

DOCTORAL EDUCATION IN COMMERCE: EVIDENCE-BASED INSIGHTS INTO RESEARCH ORIENTATION, QUALITY, AND POLICY RELEVANCE***Dr. J. Madegowda**

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Abstract

In recent years, there has been a substantial increase in doctoral studies in commerce, signalling increased importance put on knowledge production in the contemporary system of higher education. Doctoral education in commerce is expected to contribute to the academic knowledge and professional practice. However, this growth has evoked significant concerns over the research focus, quality and relevance of doctoral work in the discipline. This study provides an evidence-based evaluation of doctoral studies in commerce through a systematic investigation of insights from peer-reviewed scholarly literature, policy documents, and case-based evidence. The study shows that doctoral research generally employs an empirical and methodological approach, and has a comparatively lower focus on theory-construction and conceptual development. The study shows that there is a long-standing discrepancy between academic research and its relevance to the industry, policy, and the social needs in general. Issues such as methodological limitations, institutional disparities, supervisory constraints, and limited industry engagement continue to influence research quality and impact. In response, this study develops an integrated conceptual framework linking research relevance, orientation, and quality assurance as interdependent dimensions of doctoral education. The findings of the study show the need for systemic reforms aimed at enhancing industry-university linkages, fostering intellectual originality, strengthening research rigor, and promoting multidisciplinary collaboration. The study contributes to the body of literature by providing a comprehensive policy-relevant perspective on improving the societal impact, effectiveness, and coherence of doctoral studies in commerce.

Keywords: Commerce Research, Doctoral Education, Higher Education Policy, Policy Relevance, Research Orientation, Research Quality.

INTRODUCTION

Doctoral education has assumed renewed importance in the light of unprecedented growth of higher education systems and the emergence of knowledge-driven economies. Universities are now regarded not merely as centres of teaching, but also as centres of knowledge production, innovation, and human capital formation. Within this broader transformation, doctoral programs play a pivotal role in developing advanced research capabilities and contributing to national and global knowledge systems (Altbach, 2007; Aghion *et al.*, 2010). Due to the massification of higher education and the focus of policy on research output, global rankings, and research impact, the number of candidates registered for doctoral programs across disciplines, including commerce studies, has increased significantly (Cyranoski *et al.*, 2011; Nerad & Evans, 2014). Meanwhile, evolving stakeholder expectations, globalisation, and technological change have transformed the landscape of doctoral education, raising major questions about research orientation, relevance, and quality assurance (Pelser & Alonso, 2024; Machitidze & Irina Bakhtadze, 2025). The field of commerce and business-related studies holds a unique place in doctoral education as they operate at the intersection of rigorous academic inquiry and practical application. Doctoral education in commerce is expected to produce scholars who are capable of contributing to theoretical advancement and addressing real-world organisational and economic challenges (Pfeffer & Fong, 2017; Ken Starkey & Madan, 2002). In this respect, doctoral programs function as a bridge between academia, industry, and policy domains.

Nevertheless, this dual expectation often creates conflicts between the demands of academic rigor and the professional orientation of the field. Although some doctoral studies demonstrate methodological sophistication and theoretical engagement, a considerable proportion remains narrowly empirical or descriptive, with little to add to conceptual innovation. Over the past few years, a few issues, as identified below, have been raised concerning the state of doctoral research in commerce:

- (a) Variability in research quality is widely reported, with significant differences between institutions in terms of publication outcomes, methodological rigor, and supervisory capacity (Nerad & Evans, 2014; Walker *et al.*, 2009).
- (b) Poor theoretical contributions are observed, as most of the research studies are full of borrowed constructs, and only a few of them produce original knowledge (Donald C. Hambrick, 2007).
- (c) There has been a growing attention to the low applicability of doctoral research to industry and social policy, especially when the subjects of research are driven more by the availability of data, methodological convenience or scholarly tradition rather than by a significant societal or economic problem (Khurana & Spender, 2012; Pettigrew, 2011).

These concerns are further reinforced by the employer attitudes, doubting the practical readiness of doctoral graduates and their capability to participate in interdisciplinary and applied problem-solving environments (Singh & Singh, 2025; Reichmann, 2025). The need for conducting an evidence-based study of doctoral studies in commerce also arises from general trends in the system. There is a growing international focus on

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research quality, impact, and accountability, indicated in institutional performance metrics, research assessment frameworks, and accreditation standards (Kundu, 2022). Simultaneously, doctoral programs are expected to prepare graduates for diverse career pathways, including consultancy, academia, industry, and policy. These expectations underscore the need for doctoral research that is not only methodologically rigorous but also intellectually relevant and socially meaningful. Although the literature on doctoral education and research in business is growing, the available evidence is scattered throughout academic literature, policy documents and institutional audit reports. There is an absence of integrative studies to analyse doctoral education in commerce using a constructive combination of research orientation, quality and relevance. Addressing this gap is important in coming up with a coherent explanation of the structural and intellectual issues that doctoral education in this field faces. It is against this background that the present study aims to offer evidence-based analysis of doctoral education in commerce. More particularly, the study addresses three objectives, viz.,

- (a) To evaluate the prevailing research orientation in doctoral commerce studies, like thematic and methodological trends;
- (b) To examine the quality dimensions and associated issues, with special emphasis on standards of originality, rigor, and research outputs; and
- (c) To explore the relevance of doctoral research to public policy, academia, and industry.

By so doing so, the study intends to develop an integrated, analytical perspective that brings these dimensions together and alludes to their interdependence.

Methodologically, the study adopts a systematic, evidence-based analytical approach, relying on peer-reviewed scholarly literature, illustrative case-based evidence, and publicly available policy documents. Through thematic synthesis and interpretive analysis, the study identifies emerging directions, recurring patterns, and systemic issues in doctoral research in commerce. The rest of the study is presented as follows: Section 2 identifies the conceptual and theoretical foundations of the analysis. Section 3 outlines the methodology and data. Sections 4-6 deal with research orientation, quality and relevance, respectively. Section 7 summarises the results and presents the important systemic problems, whereas Section 8 provides policy implications and recommendations. The last Section concludes with thoughts for the future direction of doctoral studies in commerce.

Conceptual and Theoretical Anchors

This section provides the conceptual background to the analysis of doctoral education in the field of commerce by putting it into the wider context of the debate on knowledge production, research orientation, quality and relevance. Doctoral education is not simply a pedagogical process but a systematic process of producing, substantiating and sharing knowledge at disciplinary and institutional levels. These dimensions also gain complexity in the context of commerce and business studies that have an applied orientation, interdisciplinary nature and strong linkages to practice. The frameworks discussed below offer a coherent perspective for understanding how doctoral research is aligned, shaped, and evaluated with academic and societal expectations (Figure 1).

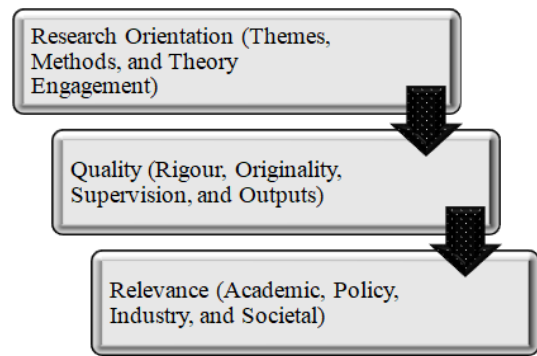


Figure 1. Conceptual Framework Linking Research Orientation, Quality, and Relevance

Doctoral Education as Knowledge Production

Doctoral education is generally conceptualised as a dual process involving advanced research training and knowledge creation, along with the professional development of scholars. Fundamentally, the doctorate represents, for all practical purposes, the highest level of academic qualification, aimed at developing individuals capable of producing original contributions through rigorous and systematic investigation (Walker *et al.*, 2009; Nerad, 2010). Doctoral education is concerned with socialisation into the development of critical thinking abilities, disciplinary communities, preparation for diverse academic and non-academic careers, and adherence to ethical research practices (Elmgren *et al.*, 2016; Rana & Aitken, 2025). In addition to individual training, doctoral programs serve as institutional mechanisms for sustaining disciplinary development and innovation within the broader knowledge economy (Altbach, 2007). It may be noted here that an important difference exists between Mode 1 and Mode 2 knowledge production:

- (a) “Mode 1 knowledge production” represents the theory-driven, traditional, discipline-based research conducted within academic settings, focusing on conceptual development and methodological rigor.
- (b) Contrarily, “Mode 2 knowledge production” is interdisciplinary, context-driven, and problem-oriented, often produced in collaboration with external parties and aimed at practical application (Gibbons *et al.*, 2010; Awashreh & Ghunaimi, 2025).

Doctoral education in commerce operates at the confluence of these modes, where expectations of theoretical contribution coexist with demands for real-world applicability. This intersection creates an inherent conflict/dilemma, as doctoral research must simultaneously meet academic standards of rigor while fulfilling the needs of society, industry, and policy.

Research Orientation in Commerce

The orientation of doctoral studies in commerce can be perceived as a multidimensional construct that goes beyond the choice of topics or methods. It encompasses the stance doctoral scholars adopt toward inquiry, including their ability to situate research within broader scholarly and practical contexts, engagement with theory, and openness to methodological diversity (Diery *et al.*, 2020). Operationally, research orientation spans a spectrum between theoretical, analytical, and inquiry as well as empirical research, applied research and practice-focused research. On the one hand, doctoral work can

focus on theory construction, conceptual development, and analytic modelling. On the other hand, research can aim at providing answers to real-life business issues using empirical research and case studies (Ken Starkey & Madan, 2002). Commerce as a discipline is interdisciplinary by nature, integrating insights from accounting, finance, marketing, management, public policy, and increasingly, the study of data science and technology. Such interdisciplinarity can expand the field of research, yet it also introduces complexities in epistemology and methodology, as different traditions and assumptions have to be negotiated by scholars (Khurana & Spender, 2012). The continuous debate on what constitutes positivist and interpretivist, and the role of practitioner knowledge, further shapes research orientation in commerce (Hanchinamani, 2022). As a result, doctoral research in commerce often indicates a hybrid orientation, integrating analytical frameworks with empirical investigation. Nevertheless, concerns persist that the overreliance on empirical techniques, particularly quantitative methods, may lead to method-driven instead of question-driven research, thereby limiting theoretical innovation and intellectual originality (Donald C. Hambrick, 2007).

Doctoral Research and Quality

Quality of doctoral research is a multidimensional construct that deals with methodological rigor, originality, research outputs, supervisory effectiveness, and ethical integrity. "Methodological rigor" denotes the soundness and suitability of research design, data gathering, and methods of analysis, whereas "originality" implies a meaningful addition to knowledge in the form of new knowledge or methods (Phillips & Pugh, 2015). Contemporary paradigms capture the concept of "quality" in terms of consistency between research questions and design, engagement with the existing literature, transparency in methodology and ways in which the results can be useful to other parties outside academia (Kim *et al.*, 2020). The Publication outcomes, especially in peer-reviewed and indexed journals, are popular as a proxy of research quality, reflecting broader trends in performance measurement and global benchmarking (Aghion *et al.*, 2010). Doctoral "supervision" plays a key role in the quality assurance as the supervisors guide/determine the research design, methodology, and the level of scholarship (Lee, 2008). However, there are a few significant challenges to interdisciplinary benchmarking of quality. As the feature of commerce research has methodological heterogeneity as well as varied publication outlets, it should be contrasted to STEM (science, technology, engineering, and mathematics) activities, wherein standard measures are more common. This diversity makes it difficult to establish standardised quality standards and adds to the differences in how evaluation is made in different institutions (Nerad & Evans, 2014).

Relevance Framework

Besides quality, the "relevance" of doctoral research has emerged as a critical dimension, especially in applied fields such as commerce. Relevance can be conceptualised across four domains, which are interrelated, viz., academic, policy, industry, and societal:

(a) Academic relevance relates to contributions of research studies to theory and scholarly discussion;

(b) Policy relevance is concerned about the extent to which research informs/influences public decision-making and regulatory frameworks of government;

(c) Industry relevance signifies the applicability of research results to organisational practices; and

(d) Societal relevance encompasses broader effects on social well-being, economic development, and sustainability.

The literature has consistently underscored the research–practice gap in commerce and management disciplines, denoting the disconnect between academic research and its uptake in professional contexts (Carvajal, 2023). Addressing this gap needs doctoral research that is both theoretically rigorous and practically meaningful. Concepts like "scholarship with impact" stress the need to integrate the quality of academic work with real-world applicability (Pfeffer & Fong, 2017; Pettigrew, 2011). Doctoral education is crucial in bridging this gap by transforming the engagement practices, orientations, and skills of the emerging scholars. This involves consideration of research dissemination, stakeholder participation and capability to communicate findings into actionable insights.

Institutional and Systemic Context

The doctoral studies in commerce exist in larger institutional and systemic environments that determine the orientation, quality and relevance of research. Institutional governance, access to research resources, supervisory capacity and academic culture are some of the factors that influence the doctoral education experiences and outcomes (Garwe, 2024). However, there is variability in the quality and impact of research because of the differences in research traditions, infrastructure and the dedication to doctoral training in universities. In addition, regulatory frameworks and policy environments play a critical role in shaping doctoral education through guidelines on research standards, admission, supervision, and adjudication/evaluation. Such contextual conditions bring out the fact that doctoral education is not a solitary academic practice but a system embedded within institutional, national, and global knowledge systems. Collectively, these conceptual anchors offer a holistic way of examining doctoral education in commerce. They note that the interrelationships exist among knowledge production, research orientation, quality, relevance, and institutional context, and thus provide a basis for analysis presented in the following sections.

Methodology: Evidence-Based Analytical Approach

This study is systematic and evidence-based to examine doctoral education in commerce under the aspects of research orientation, quality, and relevance. Considering the fragmented and interdisciplinary state of current scholarship and policy debate, an integrative qualitative approach is deemed the most suitable one. Instead of using a primary data collection process, the study summarises the views of various reliable sources to establish patterns, gaps and emerging trends. The methodological design emphasises the transparency, analytical rigor and coherence in the selection, organisation and interpretation of evidence. This methodology is consistent with the best practices of systematic and integrative reviews in the field of higher education and management studies (Snyder, 2019; Torraco, 2016).

Research Design

The study employs a qualitative, systematic analytical review design, aimed at integrating diverse strands of evidence into a coherent and theoretically informed narrative. In contrast to the traditional narrative reviews, the given method has a systematic cycle of source identification, screening and thematic synthesis, thus increasing the analytical rigor and reproducibility (Tranfield David *et al.*, 2003). It takes an integrative approach, which synthesises different types of evidence to understand the complexity of doctoral education in commerce:

- (a) Peer-reviewed academic literature, which contains both theoretical and empirical information;
- (b) Policy documents, which give an insight into regulatory frameworks and national priorities; and
- (c) Illustrative cases based on publicly available sources, which provide a contextual background.

This triangulation provides a more holistic approach as it closes the gap that exists between academic discourse and the policy and practice perspectives. The study is also positioned as a framework-building contribution, in a bid to combine the existing knowledge into an analytical viewpoint as opposed to producing primary empirical results.

Data Sources

The sources of secondary data used in the analysis are highly diverse to provide breadth, depth, and credibility of the evidence:

- (a) To identify peer-reviewed journal articles, reputed and indexed databases (e.g., Scopus, Web of Science, Business Source Complete, ABI/INFORM, etc) were used and the top-tier journals in higher education, commerce, management, and other related fields were identified (e.g., Studies in Higher Education, Higher Education, Academy of Management Learning and Education, Research Policy, Nature, etc). These sources offer developed views on doctoral education, quality of research, and generation of knowledge.
- (b) The government and policy documents were reviewed, among which were those released by the regulatory and advisory agencies, such as the University Grants Commission (UGC), the National Education Policy 2020 (NEP 2020), and similar institutional frameworks. These documents are crucial for understanding the policy landscape influencing doctoral education.
- (c) The study also used institutional reports and publicly accessible doctoral theses, which can provide information on the practices regarding supervision, evaluation, and research products. Moreover, select case examples are used to demonstrate specific trends and practices that indicate broader systematic patterns.

The evidence base is also constructed based on multiple disciplinary perspectives such as higher education research, business education scholarship, and research assessment literature, thereby providing a comprehensive and interdisciplinary analytical foundation.

Inclusion Criteria

The inclusion criteria were well set, as summarised below, to ensure the selection of the relevant sources:

- (a) To begin with, a time range of approximately 10 years was embraced, and specific attention was paid to more recent literature (since 2019 in the first place), but with references to the seminal works that lay the groundwork for the principles.
- (b) Second, the sources had to be directly related to doctoral education in the field of commerce, business or other related areas, such as management, economics, etc.
- (c) Third, quality filters were used to narrow down on credible and authoritative sources. In the case of scholarly literature, this was by publication in peer-reviewed and indexed journals. In the case of policy documents, official publications of recognised governmental and institutional organisations were taken into consideration.
- (d) The search strategy had included the combination of various keywords, like doctoral education in commerce, research quality in higher education, commerce research, research orientation, and policy relevance in large academic databases and repositories.

These criteria ensured that the analysis made in this study is based on credible and academically robust evidence.

Analytical Framework

A thematic coding framework guides the analysis that is aligned with three central dimensions of the study objectives, viz., research orientation, quality and relevance. All sources were analysed and coded in terms of these themes systematically, which made it possible to identify the patterns of recurrence, divergence, and gaps within the literature and the policy discourse. In this context, research orientation is examined in the context of thematic focus, epistemological state, and research methods; quality is evaluated based on such indicators as rigor, originality, coherence, and research outputs; and relevance is considered in the academic, policy, industry, and societal dimensions. The study involves the comparative and interpretative analysis of the coded evidence and provides the opportunity to extract knowledge in the field of dissimilar kinds of sources. The analysis is also based on the aspects of critical appraisal where the differences between the findings in the study, the conceptual arguments and normative recommendations are drawn. Such a method enables not just descriptive knowledge but also analytical generalisations about the state and trajectory of doctoral education in (Braun & Clarke, 2006).

Limitations

Although the chosen methodology is supposed to make it rigorous and comprehensive, there are certain limitations:

- (a) First, the analysis uses only secondary and publicly available materials, which are unlikely to be able to capture institutional differences and new practices that are yet to be documented.
- (b) Second, there is no primary empirical evidence (interviews or surveys of doctoral scholars and supervisors) that can be used in the incorporation of the perspectives of experience.
- (c) Besides, publication bias could also occur as the analysis is potentially affected by the literature access in well-represented regions or institutions.
- (d) The level of conceptual synthesis in which the study is conducted also does not ensure the total manifestation of context-specific details, although it allows integrating evidence on a large scale.

However, the rigidity and synthesising characteristic of the methodology offer a strong base for the analysis of general patterns and the development of informed and generalisable conclusions. The findings are, therefore, positioned as analytical principles and frameworks which can be applied to institutional practice, policy development and to other such circumstances.

Research Orientation in Doctoral Commerce Studies

Research orientation in doctoral commerce education highlights the broader evolution of commerce scholarship, influenced by institutional expectations, disciplinary traditions, and methodological preferences. It includes the fundamental stances, practices, and values that define how doctoral scholars frame research issues/questions, select methods, and how they position their work within academic and practical domains. As an interdisciplinary and applied field, commerce needs a careful balance between contextual relevance and analytical rigor. Nonetheless, doctoral research in this domain often exhibits theoretical engagement, uneven patterns in thematic focus, and methodological diversity. Against this context, this section evaluates dominant research themes, methodological patterns, theory–application interface, emerging shifts, and key systemic issues influencing research orientation.

Dominant Trends in Research Themes

The structures of doctoral research in commerce are often structured on basic functional areas like finance, accounting, marketing, human resource management, organisational behaviour, etc. These areas are typified by different research traditions, epistemologies and methods. As an example, finance is a discipline that uses quantitative modelling and market-based theories extensively, whereas organisational behaviour frequently uses qualitative and mixed-method methods to understand organisational processes. Marketing research deals with consumer psychology, behavioural research, and data analysis, whereas accounting deals with technical standards, corporate financial reporting, financial performance evaluation, institutional practices, etc (Kundu, 2022). Finance and accounting are two of those areas that have experienced a very robust growth, which has been significantly influenced by access to large-scale data and well-proven quantitative methods. Among the trends that can be identified is the growing role of research based on facts due to the availability of financial databases, online platforms, and survey-based tools. The trend is in line with the general trends in the field of business research, in which empirical analysis, and especially the use of large datasets, has become prominent (Aguinis *et al.*, 2018). Nevertheless, this increased empirical sophistication tends to be in opposition to conceptual and theory-building work that is comparatively minimal. Researchers have also claimed that overemphasis on empirical techniques can push away in-depth theoretical investigation, thus limiting the development of context-oriented and indigenous theoretical models in the fields of commerce (Donald C. Hambrick, 2007).

Methodological Patterns

The qualitative and quantitative approaches to doctoral research in commerce can be described as having a very strong preference for quantitative approaches, such as econometric modelling, regression analysis, structural equation modelling,

experimental designs, etc. This dominance can be specifically seen in the area of finance and economics, where methodological rigor is frequently conflated with statistical accuracy and analytical sophistication (Antonakis *et al.*, 2010). Simultaneously, there is a high level of epistemological diversity in the field of commerce research, and there is an ongoing debate between positivist and interpretivist approaches. Although quantitative, hypothesis-testing approaches prevail, qualitative ones, including case studies, interviews, and ethnographic research, have provided useful information on organisational behaviour and institutional processes. Nevertheless, these methods are not used in the doctoral research to their full potential, although they produce context-rich and theoretically meaningful information (Eisenhardt & Graebner, 2007). The modern doctoral education should also respond to a changing methodological environment that incorporates big data analytics, machine learning (ML), and computational techniques (Sangwa *et al.*, 2025). Although these developments open up opportunities in the field of analysis, they also bring about the issue of balancing between the traditional methodological training and the exposure to new techniques. Another issue is the rise of method-based research, whereby methodological decisions are made before determining research questions as opposed to being informed by substantive research. The result of this tendency is the creation of technically advanced but conceptually one-dimensional research with low theoretical or practical relevance (Braun *et al.*, 2006). Robust doctoral training, therefore, requires cultivating methodological pluralism and ensuring alignment between research questions, theoretical frameworks, and methods (Figure 2).

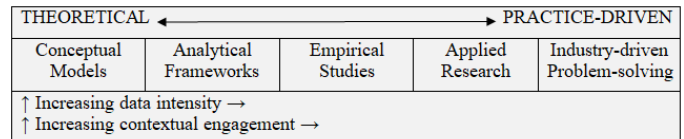


Figure 2. Spectrum of Research Orientation in Commerce

Theory vs. Application

One of the major challenges in doctoral commerce studies is to strike the right balance between theoretical contribution and practical application. Doctoral work is supposed to develop knowledge by providing original theoretical understanding, but a lot of studies have minimal interaction with the theory. Rather, they incline to use the predesigned or imported models or frameworks of other related fields like economics, psychology or sociology (Khurana & Spender, 2012). Although these frameworks are valuable sources of basis, excessive dependence on them can limit the development of discipline-specific or contextually grounded theories. Research contributions are, in most instances, incremental, and they do not make much contribution towards theoretical knowledge as they are extensions of existing models. Meanwhile, certain research is too practical and, in this case, it aims at resolving immediate issues with limited conceptualisation, thus restricting the contribution of such studies academically (Donald C. Hambrick, 2007). Doctoral research orientation has its central concept referred to as the “original contribution.” It is about the capacity of detecting significant gaps in already known knowledge and formulating research designs that result in new insights, be it theoretical, methodological, or empirical (Chiang, 2012). Nevertheless, there exist some problems with having doctoral candidates who are forced to assume research

agendas of their supervisors or with having a strictly structured program that restricts intellectual autonomy. This asymmetry highlights the need for integrating rigor and relevance, which requires the fact that empirical studies are theoretically informed while addressing real-world issues. Therefore, this requires doctoral programs to have a depth of analysis and a sensitivity of practice in research orientation.

Emerging Shifts

Despite such challenges, in recent years, there have been noticeable emerging trends of bringing a change in the doctoral research orientation in the area of commerce. Among the important changes is the increased focus on interdisciplinary research, which is due to the fact that contemporary business and economic problems are complicated and interrelated. Commerce research tends to use the knowledge of psychology, sociology, public policy, environmental research, and data science, expanding the analytical scope of commerce research (Rana & Aitken, 2025). Another major shift is the increasing focus on sustainability, environmental, social, and governance (ESG) issues, the digital economy, and financial technology (FinTech). These spheres have emerged to address global issues like climate change, corporate responsibility, and technological transformation. Scholarly studies in these areas frequently combine theoretical and practical views, which are both beneficial to scholarship and policy discourse (George *et al.*, 2016). In addition, it is increasingly being acknowledged that context-sensitive research is important, especially in emerging economies where the applicability of institutional conditions is not similar to that of developed contexts. Such a change opens up the potential of producing more pertinent and effective research, but its implementation is disproportionately distributed in institutions.

Key Issues

Many systemic questions still shape the research focus of doctoral studies in the field of commerce:

- (a) One prominent concern is the prevalence of replication and incremental research, which, while valuable for validation, often dominates at the cost of originality and innovation. One of the reasons behind this trend is the institutional pressure to deliver publishable outputs within limited timeframes.
- (b) The other problem is associated with the choice of topic, which is often determined by the availability of data, methodological convenience or supervisory knowledge but not by the gaps in the research or the needs of the society. Consequently, doctoral studies can focus on feasibility instead of significance and thus produce studies that are technically valid but minimal in terms of conceptual or practical value.
- (c) Also, the growing prevalence of publication metrics, as well as academic performance indicators, might promote risk-averse research conduct, in which doctoral scholars are disincentivised to develop novel, interdisciplinary, or high-impact topics (Aguinis *et al.*, 2018).
- (d) Lastly, research orientation should also consider the involvement of contested knowledge domains, where multiple perspectives coexist, and consensus remains elusive. Developing the capacity to navigate such complexity is essential for producing nuanced and impactful research (Carvajal, 2023).

In general, the research orientation of doctoral commerce research consists of a dynamic interplay of disciplinary traditions, methodological options, institutional frameworks, and new global trends. This orientation needs to be reinforced through encouragement of originality, methodological pluralism, interdisciplinary interactions and correspondence to real-world issues.

Quality of Doctoral Research in Commerce

The quality of doctoral research is one of the vital issues in the assessment of higher education systems, especially in applied and interdisciplinary studies like commerce. Although the expansion of doctoral programs has increased research output, questions persist regarding originality and rigor, scholarly contribution. Quality of doctoral research is a multidimensional concept which includes methodological competence, conceptual rigor, ethical integrity and institutional quality procedures. These dimensions are also made complex in the commerce discipline through methodological diversity, interdisciplinary forces, and institutional capacity differences. Against this context, essential quality indicators, structural and supervisory limitations, regulatory systems, shared issues, and international differences that determine doctoral research in commerce are discussed in this Section.

Indicators of Quality

In doctoral research, quality is generally evaluated using output-based and process-based measures. Publication in indexed and peer-reviewed journals is one of the widely used measures, and it is used as a proxy of scholarly rigor and contribution. Increasingly, doctoral candidates are expected to publish their research during candidature, reflecting the growing emphasis on research productivity and global visibility (Lee & Kamler, 2008). Citation impact is another crucial indicator that is used to determine the degree to which research impacts subsequent scholarship. Although the number of citation counts differs in subfields, it is widely utilised to measure intellectual contribution and relevance. Moreover, assessment criteria such as external assessment, viva-voce examination, and conformance to institutional requirements are crucial in quality assurance at the award of degree (Phillips & Pugh, 2015). Outside these quantifiable indicators, quality should also be comprehended - methodological rigor and transparency, consistency of the parts of research, and originality of contribution. Rigorous research demonstrates the cautious alignment of research questions, theoretical frameworks, and methodological decisions, as well as proper reporting of procedures and results (Arafah, 2015). Misalignment in these aspects, most of the time, compromises the credibility and interpretability of doctoral work. Originality is also a defining criterion, meaning either theoretical or empirical novelty or methodological novelty. But, the use of publication and citation measures can serve to reinforce hegemonic paradigms and discriminate against other approaches or context-directed approaches (Adler & Harzing, 2015). The comprehensive evaluation of quality should thus be based on the combination of quantitative measures with qualitative analysis of scholarly contribution.

Structural Constraints

Structural and institutional factors play a major role in determining the quality of doctoral research in commerce.

Notably, supervision and mentoring are two of the most important factors that have a direct impact on the quality of doctoral research. Supervisors are more or less involved in guiding research design, methodological rigor, feedback and nurturing scholarly development (Lee, 2008). Supervision is characterised by encouragement of intellectual independence, subject expertise, being available, and positive feedback (McCray & Joseph-Richard, 2021; Alves *et al.*, 2024). Nevertheless, supervisory capacity is diverse amongst institutions because of variations with regard to faculty knowledge, workload, and training. The quality of guidance in institutions where there is a high student-supervisor ratio or where research culture is low may be uneven, resulting in variability in the research outcomes (Mercer *et al.*, 2024). These challenges are further compounded by institutional inequalities. Universities that are well endowed and have a robust research ecosystem avail database, funding, collaboration networks and academic mentorship. Conversely, research institutions that have poor infrastructure might not be able to help in conducting high-quality research, which leads to the development of disparities between the contexts (Nerad & Evans, 2014). The scope and depth of doctoral work are also restricted by resource constraints, which include the inability to access data, analytical tools, and research funds. Moreover, inequities related to student background, mentoring access and institutional support may also affect research quality and completion outcomes (Mahmud, 2024). Dealing with these inequalities requires a systematic approach to resource distribution and the design of inclusive programs.

Regulatory and Policy Framework

The quality of doctoral research is greatly determined by the regulatory and policy environment. Within the Indian context, organisations like UGC set the standards for doctoral admissions, coursework, supervision and evaluation. Policies, such as the NEP 2020, focus on the quality of research, interdisciplinary practices, and individual accountability in institutions. One of the major concerns of this framework is the balance between institutional autonomy and standardisation. Standardised mechanisms like compulsory coursework, publication requirements, plagiarism checks, and ethical approvals are aimed at providing at least the minimum quality levels. Nevertheless, over-reliance on standardised measures can promote compliance-based behaviour and restrict innovation, especially when it comes to interdisciplinary or practice-based research (Altbach, 2017).

Institutions employ multiple quality assurance mechanisms, like periodic progress reviews, thesis adjudication processes, research ethics committees, and doctoral advisory committees (Schellekens & Prins, 2026). Models such as portfolio evaluation, viva voce examinations, and publication-based assessment are different approaches to assessing doctoral work (Stephenson *et al.*, 2023; Grainger *et al.*, 2024). Effective systems typically combine multiple mechanisms, consisting of pre-submission review, external evaluation, feedback loops, etc., to improve program quality (Gonsalves & Lin, 2024).

However, the effectiveness of these frameworks depends on contextual adaptation, implementation, and institutional commitment. Regulatory oversight offers necessary structure, but quality ultimately depends on how these guidelines are operationalised within institutional settings.

Common Quality Concerns

Irrespective of the existence of regulatory and institutional frameworks, there are a few unresolved issues that influence the quality of doctoral research in the field of commerce.

- (a) Among the major problems is the weakness of methodology, such as improper research design, poor sampling and misapplied statistical methods. This makes the results less valid and reliable, limiting their scholarly contribution (Antonakis *et al.*, 2010).
- (b) The other issue is associated with incoherence among the elements of research, where the failure of research questions to correspond with theoretical frameworks and methodology is a strong indication of the poor quality of the research (Arafah, 2015).
- (c) The problem of plagiarism and ethical concerns has also been in the limelight of the publication pressure and the accessibility of electronic content. The ethical conduct is ensured by both compliance and continuous focus on ethical awareness during the doctoral training (Bretag, 2013).
- (d) Another problem is the proliferation of predatory journals. These journals do not have stringent peer-review procedures, and they focus on charging publication fees, thus offering a platform where poor-quality research is published. Scholars who are under pressure to publish their research go to such outlets, thus undermining the quality of research (Jeffrey Beall, 2012).

Taken together, these issues reveal systemic vulnerabilities that go beyond the individual researcher, indicating that the problem lies in a more significant issue of supervision, institutional governance and academic culture.

International Comparisons

Comparative perspectives indicate the presence of a considerable disparity in rigor and organisation of doctoral education in different countries. In more developed systems like the United States and in some of Europe, doctoral programs are described as having systematic coursework, demanding assessment, robust supervisory relationships and integration into research communities. These systems focus on the high-impact journals and active involvement in international scholarly networks (Nerad, 2010). Most developing systems of higher education, on the other hand, struggle with issues of accelerated growth, inequalities in the capacity of institutions, and changes in the regulatory landscape. Although some attempts towards doctoral education standardisation and quality improvement have been undertaken, there still exist disparities among institutions and geographic areas. These differences are especially acute in the fields of commerce, with differences in the education of methodological orientation, involvement in industry activities, and access to research resources. These cross-border differences not only highlight the need to have quality standards that are sensitive to context, but also the need for having globally similar standards of rigor, originality, and scholarly contribution (Figure 3). Overall, quality assurance of doctoral research in commerce is a multidimensional phenomenon that involves aspects of methodological rigor, novelty, ethical behaviour, effective supervision, and favourable institutional structures.

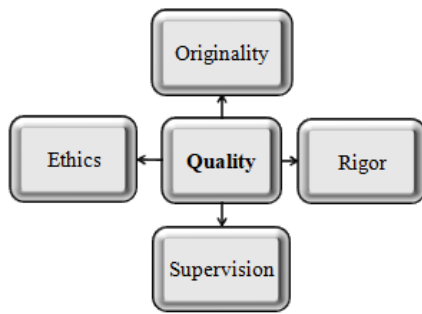


Figure 3. Multi-Dimensional Quality Framework for Doctoral Research

Relevance of Doctoral Research in Commerce

The relevance of doctoral research has evolved as an important dimension in evaluating the effectiveness and societal contribution of higher education systems. In applied disciplines like commerce, relevance extends beyond academic scholarship to cover contributions to industry, policy, and broader socio-economic development. It entails the capacity of research to generate meaningful insights for diverse stakeholders, inform decision-making, and address real-world challenges. Nevertheless, persistent concerns remain regarding the extent to which doctoral research meaningfully engages with practice and policy contexts. Against this context, this Section evaluates the multidimensional nature of relevance, associated challenges, and mechanisms for improving the alignment of doctoral research with stakeholder needs.

Academic Relevance

“Academic relevance” is the degree to which doctoral research contributes to the development of disciplinary knowledge, especially in the form of theory development, conceptual fine-tuning and methodological novelty. In the case of commerce discipline, such contributions are essential for strengthening the intellectual foundations of fields like accounting, finance, marketing, management, etc. Nonetheless, as observed in the literature, doctoral work in commerce is usually characterised by minimal theoretical output, with most of it concerned with empirical validation of pre-existing models instead of coming up with new conceptual perspectives (Donald C. Hambrick, 2007). Although replication and incremental research play a crucial role in consolidating knowledge, too much dependence on these methods can limit the development of context-sensitive and innovative theories. The problem, however, is how to foster research that does not just engage with existing models but also contributes to the discipline-building through original and critical inquiry (Corly & Goia, 2011). Simultaneously, scholarly relevance is becoming more and more associated with the publication in high-quality journals that are the major platforms for scholarly dissemination. Nonetheless, the need to publish in the leading publications can also make people think about conforming to prevailing paradigms, which can restrain intellectual diversity and theoretical creativity.

Policy Relevance

“Policy relevance” refers to the ability of doctoral research to influence the public policy, regulatory frameworks and economic decision-making. This encompasses areas like financial regulation, corporate governance, taxation,

entrepreneurship, and development economics. Relevant research does not necessarily provide any solutions but can shed light on policy problems, present evidence on alternative strategies, and reframe the issues in a manner that supports informed decision-making (Mahardhani *et al.*, 2023). In India, some of the efforts, like the NEP 2020, have focused on research as a way of responding to national development priorities such as economic growth, financial inclusion, and digital transformation. The degree to which doctoral research is in line with these priorities, however, remains uneven. Studies also indicate that there is a long-standing disparity between the academic research and the policy imperative, and that there are few mechanisms to transform research into practical policy implications (Pettigrew, 2011). The disconnect can be due to many factors, such as a lack of systematic engagement between researchers and policymakers, limited incentives towards policy-oriented research and difficulty in to communicating academic results in policy-relevant formats. Improving policy relevance thus necessitates matching the research agendas with the societal agendas as well as establishing efficient knowledge transfer systems (Figure 4).

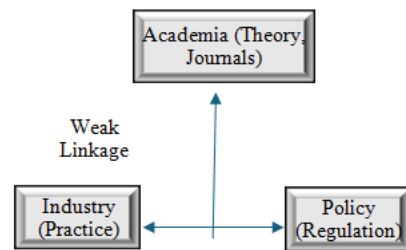


Figure 4. Research-Practice-Policy Gap Model

Industry and Practice Linkages

One of the important dimensions of relevance in commerce research is its relation to the industry as well as professional practice. Preferably, the doctoral research ought to guide the managerial decisions, organisational strategies, and market practice. Nevertheless, the literature continually cites the research-practice gap, characterised by little interaction between academic researchers and practitioners (Ken Starkey & Madan, 2002).

Practitioners find doctoral research to be too abstract, methodologically complex or insufficiently actionable, which restricts its application in organisations (Pfeffer & Fong, 2017). Also, doctoral scholars often lack exposure to the industry setting, making their research theoretically correct yet detached from the real world. To address and fill this gap, there has been growing interest in industry-university partnerships and co-design approaches, where practitioners are involved in framing research questions and interpreting findings (Lamaro *et al.*, 2025). Various mechanisms, including industry internships, collaborative research projects, practitioner engagement in doctoral supervision, etc., can be used to complement the relevance of research and its contextual knowledge (Chen, 2025).

Nevertheless, this kind of collaboration has to be well-regulated to preserve academic independence and theoretical richness, as too much emphasis on practical implementation can limit the scholarly contribution (Soicher *et al.*, 2020). Successful involvement demands striking a balance between rigor and relevance, and maintaining intellectual and ethical autonomy.

Societal Relevance

In addition to academic and professional spheres, doctoral studies in the field of commerce have to be associated with societal issues on a broader scale, such as economic inequalities, sustainability, financial and inclusive development. "Societal relevance" entails the transfer of knowledge gained through research to societal issues that impact communities, markets and other public institutions. Over the past few years, there has been an increasing emphasis on research that contributes to "grand challenges," including climate change, the reduction of poverty and sustainable development (George *et al.*, 2016). Commerce research is best placed to address these issues as it involves economic systems, organisational behaviour and allocation of resources. Nonetheless, a significant number of doctoral research works remain narrowly oriented towards topics that have little social consequences, reflecting disciplinary norms and institutional incentives. To ensure that the work gains societal relevance, there is a need to change the direction of research towards problem-driven and interdisciplinary work and to be more actively involved with community stakeholders and public institutions.

Case illustrations and mechanisms for enhancing relevance

Real-world examples show that doctoral research in the field of commerce may bring significant effects if it is aligned with academic rigor and practical applicability. Research in financial inclusion and microfinance has been used to guide policy interventions to increase access to financial markets. The study of corporate governance and disclosure practices has led to reforms in the regulations that have improved financial market transparency.

On the same note, digital finance and FinTech doctoral work has also shed light on the new challenges like digital payments, cybersecurity, and regulatory adaptation. The sustainability and reporting of ESG, in its research, has also impacted on the corporate practices and policy frameworks as it addresses the role of businesses in solving environmental and social problems. These instances show how doctoral research can be used to make contributions to policy, industry, and societal outcomes when properly aligned. To increase such impact, it is necessary to consider dissemination and knowledge translation mechanisms. Older forms of academic publication can restrict access to academic communities, but practitioner-oriented outputs, policy briefs, and online communication tools have the potential to make research more accessible (Belcher *et al.*, 2021). The significance of knowledge brokers - individuals or institutions who aid in translating research into practice - has also become significant in bridging the research-practice gap (Fraenkel & Bamberger, 2025). Another difficulty is associated with the timeliness, as the research and publication delays can be reduced in rapidly evolving business environments (Awashreh & Ghunaimi, 2025). Doctoral programs are thus supposed to promote agility in research design and dissemination. Lastly, evaluating relevance is not easy as the impact cannot be easily realised and measured. This highlights the importance of subtle frameworks to take into account immediate applicability, as well as long-term impact on knowledge, policy and practice (Kofinas *et al.*, 2025) (Table 1). However, in general, the applicability of a doctoral research in commerce is determined by the capability to combine academic rigor with practical applicability and also to be relevant in policy, industry, and societal issues. Strengthening this alignment is essential for improving the broader contribution of doctoral education in commerce.

Table 1. Case Illustrations

Case Number	Issue	Insight
(1)	Topic Selection (Failure → India) - Data-driven but low relevance: A doctoral study in finance selected stock market volatility purely due to the availability of secondary data. The topic lacked linkage to broader economic or policy concerns. While methodologically sound, the study produced a limited academic or practical contribution.	Topic selection driven by data availability instead of research significance leads to low impact.
(2)	Topic Selection (Success → UK, Development Economics): A Ph.D on microfinance and women's empowerment aligned with national and global development priorities. The research informed NGO interventions and policy debates.	Alignment with societal challenges improves both relevance and citation impact.
(3)	Methodology (Failure → US Business School): A doctoral student applied advanced econometric models without theoretical grounding. The study was technically strong but conceptually weak and was rejected by top journals.	Method-driven research reduces theoretical contribution.
(4)	Methodology (Success → Scandinavia, Management Research): A mixed-method doctoral study combined surveys with in-depth case studies on organisational sustainability. It produced both theoretical and practical insights.	Methodological pluralism improves rigor and relevance.
(5)	Hypothesis Development (Failure → Generic MBA-PhD context): Hypotheses were borrowed directly from Western literature without contextual adaptation. Results lacked explanatory depth in the local context.	Over-reliance on imported frameworks weakens originality.
(6)	Hypothesis Development (Success → China, Innovation Studies): A doctoral study developed new hypotheses based on institutional theory adapted to emerging markets, leading to high-impact publications	Contextual theory-building improves the contribution.
(7)	Pre-registration (Success → Europe, Economics): A doctoral student pre-registered research design and hypotheses before data collection. This improved transparency and reduced bias.	Pre-registration enhances credibility and methodological rigor.
(8)	Pre-submission Colloquium (Success → Australia): A doctoral candidate presented work in a pre-submission colloquium involving external experts. Feedback significantly improved theoretical framing and publication success.	Early peer review strengthens quality.
(9)	Adjudication Issues (Failure → Africa): A thesis received conflicting examiner reports due to a lack of clear evaluation criteria. The process was delayed significantly.	Weak evaluation frameworks affect quality assurance.
(10)	Industry Collaboration (Success → Germany): A doctoral project conducted with an automotive firm led to innovations in supply chain optimisation and academic publications.	Strong industry linkages improve relevance and employability.

Source: Author constructed based on the details collected from different sources

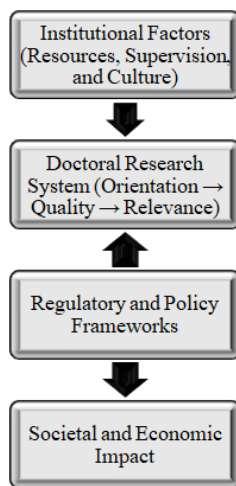


Figure 5. Systemic Influence on Doctoral-Education Outcomes

One of the key findings from the analysis is a mutually reinforcing relationship among research relevance, quality, and orientation. “Research orientation,” which is characterised by the relative topics, methodological options, epistemological position, and theoretical interest, has a direct impact on the quality of doctoral work. Although method-driven research can be viewed as technically complex, it might not be conceptually rich, thus influencing the academic quality and the overall applicability. On the other hand, research with a robust theoretical basis and supported by real-world problems is more likely to achieve a higher level of rigor and produce significant contributions. Therefore, orientation serves as a foundational driver that defines and shapes both quality and relevance. Meanwhile, “quality” and “relevance” are deeply interconnected rather than independent dimensions. Research of high quality, which is methodologically rigorous, coherent, original and ethically sound, promotes the academic credibility and improves the likelihood of policy and practice change. “Quality,” defined narrowly in terms of publication metrics or technical complexity, may not, however, translate to practical relevance. This disengagement is well established in the management and business research, in which the published work in top journals frequently has limited accessibility of applicability for practitioners (Pfeffer & Fong, 2017). Therefore, striking a right balance between rigor and relevance continues to be a major issue of doctoral education in commerce. An important paradox that the analysis reveals is the research volume and inconsistent quality of research, along with ineffective and insignificant impact on society. The increase in doctoral programs has resulted in a vast upsurge in research output, but this increase has not been extended evenly in terms of improvements in originality, rigor, or relevance. The doctoral research, in most cases, is marked by the incremental contribution, standardisation of methods and very minimal interaction with the venerable economic or societal concerns. This paradox underlines more systemic issues that are hidden in the background of the structure and governance of doctoral education. These issues could be divided into such broad categories as institutional, regulatory and academic culture:

(a) At the institutional level, inequality in research infrastructure, supervisory capacity, and research access presents unequal opportunities for doctoral research. Strong research institutions are in a better position to facilitate quality and influential research as compared to others, which have restrictions that inhibit scholarly growth.

(b) Regulatory politics have also had mixed results as policies that focused on the standardisation of doctoral education, e.g., compulsory publication and standard evaluation criteria. Although these measures do set minimum quality level requirements, they can also promote compliance-based research activities in which the focus is no longer on intellectual contributions but on meeting formal standards. This may encourage aversion to risk and aversion to interdisciplinary or innovative enquiry.

(c) The impact of academic culture is also important. Prevailing norms, including the focus on publication metrics, observation of disciplinary borders, and inclination to use the proven methods, influence the research orientation and results. Such norms can unintentionally deter theoretical and interdisciplinary work and interaction with practice, thus reinforcing the gap between academic work and social needs (Donald C. Hambrick, 2007; Pettigrew, 2011).

Simultaneously, the analysis emphasises the areas of intersection with major principles of enhancing doctoral education:

(a) First, it is increasingly being acknowledged that research autonomy and scholarly identity is a requirement of doctoral programs, where students are not reliant on their supervisors but rather create their intellectual paths (Pelser & Alonso, 2024).

(b) Second, quality has to be perceived as a multidimensional concept, and it involves rigor, originality, coherence, and ethical behaviour instead of being limited to publication measures only (Grainger *et al.*, 2024).

(c) Third, relevance must be actively developed in that an intentional involvement in the industry, policy, and society does not just happen but must be part of doctoral training practices (Lamaro *et al.*, 2025).

It is also discussed that there are certain conflicts/dilemmas that are part of doctoral education. These comprise depth/interdisciplinarity, rigor/relevance, autonomy/supervision, and theory/practice conflicts. Such tensions should not be solved; they have to be navigated thoughtfully, and doctoral programs should provide students with the ability to make informed and context-specific decisions (Rana & Aitken, 2025).

There are also “equity” and “access” problems. Underrepresented or disadvantaged doctoral students are frequently faced with a set of structural challenges, such as access to mentoring, research resources, and professional networks (Mahmud, 2024). Such inequalities may have an impact on research quality, completion rates, and the experience of doing the doctoral course, which explains why more inclusive and accommodative institutional practices are necessary.

Another significant factor is the evolving career landscape for doctoral graduates. Commerce doctorates are increasingly finding a non-academic career, such as industry and consulting positions, and in the public policy sector. Nevertheless, the doctoral academic programs have remained career-centred, with an academic career preparation leading to a lack of balance in training and career accomplishments (Awashreh & Ghunaimi, 2025). To address this gap, doctoral education should be reconsidered to have more skills developed, industry exposure, and career flexibility.

Considering such dynamics, it is possible to suggest a conceptual framework that can be used to describe the interdependence of research orientation, quality, and relevance. Research orientation is the main driver, and it determines the quality and relevancy of doctoral work. "Quality" as an intermediate variable determines how far research gets in terms of academic and practical influence. "Relevance" is an outcome dimension that is a reflection of the contribution of research to academia, policy, industry and society. The contextual factors that shape these relationships include institutional capacity, regulatory structures and academic culture, which act as enabling or constraining conditions. Overall, synthesis reveals the need for a holistic and strategically aligned approach to doctoral education in commerce. Improving research orientation, increasing quality mechanisms, and enhancing relevance are not separate goals but rather are dependent on each other and need to be undertaken in an integrated approach. This is a necessary practice to make doctoral research effective in both academic and social progress.

Policy Implications and Recommendations

Based on the analysis made and presented in the preceding Sections, this Section provides major policy implications and actionable suggestions that can help enhance doctoral studies in commerce. The interrelatedness of research orientation, quality, and relevance requires a systemic and multi-level reform, including regulatory bodies, universities, supervisors, and doctoral scholars. The changes cannot be brought about on an isolated basis and should be placed within consistent institutional and policy frameworks that can streamline academic practices and the needs of society. These recommendations are structured based on four fundamental areas, viz., the need to build research orientation, quality, relevance, and institutional and sector-level reforms.

Strengthening Research Orientation

One of the core concerns is the reorientation of doctoral research in the field of commerce towards a more conceptual orientation, originality, and intellectual independence. Doctoral programs should explicitly cultivate the capacity of research candidates to develop research identities, frame meaningful questions, and engage critically with theoretical frameworks instead of depending solely on inherited research agendas (Pelser & Alonso, 2024). Theory-building and critical inquiry must be vigorously encouraged by the institutions and supervisors, moving beyond routine empirical testing of established models. This may be supported with the help of high-level coursework in the field of research design, philosophy of science and theory development (Corly & Goia, 2011). The proposal seminars, peer review, and research design workshops can be used in the initial stages, which assist in assuring that topics are theoretically grounded and substantively important. It is also important to promote interdisciplinary research as the contemporary economic and business issues are very complex and interdependent. Doctoral programs are expected to promote cross-disciplinary cooperation, meaning that the perspectives offered by other areas of study, including data science, public policy, environmental studies, and behavioural sciences, should be merged (George *et al.*, 2016). This kind of integration increases the analytical richness and extends the applicability of research outcomes.

Enhancing Quality

Enhancing doctoral research must be seen as interventions at various levels, especially in the areas of supervision, assessment and research ethics. The development of supervisors is essential, as supervisors are the key people who influence the research design, methodological rigor and standards of scholarship. Universities must implement organised programs of supervisor training on mentoring protocols, feedback processes and moral advice and appreciate supervision as a fundamental academic duty (Pelser & Alonso, 2024; Lee, 2008). Institutions ought to enhance quality assurance systems by using multi-level evaluation systems such as periodic progress reviews, pre-submission reviews and external review. Evaluation must no longer be based on completion measures, but it must be clear how it assesses originality, coherence, methodological rigor and contribution to knowledge (Schellekens & Prins, 2026). The issue of applying ethics in publication and research should also be emphasised. This involves possession of plagiarism-detecting software, continuous training in ethical research conduct, and proper institutional guidelines on acceptable publication practices (Kim *et al.*, 2020). Universities should guide doctoral candidates in selecting credible publication outlets and discourage publication in predatory journals. Lastly, doctoral programs are expected to be methodologically competent and innovative, and they must offer training in a variety of research methods, and they must also be open to experimentation with new methods, such as computational analytics and mixed-method designs (Sangwa *et al.*, 2025; Soicher *et al.*, 2020).

Improving Relevance

To improve the relevance of doctoral research in commerce, one must purposefully work to increase its linkages with the industry, policy, and society. Development of industry-university collaboration models, such as joint research projects, industry-sponsored fellowships, and co-supervision arrangements involving practitioners, is one of the strategies (Ken Starkey & Madan, 2002). These models help to access experiences and practical knowledge and enrich doctoral education using real-life data. Structured industry interaction, including internships, joint research projects and practitioner involvement in research design and evaluation, should also be introduced in doctoral programs (Lamaro *et al.*, 2025; Chen, 2025). This exposure can expose students to real-world scenarios and increase the usefulness of research results.

The other intervention that has shown significance is the implementation of policy-based research funding that would make the doctoral research in line with the national and regional priorities, including financial inclusion, digital transformation, and sustainability. Problem-oriented research can be encouraged by the funding agencies that solve the current socio-economic issues.

Moreover, institutions are advised to develop the mechanisms of knowledge dissemination and translation, such as policy briefs, practitioner-oriented publications, and engagement platforms through which research findings are delivered to non-academic audiences (Belcher *et al.*, 2021). Knowledge brokers and research translation specialists may also improve the application of research to practice and policy situations (Fraenkel & Bamberger, 2025).

Institutional and Sector-Level Reforms

Doctoral education should be developed in a sustainable way, which can be facilitated by more institutional and sector-wide changes to enhance the research ecosystem. Universities ought to ensure that clear doctoral program charters are prepared with learning outcomes that contain research competence, ethical behaviour, communication competence and career preparedness (Garwe, 2024). It is crucial to enhance the research infrastructure in terms of access to databases, analytical tools, funding, and collaborative platforms. The interdisciplinary interaction and intellectual exchange can be encouraged by establishing research clusters and centres of excellence. It is also important to revisit incentive arrangements. Existing systems tend to instil more focus on the volume of publications rather than the quality and impact, thus promoting incremental and risk-averse research. Organisations must implement a balanced system of evaluation criteria which rewards theorisation, cross-disciplinary and social contribution, as well as conventional metrics (Adler & Harzing, 2015). Research assessment frameworks and accreditation standards must be developed at the sector level to consider multidimensional quality and relevance, no longer relying on the limited measures of the publication (Diery *et al.*, 2020). Policy frameworks must also provide sufficient funding to doctoral education, especially in institutions with diverse and underrepresented groups, to help deal with systemic inequities (Mahmud, 2024). Lastly, doctoral programs should address the evolving career landscape by equipping students with multiple careers outside academia. This involves the incorporation of career development support, industry exposure and transferable skills training aspects in doctoral education (Awashreh & Ghunaimi, 2025). Conclusively, enhancing doctoral education in commerce needs to be an integrated and comprehensive solution that incorporates changes in research orientation, quality assurance, relevance, and institutional governance. These reforms are necessary in ensuring that doctoral research has some benefits to academic progress, practice and development of society.

Conclusion

Doctoral education in commerce is at a critical juncture, being compelled by growing enrolments, dynamic stakeholder expectations, and growing focus on research impact. This study has analysed doctoral education using the interconnected perspectives of research orientation, quality, and relevance based on the synthesis of evidence-based literature on this topic, policy reports, and examples. The analysis demonstrates that while doctoral education has grown significantly in response to the demands of the knowledge economy, this expansion has been accompanied by persistent structural and intellectual challenges. The research focus is still skewed, and it is dominated by empirical-oriented and method-driven research studies at the cost of theory-building and conceptual innovations. Likewise, the quality of research still differs between institutions as a result of differences in supervision, structure, and methodological rigor, whereas applicability to policy, industry, and society is still realised haphazardly. Research is valuable to the literature in that the study provides an integrative and comprehensive framework linking research orientation, quality and relevance as mutually strengthening aspects of doctoral education. It emphasises that quality doctoral education should strike a balance between various interconnected requirements, i.e., disciplinary richness and

interdisciplinary permeability, rigor and relevance, and orderly guidance and intellectual autonomy. The study synthesises the fragmented evidence and provides a better idea of systemic aspects that influence doctoral research in commerce and emphasises the need for multi-level interventions. Simultaneously, the results point to important areas for future studies. Primary data (surveys and interviews with doctoral scholars, supervisors, and policymakers) can offer more information about the institutional practice and lived experiences as empirical studies. They can be further enlightened through comparative analyses across countries and disciplines in order to understand the differences in doctoral training models and quality assurance mechanisms. The long-term implications of doctoral research on both industry practices, policy outcomes and societal development also have room to be looked into, especially in the emerging economies. The study also identifies the need to tackle enduring inequalities within doctoral education, such as a lack of access to resources, mentoring and institutional support. It also demonstrates the need to adapt doctoral programs to a changing career landscape, where many graduates pursue roles beyond academia in industry, policy, and consultancy. The need to equip doctoral scholars with these multiple directions necessitates a wider range of skills, exposure to real-world situations, and more flexible program design. In conclusion, the doctoral education in commerce occupies a pivotal position at the intersection of academic inquiry and socio-economic prosperity. The quality, originality, and relevance of research outputs are also important aspects in determining whether it is effective or not. Therefore, to strengthen doctoral education requires a comprehensive, non-discriminatory, and strategically coordinated strategy that promotes intellectual rigor, fosters innovation and increases the exposure to real-world issues. With the world economic and technological changes involving the development of commerce, doctoral research needs to be active in promoting knowledge, policy and sustainable and inclusive development.

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