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BEYOND METHODS: THEORETICAL UNDERPINNINGS OF TRIANGULATION IN QUALITATIVE AND MULTI-METHOD STUDIES"

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ABSTRACT

This paper explores the "triangulation approach" in social science research methods. Triangulation is an emerging method specifically in qualitative and multi-method studies. Researchers in the social sciences have increased their use of the triangulation approach recently due to the merits of this approach, especially to conduct in-depth studies through multiple inquiries. Simultaneously, this method has criticism and misconceptions among social researchers in terms of what it is, how it can be used, and the credibility of the findings when used. Therefore, this paper analyses in depth what triangulation is, the types of triangulations and how they can be applied in the social sciences.

The study basically adopted systematic literature review and used 30 articles published in scientific journals. The paper critically reviewed journal articles related to triangulation, revealed how different types of triangulation methods have been applied in the social sciences and highlighted the merits and cautions of applying this method.

The paper theoretically contributes to understanding the phenomenon of the triangulation approach and how it connects with qualitative and multi-method studies. In addition, it revealed that the following data collection techniques from multiple sources can be exploited: in-depth interviews, focus group discussions, literature, documents, and surveys on the triangulation method to improve the credibility and reliability of the research. Furthermore, the study empirically contributes to social science researchers applying this approach with proper understanding.

Key words: triangulation, qualitative study, multi-method

INTRODUCTION

Many disciplines and many sectors are now applying triangulation to their qualitative studies. This paper examines a wide range of disciplines that have embraced triangulation, including education, health, management, and the social sciences. Triangulation refers to the use of multiple studies or multiple sources in the research method to develop an in-depth understanding of the research problem or phenomenon of the study (Begley, 1996). However, Oppermann's, (2000) "Triangulation - Methodological Discussion" describes that often the basic concept of triangulation is misunderstood easily, and it's understood as a basic approach to combining qualitative and quantitative data collection methods. Nonetheless, because there are no connections between the above collection methods, this multi-methodological approach will cross- validate the results with limitations (Oppermann, 2000). The term triangulation lies in its implied appeal to independent fixed points and also to observing the results or authenticating the methods (McFee, 1992). McFee (1992), further in the study of Triangulation in research: two confusions: Educational Research stated that "triangulation across techniques creates fixed points at the cost of losing the underlying issue or problem, whereas triangulation inside a method produces a specific incident in return for the breakdown of the fixed points". Thurmond (2001) conducted the study on "The Point of Triangulation" to search for different types of triangulation strategies and to designate when different types of triangulations should

be used in research by reviewing published literature and multimethod strategies from 1960, with the books mainly focusing on triangulation. Further, Thurmond (2001), found that triangulation is used to increase the capability to interpret qualitative research findings by combining a minimum of two or more theoretical perspectives, methodological approaches, data sources, investigators, or data analysis methods. The triangulation also supports to lower, disprove, or counterbalance of single strategy.

There are numerous misconceptions about the use of triangulation. Oppermann (2000), discussed triangulation as a research method as well as guidelines for using triangulation in the social sciences. McFee (1992), explained triangulation between methods and triangulation within methods. This study shows that triangulation between methods requires mutual validation, where the triangulation within methods builds on the same issue from different perspectives. According to Thurmond (2001), the use of triangulation does not support a false study; rather, it may enhance the study by understanding the phenomenon through the use of triangulation; however, the researcher must demonstrate why the strategy is used. The study of 'Triangulation in Social Research: Qualitative and Quantitative Methods Can Really Be Mixed' reviewed 'empiricist', constructionist, and realist issues through triangulation, and this chapter had a more intellectual review of the debate over pluralism in methodology. (Olsen, 2004).

Jack & Raturi, (2006) depicted three reasons for focusing on triangulation in their "Lessons learned from methodological triangulation in management research" which assists future researchers to develop more complete theories through a better position. The researchers wanted to communicate a comprehensive framework with methodological triangulation when developing research strategy; address the issues faced by the researchers when using methodological triangulation and to provide a valuable contribution to management researchers by replicating the prior studies.

REVIEW OF LITERATURE

What is triangulation?

Triangulation was used in 1950 to alleviate potential biases from single methodology implementation in qualitative research. The term is derived from navigation to determine the point by using the angles between two known points (Heale & Forbes, 2013). To develop a comprehensive understanding of phenomena, qualitative research uses multiple methods or data sources. Merging information from different sources is also viewed as a strategy in

qualitative research (Carter, 2014). The etymological definition of triangulation is that it is a process of using trigonometry to determine an unknown point or occasion by using the position of two fixed points at a known distance apart (Thurmond, 2001). According to Kimchi et al., (1991), triangulation is defined as two or more combinations of data sources, investigators, methodologic approaches, and theoretical perspectives within the same. Multiple triangulations are referred to when two or more types of data are used in the same study (Thurmond, 2001).

Heale and Forbes (2013) also pointed out that qualitative data collection is done with more than two types of the same methodology. When it comes to different methodologies, such as qualitative and quantitative, there are limitations when comparing findings from different perspectives. In the study "Research Methods: Triangulation" conducted by Wilson (2014), he explained that, in order to gather rich data and confirm the research results, more than one approach is used to refer to triangulations. In dictionaries, triangulation is usually defined as: (1) division (of an area) into triangles for surveying purposes; (2) measurement and mapping (of an area) by the use of triangles with a known base length and base angles (Oppermann, 2000).

The term triangulation uses multiple references to locate the exact position of an object. This was picked up from navigation and military strategy. However, when it comes to developing theory and deciding on interpretation, many management studies employ triangulation, which originated in the social sciences and psychology (Jack & Raturi, 2006). Briller et al., (2008) in their study on "Implementing a triangulation protocol in bereavement research: a methodological discussion", stated that:

"The concept of triangulation originated from surveying, a field which uses several comparative steps to accurately measure boundaries or areas, while originally employed by researchers of the positivist tradition to confirm study findings, more recent discussions have elaborated on the value of various types of triangulations to achieve deeper understandings of complex topics" (Briller, et al., 2008).

Apart from meeting all the requirements and ensuring that all of the measurements are correct, the critical part of the triangulation is that they all have to be related to the question within the triangle (Oppermann, 2000). According to Oppermann (2000), Webb, Campbell, Schwartz, & Sechrest (1966) were the scholars who introduced the term triangulation into the social science discipline as a research approach. Oppermann (2000), on the other hand, referred to Singleton et al., (1993) and stated that 'social scientists have borrowed the term triangulation

to help describe how the use of multiple approaches to a research question can enable the researcher to zero in on the answers or information sought.'

Triangulation in Qualitative Study

Because qualitative studies are prone to bias, using only one research method can result in data bias. Triangulation can be the primary reason for recognizing the data set. The bias can be varied, such as methodological or instrument bias, data bias, and investigator bias. When the data is biased, the results will also be biased, as the themes or categories won't be included or detected. There may be preconceived categories that will influence the results as well. When the data collection method is only open-ended or close-ended, sometimes participants may not disclose appropriate information depending on the sensitivity of the incident or question. The answers may not be open and true. The information provided may be false and not in their memory. If there is another method, such as observation, in the same study, it may show an exact picture of the nature of the research study (Oppermann, 2000).

However, Oppermann (2000) argued in the study that at least three measures were required to obtain an accurate result for the study. Having said that, three is considered to be the standard procedure in surveying the origin, and it is not derived from the 'tri' of triangulation. When there is bisection in surveying, it prevents the measuring instrument's accuracy or investigator errors from occurring, resulting in the wrong point being calculated. Therefore, using a third measurement will calculate the accuracy of the first two measures, and an accurate final calculation will occur.

In the social sciences, when more measures are used to investigate a problem through qualitative methods, they will provide a confident result. Hence, triangulation should be provided with at least three methodologies. In a multi-method approach, results can deliver new insights and, at the same time, provide an enhanced explanation of the research issues. But a new insight behind the individual methodological walls will be provided through a multi-dimensional perspective. Yet, when multi-method approaches are used with multiple qualitative methods, it might be difficult to reproduce them. (Oppermann, 2000)

Types of Triangulations

A variety of triangulation methods were identified and discussed in this study, which was based on existing journal articles that were selected for this study. These methods include data source triangulation, investigator triangulation, methodologic triangulation, theoretical

triangulation, and multiple triangulations. According to Briller et al., (2008), there are numerous types of triangulations that are listed: methodological data and investigator triangulation types were listed by Tobin and Begley (2004), Denzin (1989) listed theoretical triangulation, Kimchi, Polivka, & Stevenson (1991) discussed the unit of analysis, Janesick (1994) went on to list and explain interdisciplinary triangulation, Begley (1996) listed communication triangulation, Foster (1997) listed conceptual triangulation and Tobin and Begley (2002) discussed collaborative triangulation. All of these triangulation methods need a comparison of data. However, the research techniques literature is divided on the number and kinds of triangulations, the significance of each kind, and how they should be defined and integrated. As a result, the researchers focused primarily on classified types in this study.

Data Sources Triangulation:

According to Jack & Raturi (2006), the findings of this kind of study are enhanced by gathering data through various methods that include time, space, and persons. A variety of events, times, locations, circumstances, and people are included in the research to obtain unique data or discover potential comparable patterns to improve the research's confidence in the findings (Thurmond, 2001). Besides, this type of triangulation also involves collecting data from various types of people, such as individuals, organisations, families, and communities, in order to gather diverse perspectives and data endorsement (Carter, 2014). Wilson (2014) used Flick's (2002) remark in his research, "The first approach is to engage individuals and study groups, as well as local and temporal contexts, in the research on a purposeful and systematic basis".

Data triangulation, according to Oppermann (2000), is the use of the same methodology for various sets of data in order to validate or falsify generalizable patterns identified in one data collection.

Investigator Triangulation:

This type of triangulation includes many observers, coders, or data analysts. Providing information without collaboration yields major credibility to the observation. (Thurmond, 2001). Likewise, Carter (2014) also mentioned that two or more researchers contribute to the participation in one study, but the observations and conclusions will be multiple. Therefore, the findings, which came from different perspectives, will add breadth to the phenomenon of interest. Wilson (2014) indicated that "Systematic evaluation of various researchers' effects on the topic and research findings". Oppermann, (2000); Jack and Raturi (2006) described that

investigator triangulation refers to use different backgrounds with the use of different investigators, and it has multiple investigators.

Methodologic triangulation:

The term has been interchangeably used for multimethod, mixed-method, or method triangulation (Thurmond, 2001). There are two types of this methodological triangulation, such as ‘*within*’ and ‘*between*’ methods. Wilson (2014) also described that methodological triangulation has subtypes as above. The ‘*Within*’ method includes a minimum of two data collection methods (Kimchi et al., 1991). Survey questionnaires are used in quantitative approaches, while observations, interviews, and focus groups are used in qualitative approaches (Thurmond, 2001).

Carter (2014) pointed out that many methods are used for data collection for the same phenomenon. This method also measures the same object of interest (Oppermann, 2000). According to Jack and Raturi (2006), multiple quantitative or qualitative data sources are used in a single study. In the study "Implementing a triangulation protocol in bereavement research: a methodological discussion", (Briller, et al., (2008) depicted that methodological triangulation supports to achieve broadened understanding through insight into the data collection method. It was evident in this study that methodological triangulation influences the findings of the research.

Theoretical Triangulation:

According to Hopper and Hoque (2006) theoretical triangulation entails examining a research problem's same dimension while considering aspects from many theoretical perspectives simultaneously. Instead of imposing a certain theory on the data, this method develops theory from the current situation. Additionally, theoretical triangulation entails simultaneously examining the same dimension of a study problem utilizing elements from many theoretical perspectives. Even though theorist refers to this as “theoretical pluralism”. Hoque, Covalski and Gooneratne (2013) labelled as “theoretical triangulation”. They used neo-institutional sociology theory along with other theories to establish how triangulation can spread across many other challenging theories. Further, they indicated that researchers may need to gather information from a variety of sources, including historical records, in-person interviews, participant observations, observation of management meetings, experiments, and questionnaire surveys, in order to capture the multi-level intricacies of a phenomenon via theoretical triangulation.

Multiple triangulation:

Though this was not stated in many studies by scholars where researchers referred to it, Jack and Raturi (2006) specifically state the study was conducted in one specific situation in combination with multiple observers, theoretical perspectives, data sources, and methodologies.

How Triangulation can be applied in social science research

In "Triangulation in Social Research: Qualitative and Quantitative Methods Can Really Be Mixed", Olsen (2004) argues that triangulation is not for validation; rather, it supports the researcher to understand deeply. This broadened understanding can be gained individually or as a part of a team. Pluralism and triangulation, on the other hand, do not bind them to sociology but rather support interdisciplinary research. Olsen (2004) elaborated on how individuals, governments, and academics can use mix-method and triangulation research to deepen and broaden their understanding of the real world. The potential position of the constructionist viewpoint was explained in the same study. If constructionism is understood as a set of assumptions about society, as associated with philosophy, it may be incompatible with realism.

However, the visibility relies on the lenses that we tend to wear when viewing them. In realist philosophy, and in mixed-methods analysis that features a structuralism angle of any kind, there's a unique set of assumptions. Besides the transitive part, there's an additional associated intransitive, enduring and obstinately unmalleable part of society (Olsen, 2004). Triangulation has been criticized for "subscribing to a naive realism that implies that there can be a single definitive account of the social world" as well as for assuming that "sets of data deriving from different research methods can be unambiguously compared and regarded as equivalent" (Bryman, 2004) Despite possible controversies, triangulation, in whatever form it takes (although the most common is probably methodological triangulation), has become a staple in social science research (Wilson, 2014).

In social science research, individual interviews are widely used in qualitative research. This will allow the participants to express their attitudes, beliefs, thoughts, and knowledge in certain research areas through correctly formulated questions. The experience of the participants will be reflected in their responses. However, even the interviews may provide adequate data for social science research, assuming the meaning of the provided words in the interview may be problematic in the following ways:

- (i) associational context (a common characteristic that brings the participants together),
- (ii) Status context (positions of participants in local or societal status hierarchies),
- (iii) Conversational context (flow of the discussion and types of discussion within the group), and
- (iv) Relational context (degree of prior acquaintance with participants) will also be influenced by the responses.

Therefore, having triangulation in social science research will lead to understanding the self-image of the participants and their responses (Lambert & Loiselle, 2008).

BENEFITS AND DRAWBACKS OF USING TRIANGULATION

Despite the fact that there are many benefits to triangulating qualitative studies, there are also some drawbacks to this kind of research. Both benefits and drawbacks are analysed as follows:

Benefits of triangulation

Raise confidence in research data; innovative and creative phenomenal understanding; exclusive findings; integrate theories; challenge theories; broad understanding of the problem (Thurmond, 2001); broader understanding of the phenomenon of interest (Carter, 2014); In data triangulation, the nature and large amount of data generated for interpretation (Thurmond, 2001); Investigator Triangulation analyses the data (particularly qualitative) by multiple analysts and serves not only to amplify the findings and increase validity, but also adds to reliability. More than one investigator with different and complementary skills decreased potential bias and prevented the occurrence of the holistic fallacy, in which the researcher inaccurately believed the views of those in the study reflected those who were not in the study (Thurmond, 2001).

Methodological triangulation within the same paradigm, mixing data collection methods, is prudent; it has the potential to reveal unique differences or meaningful information that would have gone unnoticed if only one approach or data collection technique had been used in the study. Data can enhance understanding by revealing outliers or unique individual cases, and it increases the ability to rule out rival explanations of observed change and reduces scepticism about change-related findings (Thurmond, 2001). Using more than one theoretical perspective or hypothesis can decrease the number of alternative explanations for a

phenomenon and provide a broader, deeper analysis of the findings. Competing hypotheses also challenge researchers to look beyond the obvious explanations, prevent premature acceptance of plausible explanations; and increase confidence in developing concepts or constructs in theory development (Thurmond, 2001); Integration of multiple forms of evidence, various perspectives, and different analytic strategies. Moreover, such integration can yield more meaningful research findings than any single approach. (Briller et al., 2008)

Drawbacks of triangulation

Comparing single strategies is time-consuming; it struggles to handle large amounts of data; based on the investigator's biases, possible disharmony; theoretical conflicts; and a lack of awareness of triangulation strategies (Thurmond, 2001); Ensuring data dependability and credibility will be difficult because researchers will need to employ a variety of strategies; more data is always better and overshadows concerns about what to do with different types of data; and analysing focus group discussions and individual interviews may be difficult.

Ad-hoc may jeopardize the weight of the data (equal number of participants), and trustworthiness may be jeopardized (Carter, 2014). It can, on the other hand, be a significant issue when interpreting and fitting qualitative data (Thurmond, 2001). Counterbalance the effects of bias by each researcher (Thurmond, 2001). It is difficult to measure and validate bias (Kimchi et al., 1991). Researchers may strictly adhere to their own epistemology, refusing to consider the merits of other epistemologies (Thurmond, 2001). Differences in epistemological stance may cause conflict about the research design; the increased expense of multimethod research may be a strong barrier; investigator expertise may be lacking in either method; difficulty in meshing numerical and narrative data to understand the phenomenon; and reluctance of some editors to publish multimethod works. Thurmond (2001) indicates the use of multiple theories in support of the same study may be faulty and epistemologically unsound; findings do not become more valid and credible simply because they are supported by similar theories, which may have interrelated constructs and concepts; if the theories selected for triangulation are opposing theories, and finally, interpreting the concepts may be difficult because they are poorly differentiated and overlap with the competing theories.

ISSUES AND LINKAGE IN QUALITATIVE RESEARCH

Individual interviews and focused group discussions, which may range from organised and regulated to unstructured and fluid, may elicit rich information on human experiences and

viewpoints, according to Carter's (2014) research "The Use of Triangulation in Qualitative Research." Independent interviews enable respondents to react in a natural and flexible manner. Transcribing, on the other hand, is time-consuming and expensive. However, since all participants can hear one another, focus group conversations may be affected and interrupted by them (Carter, 2014). Carter (2014) expanded on Brown (1999), saying that interviews are a "dynamic and participatory interchange among participants," while focus group discussions are "many tales and different experiences." The main critique of triangulation in the social sciences is that it is used as a multi-method or multi-theory approach rather than for data and/or investigator triangulation. This difference must be recognised here. Oppermann (2000) agrees with the objections raised about using the word triangulation to refer to a multi-method approach. Because obtaining the 'truth' is unachievable, a multi-method approach should be described as such. The addition and depth of knowledge on a particular topic are sources of strength. If people impose victimisation, the word triangulation should only be used for information triangulation and perhaps investigator triangulation, and it is in information triangulation that this author finds its greatest applicability and purest similitude to the term triangulation's roots. As a consequence, all measures would be of the same kind and backed by the same ontology and philosophy (Oppermann, 2000).

According to Jack and Raturi (2006), triangulation has limits in every research technique. The two kinds of limitations are method-specific problems and assumption-related problems. According to Heale and Forbes (2013), when data is gathered from two separate distinctions in a study, it may not have comparable heaviness. Meanwhile, when the results are presented together, researchers must be cautious in interpreting the poor data gathering. Aside from this critique, Heale and Forbes, (2013) state that triangulation improves broad comprehension of research work. Lambert and Loiselle (2008) tackled the main issue of integrating two methods inside the same method in their research "Combining individual interviews and focus groups to improve data richness." Comparisons of overlapping and rich complementing results revealed by side-by-side and non-hierarchical data set comparisons helped to a more understandable and diverse comprehension of the patterns. Researchers believe that by using a variety of qualitative techniques, they will be able to improve the analysis of philosophy. However, if the researchers are inexperienced, the reliability of the results may be jeopardised (Lambert & Loiselle, 2008).

MULTI-METHOD QUALITATIVE STUDY AND TRIANGULATION

The qualitative method is thought to be more appropriate for this research because it allows for "deep, detailed accounts" of changing conditions (Creswell, 2014). Qualitative data collection is usually dependent on interpretation. This means that the data requires several explanations because of the vast amounts of qualitative evidence often collected in this study, and the author uses multiple sources of data to identify themes (Johnson, 2017).

Multi-method design can be defined as the use of two or more research methods. Each is conducted rigorously, complete in itself, in one project and the results are then triangulated to form a complete whole (Esteves, 2004). The multi-method approach has emerged in different research areas as a way of improving the research process and findings. "Multiple methods are used in a research program when a series of projects are interrelated within a broad topic and designed to solve an overall research problem" (Morse, 2003). The main advantages of multi-method research are triangulation, seeking to validate data and results by combining a range of data sources, methods, or observers; creativity, discovering fresh or paradoxical factors that stimulate further work; and expansion, widening the scope of the study to take in contextual aspects of the situation (Esteves, 2004). Collecting different kinds of data by different methods from different sources provides a wider range of coverage that may result in a complete picture of the unit in one study (Esteves, 2004).

Multi-method is one of the contemporary applications of research and combines several benefits. Triangulation is the most well-known of these five purposes. It refers to the convergence or collaboration of data gathering and interpretation of the same phenomenon. The exact approach or form of data gathering and/or interpretation can vary. Researchers, for example, may employ data triangulation, investigator triangulation, theoretical triangulation, or methodological triangulation. Data triangulation refers to the convergence or collaboration of data about the same phenomenon. Investigator triangulation refers to the collaboration of two or more investigators to gather and interpret the data. Theoretical triangulation refers to the use of more than one theoretical framework to guide the conceptualization of the study and the interpretation of the data. Methodological triangulation refers to the use of more than one method to gather data. (Morse, 2003). The complement reaches beyond triangulation by focusing not only on overlapping or converging data, but also on the different facets of a phenomenon, providing a greater range of insights and perspectives (Martha, 2007). Development and Expansion: Development and Expansion combines or uses the findings from one method of studying a phenomenon to develop another method. For example, focus groups

are sometimes used to gain feedback on a questionnaire beyond it being piloted (Morse, 2003).
 Initiation: Initiation involves the intentional analysis of new perspectives on a phenomenon of interest. Expansion: Expansion is the overall widening of the scope, breadth, or range of a study (Martha, 2007).

When using mono-qualitative research, the validity and reliability of the study are highly problematic. As a result, researchers began to use multi-method studies to validate it in this study. Primarily, primary studies are used. and secondary qualitative approaches were chosen as being best suited to the exploratory nature of the study and to address the research questions. To maximize the credibility, dependability, and confirmability of the findings, we adopted multiple methods and multiple investigators' designs for this research. Qualitative data collection is usually dependent on interpretation. This means that the data requires several explanations (Morse, 2003). This is because enormous amounts of qualitative evidence are often collected in this study. To identify themes, researchers consult a variety of data sources. Initially, the researchers chose this method to investigate dust explosions in their industries (Minger, 2001). Once the approach is defined, the research strategy should be determined.

The first theory analyses the significance of the concept of theoretical motion. The theoretical move may be inductive, for discovery or deductive, for testing. The second theory refers to knowledge of operating inductively or deductively at any given moment and means that the premise of either process is not broken. Morse (2003) describes two styles of multimethod designs that can be used: simultaneous and sequential designs. For the qualitative study, the researcher used a sequential qualitative study and a simultaneous qualitative research design in this study. Qualitative to qualitative indicates a qualitative-driven project followed by a second qualitative project and doing both qualitative studies at the same time. Hunter and Brewer (2003) state that the multimethod approach "is a tool to overcome the limitations and disadvantages of each procedure by deliberately combining different approaches within the same investigation." Mingers (2001) offers a framework for a multimethod modelling methodology to map the processes of research. This multimethod research approach reflects two main features: its multidimensionality and the different types of actions that need to be conducted throughout the phases of the review. In this case, triangulation aligns with multiple methods and contributes significantly to researchers' ability to identify in-depth issues in a real-world context.

VALIDITY AND RELIABILITY

Researchers were able to explore in-depth qualitative findings, views of internal people's views, views of external people's views, and hermeneutic views through the use of a triangulation approach in this study's multi-method. Furthermore, researchers in qualitative studies say that the act of bringing a group together is inevitably outside of the typical 'norms.' You can only get answers to questions you think to ask (Maxwell, 2008). Meijer (2002) study concluded that multi-method triangulation is a worthwhile procedure to enhance the internal validity of qualitative studies on complex topics. Data source triangulation is when two different, independent data sources are used which increases the validity and reliability of the study.

The research was a qualitative study, on different days of the week and months and in different locations. Participant observations occurred in the waiting room (where executives stay most of the time) and in the space reserved for appointment people. The in-depth interview was conducted in a different setting and in an author's meeting room with sound interaction, whereas the thematic oral history was conducted in a private executive office room. Thus, the environment provided by the depth-interview facilitated a more significant space for relaxation and dialogical exchanges, while the more restricted environment provided for thematic oral history provided a more qualified and receptive listening space, stimulating the in-depth analysis of more intimate issues. (Santos, 2020). A multi-method study with environmental triangulation improves the study's reliability and validity.

CONCLUSION

In conclusion, the usage of triangulation has evolved from an activity aimed at confirming and completing results to the integration of numerous viewpoints, and now to various types of triangulations to create new and richer analyses (Warin et al., 2007). While most of the existing literature outlines different triangulation types and operational definitions, few have given actual protocols based on case studies that clearly define particular procedures and their results.

This study about triangulation involves multiple sources of data collection including combined literature sources, documents and in-depth interview and a focus group to enhance validity of this study. This paper encourages future researchers to use multi-level of sources in management - related research to increase validity and identify problems with valid evidence from different perspectives. To date, almost all of the prominent research in management and

social sciences has been conducted from a positivist point of view (Asutay & Dixon, 2013). This study's contribution derives from the qualitative stance that it has taken to understand the phenomenon from the perspective of different data sources.

In qualitative research, data triangulation utilising focus groups and in-depth individual interviews may result in a deeper knowledge of the phenomena of interest. Restricting data collection to one of the two approaches may lead to the removal of eligible individuals and a narrowing of the scope of findings by obtaining only a partial understanding of the phenomena of interest. For a better understanding of the implications of this approach and to further explore the differences between focus groups and in-depth individual interview data, additional investigation into the potential methodological issues associated with the combination of focus groups and in-depth individual interview data is required.

RECOMMENDATION

The two objectives — triangulation confirmation and data completeness — are the approach's main assets, both of which are important to the future growth of research. It is critical that researchers be clear in their own minds about why they chose triangulation as a technique, and that they offer proof that the triangulation methodology employed contributed to either confirmation of results, completeness, or both (Knafl & Breitmayer, 1991).

However, many inexperienced researchers 'use triangulation' while explaining or justifying their choice, as if they believe that just using this method would miraculously eliminate all issues of bias, inaccuracy, and invalidity. This is not the case, because triangulation as a research technique must be selected intentionally and for the right reasons, with an appropriate explanation of the reasoning, planning, and execution of the approach provided. According to Miles and Huberman (1984), triangulation is a state of mind. According to them "If one seek out to obtain and double-check results, utilising various sources and modalities of information, the validation process will be essentially integrated into the data-gathering effort, and nothing more has to be done than report on one's methods."

The key element here is the requirement to 'report on one's methods,' which is frequently overlooked by inexperienced researchers. Future researchers must also strive to incorporate several kinds of triangulations in their investigations, rather than simply technique triangulation, as is often the case now. Above all, we must remember that the primary goal of research is to expand current knowledge and what better approach to do this than to use a technique that has two goals: confirmation of results and data completeness (Begley, 1996).

Previous research has primarily relied on a single data source to investigate the factors in a qualitative study. When we are doing a mono-method qualitative study, the study can influence us, consciously or unconsciously, to select a sample that favours an anticipated outcome. That can be one major drawback of a qualitative study. One of the biggest drawbacks of qualitative studies is self-selection bias. It may arise when companies ask staff to volunteer their views (Maxwell, 2008). Now the question is how to overcome these kinds of issues in qualitative study. This study is one of the big solutions to increase credibility and validity in research. The solution is triangulation. As a result, it is recommended that researchers use triangulation in qualitative studies to reduce bias and increase the credibility of the findings. For researchers who are planning to conduct multi-method studies, triangulation provides rich themes, data analysis and findings that intersect with both methods.

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