

How Learning Outcomes Impact the Management Graduates Employability in Haryana, Punjab and Himachal Pradesh

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Abstract

The research presented in this paper investigates the role of the learning outcomes in developing successful employability attributes among graduates. For evaluating the impact of learning outcomes on employability from management graduates' perspectives, Universities are considered as a prominent stakeholder. The research is descriptive in nature, the data collected from 385 graduates of selected Universities of Haryana, Punjab Himachal Pradesh. Graduates of selected Universities contributed their opinion regarding impact of learning outcome on employability. To achieve the objective, hypotheses were designed and analysed using the SPSS and Partial least square structure modelling. The Structural analysis identified learning outcomes as a significant factor in enhancing employability of management graduates. The reliability of all associated constructs is more than 0.9. To improve the students' employability, administration of higher education institutes (HEI) of Haryana, Punjab Himachal Pradesh might implement learning outcomes by following the useful recommendations from this research.

KeyTerms: Learning Outcomes, Employability, Partial least square structure modelling, Statistical Package for the Social Science.

INTRODUCTION

The landscape of management education in India has seen significant changes, particularly across various states, as the demand for skilled professionals has steadily increased over the years. Management universities have played a vital role in shaping the workforce, making it crucial to evaluate the educational outcomes they offer and their impact on graduate employability. One of the primary challenges in management education has been enhancing employability skills, which has been widely recognized (Malgorzata Erikson, 2019). Management education aims to equip students with a broad range of managerial knowledge and competencies, with increasing emphasis on aligning these skills with job requirements. In addition to expertise in specific subjects, students must also focus on enhancing teamwork and communication abilities (Inter-University Council for East Africa, 2014). India's traditional educational system, rich with principles, values, and ethos, has been inherited over many years. However, the colonial education system and the emphasis on English created challenges for many young people. In 2018, the National Education Policy (NEP) was introduced, following significant reforms in 1986 and

1992, eventually replacing the older system with the 2020 policy. After 34 years of review, development, and legislative processes, the NEP-2020 sought to close the gap between graduate skills and employer expectations (Erikson, M. G 2019).

In 2021, research began to focus on the educational outcomes of various universities, analysing practices related to employability skills, and exploring definitions of employability, necessary skills, and employer expectations. By this point, employability had become a more pressing concern than unemployment in India. Data from 2023 highlighted that only a small percentage of MBA graduates were considered adequately qualified. Employability involves an individual's ability to secure, sustain, and seek new employment. This concept goes beyond simply having a job, focusing on the ability to perform tasks effectively and continually improve skills for lifelong employability (Hillage et al., 1998). By 2024, the USEM model (Knight and Yorke, 2004), which defines employability as a combination of understanding, skills, productivity, and metacognition, gained significant traction in the educational sector. The impact of these learning outcomes on employability has become a critical area of exploration. Graduates who possess relevant skills and practical knowledge are more likely to secure and excel in their careers. Aligning academic programs with industry expectations has been shown to directly influence graduates' job readiness, adaptability, and career success (Farhana Akmal, 2021).

Over the years, the job market for professional graduates has become more competitive. Career opportunities in 2024 have favoured those with strong employability skills that employers value. However, data from 2023 indicated that only around 30% of candidates attending interviews were selected (Nisha & Rajasekaran, 2018). One of the main factors contributing to this selection rate has been the lack of proficiency in English and the employability skills necessary for today's workforce. As a result, higher education institutions have been urged to equip students with the skills required for the workplace, a challenge that became even more pressing by 2022 (Cimatti, 2016). This global trend toward skill development, which has been growing since 2020, focuses on preparing graduates to meet the ever-evolving job market needs (Abelha, Fernandes, et al., 2020). By 2022, the operational environment for organizations had shifted significantly, transforming the skills and knowledge employers sought. In 2023, employers increasingly valued dynamic individuals with diverse skill sets and strong academic credentials (Pinto, 2018). Governments and employers have continued to place substantial responsibility on Higher Education Institutions (HEIs) to provide the workforce for various industries (Ahsan et al., 2020). For better align with evolving market demands & prepare graduates more effectively, integrating a Quality Management System into HEIs emerged as a key strategy in 2022. This approach helped institutions stay aligned with the changing needs of the workforce, fostering a culture of continuous improvement and excellence (Waleed Mugahed Al-Rahmi et al., 2022).

The role of educational technology in improving learning outcomes has shown both progress and challenges. Technology, including learning management systems, mobile apps, virtual reality, and artificial intelligence, promises more personalized, engaging, and accessible learning experiences (Oyebola Olusola Ayeni et al., 2024). It has enabled innovative teaching methods like blended learning, flipped classrooms, and project-based learning, emphasizing student-centered approaches. Key findings highlight that effective integration requires thoughtful alignment with curriculum goals and meeting diverse learner needs. Faculty competence and ongoing professional development are crucial for success. Additionally, addressing the digital divide and ensuring equitable access to technology is vital for all students, regardless of their background (Hamzah et al., 2023) examined the impact of Project-Based Learning (PjBL) and Problem-Based Learning (PBL) models, alongside self-confidence, on short-distance

running performance in Sports Education. Both PjBL and PBL significantly improved students' learning outcomes, while self-confidence also played an important role in enhancing performance (However, when combined, these factors did not have a significant impact on learning outcomes, suggesting that while each element contributed individually, their interaction may not be as influential in this context (rahmitasafitri et al.,). The findings emphasize the effectiveness of PjBL and PBL in improving athletic performance, with statistical significance values of 0.000 for both models. Despite their individual positive effects, the combined influence of PjBL, PBL, and self-confidence didn't yield a substantial effect. This highlights need for additional research to discover extra variables and strategies to optimize the combined effect of these factors and enhance overall learning outcomes in sports education (Sarwar M. 2021)

Associated to outdated research, this mixes up multiple technologies such as IoT, AI, and creating a comprehensive management students' system. The research introduces a progressive learning framework built on practical to educational administration. This model enhances resource distribution by pretending student interactions and rivalry, thereby providing more efficient learning assistance. It presents a new theoretical structure and approach for educational management systems. By combining game theory with a computing-based resource development strategy, the study achieves augmented resource allocation and sparkling planning. This method permits educational universities to better fulfil students' learning necessities and improve resource consumption effectiveness. Hence, the current research emphasizes on the following question.

Does the Assessment and grading methods (AGM), Design of course content (DCC), Interaction and involvement (II) and student centric learning method (SCLM) impact on employability (E) of management graduates?

LITERATURE REVIEW

Learning outcomes and employability is intensely influenced by numerous educational factors, including Assessment and grading methods (AGM), Design of course content (DCC), Interaction and involvement (II) and student centric learning method According to the Taxonomy (1956) theory that provides a framework for circular design that underscore creative thinking and critical skills that are essential for employability. The (QM) Quality Matters framework highpoints the values of aligning course content with clear learning to foster graduates' engagement and success (Anderson & Dron, 2011). Furthermore, faculty interaction with graduates, as emphasized by facilitates critical thinking and cognitive growth, which are crucial for employability. particularly formative assessments, play a critical role in capturing both soft skills and academic that align with recruiter expectations. Still, student-centric learning methods rooted in constructivist theories to enhance essential competencies such as teamwork and communication, directly impacting employability outcomes (Fernandes et al., 2020). Universities like international and career services contribute to preparing graduates for the employability, ensuring that graduates own the required skills to navigate the modern labour market. This inclusive approach not only equips graduates with technical knowledge but also fosters adaptability and critical thinking abilities important for success in dynamic job environments as such management universities play a vital role in bridging the gap between academic preparation and real-world demands, ultimately enhancing students' readiness for their future careers.

DESIGN OF COURSE CONTENT IN LEARNING OUTCOMES

The connection between learning outcomes, student performance, and aspects of instruction and teaching

is complex, and finding ways to increase student completion rates in Massive Open Online Courses (MOOCs) does not automatically equate to establishing the quality of these courses. Similar to traditional head-on education, high transitory rates are not permanently reliable indicators of meaningful student learning. Therefore, it is essential to investigate the pedagogical aspects of MOOCs, such as how courses can be better aligned with the diverse needs of students and how numerous course designs strategies such as tailored learning, live examples, project based learning, and practical learning affect student engagement, satisfaction, achievement, and holding rates (Admiraal, W.F. et al., 2017).

The materials used in teaching play a crucial role in supporting students with different learning styles and enhancing meaningful learning. These materials, including instructional videos, electronic resources, e-books, and sets of exercises, form the backbone of the teaching-learning process. In addition to these, social media tools such as discussion groups, blogs, web forums, social networking sites, wikis, and podcasts are widely used to encourage students to engage, collaborate, and co-construct knowledge (Collier T, & Schneider, 2021). In terms of course design, professors formulate syllabus with formative intentions in mind, establishing objectives that are directly related to promoting meaningful student learning. These objectives are a part of the didactic design and guide the actions required to achieve the desired student outcomes. According to the definition provided by Lozano and Lara, the curriculum can be viewed as a field of research and critical analysis that fosters processes aimed at generating more coherent relationships between knowledge and actions intended for social use. Understanding specific curricula involves learning within the context in which they are developed and exploring how educational practices and outcomes are shaped by their underlying configurations (Fernando Moreira et al., 2022). A curriculum can also be seen as a semi-structured education policy for particular topic or expertise. The prime purpose of teaching designs is to convey knowledge in a way that can be widespread and communal across the teaching community. In traditional classroom settings, there is typically no explicit requirement to document these teaching strategies or patterns, as they are often unique to individual educators or institutions. This lack of standardization in documentation practices can lead to significant variation in how teaching strategies are shared across educational contexts (Michael Derntl, 2019).

Recent findings from course redesigns, such as those based on the Quality Matters (QM) framework, have demonstrated that while student perceptions of learning processes may decrease, student performance measured in terms of course outcomes can improve significantly after the redesign. This insight highlights a critical realization: initial assumptions about the relationship between student perceptions and performance may not always align with actual results, suggesting the need for a more nuanced approach to course design and evaluation. By rethinking the interplay between teaching materials, course design, student engagement, and curriculum development, we can develop more effective strategies for improving student learning experiences and outcomes in both MOOCs and traditional educational settings. Thus, the following mention Hypothesis formed:

H₁: Design of course content has a significant impact on Graduates Employability.

INTERACTION AND INVOLVEMENT OF FACULTY IN LEARNING OUTCOMES

Interaction and community are crucial elements in the design of learning activities. Examples such as combined ventures, discussion mediums, and evaluation tasks are crucial for students to participate with each other and the course content in various ways. The configuring of student interactions with faculty & their creation of digital content to prove their learning was also emphasized by faculty members. Additionally, to participants emphasized the significance of students collaborating using different types

of sources, not just verbal communication & mails (Florence Martin, 2019). Another member suggested the formation of learning communities to enhance interface and providing support services to address the specific requirements of students (Fayer, 2014). Meeting beginner needs and involvement opportunities for interaction were important themes that high-quality faculty deemed important when designing a course content that impact employability. The importance of meaningful interaction for effective education has been widely recognized. Beyond allowing students to obtain academically relevant information, increased interaction between students and faculty has been shown to positively influence students' thinking processes, problems resolving strategies, and interest in broader life goals. Enhancing interaction is also a strategy university may use in an era of diminishing resources and diminishing student registrations to improve student satisfaction with specific programs, thus attracting and retaining well capable and motivated students. Even though many universities are determined to upsurge student-faculty interaction, much of this struggle is taking place without a clear understanding of how the nature and frequency of interaction relate to various student outcomes (Richard L. Harpel, 2018).

In blended learning environments, interaction, head-on support, learning management education system technology & tools excellence are chief factors. The (LO) learning outcomes include student satisfaction, skills, performance, intrinsic motivation, employability and knowledge construction. Detecting the main forecasters of learning outcomes in blended learning will help to notify planners in preparing and designing these innovative learning environments. The design features under investigation include interactions, the quality of technology, head-on support, and resources within the learning management system (Edmond Kagambe, 2017). Thus, the following mention Hypothesis formed:

H₂: Interaction and involvement of faculty has a significant impact on Graduates t employability.

ASSESSMENT AND GRADING METHODS OF LEARNING OUTCOMES

Quality assessment and monitoring systems are essential tools that enable organizations to manage, evaluate, and continually improve the quality of the products or services they provide. These systems play a crucial role in ensuring that the outcomes align with customer needs and expectations, enhancing the organization's competitive advantage while promoting greater operational efficiency. Quality assessment frameworks are specifically designed to identify, assess, and enhance quality management processes within organizations, ensuring compliance with established standards or internal benchmarks. Below are some of the most commonly used quality assessment frameworks (Whetten, D. A. 2007). study examining the link between the institutional features of universities and the employability of their graduates in ASEAN countries utilized an advanced machine learning method called hyper box mechanism learning. This approach resulted in the creation of five distinct rule-based classifiers, trained on statistical data derived from the 2020 QS Asia University rankings. While machine learning models have their limitations, the rules generated through this analysis reveal significant patterns within the data. The findings indicate that aspects such as institutional exploration and internationalization are positively associated with higher levels of graduate employability. These attributes reflect the commitment of institutions to invest in higher education and the development of human resources. However, it is important to clarify that these associations do not establish direct causality (K.B. Avisoa, F.P.A. Demeterio, 2021).

Furthermore, a study focusing on young adults in Spain during times of economic downturn, such as the recent recession, revealed that specific factors namely Career Exploration Skills (CES), Proactive Initiative (PI), and Career Planning (CP) significantly impacted perceptions of employability. In

challenging job market conditions, CES becomes more critical, while the influence of Proactive Initiative (PI) wanes due to the scarcity of available opportunities. Conversely, Career Planning (CP) becomes more vital, suggesting that young job seekers are likely to adopt a more flexible and adaptive approach to navigating an uncertain labour market. These findings highlight the need for higher education institutions (HEIs) to collect students' views on their employability at graduation, as this information is valuable for developing policies aimed at improving graduate outcomes. Developing key learning skills is essential for securing entry-level roles, and maintaining a mindset focused on continuous skill development is vital for ensuring long-term career growth in an ever-evolving labour market (Tee-Hwa Low, Jose Ramos, 2021). Thus, the following mention Hypothesis formed:

H3: Assessment and Grading methods have a significant impact on Graduates employability.

STUDENT-CENTRIC LEARNING METHODS FOR LEARNING OUTCOMES

Learning skills are vital for entry-level jobs, and a mindset of continuous skill development is crucial for long-term employability in evolving labour markets (Moxey and Syed Abdul Quddus 2022). Although some soft skills cannot be cultivated in the classroom, a blend of traditional and student-centred teaching methods is necessary to nurture these skills. Collaboration among various stakeholders and the role of career services in HEIs are also pivotal, as labor market demand significantly influences students' perceived employability. Ultimately, addressing the challenge of graduate employability requires HEIs and graduates to develop effective strategies for securing meaningful and sustainable employment in a competitive job market. If graduates' employability depends more on resources than on skills alone, a stronger emphasis on building these resources is essential for achieving positive outcomes. Focusing on individual perceptions, shaped by both internal and external factors, is vital, as (Rothwell et al., 2017) define employability as the ability to navigate the labor market to realize potential through prospective employment, contingent upon knowledge, skills, and attitudes, a notion supported by (Behle 2020). As the workforce evolves, future skill demands will increasingly focus on soft skills and technological competencies. To address this, Indonesia's government plans to enhance the quality of education by integrating employability skills into all subjects, as outlined in the (RPJM 2020-2024). Programs that incorporate active learning methodologies, such as unstructured learning & experiential activities, have remained shown to significantly rally students' critical thinking, teamwork, & communication skills, essential for success in the business world (Freeman et al., 2014). Moreover, the integration of soft assistances training within management education is vital, as employers increasingly prioritize these competencies alongside technical knowledge (Dale & Wield, 2007). Studies suggest that management institutes that adopt a holistic approach to learning outcomes incorporating cognitive, emotional, and practical dimensions are more effective in preparing graduates for the complexities of modern business environments (Hattie & Timperley, 2007; Voigt et al., 2018). Overall, the literature underscores the importance of continuous assessment and refinement of learning outcomes to ensure that management education remains relevant and impactful. students' expectations and experiences significantly influence their perceptions of management education. Thus, the following mention Hypothesis formed:

H4: Student-centric learning methods have a significant impact on Graduates employability.

LEARNING OUTCOMES IN EMPLOYABILITY

The concept of learning outcomes has become central in educational research. According to Bloom's Taxonomy, learning outcomes are structured in a way that promotes not only cognitive development but

also the enhancement of higher-order thinking services like serious and creative thoughtful (Bloom, 1956) Bloom's Taxonomy theory simplifies the progression of learning & hence, has shown to be a commanding instrument to support & develop learning outcomes of students. The notion in taxonomy theory is very humble. The learning outcome framework promotes the objective of enhancing students' critical thinking. However, the study reinforces (Reindal's 2013) worry that this framework may restrict teachers' comprehension, particularly when critical thinking is incorporated into the assessment. This illustrates how learning outcomes can condense the independence of both faculty and students, as indicated (Avis et al., 2000). Despite legitimate concerns about a superficial application of learning outcomes, committed and accountable educators can successfully utilize them for designing and evaluating courses, programs, and individual lectures or seminars. This is evident from the average scores, with students achieving a pretest average of 58.80 and a post-test average of 89.30 after implementing problem-based learning (SyafaLisaholit 2019). Learning outcomes associated with SEGs, SGs, and ES over the past decade have affirmed their value in the classroom. More importantly, while several studies explore each mode separately, there is limited research directly comparing these modes and the factors that influence the differences. The findings of this meta-analysis also address a significant gap in recent reviews, which overlook the roles of ES, SGs, and SEGs. To promote the use of games in education beyond ES, it is crucial to gain a deeper understanding of the specific tasks, skills, and learning objectives that each mode offers and to examine how these align with desired classroom outcomes (Richard Lamb 2017). As with other educational resources, it is vital to consider how games are incorporated into the student's learning experience to affect outcomes related to cognition, emotion, and behaviour. Critical thoughtful skills and creative thoughtful skills can significantly improve intellectual learning outcomes. This indicates a strong connection between critical thoughtful and creative rational skills in relation to intellectual results. The combined contribution of these skills was 72.80%, leaving 27.20% influenced by other factors not explored in this study (Aloysius Duran et al., 2019). The application of inquiry-based learning has been shown to significantly contribute to the development of both critical and creative thinking skills, ultimately leading to improved cognitive learning outcomes.

Learning generic skills is influenced by a variety of teaching methods rather than a single approach, which aligns with prior research indicating that collaborative and interactive practices enhance decision-making and problem-solving abilities. Effective pedagogical strategies encompass critical analysis of knowledge, leveraging students' prior experiences, providing constructive feedback, and integrating theory with practice (Wickramasinghe et al., 2022). Their findings suggest that experiential learning opportunities, such as internships and real-world projects, enhance student satisfaction and engagement in management programs. Faculty members are instrumental in shaping curriculum and instructional methodologies in management institutes, (García-Fernández, J. et al., 2022). As the workforce evolves, future skill demands will increasingly focus on soft skills and technological competencies. To address this, Indonesia's government plans to enhance the quality of education by integrating employability skills into all subjects, as outlined in the (RPJM 2020-2024). Programs that incorporate active learning methodologies, such as unstructured learning & experiential activities, have remained shown to significantly rally students' critical thinking, teamwork, & communication skills, essential for success in the business world (Freeman et al., 2014; Prince, 2004). Moreover, the integration of soft assistances training within management education is vital, as employers increasingly prioritize these competencies alongside technical knowledge. Studies suggest that management institutes that adopt a holistic approach to learning outcomes incorporating cognitive, emotional, and practical dimensions are more effective in preparing graduates for

the complexities of modern business environments (Kleinknecht, M. 2021) Overall, the literature underscores the importance of continuous assessment and refinement of learning outcomes to ensure that management education remains relevant and impactful. students' expectations and experiences significantly influence their perceptions of management education.

Thus, the above mentioned all the constructs are part of learning outcomes because they are affecting the employability of management graduates. It is also very clear from above mentioned four hypothesis conceptual research framework in Figure 1.

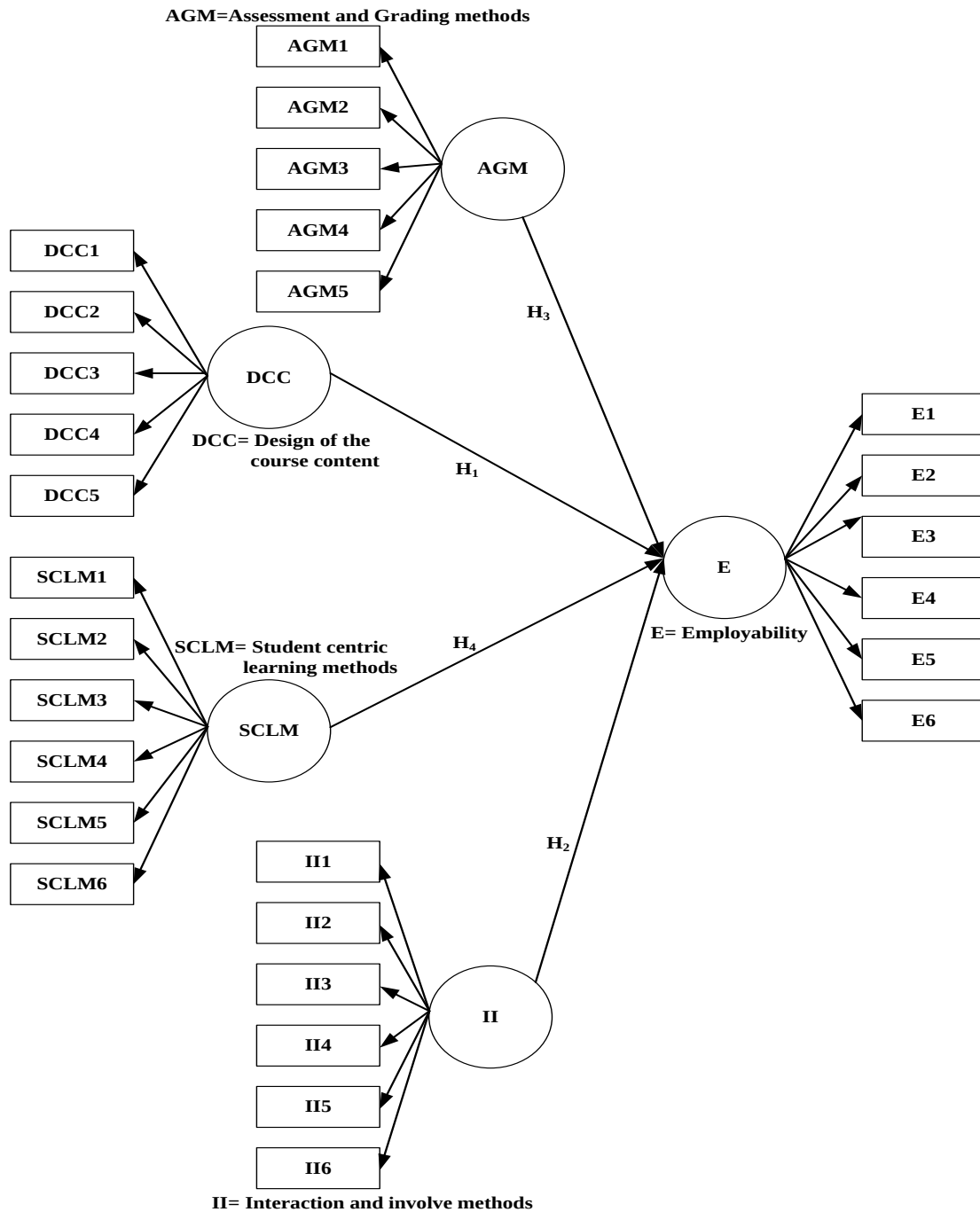


Figure 1: Conceptual Research Framework
Source: Author

RESEARCH METHOD

The target population for the current study consists students from management universities located in Haryana, Punjab Himachal Pradesh. students of management course select the institution for further study on the basic of their placement rates and their accreditations. To investigate the stated hypotheses, this study followed the empirical approach, the authors distributed 500 questionnaires in selected Universities of Haryana, Punjab Himachal Pradesh. Participation in the study was voluntary and at the discretion of the students. Out of 400 distributed questionnaires, 385 completed and useable responses were received, indicating an 77% response rate. Demographic profile

of the respondents is given as under in Table1. respectively. All the statements were evaluated on a five-point Likert scale, where one indicated strongly disagree and five indicated strongly agree. Following (Hinkin's 1998) recommendation, a pilot study was performed, so that the reliability and validity of the adopted statements could be referred. Internal consistency of the constructs which adequately fulfils (Hair et al., 2022) requirement of a minimum value of 0.7. Taking into account the outcomes of the pilot study, a comprehensive survey was initiated.

ANALYSING THE DATA

The descriptive research design was employed, utilizing a survey method with a self-structured questionnaire to explore the impact of learning outcomes i.e. design of course content (DCC), interaction and involvement (II), Assessment and grading methods (AGM) and student centric learning method (SCLM) on employability of management university students. Notably, the questionnaire was developed by drawing upon previous studies that investigated the impact of learning outcomes on the employability of management universities students. The collected data were analysed using SPSS and analysed with PLS-SEM (Partial least square) to assess the impact of learning outcomes on employability. Subsequently, PLS-SEM (Partial least square) was applied to enhance flexibility and enable the predictive capability of target predictors.

Table 1: Demographic Profile

Factors	Demographic Profile	Frequency	Percentage
Gender	Male	172	45%
	Female	213	55%
Age	20 to 22	284	74%
	23 to 25	81	21%
	Above 25	20	5%
Universities	O. P. Jindal Global University, Sonipat	20	5%
	Maharishi Markandeshwar (Deemed to be) University	101	26%
	Amity University, Gurugram	26	7%
	Lovely Professional University, Jalandhar	19	5%
	Chandigarh University, Mohali	46	12%
	Chitkara University, Rajpura	35	9%
	Shoolini University, Solan	57	15%

	Jaypee University of Information Technology, Solan	29	8%
	Baddi University (BUEST), Baddi	52	14%
Specialization	Finance	88	23%
	Marketing	184	48%
	Human Resource	50	13%
	Hospitality	2	1%
	Information Technology	34	9%
	Others	27	7%

Source: Author's calculations

The non-probability sampling method was used for selecting the students from Haryana, Punjab, and Himachal Pradesh. Table 1 explains the demographic profile of 385 students included in the sample. The big cluster of respondents are Female (213; 55%) with the highest age group belonging to 20–22 years (284; 74%). This proposes that the sample mainly consists of young management students, likely pursuing higher education. In terms of academic affiliation, a significant portion of respondents (26%) are from Maharishi Markandeshwar (Deemed to be) University. Regarding specialization, Marketing is the most popular field with 48% of respondents, followed by Finance at 23%, Human Resource at 13%, Information Technology at 9%, Hospitality at 1%, and Others at 7%.

ANALYSING THE MEASUREMENT AND STRUCTURE MODEL

For this research, the model evaluated with convergent and internal validity using Partial Least Square structural modelling (PLS-SEM). The value of rhoA is above 0.7, within the threshold limit (Hair et. al, 2022) thereby establishing the construct's reliability. Average alteration extracted scores, to regulate the convergent validity, are also higher than the threshold limit.

Table 2 explains the Factor Loading/weights to demonstrates strong relationship among all the statements of learning outcomes that must exceed the recommended threshold of 0.70, indicating that each item loads significantly on its respective latent variable. moreover composite reliability measure the internal consistency among all the indicators with single latent factor constitutes range from 0.969 to 0.972 both of which exceed the standard benchmark of 0.70, confirming high internal consistency and Cronbach's alpha values range from 0.962 to 0.967. The Average Variance Extracted (AVE) values, all well above the 0.50 threshold, further support convergent validity by showing that a substantial proportion of variance is captured by the constructs relative to measurement error. Furthermore, the rhoA values align closely with Composite Reliability CR, providing further support for construct reliability

Table 2: Quality Criterion for Measurement Model Assessment

CONSTRUCT	AGM	DCC	E	II	SCLM	rhoA	CR	AVE	Cronbach's alpha
AGM1	0.927					0.964	0.972	0.875	0.964
AGM2	0.925								
AGM3	0.943								
AGM4	0.941								

AGM5	0.940								
DCC1		0.922				0.964	0.972	0.872	0.963
DCC2		0.940							
DCC3		0.937							
DCC4		0.929							
DCC5		0.941							
E1			0.900			0.966	0.973	0.856	0.966
E2			0.938						
E3			0.929						
E4			0.940						
E5			0.908						
E6			0.935						
II1				0.931		0.967	0.973	0.857	0.967
II2				0.927					
II3				0.934					
II4				0.907					
II5				0.935					
II6				0.923					
SCLM1					0.928	0.962	0.969	0.841	0.962
SCLM2					0.912				
SCLM3					0.916				
SCLM4					0.899				
SCLM5					0.916				
SCLM6					0.929				

Source: PLS SEM output

rhoA-Ras homolog (internal consistency reliability), CR- Composite Reliability, AVE- Average Variance Extracted

VALIDITY ANALYSIS

The Discriminant validity from Fornell-Larker criterion and Heterotrait-monotrait ratio (HTMT) Matrix is analysed followed by establishing the discriminant validity of the measurement model. Discriminant validity is determined by the Fornell-Larcker criterion, which assesses whether the square root of the average variance extracted on the diagonal is greater than the inter-construct correlations values (Fornell-Larker, 1981). This criterion confirms the presence of discriminant validity at the item level. In Table No.- 3 Discriminant validity- Fornell-Larker criterion Shows that Design of course content (DCC), Interaction and Involvement (II), Assessment and grading methods (AGM), Student-centric learning methods (SCLM), having significant inter construct relation with each other.

Table 3: Discriminant Validity- Fornell-Larker Criterion

CONSTRUCT	AGM	DCC	E	II	SCLM
AGM	0.935				
DCC	0.788	0.934			
E	0.808	0.734	0.925		
II	0.858	0.800	0.811	0.926	
SCLM	0.861	0.778	0.841	0.833	0.917

Source: PLS SEM output

Heterotrait-monotrait ratio (HTMT)- Matrix is anew criterion proposed by Henseler's standard, that explains the correlation among four constructs, that explains there is a significant relationship among Learning outcome and employability of management graduates of selected universities, which is also suitable for further analysis (Table 4).

Table 4: Discriminant Validity-Heterotrait-Monotrait Ratio (Htmt) Matrix

CONSTRUCT	AGM	DCC	E	II	SCLM
AGM					
DCC	0.818				
E	0.837	0.761			
II	0.888	0.829	0.839		
SCLM	0.893	0.808	0.872	0.863	

Source: PLS SEM output

Path analysis and Hypothesis decision shown in Table 5 explores the structural model results indicate that all four constructs Design of the Course Content (DCC), Interaction and Involvement (II), Assessment and Grading Methods (AGM), and Student-Centric Learning Methods (SCLM) have a statistically significant positive impact on Employability (E). Each constructs items exhibit high T-statistics (ranging from 50.732 to 59.928) with p-values of 0.000, confirming that the relationships are highly significant at the 0.001 level. This strongly supports the hypotheses that DCC, II, AGM, and SCLM predictors of learning outcomes have significant impact on Employability. The consistently high T-values across all items reinforce the strength and consistency of these relationships, validating the relevance of these educational components in enhancing students' employability through learning outcomes.

Table 5. Path Analysis and Hypothesis Decision

Construct	T statistics	P values	Hypothesis
DCC1	51.149	0	Supported
DCC2	55.769	0	
DCC3	50.732	0	
DCC4	52.065	0	
DCC5	52.598	0	

II1	54.591	0	Supported
II2	55.179	0	
II3	57.041	0	
II4	56.380	0	
II5	59.078	0	
II6	57.005	0	
AGM1	56.255	0	Supported
AGM2	59.445	0	
AGM3	58.574	0	
AGM4	55.265	0	
AGM5	57.349	0	
SCLM1	54.770	0	Supported
SCLM2	59.358	0	
SCLM3	53.283	0	
SCLM4	55.755	0	
SCLM5	57.643	0	
SCLM6	59.928	0	
E1	54.241	0	Supported
E2	59.176	0	
E3	58.932	0	
E4	57.058	0	
E5	58.447	0	
E6	57.623	0	

Source: PLS SEM output

The structural equation model to evaluate learning outcomes as shown in Figure 2 demonstrates that Design of Course Content (DCC), Interaction and Involvement (II), Assessment and Grading Methods (AGM), and Student-centric Learning Methods (SCLM) all positively contribute to Employability (E). The path coefficients indicate that DCC2- 0.940, II5-0.935, AGM3-0.943 and SCLM6-0.929 has the strongest influence employability. All constructs are measured with high reliability, as shown by strong factor loadings. The model accounts for variance in employability $R^2 = 0.754$, demonstrating substantial explanatory power. These results highlight that active, student-focused learning approaches and engagement strategies play a more critical role in enhancing employability than traditional course content design. Therefore, to better prepare Graduates for the job market, educational institutions should emphasize experiential learning, practical skill development, and active student engagement, rather than relying solely on theoretical or content-heavy course structures.

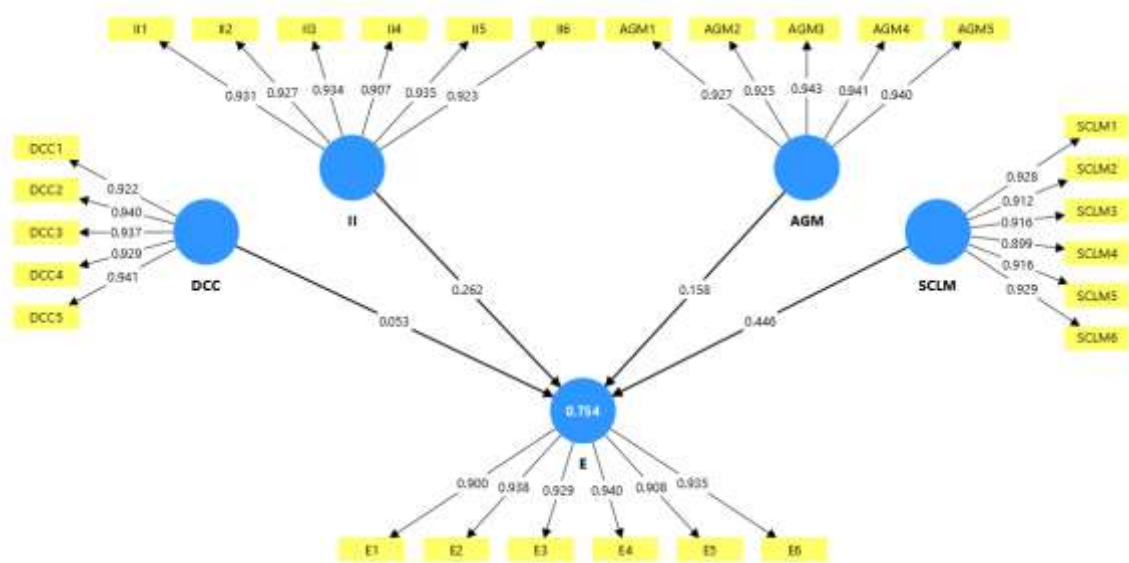


Figure 2: Structural Equation Model to Evaluate Learning Outcomes

Design of the Course Content (DCC), Interaction and Involvement (II), Assessment and Grading Methods (AGM), student-centric Learning Methods (SCLM). Employability (E).

Source: PLS SEM output

DISCUSSION

This research explores Impact of learning outcomes on employability focusing that how learning outcomes (Design of course content, Interaction and involvement, Assessment and grading methods and student centric learning method) impact employability of management graduates. Bloom's Taxonomy, which underlines critical thinking, decision making is a useful tool in improving learning outcomes. However, it can limit flexibility in teaching methods of faculty. When applied effectively in universities, frameworks like Bloom's theory can enhance students' cognitive and creative skills, leading to improved academic routine, as shown in studies like (SyafaLisaholit's 2023).

Employability is a most important key factor in students' growth and in educational experiences. Studies by (GUPTA O. J. 2021) highlight that university research, Placements and internationalization influence employability. Integrating active learning methods, such as case studies and internships, can enhance employability-related skills like teamwork, thinking ability and problem-solving (Freeman et al., 2014). The research methodology, which includes a questionnaire designed for respondents and its results are interpreted by using SPSS and PLS-SEM, ensures the reliability of findings, with high Cronbach's alpha values confirming data consistency. The study reveals significant differences in learning outcomes of universities impact on the employability of students, highlighting the importance of aligning curriculum with industry requirements. Overall, the study highlights the need for universities to adopt industry-relevant teaching practices and technology to better prepare students for the job market.

CONCLUSION

Learning Outcomes are the leading participant in the employability of management graduates of selected universities. Learning outcomes output (Design of the Course Content, Interaction and Involvement, Assessment and Grading Methods and Student-Centric Learning Methods) becomes the input of

employability of management graduates. However, graduates learning outcomes is significantly impacting their employability. The Partial least square structure modelling, path coefficients indicate that DCC2-0.940, II5-0.935, AGM3-0.943 and SCLM6-0.929 has the strongest influence on the employability, if these are over improved this will increase the chance of employability of management graduates of selected universities of Haryana, Punjab Himachal Pradesh.

THEORETICAL AND PRACTICAL IMPLICATION

This research improves the understanding of how learning outcomes relay to employability of management students, confirming the value of structured outcomes for future achievement while highlighting the limitations of traditional frameworks. It highlights the necessity of real-world experiences & employability skills for holistic student development for their employment, with a focus on their soft skills like communication, decision making and problem-solving, which align with recent findings on the growing importance of employability in the career market. Furthermore, universities factors such as teaching methods, real life internship exposers and industry experience significantly influence students' perceptions of their employability. The research suggests that universities must rescript prospectuses to incorporate experiential learning and practical skills development in management education, and provide opportunities for internships programs and industry collaborations. It also strains the requirement for ongoing assessment and adaptation of design of the course content, interaction and involvement, assessment and grading methods, student-centric learning methods teaching methods to meet the both academic & employability standards, while fetching with students to guarantee their expectations align with educational goals, eventually bridging the gap between academic learning outcomes and employability of management graduates.

DIRECTION FOR FUTURE RECOMMENDATION

Despite the respected insights provided by this study, there are certain boundaries and limitation is the focus on management courses in universities located in Haryana, Punjab Himachal Pradesh, to stunned the limitations of this research, future study might enlarge the sample size to include a wider range of universities and select the different graduation course across diverse regions and states, both within India and internationally. Moreover, since the research trusts on students' self-described data, there is a budding for prejudgment, as a scholars might exaggerate their perceived employability or satisfaction with their learning outcomes. Another limitation is the cross-section nature of the data, which offers only a view point of a students at a single point of time, without tracking their development throughout their educational journey of masters. Moreover, while the study applied a structured questionnaire, it might not capture the whole range of factors influencing learning outcomes (LO) and employability(E), such as family background, personal characteristics or peer influence.

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