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The Polas Methodological Fit Framework: A Unified Model for Selecting Research Methods in Social Science Research

Mohammad Rashed Hasan Polas [1,*]

** Correspondence: Strategic Research Institute (SRI), Asia Pacific University of Technology and Innovation (APU), Technology Park Malaysia, 57000 Kuala Lumpur, Malaysia; rashedha-sanpalash@gmail.com*

1 Strategic Research Institute (SRI), Asia Pacific University of Technology and Innovation (APU), Technology Park Malaysia, 57000 Kuala Lumpur, Malaysia; rashedha-sanpa-lash@gmail.com

Abstract: Selecting an appropriate research method remains a persistent challenge for social science researchers, particularly when research problems are complex and multidimensional. Despite the availability of methodological guidance, a significant gap exists between research questions and methodological choices, resulting in weak theoretical alignment and empirically fragile study designs. This conceptual paper addresses that gap by proposing a structured framework to guide researchers in determining when and why to use quantitative, qualitative, or mixed methods approaches. Drawing on methodological literature, conceptual synthesis techniques, and illustrative examples from practice, the paper introduces the Polas Methodological Fit Framework (PMFF) as a systematic, decision-oriented model for method selection. The study adopts a conceptual research design, integrating theoretical analysis, a review of existing method-selection guidelines, and an applied illustration. The PMFF operationalises method choice through six interrelated dimensions: the Nature of the Research Problem (NRP), the Type of Research Questions (TRQ), the Depth vs. Breadth Requirement (DBR), the Researcher Capacity and Constraints (RCC), the Nature of the Phenomenon (NOP), and the Complexity of Inquiry (COI). Together, these dimensions offer a structured basis for transparent and defensible methodological decisions. The framework carries significant implications for doctoral students, research supervisors, and early-career scholars by enhancing methodological clarity, transparency, and rigour. The PMFF represents a novel, unified, and sequentially ordered contribution that addresses the long-standing fragmentation in method-selection guidance and advances more coherent and contextually grounded research design in social science scholarship.

Keywords: Research Design; Quantitative and Qualitative Methods; Mixed Methods Research; Method Selection Framework; Conceptual Framework Development; Research Methodology.

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1. Introduction

Choosing a suitable research method is one of the most critical decisions in academic research, as it directly shapes the epistemological direction, analytical richness, and overall rigour of a study (Singh et al., 2020; Takona, 2024). Quantitative, qualitative, and mixed methods approach collectively form the backbone of methodological training in the social sciences. Nevertheless, researchers, particularly those in the early stages of their academic careers — continue to experience significant difficulties in aligning their research problems and questions with the most appropriate methodological choices (Pilcher & Cortazzi, 2024). Each methodological approach carries its own unique strengths, limitations, and analytical capabilities; selecting a mismatched method can seriously compromise a study's validity, depth, and interpretive rigour. This problem of methodological misalignment is especially pronounced in emerging interdisciplinary fields such as digital transformation, artificial intelligence adoption, sustainability, and entrepreneurship, where it frequently leads to poorly designed studies, shallow insights, and constrained theoretical development (Fàbregues et al., 2024).

Addressing this issue is important because methodological transparency has direct implications for the robustness, replicability, and societal impact of research findings. When researchers understand which method best serves a given type of research problem, they are better positioned to develop studies that are simultaneously theory-aligned, empirically sound, and practically relevant (Fetters & Tajima, 2022). Furthermore, explicit and well-reasoned methodological choices reinforce the internal logic of inquiry and contribute to the accumulation of knowledge in ways that are increasingly demanded by high-impact scholarly journals (Poth et al., 2024). To address these gaps, this conceptual paper synthesises fundamental principles drawn from several established methodological paradigms and combines them with practical illustrations derived from exemplary research contexts, including evaluations of SME grant programmes, studies of AI adoption among students, and investigations of capital market trust. These examples demonstrate that methodological misalignment is a recurring problem in practice and that deliberate, well-informed methodological choices can substantially optimise research rigour (Toyon, 2021).

While substantial scholarly effort has been devoted to discussions of research methods, the existing literature remains overly fragmented, discipline-specific, and technically dense. It too often fails to provide researchers with an integrated, practical, and decision-oriented framework for method selection (Fàbregues et al., 2023). To address this limitation, the present study proposes the Polas Methodological Fit Framework (PMFF), a comprehensive, researcher-centric model that systematically aligns the characteristics of the research problem, the typology of research questions, the nature of the phenomenon under investigation, and the contextual constraints facing the researcher with the most appropriate methodological fit. Unlike prior work that treats quantitative, qualitative, and mixed methods in isolation, the PMFF synthesises philosophical foundations, pragmatic decision rules, and applied examples into one cohesive framework. This provides scholars with a clear, actionable roadmap for selecting and justifying their methodological choices. Such an integrative contribution addresses a significant gap in the literature and supports early-career and interdisciplinary researchers in achieving greater methodological rigour, transparency, and scholarly impact.

The primary objective of this paper is to offer a practical, researcher centric method selection framework that helps scholars determine not only which method to use but why and when it should be used. To achieve this, the study is guided by three core research questions:

(a) Which research method is best suited for which type of research problem?

(b) Why and when should quantitative, qualitative, or mixed methods be adopted?

(c) How can researchers effectively design studies using these methods in practice?

To address these questions, this paper presents the Polas Methodological Fit Framework (PMFF), a decision framework that incorporates philosophical assumptions, research question type, data needs, feasibility considerations, and phenomenon complexity. PMFF provides a reasonably general, theoretically coherent, empirically actionable roadmap to inform method selection, fully embedded in a pragmatic and pluralist approach to knowledge production.

This paper makes three principal contributions to the existing literature. First, it offers a theoretical contribution by synthesising fragmented methodological guidance into a single, unified framework that conceptualises method choice as a multivariate, logic-driven decision rather than a mechanical or preference-based selection. Second, it makes a practical contribution by equipping researchers, particularly doctoral candidates, supervisors, and early-career scholars with concrete examples, decision rules, and contextually grounded illustrations to guide their methodological choices. Third, it advances methodological literacy by connecting abstract philosophical traditions with the specific research design decisions scholars encounter in practice, enabling them to justify their choices with greater clarity, confidence, and academic rigour. Collectively, these contributions aim to enable more rigorous and context-sensitive research designs, fostering scholarly work of greater impact and reproducibility.

2. Methodology

Although this paper is conceptual in nature, its development followed a systematic and rigorous process consistent with established recommendations for constructing theoretical and conceptual frameworks in academic research. Conceptual papers of this kind are grounded in the synthesis of existing theory, integrative thinking, and model-building processes rather than in primary empirical data collection. The methodological literature broadly affirms the importance of conceptual frameworks as structured representations of relationships among theoretical constructs, concepts, and logical propositions that guide scholarly inquiry. On the basis of these principles, the Polas Methodological Fit Framework (PMFF) was developed through an iterative four-stage process.

In Stage One, a broad scoping review of methodological literature was conducted across the quantitative, qualitative, and mixed methods paradigms. The focus was on understanding how research questions relate to methodological options and what guidance currently exists to support that alignment. Consistent with recommendations for conceptual framework development, this stage sought to identify existing theories, locate gaps in prescriptive guidance, and establish the theoretical foundations upon which a new framework could be proposed. Relevant methodological discussions, framework-construction guidelines, and established research design texts were systematically examined during this stage.

Stage Two involved a comparative conceptual analysis of existing method-selection models and research design taxonomies. This comparison revealed a persistent gap in the literature: the absence of a cohesive, researcher-centric logic for method selection that integrates philosophical, practical, and contextual considerations into a single decision model. This fragmentation across the literature provided the primary justification for the development of PMFF.

Stage Three focused on model construction and refinement. Following established guidance on conceptual framework development, which includes defining core concepts, specifying relationships between components, and contextualising decision pathways, the PMFF was constructed around six key decision dimensions: the Nature of the Research Problem (NRP), the Type of Research Questions (TRQ), the Depth vs. Breadth Requirement (DBR), the Researcher Capacity and Constraints (RCC), the Nature of the Phenomenon (NOP), and the Complexity of Inquiry (COI). Each dimension was iteratively reviewed and refined to ensure conceptual coherence, logical consistency, and practical usability. The visual structure of the framework was informed by best practices for representing conceptual relationships in a manner that supports both theoretical clarity and practical application.

In Stage Four, the framework was applied illustratively to verify its practical relevance. In line with recommendations for rigorous conceptual research, the proposed model was applied to the case of digital trust in Malaysian fintech platforms. This application demonstrated the PMFF's suitability for guiding method-selection decisions in complex, sociotechnical research contexts. Overall, the methodological approach adopted in this paper reflects a rigorous conceptual development process encompassing literature review, theoretical synthesis, model construction, and illustrative validation, consistent with established criteria for producing novel and impactful conceptual contributions (Strijker et al., 2020).

Having outlined the process through which the PMFF was developed, it is important to establish the philosophical and methodological foundations that underpin its construction. The three primary methodological traditions, namely quantitative, qualitative, and mixed methods each rest on distinct epistemological assumptions and serve different research purposes. The following section examines each tradition in turn, providing the theoretical grounding necessary to understand how and why the six dimensions of the PMFF were derived from the broader methodological literature.

3. Philosophical and Methodological Foundations

3.1 Quantitative Research

Quantitative research is grounded in positivist and post-positivist philosophical traditions, which hold that reality is objective, stable, and measurable (Mulisa, 2022). From this epistemological position, the researcher functions as a detached observer who translates social phenomena into numerical data. Knowledge is produced through pattern identification, hypothesis testing, and the establishment of causal or correlational relationships using structured, standardised instruments (Mulisa, 2022). Built on the pillars of objectivity, replicability, and generalisability, quantitative research is particularly well suited to questions requiring statistical precision or predictive capacity. Common data collection methods include surveys, experiments, and validated measurement scales, with analysis conducted through statistical techniques that minimise subjective interpretation (McCusker & Gunaydin, 2015).

This approach is most appropriate when the research goal involves quantification, hypothesis testing, or pattern recognition, especially when large samples are accessible and population-level generalisation is desired (McCusker & Gunaydin, 2015). Research questions that begin with "what," "how many," or "to what extent" are characteristic of the quantitative tradition, as they demand measurable rather than narrative evidence (Matović & Ovesni, 2023). For instance, a study examining the adoption of digital payment systems among Malaysian SMEs would require quantitative indicators such as frequency of use, sectoral distribution, or regional penetration rates. Similarly, investigating the relationship between study hours and academic performance calls for statistical analysis to determine the direction and strength of that association. In policy evaluation contexts, quantitative designs can be employed to compare pre- and post-intervention performance indicators, such as revenue growth, employment rates, or programme uptake, across multiple firms or sectors (Morrison, 2006). These examples collectively illustrate the strength of quantitative research in assessing large-scale trends, testing theoretical propositions, and generating generalisable findings (Strijker et al., 2020).

Therefore, quantitative research serves the purpose of producing clear, precise, and empirically generalisable knowledge. Its structured approach enables researchers to model variable relationships, identify predictors, and evaluate theoretical assumptions at scale. While it does not capture the richness of subjective experience, it offers broad, evidence-backed insights that are particularly valuable for informing policy decisions, managerial guidance, and large-scale behavioural analysis.

3.2 Qualitative Research

Qualitative research is rooted in constructivist and interpretivist philosophical traditions, which hold that reality is socially constructed, contextually situated, and inherently dynamic (Baškarada & Koronios, 2018). Rather than seeking objective measurement, qualitative inquiry recognises that meanings emerge through interaction, lived experience, and the interpretations of social actors (Taguchi, 2018). This tradition prioritises depth over breadth, equipping researchers to uncover nuances, emotions, and interpersonal processes that resist quantification. Qualitative studies typically employ smaller, information-rich samples and open-ended data sources, such as in-depth interviews, observations, and narrative accounts, enabling investigators to explore how individuals make sense of their experiences within specific social, cultural, or organisational contexts (Guetterman & Fetters, 2018).

This approach is particularly well suited to research questions that begin with "why," "how," or "what is the experience of," reflecting an interest in the motivations, perceptions, and interpretive processes that underlie human behaviour (Biddle & Schafft, 2015; Mulisa, 2022). Qualitative methods are especially powerful for generating contextualised descriptions and emergent theory in areas that are underexplored or poorly understood. For example, the growing integration of AI tools in higher education has produced varied and

sometimes distressing reactions among students. A qualitative approach allows researchers to investigate the underlying reasons for student apprehension, including concerns about academic integrity, self-efficacy, perceived surveillance, and technological aversion that survey instruments alone cannot adequately capture (Ivankova & Wingo, 2018; Mulisa, 2022). Similarly, qualitative inquiry is well positioned to explore the emotional and psychological dimensions of entrepreneurship, such as the pressures of financial instability, burnout, and identity conflict experienced by startup founders (McKim, 2017). The approach is equally appropriate for studying the lived experiences of remote workers navigating blurred work-life boundaries, or cancer survivors reconstructing meaning following treatment. In each case, the objective is not statistical generalisation but the production of rich, contextually grounded interpretations that may surface patterns capable of informing subsequent theory development or mixed methods research.

3.3 Mixed Methods

Mixed methods research is grounded in the pragmatic philosophical tradition, which holds that researchers should select whatever methodological tools best address the problem at hand, rather than adhering rigidly to a single epistemological framework (Palinkas et al., 2015; Hirose & Creswell, 2023). Pragmatism moves beyond the conventional divide between positivist and constructivist assumptions, recognising that many dimensions of social reality require both quantitative and qualitative forms of evidence and interpretation (McCrudden et al., 2021). By integrating numerical and narrative data, mixed methods research provides analytical leverage that neither approach can achieve independently. This integration enables researchers to achieve greater completeness, enhance validity through triangulation, and develop more robust explanatory accounts particularly when investigating multidimensional social or organisational problems (Strijker et al., 2020).

Mixed methods are most appropriate when a research problem requires both breadth and depth simultaneously that is, when the inquiry demands answers to both "what" and "why" questions within a single study. Relying on a single method in such context's risks producing incomplete or misleading findings (Young et al., 2021). This is especially relevant in contemporary social science disciplines such as digitalisation, AI adoption, sustainability, and financial innovation, where complexity is the norm and behaviours are shaped by a combination of structural, emotional, technological, and cultural factors (Singh et al., 2020). Three prominent mixed methods design merit specific attention. The *explanatory sequential design* begins with quantitative data collection and uses subsequent qualitative inquiry to explain the numerical results. The *exploratory sequential design* reverses this order, using qualitative findings to inform the development of quantitative instruments. The *convergent design* collects both data strands simultaneously and integrates them at the analysis stage to produce a more complete understanding of the phenomenon (Hirose & Creswell, 2023).

To illustrate, consider research on consumer trust in fintech platforms. A quantitative survey can measure the prevalence and distribution of trust across user groups, while qualitative interviews can uncover the underlying drivers such as data privacy concerns, regulatory uncertainty, and perceived transactional risk that survey instruments alone cannot adequately capture. Similarly, in studies of AI adoption among students, quantitative questions about frequency and purpose of use can be complemented by qualitative exploration of the emotional and ethical dimensions, including fears of academic misconduct, algorithmic bias, or over-reliance on automated tools. In both cases, the integration of data strands yields richer, more actionable insights than either method could provide in isolation.

Table 1: Comparative Overview of Quantitative, Qualitative, and Mixed Methods Research

Dimension	Quantitative	Qualitative	Mixed Methods

Philosophical Foundation	Positivism / Post-positivism	Constructivism / Interpretivism	Pragmatism
Ontological Assumption	Single, objective reality	Multiple, socially constructed realities	Both objective and subjective realities
Purpose	Measure, test, and generalise	Explore, interpret, and understand	Explain, integrate, and triangulate
Typical Research Questions	What? How many? To what extent?	Why? How? What is the experience of?	What and why? How much and what does it mean?
Data Type	Numerical / Statistical	Textual / Narrative / Visual	Both numerical and textual
Data Collection Methods	Surveys, experiments, structured instruments	Interviews, observations, focus groups	Sequential or concurrent combination of both
Sample Size	Large (for generalisability)	Small (for depth and richness)	Varies by design strand
Analysis Approach	Statistical analysis (e.g., regression, SEM)	Thematic, content, or discourse analysis	Integrated or parallel analysis of both strands
Researcher Role	Detached, objective observer	Active, interpretive participant	Flexible, adaptive to both strands
Strengths	Precision, replicability, generalisability	Depth, context-sensitivity, emergent theory	Completeness, triangulation, explanatory power
Limitations	Limited contextual depth	Limited generalisability	Resource-intensive, requires dual competency
Best Suited For	Testing hypotheses, measuring trends	Exploring meanings, lived experiences	Complex problems requiring breadth and depth

Note. NRP = Nature of Research Problem; TRQ = Type of Research Questions; DBR = Depth vs. Breadth Requirement. Table adapted from the synthesis of Mulisa (2022), McCusker and Gunaydin (2015), Baškarada and Koronios (2018), and Hirose and Creswell (2023).

The dimensions presented in Table 1 form the comparative foundation upon which the Polas Methodological Fit Framework (PMFF) is constructed. Rather than treating these three traditions as competing alternatives, the PMFF positions them as complementary options within a structured decision logic, one that guides researchers toward the most appropriate choice based on the specific characteristics of their study. The following section examines how the nature of research questions serves as one of the primary drivers of that decision.

4. Method Selection Based on Research Questions

Which type of research method is appropriate is essentially framed by the research questions, as these direct us to the type of evidence needed, as well as to the depth or breadth of understanding that we wish to know (Young et al., 2021). Based on the discussions above, quantitative research questions usually measure or relate to the size, strength, or prevalence of certain phenomena or to a statistical relationship(s). The questions usually start with What, how many, or to what extent, indicating that objectivity and figures is the order of the day. Example query: How adopted are digital payment systems by Malaysian SMEs? or" To what extent does screen time effect student academic performance? undoubtedly requires the use of numerical indicators and statistical tools to produce generalizable results. As stated earlier, such questions bring forth observable patterns and variable relationships which readily lend themselves to structured, large-scale quantitative designs.

Qualitative research questions, on the other hand, are exploratory and interpretive: they seek to uncover meaning, motives, or lived experience driving human behaviour. Not surprisingly, these questions are usually prefixed with Why, How or What is the experience of… and are, therefore, depth oriented rather than breadth oriented. Statements like: "Why do people not trust AI tools in academia or job-related settings? or 'How do entrepreneurs experience and make sense of the digital transformation challenges? Demand more open-ended questions that are dedicated to emotion, perception, and the social context. For example, if you have a question, such as, "What does work-life balance mean for remote employees? Exemplifies the importance of understanding subjective that scale would not be able to measure. These questions are less amenable to survey-based approaches, requiring instead a deeper, more layered understanding of human behaviour through interaction, observation, or case studies (Mulisa, 2022).

Research questions that require both quantitative breadth and qualitative depth of understanding emerge as mixed-methods research questions, typically, when we need to understand not only the patterns, but also the underlying reasons. These questions are often reflections of both paradigms; a What question to map prevalence or trends and a way to make sense of underlying mechanisms. For instance, a researcher exploring trust in fintech platforms may first pose the question, "What is the distribution of trust among user groups? first, using surveys and statistical modelling then "why do these patterns of trust happen? by conducting interviews eliciting risk perceptions, usability, and data privacy. And in studies measuring the adoption of AI by students, quantitative questions around frequency of use can be paired with qualitative questions unpacking one-week levels of fear, uncertainty, or ethical concerns. This mixed-method perspective offers a better understanding, especially when the behaviour cannot be explained by numbers alone in a complex socio-technical environment, and the prevalence of the behaviour cannot be shown by narrative alone (Guetterman & Fetters, 2018).

Essentially, method choice cannot be separated from the logic contained in the research question. So quantitative questions are about measurement and relationships, qualitative questions are about meaning and interpretation, and mixed-methods questions are about integration and explanation. Understanding these differences allows researchers to create studies which are internally consistent, methodologically robust, and connect coherently to the original motivation for their investigation, thereby improving both methodological alignment and scholarly contribution.

5. Practical Criteria for Method Selection

Choosing an appropriate research method is rarely a decision based purely on philosophy, but rather one which is influenced by pragmatic considerations impacting the feasibility, methodological robustness, and success of a study. Some of these factors, as highlighted in the methodological literature, are rooted in pragmatics: time and abilities of researchers, or access and ethical considerations for participants, often are decisive factors shaping whether an approach based on quantitative, qualitative, or mixed methods is most adequate. These considerations draw attention to aligning methodological choices not only with research questions, but also with the pragmatics of the research context (Lê & Schmid, 2022).

5.1 Time and Resources

The first filter applied to method selection is often time and resource constraints. In limited periods of time, quantitative surveys are more favourable, using structured instruments for large samples where the units of analysis are minimal types of behaviour or individual characteristics. In comparison, qualitative and mixed-methods designs take considerably more time and resources to perform as they rely on interviews, observations or sequential data collection processes. For example, interviewing startup founders in depth or interviewing remote workers and making sense of their experiences involves lengthy fieldwork, transcript, and coding. As a result, researchers who have a specific

deadline or have limited funds would prefer quantitative methods, and researchers who have more flexibility would be able to use more descriptive Qualitative or the combined approach of the two Quantitative or Qualitative approach.

5.2 Researcher Skills

The methodological skills of the researcher also play a role in which approach is chosen. Researchers with strong qualitative training possess the skills needed for interviews and thematic analysis yet may lack proficiency in statistical techniques such as regression analysis or structural equation modelling required for quantitative work. Researchers familiar with statistical software such as SPSS, SmartPLS, or AMOS are well positioned for quantitative work. Conversely, those with strong interviewing skills and proficiency in qualitative software such as NVivo or ATLAS.ti are better suited to qualitative designs. Mixed methods research demands competency in both traditions simultaneously because it requires both statistical literacy and qualitative interpretive skills. Because of this, the way a researcher is trained in the right method influences both the quality and credibility of the selection of their design (Fàbregues et al., 2024).

5.3 Access to Participants

Easily accessible participants are yet another factor affecting method selection. Quantitative surveys are not viable, nor as effective, for that matter, if researchers are not able to access large heterogenous populations, but when they have access, the opportunity to have access to larger samples and thereby larger generalizability are present. But those are hard to reach groups, like entrepreneurs or cancer survivors or others with space expertise. Here, qualitative approaches such as purposive or snowball sampling, i.e., sampling for depth rather than for representativeness or breadth, are better suited. Who or what you can access will not only determine whether you can gather that data but will also impact on how in-depth and relevant that data is to your interests.

5.4 Ethical Considerations

Methodological type can often be determined by ethical concerns (for example, sensitive topics or neonatal) as well. Qualitative designs in these studies must be well-distilled with robust ethical considerations and confidentiality plan and attention to the well-being of research participants especially refugees, patients, trauma survivors, or marginalized communities. Anonymity in surveys makes quantitative methods more appropriate for sensitive topics or for studies with large numbers of participants where exposing participants to emotional risk is unnecessary. The result is that ethical issues that might arise as a result of their methodological decisions (potential risks such as Coercion, Harm to participants, Loss of privacy, Degradation and Investigative abuse) need to be carefully addressed and actions need to be taken to consider the impact of their research on others regardless of whether it is being conducted at the beginning.

6. Practical Examples Aligned with Each Method

The inclusion of concrete examples in showing the way how research questions automatically lead to method choice is a critical function. The materials include how the same research topic can be approached differently based on the purpose of the inquiry (Takona, 2024). If, for example, we are studying university students' mental health and use of social media and using quantitative approach, we will be using it, when we simply want to measure trends, more specifically the question we will be asking would be, how well do the students perform on average on social media? This is based on generalisable numerical trends. But, if the goal is to explore the emotional or mental effects of social media, then a qualitative question like, "How do students in general experience emotional pressure from social media? fits better, as it reflects the details of mental health, whether anxiety, comparison culture or academic stress. Unlike, a mixed-methods approach, for example, "What is the rate of burnout in your students, and what are the most

important causes? Enabling researchers to quantify prevalence and then unpick some of the underlying causes to give a fuller picture of student wellbeing.

This same logic exists in this study of AI adoption in Malaysian SMEs, which is reflective of the methodological choices within the nature of the inquiry. If researchers want to understand tech adoption rates or ask what percentage of SMEs are integrating AI tools, it is a quantitative design using surveys (1) or secondary data (2). But the numbers tell only part of the story: perceptions, fears, and motivations not easily quantified also play a role in the embrace of AI. Qualitative interviews can dive far deeper into the reasons for this hesitation among SME owners, for example, price, lack of knowledge, data security or concerns around replacing employees. When the intent is to not only quantify but also unpack (explain) adoption levels, a mixed-methods design is optimal, as it allows researchers to formulate more holistic policy and managerial recommendations that can target not just behavioural but structural barriers as well.

The methodological differences become even more pronounced in the light of Environmental, Social, and Governance (ESG) practices in firms. Researchers can measure ESG adoption by creating an ESG adoption index of sorts, track compliance metrics, or evaluate sustainability performance by industry using a quantitative method. But these metrics alone do not explain the reasons firms dedicate themselves to ESG or how management interprets the value of ESG practices. Qualitative studies reveal manager beliefs, moral or reputational incentives, and other drivers of ESG engagement. A mixed-methods approach can be helpful for answering the two questions of "How many have adopted? and "What is the adoption rate? and "Why managers consider ESG as an asset?", offering a broader foundation for forming sustainable business policies.

Ultimately, these examples emphasize that method choice is not random but instead informed by the question being asked, the level of insight one seeks, and the level of complexity of the phenomenon of interest. Through practical exemplars in education, technology, and sustainability, the discussion reemphasizes the paper's main idea that matching research questions to methods provides a pathway toward more disciplined, meaningful, and consequential research.

7. The Proposed Framework

Choosing a suitable research method is more than matching terminology to techniques. It is a structured, rational, and contextually adaptive decision process. Although prior methodological literature provides valuable guidance, existing frameworks tend to address method selection in fragmented or discipline-specific ways. For instance, Creswell and Creswell (2017) offer broad typological guidance on choosing among research traditions but do not provide an integrated multi-dimensional decision logic. Similarly, the methodological decision trees proposed by Tashakkori and Teddlie (2021) offer useful heuristics yet remain largely focused on the quantitative-qualitative divide without fully accounting for the complexity of contemporary research problems. Morgan (2013) advances a pragmatic case for method pluralism but stops short of operationalising that pluralism into a structured decision model. The PMFF addresses these gaps directly. Rather than treating method selection as a binary or discipline-bounded choice, the PMFF integrates philosophical assumptions, question typology, researcher capacity, and phenomenon complexity into a single, sequentially ordered decision framework. It is not intended to replace existing guidelines but to serve as a unifying logic that enables researchers to navigate method selection systematically, transparently, and defensibly across diverse research contexts.

At its core, the PMFF proposes that method selection should be driven by six interrelated dimensions. These dimensions were not arbitrarily constructed; each was derived from recurring themes identified across the methodological literature reviewed in the development of this framework. The Nature of the Research Problem (NRP) is grounded in the foundational argument, advanced by Creswell and Creswell (2017), Mulisa (2022), and Strijker et al. (2020) that the structural character of a research problem (numerical vs.

experiential vs. hybrid) is the primary determinant of methodological fit. The Type of Research Questions (TRQ) is derived from the widely accepted principle that question phrasing signals the epistemological logic of inquiry, as consistently argued by Matović and Ovesni (2023) and McCusker and Gunaydin (2015). The Depth vs. Breadth Requirement (DBR) emerges from the literature on research scope and sampling design, particularly from discussions of generalisability versus contextual richness in Baškarada and Koronios (2018) and Guetterman and Fetters (2018). The Researcher Capacity and Constraints (RCC) dimension draws on practical methodological guidance from Fàbregues et al. (2024) and Lê and Schmid (2022), who emphasise that feasibility, skills, time, and access are critical but often underacknowledged factors in method selection. The Nature of the Phenomenon (NOP) is informed by ontological distinctions between stable, measurable phenomena and socially constructed or hybrid phenomena, as theorised in Taguchi (2018) and Baškarada and Koronios (2018). Finally, the Complexity of Inquiry (COI) is anchored in the mixed methods literature, particularly Singh et al. (2020), Poth et al. (2024), and Hirose and Creswell (2023), which consistently identifies problem complexity as the decisive factor in determining whether integration of methods is required. Together, these six dimensions form an integrated decision logic that directs researchers toward quantitative, qualitative, or mixed methods based on the specific demands of their inquiry.

Figure 1 presents the conceptual architecture of the PMFF as a hierarchical, bottom-up decision model. The framework is structured as a sequential funnel in which each dimension filters and refines the methodological decision before passing it upward to the next level. The process begins at the base with the Nature of the Research Problem (NRP), which establishes whether the problem is fundamentally numerical, experiential, or hybrid in character. This initial assessment directly informs the second level, the Type of Research Questions (TRQ) which further specifies the epistemological orientation of the inquiry through the framing of research questions. The third level, Depth vs. Breadth Requirement (DBR), determines whether the study demands population-level generalisation, contextual richness, or both. At the fourth level, Researcher Capacity and Constraints (RCC) introduces a pragmatic filter, ensuring that the methodological choice is not only theoretically appropriate but also practically feasible given the researcher's skills, time, resources, and access. The fifth level, Nature of the Phenomenon (NOP), examines whether the phenomenon under study is stable and measurable, socially constructed, or a hybrid of both. The sixth and final level, Complexity of Inquiry (COI), assesses the overall degree of complexity of the research problem and determines whether it exceeds what a single-method approach can adequately address. The cumulative output of this six-level assessment is the Methodological Fit Decision at the apex of the framework — a justified, transparent, and context-sensitive recommendation to adopt a quantitative, qualitative, or mixed methods design. Crucially, the PMFF is not intended as a rigid checklist but as a reflective decision scaffold that guides researchers through a systematic reasoning process. Each dimension interacts with the others; the framework's value lies in its integrative logic rather than in any single dimension considered in isolation.

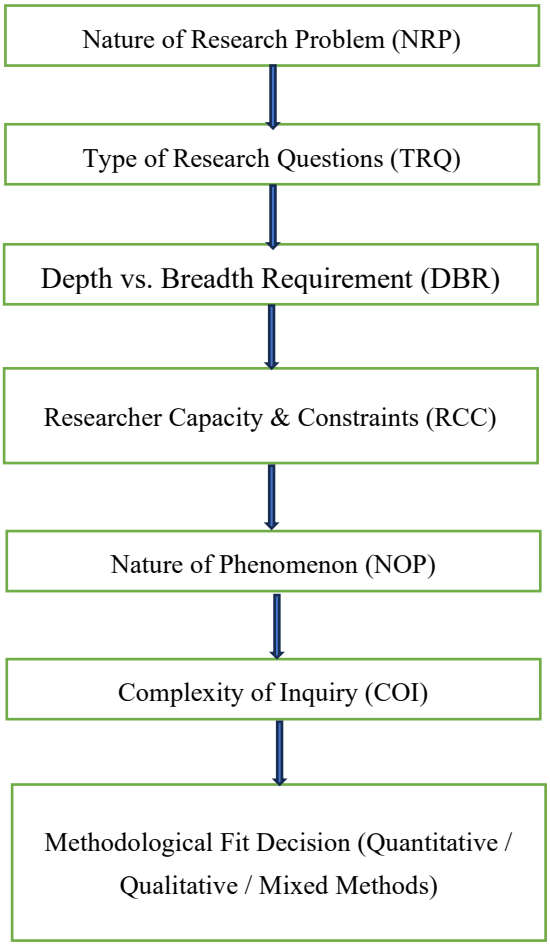

Figure 1: The Polas Methodological Fit Framework (PMFF)

(A Sequential Six-Dimension Decision Model for Method Selection in Social Science Research)

The PMFF Components are discussed below:

- Nature of the Research Problem (NRP)

The first dimension of the PMFF concerns the structural character of the research problem itself, as this fundamentally shapes the methodological direction. Problems that are primarily numerical in nature such as measuring service adoption rates, technology uptake frequencies, or performance benchmarks, call for quantitative designs that produce standardised, externally valid results. Conversely, problems rooted in lived experience, emotional complexity, or social meaning, such as understanding identity conflicts, navigating institutional resistance, or interpreting cultural adaptation, demand the interpretive depth that qualitative inquiry provides. Many contemporary research problems, however, are neither purely numerical nor purely experiential; they are hybrid in nature, combining behavioural patterns with emotional or contextual dimensions. For example, studying AI adoption among university students requires both quantifying usage frequency (a numerical dimension) and understanding students' concerns and resistance toward the technology (an experiential dimension). Such multilayered problems signal the

need for a mixed methods design and constitute the primary entry point into the PMFF decision logic.

- Type of Research Questions (TRQ)

The second dimension examines how the phrasing of research questions signals the appropriate methodological tradition. Questions framed with "what," "how many," or "to what extent" require measurable, quantifiable evidence and are therefore aligned with quantitative methods. Questions that begin with "why," "how," or "what is the experience of" are oriented toward meaning, perception, and motivation, the domain of qualitative inquiry. When a study requires simultaneous answers to both types of question, the mixed methods tradition is most appropriate. For instance, a researcher investigating trust in fintech platforms may open with a quantitative question, "What is the distribution of trust levels across user demographic groups?", before following with a qualitative question, "Why do users in certain groups exhibit lower levels of trust?" The sequential pairing of these question types not only justifies a mixed methods approach but also determines the specific design most suitable, in this case, an explanatory sequential design in which qualitative inquiry follows and explains the quantitative findings. The formulation of research questions thus functions as a direct methodological signal that the PMFF translates into a structured design recommendation.

- Depth vs. Breadth Requirement (DBR)

The third dimension determines whether the study requires broad generalisation, contextual depth, or an integration of both. Where the aim is to map population-level patterns or trends, as in large-scale surveys of consumer behaviour, policy uptake, or technology adoption, quantitative approaches are most appropriate given their capacity for statistical generalisation. Where the aim is to understand context-specific meanings, subjective experiences, or the interpretive processes underlying behaviour, qualitative research is favoured for its ability to generate rich, situated knowledge. In many contemporary research contexts, particularly in areas such as digital transformation, sustainability, and behavioural studies, both requirements arise simultaneously: researchers need to establish how widespread a phenomenon is and understand why it manifests as it does. In such cases, a mixed methods design achieves methodological completeness by documenting population-level trends through quantitative analysis while generating deep contextual understanding through qualitative inquiry. The DBR dimension therefore functions as a scope filter within the PMFF, ensuring that the selected method matches not only the philosophical demands of the study but also its practical informational requirements.

- Researcher Capacity and Constraints (RCC)

The fourth dimension introduces a pragmatic filter that ensures the methodological choice is not only theoretically appropriate but also practically achievable. Method selection is inevitably shaped by the skills, time, funding, participant access, and ethical parameters available to the researcher. Researchers with strong training in statistical modelling using tools such as SPSS, AMOS, or PLS-SEM, are well positioned to execute quantitative designs efficiently, particularly under time constraints. Those with expertise in interviewing techniques, thematic analysis, or qualitative software such as NVivo or ATLAS.ti are better placed to undertake rigorous qualitative work. Mixed methods research demands competency in both analytical traditions and is most appropriately chosen when adequate time, resources, and dual methodological expertise are available. Access to participants also mediates method selection: large, accessible populations favour quantitative designs that maximise generalisability, while small, hard-to-reach, or specialised groups, such as startup founders, trauma survivors, or senior policymakers are more amenable to qualitative sampling strategies. Finally, ethical considerations shape the feasibility of certain designs; studies involving vulnerable populations, sensitive disclosures, or emotionally charged topics require robust ethical safeguards that may influence both the method and the mode of data collection. The RCC dimension ensures that the PMFF produces not only a methodologically sound recommendation but a practically implementable one.

- Nature of Phenomenon (NOP)

The fifth dimension examines the ontological character of the phenomenon under investigation specifically, whether it is stable and objectively measurable, socially constructed and interpretively constituted, or hybrid in nature. Phenomena that are stable, observable, and amenable to standardised measurement such as working hours, examination scores, or technology usage statistics align naturally with quantitative designs. Phenomena shaped by meaning-making, cultural context, or emotional experience such as professional identity, organisational trust, or psychological resilience require the interpretive sensitivity of qualitative approaches. Hybrid phenomena, which combine technical and perceptual dimensions, are increasingly prevalent in contemporary research, particularly in studies of technology, human behaviour, and organisational systems. Digital trust in fintech platforms exemplifies this hybridity: it encompasses both technically measurable attributes (e.g., encryption standards, platform uptime, interface usability) and subjectively perceived qualities (e.g., fear of data misuse, regulatory confidence, emotional comfort with digital transactions). Such hybrid phenomena are most effectively studied through mixed methods designs that capture the full ontological range of the phenomenon. The NOP dimension therefore aligns the PMFF's methodological recommendation with the fundamental nature of what is being studied.

- Complexity of Inquiry (COI)

The sixth and final dimension assesses the overall complexity of the research inquiry and determines whether that complexity exceeds what a single-method approach can adequately address. When the inquiry concerns a straightforward causal relationship such as whether increased study hours improve academic performance, a quantitative design is sufficient to test the proposed association. When the inquiry involves layered contextual dynamics such as how organisational culture shapes employee resistance to AI adoption, qualitative exploration of social processes and situated meanings is required. The most complex category of inquiry involves what Rittel and Webber (1973) described as "wicked problems", research challenges that span multiple interdependent domains simultaneously, including technological, psychological, sociocultural, and policy dimensions. Such problems resist resolution through any single method. Digital transformation in SMEs exemplifies this complexity: it requires quantitative measurement of technological capacity and adoption rates alongside qualitative interpretation of managerial mindset, workforce readiness, and regulatory experience. The COI dimension thus functions as the apex filter of the PMFF, determining whether the cumulative demands of the inquiry call for the integration of methods and, if so, which mixed methods design, explanatory sequential, exploratory sequential, or convergent, is most appropriate given the preceding five dimensions.

8. Applying the PMFF: An Illustrative Case of Fintech Trust in Malaysia

This section demonstrates the practical application of the PMFF through a fully operationalised illustrative case: a study of digital trust in Malaysian fintech platforms. This context was selected because it exemplifies the kind of complex, sociotechnical research problem for which integrated methodological guidance is most needed. The PMFF is applied systematically across all six dimensions, culminating in a complete research design specification that encompasses sampling, data collection, integration strategy, and analysis decisions.

Dimension 1 — Nature of the Research Problem (NRP): The research problem concerns digital trust among users of fintech platforms in Malaysia, a phenomenon that is simultaneously behavioural, technological, and psychological. On one hand, trust can be partially operationalised through observable and measurable indicators such as platform usage frequency, transaction volume, and service adoption rates. On the other hand, trust is fundamentally shaped by subjective perceptions of security, regulatory confidence, and

emotional comfort with digital financial transactions. The NRP is therefore hybrid in character, combining objectively measurable dimensions with experiential and perceptual ones. This hybrid nature immediately signals that a single-method approach will be insufficient and that both quantitative and qualitative strands of evidence are required.

Dimension 2 — Type of Research Questions (TRQ): The study is guided by two interrelated research questions that together span both methodological traditions. The primary quantitative question asks: *"What is the level of digital trust among Malaysian fintech users, and how does it vary across age, income, and usage frequency groups?"* This question demands measurable, statistically analysable data to identify patterns and group differences. The secondary qualitative question asks: *"Why do Malaysian fintech users exhibit varying levels of digital trust, and what emotional, cultural, and security-related factors underlie these differences?"* This question requires interpretive, context-sensitive data that survey instruments cannot adequately capture. The pairing of a "what" question with a "why" question confirms the need for a mixed methods design and, more specifically, an explanatory sequential structure in which the qualitative strand follows and explains the quantitative findings.

Dimension 3 — Depth vs. Breadth Requirement (DBR): The study requires both breadth and depth. Breadth is needed to establish the prevalence and distribution of trust levels across a sufficiently large and representative sample of Malaysian fintech users, enabling statistically reliable conclusions about population-level patterns. Depth is required to understand the emotional, cultural, and contextual mechanisms that produce those patterns, knowledge that cannot be extracted from survey responses alone. The DBR assessment therefore confirms the mixed methods orientation established by the NRP and TRQ analyses and further specifies that the quantitative strand should precede the qualitative strand so that the latter can be purposively targeted at phenomena that emerge from the former.

Dimension 4 — Researcher Capacity and Constraints (RCC): The ideal researcher for this study possesses dual methodological competency. Quantitative competency includes proficiency in survey instrument design, sampling procedures, and statistical analysis software, specifically SPSS for descriptive and inferential analysis and SmartPLS or AMOS for structural equation modelling (SEM) to examine relationships among trust-related constructs. Qualitative competency includes skills in semi-structured interviewing, thematic analysis, and qualitative data management software such as NVivo. In terms of practical constraints, the quantitative phase requires access to a sufficiently large and diverse sample of Malaysian fintech users, achievable through online survey distribution via platforms such as Google Forms or Qualtrics. The qualitative phase requires access to a smaller purposively selected sub-sample drawn from quantitative respondents, achievable through direct recruitment following the survey. Ethical requirements include informed consent, data anonymisation, and appropriate handling of financially sensitive disclosures. A realistic timeline for this design is approximately twelve to sixteen months, encompassing instrument development, data collection for both phases, analysis, and integration.

Dimension 5 — Nature of the Phenomenon (NOP): Digital trust in fintech platforms is an archetypal hybrid phenomenon. Its technical dimension includes objectively assessable attributes such as platform encryption standards, interface usability, uptime reliability, and regulatory compliance. Its perceptual dimension includes subjectively experienced qualities such as fear of financial fraud, uncertainty about data privacy protections, perceived regulatory adequacy, and emotional comfort with conducting financial transactions through digital channels. Neither dimension can fully substitute for the other: quantitative measures can capture the technical and behavioural dimensions reliably, while qualitative inquiry is necessary to access the perceptual and emotional dimensions in their full contextual richness. The NOP assessment therefore reinforces the mixed methods recommendation and highlights the specific analytical responsibilities of each strand.

Dimension 6 — Complexity of Inquiry (COI): The complexity of this inquiry is high. Digital trust in fintech platforms is shaped by the interaction of multiple interdependent

factors spanning technological infrastructure, individual psychology, cultural attitudes toward financial institutions, regulatory frameworks, and prior experience with digital services. No single method is capable of capturing this full complexity. The COI assessment confirms that a mixed methods design is not merely preferable but methodologically necessary, and that the integration of quantitative and qualitative findings must be planned deliberately rather than treated as an afterthought.

Resulting Research Design: Explanatory Sequential Mixed Methods: The cumulative output of the six-dimension PMFF assessment is a recommendation to adopt an *explanatory sequential mixed methods design*, structured as follows.

Phase One — Quantitative Strand: A structured online survey is administered to a minimum of 300 Malaysian fintech users, recruited through purposive and snowball sampling via fintech user communities, social media platforms, and financial services networks. The survey instrument measures digital trust using a validated scale (e.g., adapted from McKnight et al., 2002), alongside demographic variables and platform usage indicators. Data are analysed using SPSS for descriptive statistics and group comparisons, and SmartPLS for partial least squares SEM to examine hypothesised relationships among trust antecedents. The quantitative phase identifies statistically significant patterns, group differences, and unexpected findings that require deeper explanation.

Phase Two — Qualitative Strand: Based on the quantitative results, a purposive subsample of 15 to 20 survey respondents is selected to represent maximum variation across trust levels, age groups, and usage frequency categories. Semi-structured interviews of approximately 45 to 60 minutes are conducted, guided by an interview protocol developed directly from the quantitative findings. Questions probe the emotional, cultural, and contextual factors underlying the patterns identified in Phase One. Interview transcripts are analysed using reflexive thematic analysis in NVivo, generating themes that explain and contextualise the quantitative results.

Integration Strategy: Integration occurs at the interpretation stage through a *connected integration approach* (Fetters & Tajima, 2022), in which the qualitative sample is drawn directly from the quantitative pool and the qualitative protocol is shaped by quantitative outcomes. Findings from both phases are presented together in a joint display — a table or matrix that maps quantitative trust level categories against qualitative themes, enabling direct comparison and interpretive synthesis. Discrepancies between the two strands are treated as analytically valuable and are discussed explicitly in the findings.

Analytical Output: The integrated findings produce a multi-layered account of digital trust in Malaysian fintech platforms — one that establishes the prevalence and distribution of trust at the population level while simultaneously explaining the emotional, cultural, and security-related mechanisms that produce those patterns. This dual-layer output provides a more complete and actionable evidence base for both platform designers and financial regulators than either method could have produced independently, thereby demonstrating the practical value of the PMFF as a decision framework for complex sociotechnical research.

8.1 Limitations of the Polas Methodological Fit Framework

While the PMFF offers a structured and integrative approach to method selection, intellectual honesty requires an explicit acknowledgement of its limitations. Recognising these constraints not only strengthens the scholarly transparency of the framework but also helps researchers apply it with appropriate critical awareness. Four principal limitations are identified below.

Disciplinary Variability: The PMFF was developed primarily through the synthesis of methodological literature in the social sciences, with illustrative applications drawn from fields including education, business, technology adoption, and sustainability. While this breadth reflects the framework's intended cross-disciplinary applicability, it also means that the PMFF has not been systematically validated against the methodological conventions of all social science disciplines. Different disciplines carry distinct epistemological

traditions, genre expectations, and methodological norms that may not map straightforwardly onto the six dimensions as currently conceived. For instance, in legal research or historical scholarship, the ontological assumptions underlying the NOP dimension may require substantial reinterpretation. In clinical psychology or public health research, ethical and participant-access considerations embedded in the RCC dimension may carry significantly greater weight than in business or education research. Researchers applying the PMFF in highly specialised or methodologically distinctive disciplines are therefore advised to treat it as a flexible conceptual scaffold rather than a prescriptive universal formula, adapting its dimensions to the epistemological norms of their field where necessary.

Researcher Subjectivity in Framework Application: A second limitation concerns the inherent subjectivity involved in applying the six dimensions of the PMFF. Although the framework provides structured decision criteria, the assessment of each dimension, particularly NRP, NOP, and COI, necessarily involves interpretive judgement on the part of the researcher. Two researchers approaching the same research problem may reach different conclusions about whether the phenomenon is hybrid or purely experiential, or whether the complexity of inquiry warrants a full mixed methods design or a qualitative-dominant approach. This subjectivity is not unique to the PMFF, it is a feature of all conceptual decision frameworks, but it represents a meaningful constraint on the framework's capacity to produce fully standardised or reproducible methodological recommendations. To mitigate this limitation, researchers are encouraged to apply the PMFF iteratively and reflexively, ideally in dialogue with supervisors, methodological peers, or research team members, and to document their reasoning at each dimension to ensure transparency and accountability in their methodological decisions.

Challenges in Operationalising the Six Dimensions: Third, while each of the six dimensions is theoretically grounded and conceptually distinct, operationalising them in practice can be challenging, particularly for early-career researchers who may lack the methodological breadth to assess all dimensions with equal confidence. The RCC dimension, for instance, requires an honest self-assessment of the researcher's own skills, limitations, and access, a form of reflexive awareness that is not always cultivated in conventional methodological training. Similarly, the COI dimension demands a nuanced understanding of what constitutes genuine problem complexity as opposed to merely unfamiliar or multidisciplinary subject matter. There is also a risk that researchers may engage with the dimensions sequentially but superficially, treating them as a checklist to be completed rather than as interrelated lenses through which the research problem is progressively refined. The framework's value depends critically on the depth and rigour with which each dimension is engaged, and this in turn depends on the researcher's methodological maturity and willingness to interrogate their own assumptions.

Absence of Empirical Validation: Fourth, and most significantly from a scholarly standpoint, the PMFF is a conceptual framework that has not yet undergone formal empirical validation. While its illustrative application to the fintech trust case in Section 8.0 demonstrates its practical logic and usability, this application is neither a pilot study, an expert panel evaluation, nor a Delphi validation exercise. The framework's effectiveness in producing superior methodological alignment compared to existing approaches has not been empirically tested across multiple disciplines or research contexts. Future research should address this gap through structured expert evaluations, Delphi validation studies involving experienced methodologists, and systematic comparisons of research designs produced with and without PMFF guidance. Empirical validation across a range of disciplinary contexts would considerably strengthen the framework's credibility, generalisability, and practical authority as a decision tool for the research community.

8.2 Future Research Applications of the PMFF

Beyond its immediate contribution as a method-selection framework for social science researchers, the PMFF carries significant potential for application and further

development across a range of disciplinary contexts and research agendas. Four principal directions for future research are identified below.

Empirical Validation Across Disciplines: The most immediate priority for future research is the empirical validation of the PMFF across multiple social science disciplines. As noted in Section 8.1, the framework has thus far been applied illustratively rather than tested systematically. Future studies could engage panels of experienced methodologists from disciplines including sociology, education, public health, political science, and organisational behaviour in structured Delphi validation exercises designed to assess the comprehensiveness, clarity, and practical utility of the six dimensions. Comparative studies that track the methodological decisions of researchers who use the PMFF against those who rely on conventional guidance alone would provide particularly valuable evidence of the framework's added value. Such validation work would not only strengthen the PMFF's scholarly credibility but would also generate discipline-specific refinements that improve its applicability across different epistemological traditions.

Application in Doctoral Education and Research Supervision: A second and highly promising avenue for future research concerns the integration of the PMFF into doctoral education programmes and research supervision practices. Methodological misalignment is a well-documented challenge in doctoral research, particularly among candidates in the early stages of their studies who may lack the breadth of methodological knowledge to confidently justify their design choices (Pilcher & Cortazzi, 2024). The PMFF's structured six-dimension logic offers a pedagogically accessible entry point into methodological reasoning that could be incorporated into research methods courses, dissertation workshops, and supervisory conversations. Future research could investigate the effectiveness of PMFF-guided supervision through longitudinal studies tracking doctoral candidates' methodological confidence, design quality, and thesis examination outcomes. Developing PMFF-based pedagogical tools, including structured worksheets, decision guides, and annotated case studies, would further extend the framework's educational utility and could form the basis of a dedicated research programme in doctoral methodology training.

Extension to Emerging and Interdisciplinary Research Fields: Third, the PMFF holds particular promise for application in emerging and interdisciplinary research fields where methodological consensus is still developing. Fields such as artificial intelligence ethics, platform economy research, digital health, climate change behaviour, and social robotics routinely generate research problems that span technological, psychological, sociocultural, and policy dimensions simultaneously, precisely the kinds of complex, hybrid problems for which the PMFF was designed. Future research could explore how the six dimensions of the PMFF translate into these specific contexts, potentially generating field-specific decision variants that retain the framework's core logic while accommodating the unique methodological demands of each discipline. Collaborative research involving methodologists and domain specialists working together to apply and refine the PMFF in these emerging fields would be particularly valuable, as it would ensure that the framework evolves in response to the actual methodological challenges researchers encounter in practice.

Development of a Digital PMFF Decision Tool: Fourth, and looking further ahead, the structured and sequential logic of the PMFF lends itself naturally to digitalisation. Future research could explore the development of an interactive, web-based or application-based PMFF decision tool that guides researchers through the six dimensions in real time, prompting reflective responses at each stage and generating a provisional methodological recommendation based on the cumulative assessment. Such a tool could incorporate branching logic that accounts for disciplinary context, research experience level, and available resources, producing tailored guidance rather than a single universal recommendation. Integration with open-access research design repositories and methodological learning platforms could further extend the tool's reach and impact, making structured methodological guidance accessible to researchers in resource-limited settings and institutions where formal methods training may be limited. The development, piloting, and iterative

refinement of such a digital tool represents a substantial and impactful research agenda in its own right, with the potential to transform how method selection is taught, practised, and reported across the global social science research community.

9. Theoretical and Practical Contributions of the Study

This paper provides several key contributions to methodological scholarship and applied research design. To start with, it provides a framework that resolves an ambiguity that has persisted for decades: it describes clearly the ways that quantitative, qualitative, and mixed methods correspond to different types of research questions (the three types of inquiry). Secondly, this paper deepens methodological awareness with grounded, real-world examples from the specific cases noted in the methodological literature and practical research contexts, demonstrating how researchers can leverage method selection principles across broad areas of research inquiry, including education, fintech and digital transformation.

Third, the Polas Methodological Fit Framework (PMFF), developed in the paper, is our primary theoretical contribution: a logical model with specific structure, relating the characteristics of research problems to the type of elementary questions addressed, the nature of the phenomenon investigated, and the constraints of the researchers in a decision system. Finally, the practical procedure outlined in the framework aids doctoral candidates, early-career researchers, and supervisors in making methodological choices that are transparent, defendable, and inform decisions based on the specific context of the study; they improve the rigour and significance of empirical studies.

10. Conclusion

The selection of a research method is neither a matter of personal preference nor a reflection of disciplinary tradition, it is, fundamentally, a strategic and intellectually defensible decision that shapes the epistemological direction, analytical rigour, and scholarly contribution of a study. This paper has argued that methodological misalignment remains a persistent and consequential problem in social science research, particularly among early-career and interdisciplinary researchers who lack access to integrated, practical, and decision-oriented guidance. In response to this gap, the paper introduced the Polas Methodological Fit Framework (PMFF), a structured, researcher-centred, and sequentially ordered decision model that guides scholars through six interrelated dimensions: the Nature of the Research Problem (NRP), the Type of Research Questions (TRQ), the Depth vs. Breadth Requirement (DBR), the Researcher Capacity and Constraints (RCC), the Nature of the Phenomenon (NOP), and the Complexity of Inquiry (COI). Together, these dimensions produce a transparent, contextually grounded, and practically implementable methodological recommendation that goes considerably beyond the binary or typological guidance offered by existing frameworks.

The PMFF makes three principal contributions to the methodological literature. Theoretically, it advances beyond prior method-selection models by integrating philosophical foundations, pragmatic decision criteria, and phenomenon-level analysis into a single, cohesive framework, one that positions method selection as a multi-dimensional, logic-driven process rather than a mechanical or preference-based choice. Practically, it equips researchers with a structured reasoning scaffold that can be applied across a wide range of social science disciplines and research contexts, as demonstrated through the fully operationalised illustrative case of digital trust in Malaysian fintech platforms. Pedagogically, it offers a meaningful contribution to methodological training and doctoral education. Methodological misalignment is especially prevalent at the doctoral level, where candidates are often required to make high-stakes design decisions without sufficient exposure to integrative methodological reasoning. The PMFF's six-dimension logic provides supervisors and doctoral candidates alike with a shared, structured language for discussing, evaluating, and justifying methodological choices, one that is accessible enough for

novice researchers while remaining sufficiently rigorous for advanced scholarly work. Integrating the PMFF into research methods curricula, dissertation workshops, and supervisory practice has the potential to meaningfully improve the quality, transparency, and defensibility of doctoral research design across institutions and disciplines.

The paper also acknowledges the framework's current limitations with scholarly transparency. As a conceptual framework developed through theoretical synthesis and illustrative application, the PMFF has not yet been subjected to formal empirical validation. Its six dimensions involve interpretive judgement that may be applied differently across researchers and disciplinary contexts, and its transferability to highly specialised or methodologically distinctive fields requires further investigation. These limitations do not diminish the framework's contribution but rather define a clear and productive agenda for future research, one that encompasses Delphi validation studies, discipline-specific refinements, longitudinal investigations of PMFF-guided doctoral supervision, and the potential development of an interactive digital decision tool.

Ultimately, the PMFF is offered not as a definitive or final word on method selection but as a principled and practical starting point, a framework that encourages researchers to think more carefully, more systematically, and more transparently about the foundational decisions that determine the quality and impact of their work. Rigorous research begins with a rigorous methodological choice. By providing a structured, accessible, and theoretically grounded framework for making that choice, the PMFF contributes to a research culture in which methodological decisions are made deliberately, justified clearly, and reported with the transparency that cumulative scientific knowledge demands.

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