding of how these competencies can be integrated to support the development of quality graduates. To address this gap, this paper proposes an integrated competency framework that brings together these three dimensions and positions them as complementary contributors to graduate quality. The framework therefore provides a holistic perspective that connects competency development with the broader goal of human capital development.

International Journal of Modern Education
IJMOE
EISSN: 2637-0905
Volume: 8 Issue: 31 (September 2026) PP. 1938-1952

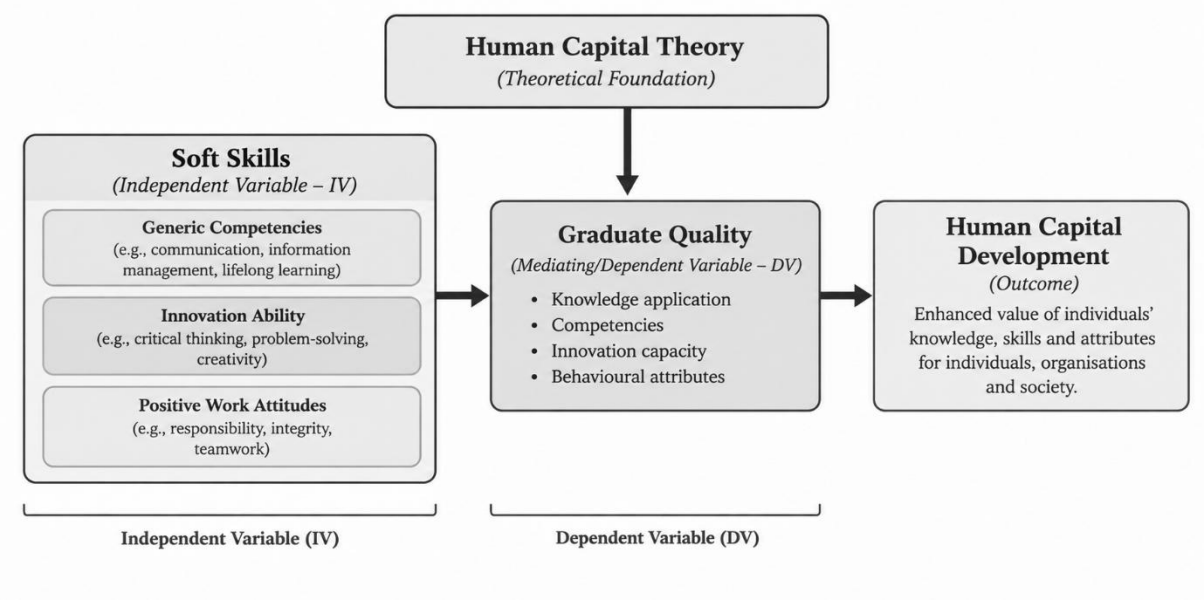


Figure 5: The Proposed Framework

Discussion

The literature indicates that generic competencies provide graduates with transferable capabilities that support the effective application of disciplinary knowledge. Communication, information management, lifelong learning and networking enable graduates to interact with different stakeholders, access and evaluate information, and continue developing their capabilities beyond formal education. These competencies therefore contribute to graduate quality by strengthening graduates' ability to transfer knowledge across different academic and workplace environments.

Innovation ability represents the cognitive and creative dimension of the proposed framework. Critical thinking and problem-solving enable graduates to analyse situations, identify alternatives and develop appropriate solutions, while creativity and entrepreneurial thinking support the generation and application of new ideas. These capabilities are relevant to graduate quality because workplace environments frequently require graduates to respond to changing conditions rather than merely reproduce existing knowledge.

Positive work attitudes represent the behavioural dimension of the framework. Attributes such as reliability, commitment, integrity, responsibility and teamwork influence how graduates apply their knowledge and competencies in organisational settings. Consequently, graduate quality should not be understood solely in terms of what graduates know or can do, but also in terms of how they demonstrate these capabilities through responsible and constructive behaviour.

The proposed framework contributes to the literature by integrating three dimensions of soft skills rather than examining individual competencies independently. Generic competencies focus on graduates' ability to communicate, manage information and continue learning; innovation ability focuses on their capacity to analyse problems and generate solutions; while positive work attitudes focus on the behavioural attributes that shape how these capabilities are applied. The three dimensions therefore represent complementary aspects of graduate capability rather than competing constructs.

International Journal of Modern Education
IJMOE
EISSN: 2637-0905
Volume: 8 Issue: 31 (September 2026) PP. 1938-1952

This integrated perspective provides a more comprehensive conceptualisation of graduate quality because effective graduates require not only transferable competencies but also the ability to apply knowledge innovatively and demonstrate appropriate behavioural attributes. The framework consequently extends the discussion of soft skills from individual competencies towards an integrated understanding of how cognitive, innovation-related and behavioural capabilities may collectively contribute to graduate quality.

Practical Implications of The Theoretical Frameworks

The proposed framework has implications for curriculum development, graduate assessment, employability programmes and university–industry collaboration. First, the framework can support curriculum development by providing a structured basis for embedding generic competencies, innovation ability and positive work attitudes across courses and learning experiences. Rather than treating soft skills as an isolated component of the curriculum, these capabilities can be incorporated into programme learning outcomes, learning activities and experiential learning opportunities.

Second, the framework can support graduate assessment by providing a multidimensional basis for evaluating graduate capabilities beyond academic achievement. Communication, information management and lifelong learning may be assessed under generic competencies; critical thinking, problem-solving and creativity under innovation ability; and responsibility, integrity, reliability and teamwork under positive work attitudes. These capabilities can be assessed through presentations, projects, portfolios, internships and other authentic assessment approaches.

Third, the framework can guide employability programmes by identifying complementary areas of graduate development. Generic competencies may be developed through communication, presentation and networking activities, while innovation ability may be strengthened through problem-solving, innovation and entrepreneurial activities. Positive work attitudes may be developed through professionalism, teamwork, leadership and workplace-readiness programmes.

Finally, the framework can facilitate university–industry collaboration by providing a common reference for discussing graduate capabilities. Industry partners can contribute through internships, industry-based projects, mentoring, workplace simulations, guest lectures and feedback on students' performance. Such engagement can provide universities with valuable insights regarding the capabilities required in occupational contexts and can subsequently inform curriculum and assessment development. Therefore, the framework provides a basis for connecting curriculum development, graduate assessment, employability initiatives and industry engagement within a more integrated approach to human capital development.

Conclusion

This conceptual paper proposes an integrated framework explaining the relationship between soft skills and graduate quality in higher education. Grounded on Human Capital Theory, the framework conceptualises soft skills as comprising three complementary dimensions: generic competencies, innovation ability and positive work attitudes. Generic competencies enable graduates to communicate and apply knowledge effectively, innovation ability supports critical

thinking, problem-solving and the generation of new solutions, while positive work attitudes influence the responsible and effective application of these capabilities in workplace contexts.

The main contribution of the framework is its integration of cognitive, innovation-related and behavioural dimensions within a single conceptualisation of soft skills and their relationship with graduate quality. This integrated perspective addresses the limitation of examining soft-skill dimensions independently and provides a more comprehensive basis for understanding graduate development. Practically, the framework supports curriculum design, graduate assessment, employability development and university–industry engagement.

Future research should empirically examine the proposed relationships using quantitative, qualitative or mixed-method approaches. Future studies may also investigate whether the three dimensions make differential contributions to graduate quality across disciplines, levels of study and institutional contexts. Such empirical testing would provide further evidence regarding the applicability and explanatory value of the proposed framework.

Acknowledgements: The authors would like to express their sincere gratitude to Universiti Teknologi MARA (UiTM) for providing the necessary resources and support throughout the course of this research. Special appreciation is extended to colleagues and peers who contributed valuable insights and constructive feedback, which greatly enhanced the quality of this paper.

Funding Statement: This paper is independently self-funding by authors.

Conflict of Interest Statement: The authors declare that there is no conflict of interest regarding the publication of this paper. All authors have contributed to this work and approved the final version of the manuscript for submission to the International Journal of Modern Education (IJMOE).

Ethics Statement: This study is a conceptual paper and does not involve human participants, data collection or personal information. It was conducted solely based on existing literature, and no primary data were collected.

Author Contribution Statement: All authors contributed significantly to the development of this manuscript. Noor Malinjasari Ali was responsible for the conceptualization and theoretical framework. Siti Fatimah Mardiah Hamzah and Suzila Mat Salleh were responsible for manuscript writing. Raslina Mohamed Nor and Kardina Kamaruddin contributed to the methodological design and drafted sections for the paper. Ruzaidah Sulong, Roszainora Setia, Rahayu Izwani and Hasmi Mokhlas were responsible for literature screening, reviewing and editing.

International Journal of Modern Education
IJMOE
EISSN: 2637-0905
Volume: 8 Issue: 31 (September 2026) PP. 1938-1952

References

Akbar, M.A. A., Ahmad, A., & Muhajad, A.(2026), Bridging Soft Skills and Academic Success: The Mediating Role of Internship Performance. Journal of Educational Management Research,5(2), 1016-1030, DOI: https://doi.org/10.61987/jemr.v5i1.1828

Ali, N. M., Borhanuddin, R. I., Salleh, S. M., Noor, H. M., Kamaruddin, K., Mokhlas, H. (2023), Kebolehpasaran graduan – penilaian daripada perspektif majikan dan graduan: satu pendekatan kualitatif, International Journal of Education, Psychology and Counselling (IJEPC), 8(50), 355-367, DOI: 10.35631/IJEPC.850026

Ali, N.M., Kamaruddin,K., Salleh.M.S., Hamzah.S.F., Setia.R.H., Harahap.A.Z.M.K., Nor, R.M., Noor, H.M., Mokhlas, H., Borhanuddin, R.I (2025), Exploring the Role of Internship on Graduates' Employability: A Phenomenon Inquiry on Undergraduate Business Students in Malaysia, International Journal of Academic Research in Progressive Education and Development, 14(4), 711-725, http://dx.doi.org/10.6007/IJARPED/v14-i4/26555

Al-Quran al Karim, 39:9

Azmi, I. A. G., Hashim, R. C., & Yusoff, Y. M. (2018). The employability skills of Malaysian university students, International Journal of Modern Trends in Social Sciences, 1(3), 1-14.

Bowee, C. L., and Thill, J.V (2005), Business Communication Today, Pearson Prentice Hall.

Çağlar,A, Alp.E, Çetinkaya.E, Karadeniz,O, (2026) International Journal of Educational Development, Enhancing graduate employability through extended internships in vocational higher education: Evidence from Türkiye, International Journal of Education Development, vol. 121(C), 10351, DOI: 10.1016/j.ijedudev.2026.103515

Canibano, L and Sanchez, M.P (2004), Measurement, management and reporting on intangible state of the art, in Canibano, L and Sanchez, M.P (eds), Reading on intangibles and intellectual capital, AECA, Madrir, 81-113.

Chan, W. K. (2012). Employability does not necessarily lead to competitiveness. Journal Chinese Education & Society, 45(2), 21-37, https://doi.org/10.2753/CED1061-1932450202

Federations of Malaysian Manufacturers, FMM Paper on University Curriculum, Kuala Lumpur, FMM, 2005.

Graetz, F, Rimmer, M, Lawrence, A and Smith, A (2006), Managing Organizational Change, Australia, John Willey 7 Sons

Hamat, M. F., & Nordin, M. K. N. C. (2012). Tinjauan Kepentingan Pembangunan Modal Insan di Malaysia. Jurnal Al-Tamaddun, 7(1), 75-89, DOI: https://doi.org/10.22452/JAT.vol7no1.5

Hossain, M. I., Yagamaran, K. S. A., Afrin, T., Limon, N. A., Nasiruzzaman, M., & Karim, A. M. (2018). Factors influencing unemployment among fresh graduates: a case study in Klang Valley, Malaysia, International Journal of Academic Research & Social Sciences, 8(9), 1494-1507, http://dx.doi.org/10.6007/IJARBSS/v8-i9/4859

Ismail, A.A, & Hassan, R. (2019). Technical competencies in digital technology towards Industrial Revolution 4.0, Journal of Technical Education and Training, 11(3), 55-62, https://doi.org/10.30880/jtet.2019.11.03.008

Juhdi, N., Pa'wan, F., Othman, N.A., & Mokhsin, H. (2010). Factors influencing internal and external employability of employees, Business and Economics Journal, Volume 2010: BEJ-11

Kamaruddin, K., Ali, N.M., Salleh M.S., Setia, R.H., Nor, R.M., Noor, H.M., Mokhlas., Yusof, Y.H.M., Abdullah, N.K., Hamzah, S.F.M (2025), Breaking Down Barriers: Factors that

Drive and Deter Lifelong Learning in Higher Education, International Journal of Academic Research in Progressive Education & Development, 14(3), 12-37, http://dx.doi.org/10.6007/IJARPED/v14-i3/25661

Lakshmi, P. M., & Siddardha, D. (2019). Impact of graduate competencies towards employability: issues of learning in digital era, International Journal of Research and Development, 4(7), 21-26.

Lubna A.R, Wan Moharani M, Zulkipli M.I & Hishormudin A (2017). Corak kajian kebolehpasaran siswazah di Malaysia: sorotan antara tahun 2010-2015. Jurnal Sultan Alauddin Sulaiman Shah, Vol 4(2), 31-43.

Ma'dan, M., Ismail, M. T. & Daud, S. (2019). Importance of human capital development and competitiveness in enhancing competency level among Malaysia university graduates: literature review. Journal of Social Sciences and Humanities. 16(8), 1-15 ISSN: 1823-884x

Norman, E., Nuryani.M., Pahlawati.E., Marliani.L (2026), Managing Digital Technologies and Soft Skills to Enhance Graduate Employability: The Mediating Role of Psychological Well-Being in Higher Education, Journal of Educational Management Research, 5(1), 699-711, DOI: https://doi.org/10.61987/jemr.v5i1.1748

Olaniyan, D. A. & Okemakinde, T. (2008). Human capital theory: implications for educational development. Pakistan Journal of Social Sciences, 5(5), 479-483

Olichi, N. F., & Pyiki, H. B. (2019). Assessment of business educators competency level in teaching office application and office technology segments of office technology and management courses in selected polytechnics in North-East Nigeria, World Journal of Innovation Research, 6(2), 18-26, DOI:10.31871/WJIR.6.2.37

Rahman, A. F., Mohamed, A. H., Saidin, K., & Nasie, A. N. (2019). Exploring Perceptions of Employers on Communication Skills Among Fresh Graduates, Practitioner Research, 1, 69-85, DOI: https://doi.org/10.32890/pr2020.1.4

Rahmat, A.M., Mohd, I.H., Omar, M.K., Kamalludeen, R., Zahari, W.M.Z.W., Azmy, N., Adnan, A.H.M (2022), Integrating Social-Digital Skills in the Industry 4.0 Era for Graduates Employability: An Employers' Perspective, Journal of Positive School Psychology, 6(2), 8493-8507

Rido, A. (2020). English for University Graduate Employability: Students and Employers' Voices, Advances in Social Science, Education and Humanities Research, 430, 6-10, DOI:10.2991/assehr.k.200406.002

Robert. E Nelson, (2007), "Knowledge Management and the Role of the CKO in Knowledge Management: A Catalyst for Electronic Government, unpublished, 2007

Senadheera D, Wisenthige K (2026) Assessing the influence of diverse skills on employability outcomes for IT undergraduates. PLoS One 21(4): e0346571. https://doi.org/10.1371/journal.pone.0346571

Vlachopoulos, D., and Tsitiridou, O.P.,(2026). Preparing University Graduates for the Labour Market Through Employability Skills Development and University–Industry Collaboration: A Systematic Review. Education Sciences, 16(3), 426. https://doi.org/10.3390/educsci16030426

Wan Jaafar Wan.E, "Penyukatan Kualiti Menyeluruh di Institusi Pengajian Tinggi di Malaysia, Tesis Sarjana, Universiti Kebangsaan Malaysia, (2006), (tidak diterbitkan)

Wan Mohd Zahid. MN, Nota Kursus, "Pembangunan dan Strategi Pembangunan Tinggi Malaysia, Laporan Halatuju Pengajian Tinggi Malaysia, Kursus Penilaian Tahap Kecekapan Tahap 3, 17-23 December 2006, Intekma Resort, iLQaM, UiTM Malaysia

Wan Ruzainun, W.A.A , Nota Kursus, "Research Methodology," Kursus PhD, Research Methodology, 12-17 August 2007, iLQaM, UiTM Malaysia