Pragmatism as a paradigm for quality management research in bridging academic-practitioner gaps

1. Introduction

Research paradigms are fundamental and crucial yet are often neglected by scholars in both the natural and social sciences. The works on research design by scholars across social sciences are mostly grounded at the methodological level that is either qualitative, quantitative or the use of both qualitative and quantitative methods also known as mixed methods approach (Harrits, 2011). Research should not be methodologically led, rather, the methodological choice should be consequential to the scholar's philosophical stance and congruent with the phenomenon investigated (Holden and Lynch, 2004; Mills *et al.*, 2006; Scotland, 2012). Echoing the above arguments, Panda and Gupta (2014) pointed out that ontological and epistemological stances should act as guiding principles for scholars in shaping their research process, and subsequently adopt appropriate methodological approaches to generate and sustain valid and relevant knowledge in research.

Staying competitive in a market that is increasingly more difficult to please with customers demanding better quality at lower price points has forced businesses and other organizations to engage in the implementation of quality improvement activities to achieve optimum quality and speed. The survival of companies in the ever-expanding and highly competitive market is riding on having the right internal competencies to allow companies to launch their products at greater speed and efficiency without jeopardizing the product quality. Hence, quality management (QM) has received greater attention in developing countries spurred by its critical role in sustaining a firm's internal quality performance (Niu and Fan, 2015); improve competitiveness and organizational performance (Jaafreh and Al-abedallat, 2012).

QM is a customer-oriented and quality-centered type of management with the purpose of improving quality performance (Wu, 2015). Nevertheless, as the QM term is progressively embedded in industrial literature it has been diluted to mean different things. Thus far, the scope of activities underlying QM lacks consensus (Sousa and Voss, 2002; Barros *et al.*, 2014). A recent work of Barouch and Ponsignon (2016) indicated that QM remains an ambiguous organizational phenomenon and the reason behind the poor implementation of QM is due to the lack of understanding on QM foundations (Barouch and Kleinhans, 2015). Furthermore, the existing body of QM literature mostly emphasize exploring the key dimensions of QM practices (QMPs) in the quest to satisfy the requirements of the triangle of quality, cost and time (Weckenmann *et al.*, 2015). Although it is imperative to identify the key dimensions of QMPs in developing a primary framework of QM, the current literature has failed to capture real-world industrial problems and has not been able to fully support the implementation of QM in practice (Dahlgaard-Park, 2011; Barouch and Ponsignon, 2016). Empirically, previous QM-performance literature has shown contradictory findings (Asif *et al.*, 2009; Talib *et al.*, 2013; Psomas *et al.*, 2014; Patyal and Koilakuntla, 2015; 2017).

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With shortcomings of QMPs' initiatives, a debate into its effectiveness was set in motion (Eriksson, 2016). A gap exists between QM concept and their implementation, and this may explain the limited influence of management research on QM in practice and its limited importance and usefulness to the real-world practicing managers (Panda and Gupta, 2014; Barouch and Ponsignon, 2016). Ways of discovering knowledge are diverse as different ontological and epistemological stances influence the choice of research methods. Hence, this paper seeks to present an overview on the diverse research paradigms and explore and discuss the philosophical assumptions that underpin each paradigm and how these assumptions manifest within methodology and research methods allowing QM scholars to adopt the most appropriate methodology for their particular research. With epistemological clarity, QM researchers will be able to justify and rationalize the selection of particular methods to attain the desired outcomes.

The term *paradigm* is first coined by American philosopher Thomas Kuhn (1962) as a philosophical way of thinking (as cited in Kivunja and Kuyini, 2017). Kuhn (1962) defined paradigm as "a set of common beliefs and agreements that are shared between scientists on how problems should be addressed and understood", whereas Schwandt (1989) referred to paradigms as "worldviews" and beliefs about the nature of reality, knowledge and values (as cited in Morgan, 2007). According to Guba and Lincoln (1994), a paradigm is a basic set of beliefs or worldview that guides research planning or an investigation. A researcher's worldview is a set of shared beliefs, perspective or school of thought or thinking that informs how a researcher sees the world and how he/she interprets and acts within that world (Kivunja and Kuyini, 2017). By and large, a paradigm is characterized by ontology (what is reality?), epistemology (how do you know something?) and methodology (how do you go about finding out?) (Morgan, 2007). The "top-down" approach to research starts with ontological assumptions about the nature of reality followed by epistemological assumptions about the nature of knowledge and knowing which consequently imposed constraints on the choice of methodology and methods (Guba and Lincoln, 1994).

Each research paradigm provides a distinctive perspective and reveals a different facet of a phenomenon (Weaver and Gioia, 1994; Barouch and Ponsignon, 2016). The underlying ontological and epistemological assumptions create a holistic stance in the way a researcher views and comprehends knowledge and subsequently, the methodological strategies used to delve into it (Klenke, 2016). Differing ontological and epistemological positions with regard to the same phenomenon leads to different research approaches (Grix, 2004, as cited in Scotland, 2012). The philosophical stance embraced by a researcher is of fundamental importance as ontological and epistemological stances will influence the researcher's choice of methodology and subsequently influence the research methods selected (Crotty, 1998). The primary objectives for this paper are threefold. First, this paper aims to provide an overview of ontology and epistemology underpinnings for two major research paradigms positivism and constructivism, respectively, in addition to, pragmatism paradigm. Second, the justification for pragmatism paradigm and mixed method approach as particularly relevant for QM research will be presented. Finally, different research methodologies best suited for each of the paradigms are also discussed. It is not the aim of this paper to justify which research method is superior to the other, as a researcher's philosophical stance drives the choice of research design and methodology (Holden and Lynch, 2004). Nonetheless, it is the aim of this paper to instill awareness of the diverse research paradigms and their underlying ontological and epistemological assumptions.

2. Ontology

Ontology is concerned with what exists, the nature of reality, ways of constructing reality, "how things really are" and "how things really work" (Dillon and Wals, 2006). According to

Crotty (2003), ontology refers to what kind of world we are investigating, with the nature of existence and with the structure of reality as such. Generally, there are two dominant extremes of the ontological position with regards the nature of reality as applied to both natural and social sciences – objectivism and subjectivism (Bryman, 2004). Objectivism is an ontological stance which proclaims that social entities exist in objective reality and the meanings of social phenomena have an existence that is independent of the social actors (Bryman, 2012). Ontologically, objectivism views external reality as an independent and objective phenomenon that can be accurately measured, observed and investigated (Yeganeh *et al.*, 2004). Objectivism is the dominant ontological position in natural science research and is also increasingly adopted in social science research.

At the opposite extreme is subjectivism, an ontological stance which asserts that social phenomena and their meanings are derived from the perceptions and consequent actions of social actors (Bryman, 2012). Subjectivists argued that it is the interaction between social actors and their world that gives rise to knowledge and meaningful reality that is subsequently developed and transmitted in a social context (Crotty, 2003). It is assumed that what we regard as the external world is just appearances and has no independent existence apart from our thoughts and perceptions. Subjectivism is commonly used in the social sciences and humanities.

Pragmatism is situated in the middle of the ontological continuum (Kaushik and Walsh, 2019). Pragmatism contends that all individuals have their own and unique interpretations of reality, and as such, there is no singular reality (Kivunja and Kuyini, 2017). As individual perceptions and experiences differ, so too will the socially constructed reality. Pragmatism refuses to be embroiled in debates on the metaphysics of reality but focuses on the utility or value of an ontological position toward human existence. For example, if we see a tree, objectivist will assert that the existence of the tree is independent of the perceiver, subjectivist will assert that the existence of the tree is dependent on the perceiver and pragmatist will assert that there is a tree insofar as it provides socially agreed upon benefits of a tree such as shade, wood and foliage.

Ontologically, pragmatism traces its roots to the pragmatic theory of truth. The pragmatic theory of truth is itself a response to earlier correspondence and coherence theories of truth (Velasquez, 2013). The pragmatic theory of truth says that a belief is true if it works and is useful, for example, by letting us make accurate predictions. The pragmatist introduces usefulness as the measure of truth and insists that we can define truth only in relation to consequences. A statement is true if people can use that statement to achieve results that satisfy their interests, and there are no unchanging absolute truths (Velasquez, 2013). The pragmatic theory of truth is the cornerstone of pragmatism. Pragmatism asserts that there is an external world independent of our minds, however, denies that the truth can be determined once and for all (Subedi, 2016). Pragmatism is a theory of truth resting on the argument that the meaning of an event cannot be given in advance of experience, whereas the focus is on the consequences and meanings of an action in a social situation (Denzin, 2012).

3. Epistemology

While ontology refers to the nature of knowledge and reality, epistemology provides a philosophical grounding on the way of understanding and explaining what is known and how it is known (Crotty, 2003). Paradigm as epistemological stances inform researchers' assumptions on what can be known and how to go about knowing as such (Morgan, 2007). Epistemology concerns the basis of knowledge whether it is real and transmittable in a concrete form, or it is more subjective based on personal experience and insight

(Cohen *et al.*, 2006; as cited in Dieronitou, 2014). The root of epistemology goes back to the sixteenth and seventeenth centuries as alternatives to the predominant source of knowledge acquisition then – religious faith and divine revelation. Two alternatives to knowledge acquisition were proffered – reason and experience, "Reason, or rationalism, was concerned with being able to distinguish between what is true and what is false" (Benton, 1977). The other alternative was to base knowledge on the world of human experience. The human senses and perceiving through them is regarded as the ultimate way to establish how the world is and how it works. In other words, only when evidence can be produced from the use of the human senses can knowledge of the world be regarded as certain (Blaikie, 2007).

Positivism is derived from empiricism that perceives knowledge as objective and tangibly aligns with the methods of natural science (Dieronitou, 2014). Positivists hold that the relationship between man and society is deterministic and presume the world is engaged in causal laws that explain the patterns of social behavior (Easterby-Smith *et al.*, 1991). Positivists attempt at explaining phenomena with research and methodological choice made objectively, adopting causal explanations and fundamental laws to explain regularities in human social behavior and social science phenomena (Easterby-Smith *et al.*, 1991; Holden and Lynch, 2004). With language as representational role and words that own the meaning to the objects, positivists attempt to discover absolute knowledge impartially given that phenomena have an independent existence which can be discovered via research (Scotland, 2012). Positivists place extreme emphasis on direct observations thus it has been criticized for disregarding values, informed opinion, moral judgments and beliefs (Dieronitou, 2014). Moreover, positivists tend to ignore the intentionality of the individual hence actions are not fully understood (Scotland, 2012).

The social world cannot be studied in the same way as the natural sciences especially where humans are involved given that social world is not value-free (Kivunja and Kuyini, 2017). As such, the post-positivist paradigm evolved from positivist paradigm where it rejects purely objective stance and value subjectivity of reality (Ryan, 2006). Post-positivist argues that complete objectivity is practically impossible and oppose the notion of researchers as completely independent observer of the social world because the understanding of the world is intrinsically bounded to researcher's interpretations of experiences, moreover, the value system of both the researcher and participants are always present (Harrits, 2011). Post-positivism uses a reductionist approach to research emphasizing empirical data collection, causation relationships and determinism based on *a priori* theories (Creswell, 2007).

Interpretivism (sometimes known as constructivism) (Morgan, 2007; Kivunja and Kuyini, 2017) rejects the existence of knowledge residing in a state of awaiting discovery (Gordon, 2009; as cited in Morgan, 2014). Interpretivists are likely to involve the use of qualitative approaches such as text analysis (Dieronitou, 2014). Interpretivists argue that to experience a world is to participate in it because individuals are unique with multiple interpretations and perspectives on single events, hence, the social world can only be understood from the standpoint of individuals who are participating in it (Cohen *et al.*, 2006). Interpretivists focus on the meaning of individuals or social phenomena that is attached to a given situation rather than its measurement to explain a problem in its contextual setting (Easterby-Smith *et al.*, 1991; Hughes and Sharrock, 1997). Interpretivists reject reductionism, seeking to explore consciousness that is hidden within social forces, given that individual meanings may lie buried within broader generalizations in addition to its limitation of transferability (Scotland, 2012).

Over the years, there appears to be a growing interest in adopting pragmatism as a paradigm for social science and business management research for its value in moving beyond the two extremes of objectivist and subjectivist conceptualizations (Morgan, 2014;

Mitchell, 2018; Kaushik and Walsh, 2019; Kelly and Cordeiro, 2020). Epistemologically, pragmatism lies in the middle between positivism and interpretivism. Pragmatism gained popularity mainly attributable to the insights it has provided for research into management and organizations. It has also been credited for providing an epistemological justification for mixing approaches and methods (Onwuegbuzie *et al.*, 2009; Teddlie and Tashakkori, 2009; Creswell and Clark, 2011). The founders of the pragmatic school of philosophy, William James, Charles Peirce and John Dewey described truth as a subjective and person-dependent notion, highlighting the significance of putting truth in perspective to make sense of reality. Pragmatists believe the process of acquiring knowledge is a continuum and rejects the notion that an inquiry can access reality by using mono-methods (Kaushik and Walsh, 2019). Pragmatism embraces both objective and subjective perspectives to answer research questions (Subedi, 2016), placing more weight on questions as regards to why conduct the research in a given way (Morgan, 2014). Pragmatism offers a flexible and more reflexive approach to research design, shifting the study of social research to questions such as:

RQ1. How does the researcher decide the way the research is conducted? Why does the researcher decide to do so? (Morgan, 2014).

3.1 Pragmatism as a paradigm for quality management

QM initiatives within manufacturing floors are all people-centric processes, heavily influenced by organization dynamics, individual perspectives and culture. Nwabueze (2001) pointed out that employees exhibit different perceptions, compose different attributions, embrace different cognitive orientations and have different work-related beliefs. Moreover, organizations are open systems thus employees tend to react differently to a situation attributable to cultural aspects, social and own needs and so forth (García *et al.*, 2013). Grounding on sociotechnical system theoretical lens, the inevitable consequence of mixing "socio" with "technical" is that socio does not behave like technical primarily due to the fact that people are not machines and may exhibit nonlinear behavior especially with the growing "technical" complexity and "technical" interdependency (Walker *et al.*, 2008). Given the complex nature of human beings, a positivistic understanding of the social world is inherently inappropriate (Amis and Silk, 2008; Leitch *et al.*, 2010). Subjectivism's proponents argue that subjectivism is more relevant for social science research (Holden and Lynch, 2004) because subjectivism holds that different individuals may construct meaning in different ways with regard to the same phenomenon as knowledge has the trait of being culturally derived and historically situated (Crotty, 1998). Nevertheless, it is important to note that subjectivism does not entail the rejection of objectivity seeing as the study of peoples' subjective views such as values, attitudes and beliefs can be done objectively (Bunge, 1993; Gray, 2009).

All social science research is inherently biased thus complete objectivity is practically impossible because the understanding of the world is inherently limited to researcher's interpretations of experiences. The value systems of both researchers and participants are always present, and people's actions are context-bounded and may respond differently to a particular stimulus (Holloway, 1997; Harrits, 2011). Thus, the mixing of methods is often proffered to address the epistemological challenges of the social sciences (Harrits, 2011). Both positivism and interpretivism are not without their own shortcomings and critics considering that there is no "absolute basis for scientific knowledge" (Hughes and Sharrock, 1997), hence, one theory cannot be held as more valid than another (Holden and Lynch, 2004). Researchers may use both objectivism and subjectivism ontologies in their epistemological orientation over the course of studying research questions (Bryman, 2004;

Subedi, 2016). Similarly, Harrits (2011) denoted that an epistemological double perspective is needed to explain and understand the social practices of human beings.

Pragmatic research paradigm offers a much more reflexive guide to problem-solving and research design in the social world (Feilzer, 2010, as cited in Kelly and Cordeiro, 2020). Furthermore, pragmatism paradigm is especially suited in organizational settings in bridging the gap between research and evolving organizational practice (Kelly and Cordeiro, 2020). Building on the above arguments, this paper argues that pragmatism offers an alternative epistemological paradigm for QM studies in avoiding methodological biases. The complementarity of quantitative and qualitative approaches allows a better understanding of the reality of QM phenomena being investigated. Moreover, the fundamental principles of pragmatism are well suited to the analysis of problem-solving as a human activity (Morgan, 2014). The argument here is that pragmatism can serve as an appropriate paradigm for QM research in providing a comprehensive perspective on QM phenomenon. In addition, the fact that QM evolves over time, especially in a fast-growing economy, the current state of QM adoption and implementation may have advanced to a different stage (Niu and Fan, 2015). Therefore, this paper argued that grounding on either positivism or interpretivism paradigm fails to embrace the entire QM phenomenon. In the same manner, numerous scholars denoted that pragmatism provides a solid epistemological foundation for QM as well as underlies the key QM concepts and offers a unique perspective on QM phenomenon (Sliwa and Wilcox, 2008; Barouch and Ponsignon, 2016). In addition, pragmatism paradigm allows organizations to learn from experience seeing as the feedback from QM practice allows the continuous improvement of ISO 9,000 standards (Barouch and Ponsignon, 2016).

4. Methodology

Methodology is the strategy, process, design or plan of action that underlies the choice and justifies the rationale use of particular methods (the mechanics of doing research) to attain desired outcomes (Crotty, 2003). Methodology raises questions as how a researcher discovers whatever they believe can be known (Guba and Lincoln, 1994). In brief, methodology is concerned with why, what, from where, when and how data is collected and analyzed (Scotland, 2012).

Methodologically, the cause-effect ontological position of positivism constrains research at the methodological level to the use of empirical tests under controlled settings (Dieronitou, 2014). Positivist approach to research is deductive in nature as it aims at explaining relationships and strives to identify the independent causes that lead to the observed effects that subsequently forms a basis for prediction and generalization (Creswell, 2009). Positivism is inclined to the side of experimentation as it tests *a priori* hypotheses, and theories and hypotheses are either verified or disproved by observed effects. Verifiable evidence is often sought via empirical testing, random samples, controlled variables (independent, dependent and moderator) and control groups. In general, deductive research moves from the general to the specific which comprises of six stages:

(1) theory;
(2) hypothesis;
(3) data collection;
(4) findings;
(5) hypotheses confirmed or rejected; and lastly
(6) revision of theory (Collis and Hussey, 2009).

Throughout the research process, positivists make value-laden judgments in the selection of variables, observed effects and interpretation of findings (Salomon, 1991). Nevertheless, quantitative approach has instigated criticisms in its attempt to reduce the complex to minimal by simplifying and controlling the variables thus this may result in having some variables hidden from researchers until their effects are evident (Scotland, 2012). By and large, quantitative social research attempt to reduce the complex concepts to concrete indicators (validity, reliability, objectivity and generalizability) and focuses only on limited aspects of the phenomena under investigation thus it has been criticized for being inadequate in providing in-depth understanding on social science and social-cultural phenomena (Holden and Lynch, 2004; Dieronitou, 2014).

On the contrary, interpretivist approach to research is inductive in nature directed at understanding phenomenon from an individual's perspective and investigating the interaction among individuals as well as understandings of behavior, historical and cultural contexts (Creswell, 2009). Interpretivist research and inductive approach neither confirms nor disconfirms *a priori* theories, rather, the aim is to develop bottom-up interpretive theories that are grounded in the lifeworld (Cope, 2005). Inductive research starts with collection of data and finishes by producing predictive theories (Blaikie, 2007), letting the data lead to the emergence of a concept or theory (Yin, 2011). Methodologically, interpretivism depicts individual interpretation accurately without dominating the participants to compare and contrast it dialectically with the intention of reaching and generating a substantial consensus (Dieronitou, 2014). Interpretive methods are often implemented via open-ended interviews, focus groups, open-ended questionnaires and open-ended observations (Scotland, 2012).

Pursuing pragmatism as a paradigm for social research is not entirely new and it is frequently related with mixed methods approach (Creswell 2003; Morgan, 2014; Kaushik and Walsh, 2019). Pragmatic paradigms link the choice of research approach directly to the purpose and the nature of research questions posed, focusing on practical and procedural issues as how to combine the strengths of qualitative and quantitative methods (Creswell 2003). Pragmatism insists on treating research as a human experience which is based on the beliefs and actions of researchers (Morgan, 2014). Different individuals instinctively will have different interpretations over the same circumstances and the information deriving from experience has no meaning unless it is conceptualized, hence, there is a need to use operational definitions to give them meaning (Lovitt, 1997; Barouch and Ponsignon, 2016). There are four distinct research strategies, namely, deductive, inductive, retroductive and abductive approach with each approach provides a distinctive way of answering research questions (Blaikie, 2007). Pragmatism can embrace all the different research strategies or approaches, or even a mix as is practicable and applicable. Nonetheless, it is important to note that the flexible nature of pragmatism does not imply an incoherent "anything goes". The selection of the appropriate methodology needs to be justified by the phenomenon researched.

For pragmatist research, the methodological approach is adopted based on the adequacy of methods in answering research questions (Bryman, 2006). Pragmatists assert that the best method is the one that is most effective in producing the desired outcome of an inquiry (Tashakkori and Teddlie, 2008; as cited in Kaushik and Walsh, 2019). Pragmatism encourages researchers to base choices on the relevance of methodologies and methods in problem-solving, reexamining indeterminate phenomena and delivering useful and actionable knowledge (Fielder, 2010). Pragmatist research involves both collecting information on the study phenomenon garnered through observations and applying concepts from existing fields of knowledge, instead of relying either on abstract concepts

(deduction) or developing propositions based solely on observations (induction) (Friedrichs and Kratochwil, 2009). Pragmatism acts as a guide for scholars to develop research agendas anchored in practicality (Kelly and Cordeiro, 2020). Through the exploration of respondents' experiences and actions, researchers are able to gain multifaceted understanding of organization practices hence a better comprehension on the ever-evolving organizational processes, subsequently uncover hidden themes and issues to better address emergent problems (Kelly and Cordeiro, 2020).

5. Research method

Ontology and epistemology dictate researcher's choice of methodology, and subsequently inform the choice of research methods used. Research methods are specifically the techniques or procedures used to collect and analyze data to test the proposed research question or hypothesis (Crotty, 1998). Mixed methods approach associated with the pragmatic paradigm has become firmly embedded in social science research (Morgan, 2014; Kaushik and Walsh, 2019) which involves mixing quantitative and qualitative approaches in a fashion that best addresses the research questions (Creswell, 2003). The integration of these two approaches can take place either in the philosophical or theoretical framework(s), methods of data collection, overall research design and/or in the discussion of research conclusions (Shannon-Baker, 2016).

There are three features that suggest mixed method is superior as compared to mono-methods approach (Tashakkori and Teddlie, 2003). First, mixed methods can answer confirmatory and exploratory research questions simultaneously. Second, they provide better and in-depth inferences in understanding complex social phenomena. Third, mixed methods allow the divergent of findings for an expression of differing viewpoints. As adopted in many social and management research studies, the data collection methods and analysis techniques for mixed methods design embraced both the qualitative and quantitative approach where the data collection and analysis adopted either parallel [QUAL+QUAN] and [QUAN+QUAL] or sequential manner [QUAL/QUAN] and [QUAN/QUAL] (Tashakkori and Teddlie, 2003).

There are several typologies for classifying different types of mixed method designs among the many overlapping variations. Creswell (2013) identified three basic mixed method designs, namely, the convergent parallel mixed method, the explanatory sequential mixed method and the exploratory sequential mixed method. For convergent parallel mixed method design, researchers collect both quantitative and qualitative data, analyze them separately, subsequently makes interpretations by comparing the results to grasp if the findings support or contradict each other. In this approach, the challenge for researchers is to converge or to merge the collection of both quantitative and qualitative databases via side-by-side approach or data transformation. Next, an exploratory sequential mixed method is a design in which researchers gather qualitative data by exploring specific samples of populations and then proceeds with second quantitative phase to determine whether the data from qualitative phase can be generalized to a large sample of a population. For this approach, researchers would first collect focus group data, analyze the results, develop an instrument based on the results and then administer it to a sample of a population. Last of all, an explanatory sequential mixed method approach involves two phases in which researchers collect quantitative data in the first phase, analyzes the results and subsequently builds on the results to explain it in more detail with qualitative follow-up research. In this approach, a theoretical model is first developed with formulations of hypotheses with the aim to measure and provide empirical verification of data validity and is subsequently followed by collecting qualitative data in a latter part of the study. The

prime objective of this design is to have a second phase of qualitative data to help explain in more detail the initial quantitative results. By and large, explanatory sequential mixed method approach appeals to scholars with a strong quantitative background.

6. Current state of quality management research

QM has been acknowledged as one of the most prominent research themes in operations management (OM) (Nair, 2006). Quantitative methods have dominated the academic research arena; nevertheless, heavy reliance on quantitative modeling paradigm in OM research had failed to address the problems of production and productivity (Buffa, 1968; as cited in Meredith *et al.*, 1989). In addition, Anderson *et al.* (1979) stated that the existing quantitative approach in OM research holds limited practical value for managers (as cited in Meredith *et al.*, 1989). Academic researchers tend to theorize organizational phenomena by either develop or validate theories/frameworks using scientifically rigorous data analysis tools to explore the inter-relationship among the indicators in explaining a phenomenon but pay little attention in making academic research relevant to business organization and industrial practitioners (Panda and Gupta, 2014; Kelly and Cordeiro, 2020). Similarly, recent studies claimed that heavy reliance on a quantitative approach may have failed to address the existing issues faced by organizations, hence, the use of a mixed-method approach to investigate evolving organizational phenomena is suggested (Sim *et al.*, 2022a, 2022b). Literally, scholars tend to identify research problems via extensive literature review and not often collaborate with practitioners in developing research agenda. In short, there is a substantial academic-practitioner gap in QM research (Sim *et al.*, 2022b).

Management and business environments have evolved considerably; hence, it is necessary to determine whether the existing practices are capable of providing effective means to respond to the new competitive settings (Escrig-Tena *et al.*, 2011). QM research should be revamped to include qualitative or mixed-method approaches by working collaboratively with practitioners to enhance the quality and relevance of management research as well as gain better insights on the research findings (Sim *et al.*, 2022a). Following the calls made by Shokri (2017) who pointed out that future scholars should opt for more collaboration between academics and industry players such as by following-up with second phase of qualitative approach to allow a wider perspective on a specific phenomenon as well as further in-depth interpretation on research findings to address current research gaps.

Qualitative data reflects upon experience and depth (Newby, 2014) as a result mixed methods approach would offer a comprehensive perspective on QM phenomenon especially in bridging the gap between QM concept and implementation. For example, the explanatory sequential mixed method approach can contribute to the growing body of QM literature as it allows the quantitative findings to be explored further with qualitative findings to better understand how personal anecdotal and experiential-based beliefs match up to the quantitative findings (Wisdom and Creswell, 2013). Klingner and Boardnnan (2011) indicated that collecting qualitative data in latter part of the study facilitates the understanding of participants' viewpoint on the findings, explaining the quantitative outcomes and determining the extent quantitative findings reflect current industrial practices (Klingner and Boardnnan, 2011). Above and beyond, the second phase of the explanatory sequential mixed method approach enables QM scholars to discover new leads and explore new territories as the conversation progresses that might have been overlooked by academics (Klingner and Boardnnan, 2011) and to identify whether the existing dimensions of QMPs are sufficient to achieve and sustain promising quality performance.

7. Conclusion

The current over-reliance on mono methods, particularly quantitative methods in QM research is hobbling its development. Investigating an organizational phenomenon with a combination of quantitative and qualitative methods yields greater information than could achieved via single methods (Currall and Towler, 2003; Barouch and Ponsignon, 2016; Kelly and Cordeiro, 2020). Practitioners' knowledge complements academics' (Bartunek, 2007); hence, the collaboration between practitioners and academics will allow both parties to have a holistic understanding on organizational phenomenon (Panda and Gupta, 2014). Although during the course of mixed method study the findings of QUAN and QUAL approaches may be conflicting, yet, the divergent findings are valuable as it suggests the need for reexamination of the conceptual frameworks and assumptions underlying each of the two components (Harrits, 2011; Subedi, 2016).

Pragmatism paradigm is especially fitting for QM research as outlined in the body of this paper. Regardless of the paradigm adopted, it is important to be aware of the underpinning ontology and epistemology, and their accompanying philosophical assumptions. Pragmatism paradigm expresses itself methodologically through mixed-method research. Within mixed methods, a wide range of research approaches and data-gathering methods are available. Dependent on the specific phenomenon in QM researched, philosophical assumptions that underpin each paradigm influence the choice of research method, acting as the guiding principles for QM scholars in their research planning. This paper contributes to the growing literature in supporting pragmatism as an appropriate paradigm for QM research. Pragmatism paradigm provides a sound platform to further advance QM research and bridge the QM academic-practitioner gap.

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