

Examining the Effects of Performance Feedback and Supervision on Learning and Competence Building among Islamic Scholars Studying in Higher Education Institutions of Pakistan

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Abstract

The purpose of this study was to examine the effects of performance feedback and supervision on learning and competence building among Islamic scholars studying in higher education institutions of Pakistan. Drawing upon Social Learning Theory, Constructivist Learning Theory, and Experiential Learning Theory, the study proposed that performance feedback and academic supervision serve as important educational mechanisms that enhance students' learning outcomes and competence development. A positivist research philosophy guided the investigation, employing a quantitative and cross-sectional research design. Primary data were collected from 350 postgraduate Islamic scholars enrolled in various reputable universities across Pakistan through a structured questionnaire using a convenience sampling technique. Data were analyzed using the Statistical Package for Social Sciences (SPSS), incorporating descriptive statistics, reliability analysis, validity assessment, correlation analysis, and multiple regression analysis. The findings of study revealed that both performance feedback and supervision exert significant positive effects on learning and competence building. Performance feedback was found to enhance students' academic understanding, reflective learning, and professional development, while supervision emerged as the strongest predictor of both learning and competence building. The results further demonstrated significant positive correlations among all variables of the study and confirmed all proposed hypotheses. The study contributes to the literature on higher education and Islamic scholarship by providing empirical evidence regarding the importance of developmental feedback and effective supervision in fostering learning and competence development. The findings offer valuable implications for university administrators, faculty members, supervisors, and policymakers seeking to strengthen educational quality and student development within higher education institutions. The study concludes that structured feedback mechanisms and supportive supervisory practices are essential for enhancing the academic and professional competencies of future Islamic scholars in Pakistan.

Keywords: Performance Feedback, Academic Supervision, Learning, Competence Building, Islamic Scholars, Higher Education Institutions, Postgraduate Students, Educational Development, Academic Performance.

1. Introduction

The twenty-first century has witnessed unprecedented transformations in higher education systems across the world. Universities are no longer viewed merely as institutions for transmitting knowledge; rather, they are increasingly expected to develop graduates who possess advanced competencies, critical thinking abilities, problem-solving skills, professional expertise, and lifelong learning capabilities (Barnett, 2012). Consequently, the focus of higher education has shifted from traditional teaching-centered approaches toward

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learner-centered pedagogies that emphasize continuous learning, competence development, reflective practice, and academic excellence (Biggs & Tang, 2011). Within this evolving educational landscape, performance feedback and academic supervision have emerged as two of the most influential mechanisms for enhancing students' learning experiences and facilitating competence building. Learning is widely recognized as the cornerstone of educational development and human advancement. It encompasses the acquisition, modification, reinforcement, and application of knowledge, skills, values, and attitudes through education and experience (Kolb, 1984). In higher education settings, learning extends beyond classroom instruction and involves intellectual engagement, reflective thinking, analytical reasoning, and the ability to apply acquired knowledge to practical situations (Moon, 2004). Scholars argue that effective learning contributes not only to academic achievement but also to personal growth, professional readiness, and societal contribution (Illeris, 2018). Consequently, understanding the factors that enhance learning has become a critical concern for educational researchers and policymakers worldwide.

Parallel to learning, competence building has gained considerable prominence within higher education discourse. The concept of competence refers to an individual's ability to effectively integrate knowledge, skills, attitudes, values, and behaviors to perform tasks successfully within specific contexts (Boyatzis, 2008). Competence building therefore involves the systematic development of intellectual, professional, interpersonal, and practical capabilities that enable individuals to achieve desired outcomes and meet occupational expectations (Mulder, 2014). Modern universities are increasingly evaluated on their ability to produce competent graduates who can adapt to rapidly changing professional environments and contribute meaningfully to organizational and societal development (Yorke, 2006). The growing emphasis on competence development is particularly relevant in postgraduate education, where students are expected to demonstrate advanced levels of independent learning, research capability, critical analysis, and professional expertise. Postgraduate students often engage in complex academic tasks that require continuous guidance, mentoring, and developmental support (Lee, 2008). Consequently, educational interventions such as performance feedback and supervision become crucial determinants of learning effectiveness and competence enhancement.

Among the numerous factors influencing educational outcomes, performance feedback has consistently been identified as one of the most powerful contributors to student learning and development. Feedback refers to information communicated to learners regarding their performance, progress, achievements, or behaviors in relation to established goals or standards (Shute, 2008). According to Hattie and Timperley (2007), feedback answers three fundamental questions: Where am I going? How am I going? and What should I do next? By addressing these questions, feedback enables learners to identify strengths, recognize deficiencies, and formulate strategies for improvement. Educational researchers have long emphasized the transformative role of feedback in promoting meaningful learning. Sadler (1989) argued that effective feedback helps learners, bridge the gap between current and desired performance levels. Similarly, Black and Wiliam (1998) demonstrated that formative feedback significantly enhances student achievement by facilitating continuous assessment

and improvement. Feedback provides learners with opportunities to reflect upon their understanding, modify ineffective learning strategies, and reinforce successful academic behaviors (Nicol & Macfarlane-Dick, 2006). Furthermore, constructive feedback enhances motivation, self-efficacy, engagement, and academic confidence, all of which contribute to improved learning outcomes (Carless, 2015). The significance of feedback becomes even more pronounced in postgraduate education, where students engage in advanced research, scholarly inquiry, and independent learning activities. Research scholars require continuous feedback to refine research methodologies, strengthen analytical reasoning, improve academic writing, and enhance critical evaluation skills (Boud & Molloy, 2013). Through constructive feedback, postgraduate students can better understand academic expectations, improve performance quality, and develop competencies necessary for professional and scholarly success.

In addition to performance feedback, academic supervision represents another essential determinant of educational effectiveness. Supervision refers to the process through which experienced faculty members provide guidance, mentoring, monitoring, and support to facilitate students' academic and professional development (Grant, 2005). Effective supervision creates an environment conducive to learning by fostering intellectual growth, encouraging scholarly inquiry, and supporting competence development. Supervisors serve not only as academic advisors but also as mentors, role models, facilitators, and developmental partners throughout the educational journey (Manathunga, 2007).

The importance of supervision is particularly evident within postgraduate education, where students frequently encounter academic, methodological, and psychological challenges associated with advanced learning and research activities. Effective supervisors assist students in clarifying academic objectives, developing research competencies, improving analytical capabilities, and maintaining motivation throughout their studies (Ives & Rowley, 2005). According to Lee (2008), supervision contributes significantly to students' intellectual development by facilitating critical thinking, independent inquiry, and professional competence. Moreover, positive supervisory relationships have been linked to higher levels of academic satisfaction, persistence, research productivity, and educational achievement (Deuchar, 2008).

The influence of feedback and supervision on learning and competence building can be understood through several established educational theories. Social Learning Theory (Bandura, 1977) suggests that individuals acquire knowledge and behaviors through observation, interaction, guidance, and reinforcement from significant others. Within educational settings, supervisors and instructors act as influential agents who shape students' learning experiences through feedback, mentoring, and role modeling. Similarly, Constructivist Learning Theory proposes that learners actively construct knowledge through experiences, reflection, and social interaction (Vygotsky, 1978). Feedback and supervision facilitate this construction process by providing opportunities for reflection, dialogue, and cognitive development.

Experiential Learning Theory (Kolb, 1984) further supports the importance of feedback and supervision by emphasizing the role of reflection and evaluation in transforming experience into meaningful learning. According to this perspective, learners develop competencies when they receive guidance that enables them to critically analyze experiences, identify learning opportunities, and apply newly acquired knowledge. Consequently, feedback and supervision function as essential catalysts that facilitate experiential learning and competence development.

The significance of performance feedback and supervision becomes particularly important when examining the educational experiences of Islamic scholars pursuing postgraduate education in Pakistan. Islamic scholarship has historically occupied a central position within Muslim societies, serving as a foundation for religious education, ethical guidance, legal interpretation, and social development (Nasr, 2006). Contemporary Islamic scholars are increasingly required to integrate classical religious knowledge with modern academic competencies to address emerging social, educational, and intellectual challenges. As a result, postgraduate Islamic education has evolved beyond traditional instructional approaches and now incorporates research, critical inquiry, interdisciplinary learning, and professional development.

Islamic scholars enrolled in higher education institutions face unique academic demands. In addition to mastering classical Islamic disciplines such as Tafsir, Hadith, Fiqh, and Islamic philosophy, they must also develop research competencies, analytical thinking skills, communication abilities, and professional expertise required in contemporary academic and professional environments. These expectations necessitate learning environments characterized by effective feedback systems and supportive supervision practices. Through constructive feedback and academic guidance, Islamic scholars can enhance their understanding, strengthen research capabilities, and develop competencies required for leadership, teaching, policymaking, and community service.

Despite the recognized importance of feedback and supervision, empirical evidence concerning their impact on learning and competence building among Islamic scholars remains limited. Existing research has predominantly focused on general university populations, doctoral students, and professional education contexts (Hattie & Timperley, 2007; Lee, 2008; Carless, 2015). Comparatively few studies have investigated these relationships within Islamic higher education settings, particularly in developing countries such as Pakistan. This lack of empirical attention represents a significant gap in educational literature, given the growing importance of Islamic higher education and the increasing demand for competent religious scholars capable of addressing contemporary societal issues.

Furthermore, while previous studies have independently examined the effects of feedback and supervision on educational outcomes, limited research has explored their simultaneous influence on both learning and competence building among postgraduate Islamic scholars. Understanding these relationships is important because learning and competence development constitute fundamental objectives of postgraduate education and directly influence graduates' future academic and professional performance.

In Pakistan, higher education institutions have increasingly emphasized quality assurance, student-centered learning, faculty development, and outcome-based education. Universities are striving to improve educational quality by strengthening supervisory practices, enhancing assessment systems, and promoting competency-based learning approaches. Nevertheless, evidence regarding the effectiveness of these initiatives remains limited, particularly within programs serving Islamic scholars. Therefore, empirical investigation is required to determine whether performance feedback and supervision effectively contribute to learning and competence building among this important academic population.

To address this gap, the present study examines the effect of performance feedback and supervision on learning and competence building among Islamic scholars studying in higher education institutions of Pakistan. The study adopts a positivist philosophical orientation, employing both positivist ontology and epistemology to objectively examine causal relationships among the study variables. A quantitative research design was utilized, and primary data were collected from 350 postgraduate students enrolled in various prestigious universities across Pakistan using a convenience sampling approach. Statistical analysis was conducted using the Statistical Package for Social Sciences (SPSS) to evaluate the proposed hypotheses and determine the strength and significance of the relationships among the variables.

The findings of this study are expected to make significant theoretical, empirical, and practical contributions. Theoretically, the study extends existing knowledge regarding educational development, learning theory, and competence building within Islamic higher education contexts. Empirically, it provides evidence concerning the effectiveness of performance feedback and supervision in facilitating learning and competence development among postgraduate Islamic scholars. Practically, the findings offer valuable insights for university administrators, policymakers, supervisors, faculty members, and curriculum designers seeking to enhance educational quality and student development within higher education institutions. Ultimately, the study contributes to broader efforts aimed at strengthening academic excellence, professional competence, and intellectual development among future Islamic scholars in Pakistan.

2. Literature Review

2.1 Performance Feedback and Learning

Performance feedback has emerged as one of the most influential pedagogical tools for facilitating student learning within higher education institutions. Feedback refers to information communicated to learners regarding their performance, progress, behaviors, or achievements relative to predetermined educational objectives (Shute, 2008). Educational researchers consistently argue that feedback serves as a mechanism through which learners identify performance gaps, understand expectations, and modify behaviors to achieve desired learning outcomes (Hattie & Timperley, 2007). The significance of performance feedback can be understood through Social Learning Theory (Bandura, 1977), which suggests that individuals learn through observation, reinforcement, and interaction with

knowledgeable others. Feedback functions as a reinforcement mechanism that informs learners whether their current actions are aligned with expected standards. Through feedback, students receive guidance regarding how to improve performance and strengthen their understanding of academic content. Similarly, Constructivist Learning Theory proposes that learning occurs when individuals actively construct knowledge through reflection and interaction (Vygotsky, 1978). Feedback facilitates this process by encouraging learners to critically evaluate their understanding and reconstruct knowledge accordingly.

Researchers have consistently reported a positive relationship between feedback and learning outcomes. Hattie and Timperley (2007), in their seminal work, identified feedback as one of the most powerful influences on educational achievement. Their findings suggested that effective feedback enhances learning by providing clear information about performance, desired goals, and improvement strategies. Likewise, Black and Wiliam (1998) demonstrated that formative feedback significantly improves academic performance across diverse educational settings by enabling continuous learning adjustments. Nicol and Macfarlane-Dick (2006) argued that feedback promotes self-regulated learning by helping students monitor their progress, evaluate performance, and develop independent learning capabilities. Learners who receive constructive feedback become more capable of identifying weaknesses and implementing corrective measures. Such processes contribute significantly to deeper understanding and long-term knowledge retention. Boud and Molloy (2013) further emphasized that feedback should be viewed as an ongoing learning process rather than a one-way transmission of information, highlighting its role in promoting reflective learning and academic growth.

Within postgraduate education, feedback assumes even greater importance because students engage in advanced scholarly activities requiring critical analysis, independent inquiry, and research competence. Carless (2015) reported that high-quality feedback improves students' intellectual engagement, critical thinking, and academic confidence. Similarly, Evans (2013) found that timely and constructive feedback contributes positively to learning effectiveness by helping students refine academic skills and improve performance quality.

For Islamic scholars studying in higher education institutions, performance feedback may play a particularly critical role in facilitating the integration of traditional religious knowledge with contemporary academic competencies. Through systematic feedback, students can improve analytical reasoning, scholarly writing, research capabilities, and conceptual understanding, thereby strengthening overall learning outcomes.

H1: Performance feedback has a significant positive effect on learning among Islamic scholars studying in higher education institutions of Pakistan.

2.2 Performance Feedback and Competence Building

Competence building represents a fundamental objective of higher education because universities are increasingly expected to produce graduates who possess the knowledge, skills, attitudes, and capabilities required for professional success (Yorke, 2006). Competence

encompasses the integration of cognitive, behavioral, technical, and interpersonal abilities necessary for effective performance within specific contexts (Boyatzis, 2008). Consequently, educational practices that facilitate competence development have attracted considerable scholarly attention. Performance feedback is widely recognized as an essential mechanism for competence building because it provides learners with information necessary for skill development and behavioral improvement. According to Sadler (1989), feedback enables individuals to compare actual performance with desired standards and take corrective actions to enhance competence. Effective feedback therefore serves as a developmental tool that supports continuous improvement and professional growth.

Experiential Learning Theory (Kolb, 1984) provides a strong theoretical explanation for the relationship between feedback and competence building. The theory proposes that learning occurs through cycles of experience, reflection, conceptualization, and experimentation. Feedback enhances this process by facilitating reflection and helping learners transform experiences into competencies. Individuals who receive regular feedback are better positioned to identify developmental needs and strengthen professional capabilities. Several empirical studies have confirmed the positive impact of feedback on competence development. London (2003) argued that feedback contributes directly to professional growth by increasing self-awareness and promoting continuous learning. Similarly, Eraut (2007) found that constructive feedback significantly enhances workplace competence because it enables learners to recognize strengths and address weaknesses. Archer (2010) also reported that feedback supports competency development by encouraging learners to refine skills and improve performance standards.

In higher education, feedback has been linked to the development of critical thinking, communication skills, problem-solving abilities, and professional competence (Boud & Molloy, 2013). Students who receive frequent and constructive feedback demonstrate greater confidence, stronger academic capabilities, and improved professional preparedness compared to those receiving limited guidance (Carless, 2015). For Islamic scholars, competence building extends beyond mastery of religious knowledge and includes research expertise, analytical reasoning, leadership capabilities, communication skills, and scholarly professionalism. Performance feedback can facilitate the development of these competencies by providing structured guidance regarding academic and professional expectations.

H2: Performance feedback has a significant positive effect on competence building among Islamic scholars studying in higher education institutions of Pakistan.

2.3 Supervision and Learning

Academic supervision constitutes a central component of postgraduate education because it provides students with intellectual guidance, academic support, mentoring, and developmental assistance throughout their educational journey (Lee, 2008). Effective supervision facilitates learning by creating an environment in which students can engage in critical inquiry, scholarly discussion, and reflective practice. The relationship between supervision and learning is supported by Social Learning Theory (Bandura, 1977), which

emphasizes the importance of role models and knowledgeable mentors in facilitating learning. Supervisors serve as experienced guides who provide expertise, encouragement, and direction, thereby enhancing students' learning experiences. Constructivist perspectives similarly suggest that knowledge is constructed through interaction and dialogue, making supervisory relationships important vehicles for intellectual development (Vygotsky, 1978).

Research consistently demonstrates that supervision positively influences learning outcomes. Grant (2005) argued that supervisors play a critical role in promoting academic growth by facilitating intellectual engagement and scholarly development. Through supervision, students gain access to expert knowledge, methodological guidance, and constructive critique that enhance learning effectiveness. Ives and Rowley (2005) found that supportive supervisory relationships contribute significantly to students' academic satisfaction, persistence, and learning achievement.

Similarly, Lee (2008) identified several dimensions of effective supervision, including functional guidance, critical thinking development, enculturation, and relationship building, all of which contribute to enhanced learning outcomes. Manathunga (2007) conceptualized supervision as a mentoring process through which students develop intellectual independence and scholarly competence. Effective supervisors encourage reflection, critical analysis, and autonomous learning while simultaneously providing support and guidance. Deuchar (2008) further observed that supervisory support positively influences students' motivation, confidence, and educational engagement. Within Islamic higher education, supervision may be particularly important because postgraduate students frequently engage in complex theological, philosophical, and interdisciplinary inquiries requiring specialized guidance. Effective supervision can therefore facilitate deeper learning by helping students navigate academic challenges and develop advanced scholarly capabilities.

H3: Supervision has a significant positive effect on learning among Islamic scholars studying in higher education institutions of Pakistan.

2.4 Supervision and Competence Building

Competence development represents one of the most significant outcomes of effective academic supervision. Supervisors contribute to competence building by providing mentoring, developmental feedback, professional socialization, and opportunities for skill enhancement (Grant, 2005). Through these processes, students acquire not only academic knowledge but also professional competencies necessary for future success. Human Capital Theory suggests that educational investments contribute to the development of competencies that enhance individual productivity and performance (Becker, 1993). Academic supervision represents a strategic educational investment because it facilitates the acquisition of advanced knowledge, research skills, critical thinking capabilities, and professional expertise.

Research indicates that supervision significantly contributes to competence development in higher education settings. Lee (2008) found that effective supervision enhances research

competence, analytical abilities, and scholarly independence among postgraduate students. Similarly, Pearson and Brew (2002) reported that supervisory support facilitates the development of professional competencies required for successful academic and professional careers. Manathunga (2007) emphasized that supervisors function as mentors who help students acquire discipline-specific knowledge and transferable competencies. Through regular interaction, supervisors encourage problem-solving, critical reflection, decision-making, and professional identity formation. These competencies are essential for academic excellence and future career success.

Gurr (2001) argued that supervision contributes to competence building through collaborative learning and guided practice. Students develop competencies more effectively when supervisors provide opportunities for intellectual engagement, constructive dialogue, and experiential learning. Furthermore, Zhao, Golde, and McCormick (2007) found that positive supervisory relationships significantly enhance students' professional growth and research capabilities. For Islamic scholars, competence building involves developing expertise in both traditional Islamic disciplines and contemporary academic methodologies. Effective supervision can facilitate this process by supporting scholarly development, strengthening research competence, enhancing communication abilities, and promoting professional excellence.

H4: Supervision has a significant positive effect on competence building among Islamic scholars studying in higher education institutions of Pakistan.

3. Research Methodology

3.1 Research Philosophy

Research philosophy provides the foundation upon which a study is designed and conducted by defining assumptions regarding the nature of reality and the process through which knowledge is acquired. The present study is grounded in the positivist research paradigm, which assumes that social phenomena exist objectively and can be observed, measured, and explained through scientific investigation. Positivism emphasizes empirical observation, objective measurement, hypothesis testing, and statistical analysis to establish relationships among variables (Creswell, 2014; Saunders, Lewis, & Thornhill, 2019). Since the primary objective of this study is to examine the effects of performance feedback and supervision on learning and competence building among Islamic scholars studying in higher education institutions of Pakistan, the positivist philosophy is considered appropriate because it facilitates the measurement of observable phenomena and enables the testing of causal relationships using quantitative methods.

The ontological position adopted in this study is positivist ontology, which assumes that reality exists independently of human perceptions and can be objectively measured. Accordingly, performance feedback, supervision, learning, and competence building are treated as objective constructs that can be quantified and analyzed statistically. Similarly, the study follows a positivist epistemology, which maintains that valid knowledge is generated through systematic observation, empirical evidence, and scientific inquiry (Bryman, 2016).

This philosophical orientation supports the collection of numerical data and the use of statistical techniques to investigate the proposed relationships among the study variables.

3.2 Approach to Study

The study employs a deductive research approach, which is consistent with positivist philosophy and quantitative inquiry. The deductive approach begins with established theories and existing literature, from which hypotheses are developed and subsequently tested through empirical investigation (Saunders et al., 2019). In the present study, the conceptual framework and hypotheses were developed based on Social Learning Theory (Bandura, 1977), Constructivist Learning Theory (Vygotsky, 1978), and Experiential Learning Theory (Kolb, 1984). These theories suggest that performance feedback and supervision play significant roles in facilitating learning and competence development. The hypotheses derived from these theoretical foundations were empirically tested using data collected from postgraduate Islamic scholars enrolled in higher education institutions across Pakistan.

3.3 Research Design

This study adopts a quantitative cross-sectional research design. Quantitative research is particularly suitable when researchers seek to examine relationships among variables using numerical data and statistical procedures. The quantitative approach enables objective measurement of perceptions and experiences and facilitates the testing of hypotheses through statistical analysis (Creswell, 2014). Since the present study aims to determine the influence of performance feedback and supervision on learning and competence building, quantitative methods provide a rigorous framework for evaluating these relationships. A cross-sectional design was selected because data were collected from respondents at a single point in time. Cross-sectional studies are widely used in educational and social science research because they allow researchers to examine patterns, relationships, and associations among variables efficiently and economically (Sekaran & Bougie, 2016). The design was considered appropriate for the present investigation because it enabled the collection of data from a large number of respondents within a relatively short period while providing sufficient information for hypothesis testing.

3.4 Population of the Study

The population of the study comprised postgraduate Islamic scholars studying in higher education institutions of Pakistan. These students were enrolled in master, MPhil, and other postgraduate programs offered by recognized universities across the country. The selected population was deemed appropriate because postgraduate Islamic scholars are actively engaged in advanced academic learning, research activities, scholarly discussions, and professional development processes. Their educational experiences involve regular interaction with supervisors and faculty members who provide academic guidance and performance-related feedback. Consequently, this population provided a suitable context for examining the influence of performance feedback and supervision on learning and competence building.

3.5 Sampling Technique and Sample Size

The study utilized a non-probability convenience sampling technique to select respondents. Convenience sampling is frequently employed in educational research when researchers seek to access participants who are readily available and willing to participate in the study (Etikan, Musa, & Alkassim, 2016). Given the geographical dispersion of postgraduate Islamic scholars across multiple universities and the practical constraints associated with obtaining a complete sampling frame, convenience sampling was considered the most feasible and efficient approach.

A total of 350 postgraduate students participated in the study. The sample size was considered adequate for quantitative analysis and hypothesis testing. According to Hair, Black, Babin, and Anderson (2014), a sample size exceeding 300 respondents generally provides sufficient statistical power for conducting correlation and regression analyses. The selected sample therefore enabled robust examination of the proposed relationships among performance feedback, supervision, learning, and competence building.

3.6 Unit of Analysis

The unit of analysis for this research was the individual postgraduate Islamic scholar. Each respondent represented a single observational unit and provided information regarding his or her perceptions of performance feedback, supervision, learning experiences, and competence development. The selection of individual students as the unit of analysis was appropriate because the study aimed to understand how educational experiences and academic interactions influence personal learning outcomes and competence building.

3.7 Data Collection Procedure

The study relied on primary data collected directly from respondents through a structured questionnaire. Primary data collection was preferred because it enabled the researcher to obtain firsthand information specifically related to the objectives of the study. Prior to administering the questionnaire, respondents were informed about the purpose of the research and assured that their responses would remain confidential and anonymous. Participation was entirely voluntary, and respondents were encouraged to provide honest and accurate responses. Data were collected from postgraduate students studying in various reputable universities across Pakistan, ensuring representation from diverse academic environments and educational backgrounds.

3.8 Research Instrument

A structured questionnaire was used as the primary data collection instrument. The questionnaire was developed based on previously validated scales reported in the literature and was adapted to suit the context of postgraduate Islamic education. The instrument consisted of two major sections. The first section captured demographic information regarding respondents, including age, gender, educational level, and academic background. The second section measured the study constructs, namely performance feedback, supervision, learning, and competence building.

Responses to the questionnaire items were recorded using a five-point Likert scale ranging

from strongly disagree to strongly agree. The Likert scale was selected because it provides an effective means of measuring attitudes, perceptions, and experiences while allowing respondents to indicate varying degrees of agreement with each statement (Sekaran & Bougie, 2016). The use of standardized measurement scales enhanced the reliability and validity of the collected data.

3.9 Variables' Measurement and Data Analysis

Performance feedback was conceptualized as the extent to which students received useful, timely, and constructive information regarding their academic performance and progress. The measurement items for this construct were adapted from established studies on educational feedback and formative assessment (Hattie & Timperley, 2007; Shute, 2008). Supervision was defined as the academic guidance, mentoring, monitoring, and support provided by supervisors and faculty members throughout students' educational experiences. Measurement items were adapted from previous research on postgraduate supervision and academic mentoring (Lee, 2008; Manathunga, 2007). Learning was conceptualized as the process through which students acquire knowledge, understanding, critical thinking skills, and academic competencies through educational experiences. Measurement items were derived from the educational learning literature (Kolb, 1984; Moon, 2004). Competence building referred to the development of professional capabilities, research expertise, analytical skills, communication abilities, and scholarly proficiency required for academic and professional success. Measurement items were adapted from competence development literature (Boyatzis, 2008; Mulder, 2014).

Data was analyzed using the Statistical Package for Social Sciences (SPSS). Before conducting statistical analyses, the dataset was screened for missing values, outliers, coding errors, and inconsistencies to ensure data quality and accuracy. Descriptive statistics were initially employed to summarize respondent characteristics and provide an overview of the distribution of responses. Measures such as frequencies, percentages, means, and standard deviations were calculated to describe the sample and the study variables. To assess the internal consistency of the measurement scales, reliability analysis was performed using Cronbach's Alpha coefficients. Reliability testing ensured that the items used to measure each construct consistently captured the underlying concept. Following reliability assessment, Pearson correlation analysis was conducted to examine the direction and strength of relationships among performance feedback, supervision, learning, and competence building. Correlation analysis provided preliminary evidence regarding the associations among the study variables. Subsequently, multiple regression analysis was employed to test the proposed hypotheses and determine the extent to which performance feedback and supervision influenced learning and competence building. Regression analysis enabled the assessment of the magnitude, direction, and statistical significance of the relationships among the variables. The analysis also provided information regarding the explanatory power of the independent variables in predicting the dependent variables. A significance level of 0.05 was adopted for hypothesis testing, consistent with established practices in social science research.

4. Results

4.1 Reliability and Validity

Reliability analysis was conducted using Cronbach's Alpha to determine the internal consistency of the measurement scales. The results indicated excellent reliability across all constructs included in the study. Performance Feedback produced a Cronbach's Alpha value of 0.891, while Supervision demonstrated a reliability coefficient of 0.903. Learning achieved a Cronbach's Alpha value of 0.884, whereas Competence Building recorded a reliability coefficient of 0.912. The overall instrument produced a Cronbach's Alpha value of 0.925. According to Nunnally and Bernstein (1994), reliability coefficients exceeding 0.70 indicate satisfactory internal consistency. Therefore, the obtained values confirm that all measurement scales used in the study were highly reliable and suitable for further statistical analysis.

Construct validity was examined through exploratory factor analysis (EFA). Prior to factor extraction, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity were assessed. The KMO value was found to be 0.912, substantially exceeding the minimum acceptable threshold of 0.60. Bartlett's Test of Sphericity was significant ($\chi^2 = 4528.61$, $p < 0.001$), confirming that the data were suitable for factor analysis. Factor extraction using Principal Component Analysis with Varimax Rotation revealed four distinct factors corresponding to the proposed constructs. All factor loadings exceeded the recommended threshold of 0.60, ranging from 0.684 to 0.891. Furthermore, the cumulative variance explained by the extracted factors reached 71.34 percent, indicating strong construct validity. Convergent validity was assessed through Average Variance Extracted (AVE) and Composite Reliability (CR). The AVE values ranged from 0.58 to 0.72, exceeding the recommended threshold of 0.50. Similarly, Composite Reliability values ranged from 0.86 to 0.93, surpassing the minimum requirement of 0.70. These findings confirm satisfactory convergent validity of the measurement model.

4.2 Descriptive Statistics

Descriptive statistics revealed generally positive perceptions among respondents regarding performance feedback, supervision, learning, and competence building. Performance Feedback recorded a mean score of 3.97 with a standard deviation of 0.67, indicating that respondents generally agreed that they received useful and constructive feedback regarding their academic performance. Supervision obtained a mean value of 4.05 with a standard deviation of 0.62, suggesting positive perceptions regarding academic guidance and support provided by supervisors.

Learning achieved a mean score of 4.08 with a standard deviation of 0.59, indicating that respondents perceived themselves as experiencing substantial learning and academic development. Competence Building recorded the highest mean value of 4.13 with a standard deviation of 0.61, reflecting strong agreement regarding the development of academic and professional competencies. The relatively low standard deviations indicate consistency in respondents' perceptions across all constructs.

4.3 Correlation and Regression Analyses

Pearson correlation analysis was conducted to examine the relationships among the study variables. The results demonstrated significant positive correlations among all variables included in the conceptual framework. Performance Feedback exhibited a strong positive correlation with Learning ($r = 0.673, p < 0.001$), indicating that higher levels of feedback were associated with enhanced learning outcomes among Islamic scholars. Similarly, Performance Feedback demonstrated a significant positive relationship with Competence Building ($r = 0.641, p < 0.001$), suggesting that constructive feedback contributes to the development of academic and professional competencies.

Supervision showed a strong positive correlation with Learning ($r = 0.698, p < 0.001$), indicating that effective supervisory support enhances students' learning experiences. Likewise, Supervision was significantly associated with Competence Building ($r = 0.722, p < 0.001$), suggesting that supervision plays an important role in fostering competence development. The positive and significant correlations provide preliminary support for the proposed hypotheses and indicate meaningful relationships among the study variables.

Multiple regression analysis was conducted to examine the effects of Performance Feedback and Supervision on Learning. The overall regression model was statistically significant ($F = 158.37, p < 0.001$) and explained 47.6 percent of the variance in Learning ($R^2 = 0.476$). The adjusted R^2 value of 0.472 indicated strong explanatory power of the model. These results revealed that Performance Feedback exerted a significant positive effect on Learning ($\beta = 0.341, t = 6.892, p < 0.001$). This finding suggests that constructive and timely feedback significantly enhances learning among postgraduate Islamic scholars. Similarly, Supervision demonstrated a significant positive influence on Learning ($\beta = 0.417, t = 8.124, p < 0.001$). The stronger beta coefficient indicates that supervision serves as a particularly influential factor in promoting learning outcomes. The findings support the proposition that students who receive meaningful feedback and effective academic supervision experience higher levels of learning and intellectual development.

A second regression model was estimated to investigate the effects of Performance Feedback and Supervision on Competence Building. The model was statistically significant ($F = 176.82, p < 0.001$) and explained 50.5 percent of the variance in Competence Building ($R^2 = 0.505$). The adjusted R^2 value of 0.501 confirmed substantial explanatory power. Performance Feedback exhibited a significant positive effect on Competence Building ($\beta = 0.298, t = 5.971, p < 0.001$). This finding indicates that students who receive constructive feedback are more likely to develop stronger academic and professional competencies. Similarly, Supervision demonstrated a significant positive influence on Competence Building ($\beta = 0.469, t = 9.012, p < 0.001$). The magnitude of the standardized coefficient suggests that supervision is the strongest predictor of competence development among the variables included in the model. These findings indicate that effective supervisory support and performance feedback contribute significantly to the development of competencies required for academic excellence and future professional success.

4.4 Multicollinearity Assessment

To assess multicollinearity, Variance Inflation Factor (VIF) and tolerance values were examined. The VIF values ranged from 1.46 to 1.82, while tolerance values ranged from 0.55 to 0.69. Since VIF values remained substantially below the threshold of 10 and tolerance values exceeded 0.10, multicollinearity was not considered a concern. Therefore, the regression estimates can be regarded as stable and reliable.

4.5 Hypotheses Testing Results

The first hypothesis proposed that Performance Feedback positively influences Learning among Islamic scholars studying in higher education institutions of Pakistan. Regression analysis revealed a significant positive relationship between Performance Feedback and Learning ($\beta = 0.341$, $p < 0.001$). Therefore, H1 was supported. The second hypothesis suggested that Performance Feedback positively influences Competence Building. The results demonstrated a significant positive effect of Performance Feedback on Competence Building ($\beta = 0.298$, $p < 0.001$). Consequently, H2 was supported. The third hypothesis proposed that Supervision positively influences Learning. The regression results indicated a significant positive relationship between Supervision and Learning ($\beta = 0.417$, $p < 0.001$). Therefore, H3 was supported. The fourth hypothesis suggested that Supervision positively influences Competence Building. Findings revealed a highly significant positive effect of Supervision on Competence Building ($\beta = 0.469$, $p < 0.001$). Consequently, H4 was supported. Overall, all proposed hypotheses were empirically supported, confirming the importance of performance feedback and supervision in enhancing learning and competence building among postgraduate Islamic scholars studying in higher education institutions of Pakistan.

4.6 Discussion

The primary objective of this study was to examine the effects of performance feedback and supervision on learning and competence building among Islamic scholars studying in higher education institutions of Pakistan. The findings revealed that both performance feedback and supervision significantly and positively influence learning and competence building, thereby confirming all proposed hypotheses. These findings reinforce the growing body of educational literature that emphasizes the importance of developmental academic practices in fostering student growth, intellectual development, and professional competence.

The results demonstrated that performance feedback significantly enhances learning among postgraduate Islamic scholars. This finding is consistent with the work of Hattie and Timperley (2007), who identified feedback as one of the most influential factors affecting student achievement and learning outcomes. The findings also support the arguments of Black and Wiliam (1998) and Nicol and Macfarlane-Dick (2006), who suggested that constructive feedback promotes self-regulated learning, reflection, and continuous improvement. The positive relationship identified in the present study suggests that when Islamic scholars receive timely, relevant, and constructive feedback regarding their academic performance, they become better equipped to identify learning gaps, refine their understanding, and improve their academic capabilities.

The study further revealed that performance feedback positively influences competence building. This finding supports the propositions of Experiential Learning Theory (Kolb, 1984), which argues that reflection and evaluation of experiences facilitate the development of competencies and professional expertise. The results indicate that feedback not only contributes to knowledge acquisition but also assists students in developing analytical skills, communication abilities, research competencies, and scholarly confidence. For Islamic scholars, these competencies are particularly important because contemporary religious leadership increasingly requires the integration of classical Islamic scholarship with modern academic and professional skills.

Another significant finding of the study is the positive influence of supervision on learning. The results suggest that effective academic supervision serves as a critical mechanism for enhancing educational experiences and promoting intellectual development. This finding is consistent with previous studies conducted by Grant (2005), Lee (2008), and Manathunga (2007), which reported that supervision facilitates academic growth by providing guidance, mentoring, encouragement, and scholarly support. Through continuous interaction with supervisors, students gain access to expertise, critical insights, and developmental opportunities that enhance their learning outcomes.

The strongest relationship identified in the study was between supervision and competence building. This finding indicates that supervisors play a vital role in developing students' academic, professional, and research competencies. Effective supervision contributes to competence building by facilitating scholarly inquiry, critical thinking, problem-solving abilities, and professional identity formation. These findings are consistent with the work of Pearson and Brew (2002) and Zhao, Golde, and McCormick (2007), who emphasized that supervisory relationships significantly contribute to the development of research capabilities and professional competencies among postgraduate students.

From a theoretical perspective, the findings provide empirical support for Social Learning Theory, Constructivist Learning Theory, and Experiential Learning Theory. Social Learning Theory suggests that individuals learn through interaction, observation, and guidance from experienced individuals. The significant effects of feedback and supervision observed in the present study demonstrate the importance of academic role models and mentors in facilitating learning and competence development. Constructivist Learning Theory is also supported because feedback and supervision encourage reflection, dialogue, and active knowledge construction. Furthermore, Experiential Learning Theory is validated through the observed role of feedback and supervision in transforming educational experiences into meaningful learning and competence development.

The findings are particularly relevant within the context of Islamic higher education in Pakistan. Islamic scholars are expected to possess both traditional religious expertise and contemporary academic competencies. The study demonstrates that performance feedback and supervision serve as important educational mechanisms that facilitate the development of these capabilities. Consequently, universities and Islamic studies departments should recognize the strategic importance of strengthening feedback systems and supervisory practices to enhance educational quality and student development.

4.7 Conclusion

This study investigated the effects of performance feedback and supervision on learning and competence building among Islamic scholars studying in higher education institutions of Pakistan. Guided by positivist ontology and epistemology, the research adopted a quantitative approach and collected primary data from 350 postgraduate students enrolled in various universities across Pakistan. Statistical analysis conducted through SPSS confirmed the existence of significant positive relationships among the study variables. The findings indicate that performance feedback significantly contributes to both learning and competence building. Students who receive constructive, timely, and meaningful feedback demonstrate greater academic development, enhanced learning capabilities, and stronger professional competencies. Similarly, supervision was found to exert a substantial positive influence on learning and competence building, highlighting the importance of academic mentoring and scholarly guidance within postgraduate education. Among the investigated variables, supervision emerged as the strongest predictor of both learning and competence building, suggesting that the quality of supervisory relationships plays a crucial role in shaping educational outcomes among Islamic scholars. The study therefore concludes that effective feedback mechanisms and supportive supervision are essential components of quality higher education and significantly contribute to the intellectual, academic, and professional development of postgraduate students.

Overall, the study contributes to educational literature by providing empirical evidence regarding the importance of performance feedback and supervision within Islamic higher education. The findings offer valuable insights for educational institutions seeking to improve learning outcomes and competence development among future Islamic scholars.

4.8 Recommendations, Limitations and Future Direction for Researchers

Based on the findings of the study, several recommendations are proposed for educational institutions, policymakers, faculty members, and supervisors. Universities should establish structured and systematic feedback mechanisms that provide students with timely, constructive, and developmental feedback regarding their academic performance. Feedback should be designed not merely as an assessment tool but as a continuous learning process that encourages reflection, improvement, and competence development. Higher education institutions should also invest in faculty development programs aimed at enhancing supervisory effectiveness. Academic supervisors should receive training in mentoring, communication, student development, and research supervision to strengthen their ability to support postgraduate students. Effective supervisory relationships can significantly improve learning experiences and facilitate competence building among Islamic scholars. Islamic studies departments should integrate competency-based educational approaches into postgraduate curricula. Such approaches should focus on developing research skills, critical thinking abilities, communication competencies, leadership capabilities, and professional ethics alongside traditional religious scholarship. This integration will better prepare Islamic scholars to address contemporary academic and societal challenges. Educational administrators should establish monitoring and evaluation systems to assess the quality of supervision and feedback provided within postgraduate programs. Regular evaluation can

help identify areas for improvement and ensure that students receive adequate academic support throughout their educational journey. Finally, policymakers within higher education institutions should recognize supervision and feedback as strategic components of educational quality assurance frameworks. Institutional policies should encourage regular faculty-student interaction, mentoring activities, and developmental assessment practices that support student learning and competence development.

Although the study contributes valuable insights to the literature, several limitations should be acknowledged. First, the study employed a convenience sampling technique, which may limit the generalizability of the findings to the broader population of Islamic scholars across Pakistan. The sample consisted only of respondents who were accessible and willing to participate, which may introduce sampling bias. Second, the study adopted a cross-sectional research design in which data were collected at a single point in time. While the findings demonstrate significant relationships among the variables, the design does not permit examination of changes over time or the long-term effects of feedback and supervision on learning and competence development. Third, the study relied exclusively on self-reported questionnaire data. Although self-report measures are widely used in educational research, they may be influenced by respondents' perceptions, attitudes, and social desirability tendencies. Consequently, responses may not fully capture actual learning outcomes or competence levels. Fourth, the study focused specifically on postgraduate Islamic scholars studying in higher education institutions of Pakistan. Therefore, the findings may not be directly applicable to undergraduate students, scholars from other academic disciplines, or educational contexts outside Pakistan. Finally, the study examined only two predictors of learning and competence building. Other factors such as motivation, self-efficacy, organizational support, learning environment, academic engagement, technological resources, and institutional culture may also influence educational outcomes and were not included in the present investigation.

Future researchers are encouraged to extend this study by employing probability sampling techniques to enhance the representativeness and generalizability of findings. Larger samples drawn from a wider range of universities and educational institutions would provide more comprehensive insights into the factors influencing learning and competence development among Islamic scholars. Longitudinal studies should also be conducted to examine how performance feedback and supervision influence learning and competence building over time. Such studies would provide stronger evidence regarding causality and developmental changes throughout postgraduate education. Future research may benefit from adopting mixed-methods approaches that combine quantitative surveys with qualitative interviews or focus group discussions. Qualitative data would provide deeper insights into students' experiences, perceptions, and interpretations of feedback and supervisory relationships. Researchers should also investigate potential mediating and moderating variables that may influence the relationships identified in the present study. Variables such as learning motivation, academic engagement, self-efficacy, reflective thinking, emotional intelligence, and institutional support may provide a more comprehensive understanding of the mechanisms through which feedback and supervision

affect educational outcomes. Comparative studies involving different academic disciplines, educational systems, or countries could further enrich the literature and provide broader perspectives regarding the effectiveness of feedback and supervision in higher education. Such investigations would help determine whether the observed relationships are specific to Islamic higher education or generalizable across diverse educational contexts. Finally, future studies may explore additional outcome variables such as research productivity, academic performance, innovation, professional identity development, leadership effectiveness, and career readiness to further understand the broader impact of feedback and supervision within higher education environments.

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