RESEARCH ARTICLE

APPLICATION OF QUALITATIVE CASE STUDY METHODOLOGY TO SUPPLY CHAIN MANAGEMENT RESEARCH – A REFLECTIVE NARRATIVE

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ABSTRACT

As supply chain management (SCM) concept has become more relevant to contemporary business, and its application to the industry grown rapidly since the start of year 2000, quite a large number of academic studies (both qualitative and quantitative methods) had been conducted in the field. The use of qualitative research methodology has been well established for data generation withing the field of business and management generally, and particularly, in supply chain management research. In social research, there have been the age long contending positions between both quantitative and qualitative approaches. Whereas the positivists' school argued that the social world exists through objective research methods, the naturalists believe that reality exists inside the minds of the people, and qualitative method is the useful technique to explore their minds in other to understand them in their own real cultural and natural contexts. This paper reflects on how qualitative method was applied in a supply chain management research. Extensive literature on qualitative research approaches were reviewed and a detailed explanation of how the techniques were applied in a multiple case studies context was presented. The paper concludes with a view that the qualitative research approach, is a rigorous and reliable methodology that is compatible with the study of supply chain management which can lead to reliable and credible data that can produce a robust research outcome.

INTRODUCTION

As the concept of supply chain management (SCM) is increasingly gaining attention and becoming an established academic subject area taught in higher education, so also is its application, as a new approach to business relationships, is rapidly gaining acceptance in the industry. Supply chain management can be described as the coordination of the total activities involved in the conception, design, transportation of materials, production, warehousing, distribution of finished products, movement of information, services and finance across all processes to the end consumer. Despite its acceptance in both the academic and the industry sectors, not enough attention has been paid to research in the field. Within the social sciences, there has been a long-standing debate over which is the most appropriate philosophical position from which to derive acceptable research approaches in the field. In the past, qualitative research methodology has been criticised for lacking rigour, transparency, justification of data collection and analysis being used and hence the integrity of findings. Despite the criticisms, early researchers (Croom et al., 2000) have adopted the phenomenology, naturalist techniques with a view that supply chain management evolved from a

multidisciplinary subject areas, which, they thought, was responsible for its lack of specific focus at its early stages of development. They thought is was imperative to demonstrate rigour in qualitative studies so that the findings in qualitative inquiries may have the "integrity" to make an impact on policy and practice. The motivation for this paper rests on the basis that unlike other disciplines in business, the issue of "quality" of qualitative research has not been explored in detail in the field of logistics and supply chain management, and that the lack of enough research in the domain could stifle innovation and competitiveness and therefore employed the application of qualitative methods to the research being reflected.

Research aim: The main aim of this paper is to present a reflective Commentary on how qualitative research methods, using the multiple case study techniques, were employed to investigate supply chains relationships in a recent research. It will present the two different philosophical standpoints of "positivism" and "phenomenology" and highlight the importance of rigour on the issue of "quality" in qualitative research. This paper will challenge the dominance of the positivist approach and emphasise the importance and the

relevance of phenomenological, theory building qualitative approaches, where the relationship between the researcher and the researched is interactive and the distance between them defused. More importantly, the paper will present a systematic reflective summary of the use of interviews, observations and documentary records as the key instrument of data collection in the research being reflected.

Synopsis of the reflected research: At the time of investigation, the textile and clothing industry constituted the UK's most important manufacturing sector and one of the key sectors in the British economy. Methods of business transaction and information sharing among participants, at both the upstream supplier end and the downstream retailer end, were poor and needed to be investigated for the purpose of finding improvements. Although exchange of information for decision-making had been recognised as a key success factor to manufacturing companies, clothing manufacturers contemplated the high cost of technology and the required skills needed to help them to access, use and transfer information efficiently and effectively as both a cost and a hindrance. The processes and activities involved in the choice, use and exchange of information in garment SME firms and the conditions under which they operated and made decisions therefore became the points of attraction and motivation that formed the basis for the investigation. The study being reflected employed the qualitative inquiry, case study approach to investigate how efficient and effective information sharing, enabled by information and communication technologies, might help garment manufacturing SMEs in their business relationships with trading partners. Qualitative techniques (in-depth interviews, participant observations and company documents) were adopted as instruments for investigating twenty (20) companies. The research examined the scope of efficiency gains through application of information and communication technologies. Research outcomes led to the development of new theoretical models (i.e Integrated Unique Alliance Principles (IUAP) and the Open-share-Framework (OSF) theories) for supply chain information sharing for SME clothing manufacturing firms. The IUAP emerged from the application of the techniques of grounded theory and thematic analysis of data. It was directed towards addressing specific weaknesses or inability of a supplier to meet the requirements of the retailer. The new concept is to exhibit a high degree of distinctiveness between an information enriched supply chain and other supply chains that do not share information. The OSF theory proposed that the exchange of complete, accurate and real-time information is required to ensure efficient and effective management decisions to enable the business to meet customer requirements. The qualitative techniques of constant comparative analysis, within case and across cases analyses, were fundamentally revealing and helped the emergence of IUAP and OSF. The development of the two theories represented ways of removing the barriers existing in supplier-customer relationships and proposed new approaches to garment manufacturing SMEs practices. The IUAP and OSF were proposed as tools for bridging the information gaps that might be existing in clothing supply chains and suggested expanded scope for improvement in the information sharing culture of the UK Garment SMEs.

Methodology – Philosophy, Design and Application

Qualitative versus quantitative: In social research, considerable controversy continues to surround the use of qualitative (naturalistic) and quantitative (positivist) research approaches. The distinction between the two methods is therefore important to clarify. Myers and Avison (2002) described the two approaches as objective versus subjective, with one concerned with the discovery of general laws (nomothetic) and the other focusing on the uniqueness of situations (idiographic). Myers (1999) noted that the motivation for qualitative research, as opposed to quantitative research is the researcher's ability to talk and engage the research subjects. In the view of Kaplan and Maxwell (2005), they argued that qualitative research methods are designed to help researchers to understand people and the social and cultural contexts within which they live, and that the goal of understanding a phenomenon from the point of view of the participants and its particular social and institutional context would be largely lost when textual data were quantified. The phenomenology camp emerged during the last half of the 20th century as a reaction to the application of positivism to social sciences. They claimed that phenomenology's approach emphasised that social research stemmed from the standpoint that the world and reality were not objective and exterior, but that they were socially constructed and given meaning by people. In contrast, Milliken (2001) argued that within positivism the key idea was that social world exists through objective methods, rather than being inferred subjectively through sensation, reflection or intuition. Contrary to Milliken's argument, Gay and Airasian (1999) and Geoffery and Gray (2018) believed that the underlying feature of qualitative research was that meaning was situated in a particular perspective or context, and, since different people and groups had different perspectives and contexts, there were many different meanings in the world, none of which was necessarily more valid or true than another. Burrell and Morgan (1979; 2019) perceived quantitative research as that aiming at prediction and control, taking an outsider (etic) perspective, whilst qualitative approach as aiming at explanation and understanding by an insider (emic) perspective. Whilst quantitative research methods, such as surveys, laboratory experiments, econometrics and numerical (mathematical model) techniques, were originally developed in the natural sciences to study natural phenomena, qualitative research methods, such as action research, case study, ethnography, observations interviews, documents and texts as well as the researcher's impressions and reactions among others, were developed in the social sciences to enable researchers to study social and cultural phenomena. Although researchers in social sciences and related disciplines have used a variety of qualitative approaches, and instruments, little attention had been paid to its application in the field of supply chain management. This could perhaps be due to the propensity of researchers to apply quantitative methods in their attempt to establish credibility in the 'young' subject with a multidisciplinary foundation and development (Croom *et al*, 2000). Croom further explained that the multidisciplinary nature and evolution of SCM was reflected on the lack of robust conceptual frameworks in the previous attempts to develop new theories in the subject area. Glaser and Strauss (1967; 2017) discovered and originated the 'grounded theory' approach and presented it as a rigorous, structured technique to qualitative, sociological enquiry at a time when quantitative, theory-testing methods, inherited from the natural sciences dominated research in the social sciences. Although many management researchers, emphasise the pre-eminence of positivist ontology till today, the dominance quantitative techniques continued to be challenged by continued emergence and application of qualitative, theory-building approaches.

Research design and process: In the research being reflected, a multiple case study research design was used to investigate supply chain information sharing practices in small firms. In previous section of this paper, qualitative case study methodology has been justified as a legitimate research approach rather than as a vehicle to document interesting narratives. Bonoma (1985) described his amazement at the absence of systematically documented case studies in managerial behaviour. This could be due to the reluctance of management academics to embrace qualitative approach more fully as a result of their obsession with deductive research, where the result must be representative. The twenty case studies had been written in a way that they systematically and sequentially complement each other in relation to the issues being investigated. The specific aim was to explore the reality in the world of small and medium sized clothing manufacturers, their relationships, their information needs and how they share quality business data. The approach helped to give quality evidence that is rich and lend credence to the theoretical propositions and viewpoints contained in the outcome of the research. The research strategy was designed, and initial review of the literature informed the research questions. Research questions formed the basis of what we wanted to know as the overall purpose of the study was to find an answer to the research question. The methodological model (figure 1 below) constituted the vehicle to finding the possible best answer to the research questions. At the time the research was conducted, there was a dearth of theory on supply chain relationships relating to the UK's small and medium sized clothing manufacturing sector.

Source: Adewole A (2004)

Fig. 1. Overview of research process and design

Case study method in a qualitative setting: This section sets out to provide an overview of the main characteristics of case study research and to illustrate the links between qualitative research questions, design and data collected in the study in reflection. There has been an acknowledgement that case study research is a form of research that has been used in social sciences but whose relevance has remained subsumed (Gray2019; Rolfe 1998; Sharp, 1998). Robson (2015) provided a useful definition of case study research. He describes it as: 'a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real-life context using multiple sources of evidence'. Stake (2000) in his work asserted that case studies were useful in the study of human affairs because they were down-to-earth and attention holding. He noted that in a qualitative case study methodology, the application of a combination of techniques such as ethnography, in-depth interviews, participant observations and documentary records could provide inductively robust evidence for validity and help to develop theories. There are critical questions relating to what explanations can be derived from case studies, and particularly, those that are designed to produce highly qualitative data. Mason (2017) argued that qualitative researchers needed to think critically about the type of explanations they wished to build on in considering their research strategies. Whilst Eisenhardt (1989) pointed out that most empirical studies of organisations were of a deductive, hypothesis–testing nature, that led from theory to data. Parkhe (1993) therefore suggested that new paradigm in organisational theory required that more interdisciplinary theory-building research, using qualitative approaches was needed. Qualitative case studies tend to demonstrate that it is only through close observations that the true picture and the reality of the world of the research subjects can be investigated and presented. The technique helps to identify who to interview, what documents to seek and what observation to make. Generally, case study approach is commonly used:

) In situations where current theory is weak or under-developed
) Where there are many variables at work and the connection between them is difficult to understand
) Where the boundaries between phenomenon and context are not clearly evident (Yin, 1994)
) As a coherent envelope for the application of multiple research methods in an inter-disciplinary subject field such as logistics and supply chain management.

Patkhe (1993) noted that case study research could be based on single or multiple techniques, using qualitative and/or quantitative approaches, and generally could follow one or more of exploratory, descriptive, and explanatory forms as stages of evolution. Patkhe explained that exploration allowed an investigator to examine a phenomenon and develop ideas in a flexible way; description to develop the patterns found in the exploratory stage whilst explanation seeks to explain theory generation, theory testing and theory re-formulation.

Justification for Case Study Methods: In contrast to the views of experimentation and survey exponents, qualitative researchers (Cook and Campbell, 1979) believed that case study methodology is not a flawed approach but rather a fundamentally different research strategy with its own designs. They said case study research is a fully legitimate alternative to experimentation in appropriate circumstances, and that it should be deemed a useful technique of research. Although case study methodology tends to be under-utilised as a research strategy Hartley (1994) and Meyer (2001) contended, whenever employed as a tool, it is theoretically data rich. It is an
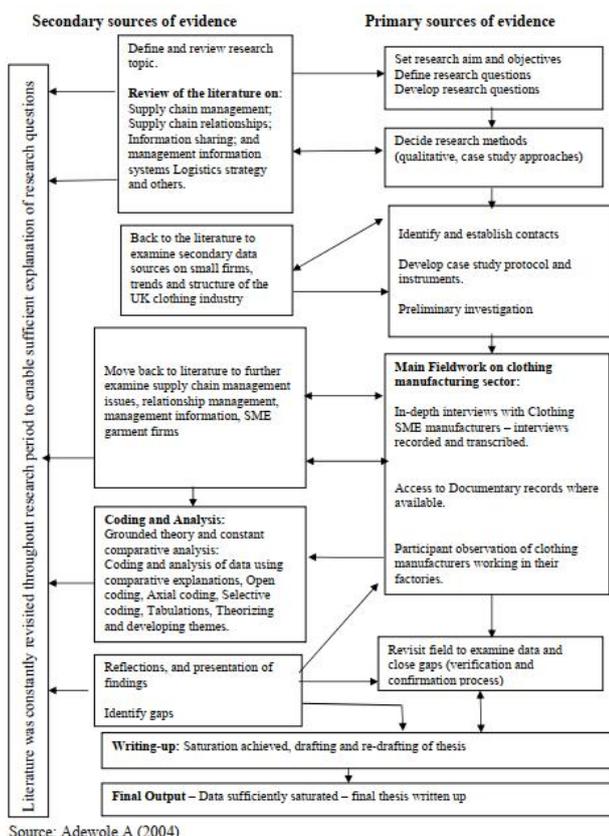
important approach to analysing strengths and weaknesses and providing a practical guide on how to conduct and manage investigations as well as shedding lights on the fine-grain details of social processes in their natural ecosystem and context. Hartley (1994) further affirmed that case studies were "meaningful and rich" compared with positivist quantitative techniques. Whilst Gill and Johnson, (1997; 2010) emphasised that the advantage of case study research over other research procedures was its greater ecological validity as it entailed studying social subjects in their natural context. The strongest exponent of case study method as a valid explanatory research tool was Yin (1983), who worked to make the case study method 'scientifically' respectable. Yin (1983) saw theory generation as a perfectly valid outcome of case study research that provided the usual social science tests of construct validity, internal validity, external validity and reliability.

Criticism of Case Study Approach: Qualitative case study has attracted varying criticisms. Burrell and Morgan (1979) noted that qualitative case study method had long been considered as "a weak sibling among social science methods", suitable only to the developmental, exploratory stages of social science research, and an inappropriate method for generalisation and explanation. They argued further that qualitative case study method, an ideographic method, with its reliance on the "subjective accounts that one generated by 'getting inside' situations and involving oneself in the everyday flow of life" (Gill and Johnson, 1997; 2010), was at odds with explanation building. Campbell and Stanley (1963;1966) argued that although qualitative case study often involved tedious collection of specific details, including careful observation and testing, such activities were more likely to involve error of precision. Bromley (1986) argued more strongly that, "case studies were sometimes carried out in a sloppy perfunctory, and incompetent manner and even in a corrupt, dishonest way", suggesting that even with case studies that had been carried out in good faith, bias and selective accounts were undoubtedly possible. Nisbet and Watt (1980) viewed that case studies require artistic or literary skills in contrast to what they described as "true research", which depended on skills of numeric and statistical analysis, which they agreed might also be corrupt and dishonest.

In his view, Robson (1997) believed that, although case study was a strategy for doing research which involved an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence, it was a kind of "soft option" possibly used as an exploratory precursor or complement to some "harder" experiment or survey. It was however noted that similar criticisms levelled by Bromley could be made about any research, and that the issue was how to devise appropriate checks for the reliability and validity of findings. The reality of a good documentary depended on well-developed literary skills and maintained that even the most quantitative laboratory study benefited from writing skills. Robson (1997; 2002) concluded that the Bromley, and Nisbet and Watt's criteria for 'true research' therefore became difficult to justify.

Instruments in qualitative case study research:

Interviews: The art and craft of interviewing has become one of the most useful research mechanisms for obtaining information about individuals, groups, and organisations. In the research being reflected, a large number of purposive in-depth,

open-ended interviews were employed for data collection. Qualitative data were obtained from fabric suppliers, clothing manufacturers, retailers and logistics and information service providers to the UK clothing industry. Participant observation techniques complemented the interviews at the premises of key informants. Gubrium and Holstein (1998) said interviews were storytelling, which were practical production used by members of the society to accomplish coherence in their accounts. Denzin and Lincoln (2000) described interviews as interactional encounters, and that the type of interview chosen could shape the nature of the knowledge generated. Three common types of interviews were identified: (1) structured interview, where the interviewer asks all respondents the same series of pre-established questions with a limited set of response categories. This type of interview is aimed at capturing precise data; (2) group interview, where the qualitative researcher engages in systematic questioning of several individuals simultaneously in a formal or informal setting; and (3) unstructured interview, where the open-ended, ethnographic (in-depth) interview is employed. An unstructured interviewer attempts to understand the complex behaviour of the members of the society without imposing a category that may limit the enquiry (Denzin and Lincoln, 2000).

In social and management terms, the type of interview selected, the techniques used, and the ways of recording information, all came to bear on the results of the study (Denzin and Lincoln, 2000). The qualitative interviewer systematically moves from general questions on to more specific ones, avoiding bias as he/she gets involved in a real conversation in which he or she answers questions asked by respondent or provides personal opinions on the matter discussed. In other words, the qualitative researcher tries to avoid getting trapped by not expressing personal opinions. Data, in qualitative interviews, are more than verbal records, they include, as much as possible, nonverbal features of the interaction. Whilst quantitative, numeric research proclaims that the data speak for themselves, and that the researcher is neutral, unbiased, and 'invisible', on the other hand, qualitative phenomenology enquirers (Silverman, 2000; Clough 1998; Gubrium and Holstein, 2012; Denzin and Lincoln, 2000) emphasised that researchers are not invisible, neutral entities, but are part of the interactions which they seek to study and influence. In the research being reflected the interviewer was not mythical or act as a neutral tool as suggested by quantitative survey researchers, rather the researcher played the role of an active participant in his interactions with his interviewees. The researcher employed the use of interviews as a practical interface with the respondents as a technique to achieve the purpose of the research. All interviews were conducted face-to-face on-site and within the business premises of the respondents.

Observations: Gold (1958) said observation was a technique where the researcher observes the attributes of the researched. The researcher considered this tool as one of the most appropriate for data gathering in the research being reflected. This technique enabled the close observations of the research subjects (Clothing SME manufacturers) at their work environment. The main task was observing the participants, seeing them in their own experience and using their own frame of reference. This method helped to collect information from key informants and enabled data source triangulation with interviews and organisation documentary records. During the observation exercise, workers were informed of the presence

and role of researchers, but they all carried on with their work as if the researcher was not present, although it was difficult to know what their behaviour could have been like if they had not been under observation. Rich data (Hartley,1994) were generated through participants observation during data gathering. By looking at things such as body language of key informants and their business habitats, assumptions which informed the research were made. Because the actions and behaviour of people constituted a key aspect of most enquiries, the obvious and natural technique was to watch what they do, record their activities, and then describe, analyse and interpret what had been observed (Robson, 1997). Gill and Johnson (1997) considered observation as an appropriate tool of qualitative research in the sense that it enabled a great deal of insights and allowed the researcher to become close to the research subjects. One major advantage of observation as a technique of research was its directness, which made it a pre-eminent approach for the understanding of 'real life' in the 'real world'.

Robson (1997) argued that in observation research:

"…You do not ask people about their views, feelings or attitudes; you watch what they do and listen to what they say, note in passing, by the way, that the language of people, and other behaviours associated with language, are often of crucial interest and importance to any enquiry."

Douglas (1976) described observation research as "depth-probe" investigation. Depth-probes were vital in getting at the deeper, more secret aspect of social life, those about which research subjects would not talk or possibly even think. In such circumstance, the researcher's knowledge of his own feelings became a vital source of data (Douglas, 1976).

Document: Documents are manifolds that play an important role in organisational life. They usually provide details of policy, procedures, strategic plans involving prospective investments appraisal and record of events such as agendas, minutes of meetings, letters, memoranda, maps and charts, books, brochures, dairies and journal events. Other sources of company documents may include newspaper reports, government abstracts, tribunal records and records of pressure group objections. For the purpose of the research being reflected, documents available for analysis and useful to address key research questions were limited to records of number of employees, production and warehousing procedures, transport and logistics information, and supplier consortium manual, among others. Documents were willingly offered by owner managers to use for systematic analysis.

Data Handling: Achieving Validity and reliability: In qualitative research, rigor is achieved through the process of verification. Without rigor, a research is worthless, as it could become a mere fiction, and loses its utility (Guba and Lincoln, 1981). The challenges to rigor in qualitative inquiry are paralleled to the statistical packages in quantitative research.

The research being reflected upon investigated the supply chain relationships of the United Kingdom's small and medium sized clothing manufacturers. Qualitative case study methodology was adopted to investigate twenty SME clothing manufacturers, two high street clothing chain retailers and three technology and business advisors to SME clothing manufacturing businesses in Greater London. Participants were purposively selected and interviewed. Data collection techniques were unstructured in-depth interviews (open-ended and interactive although with an interview guide) with the key informants, observations, and company documents (Gray, 2014). All the interviews were tape-recorded, transcribed, and verified. This way, the ontology (nature of reality) and the epistemology (validity of knowledge) of research (Creswell, 1998) were established. Denzine and Lincoln (2000) pointed out that within the conduct of qualitative research, reliability, validity and trustworthiness of data could be achieved by ensuring: (1) methodological coherence (ensuring congruence between the research question and components of method, and the fit of these component with data to meet the analytic goals.); (2) sampling sufficiency (ensuring quality of data, data comprehension and completeness, and evidence of data saturation and replication; meaning sufficient data have been obtained to account for all aspects of the phenomenon under study); (3) developing a dynamic relationship between sampling, data collection and analysis (forming a mutual interaction between what is known and what needs to be known); (4) thinking theoretically (ensuring that ideas emerging from data are verified, confirmed and re-confirmed by constantly checking and rechecking in order to build a solid foundation); and (5) theory development (developing theory as an outcome of the research process rather than being adopted as a framework for analysis or as a template for comparison).

Morse et al (2002) argued that all these processes together incrementally and interactively contribute to and build reliability and validity, thus ensuring rigour. They claimed that rigour in qualitative research therefore could no longer be challenged or questioned; and from the arguments in support of qualitative study, it could be suggested that the systematic data collection and verification strategies have provided the scientific evidence that could be integrated into developing the understanding and contributing to the knowledge base. Verification is a process of checking, confirming, making sure and being certain. In qualitative research, verification refers to the mechanisms used during the process of research to incrementally contribute to ensuring reliability and validity of a study. Guba and Lincoln (1981) established that while a research should have true value, applicability, consistency, and neutrality, the nature of knowledge within the rationalistic (quantitative) paradigm was different from the knowledge in naturalistic (qualitative) paradigm, and that each paradigm required paradigm-specific criteria for addressing rigor. Lincoln and Guba (1985) explained the distinction that the criteria to reach the goal of achieving rigor in quantitative research were internal validity, external validity, reliability, and objectivity, whereas the criteria to ensure trustworthiness in qualitative paradigm were credibility, transferability, and dependability. Hence they recommended specific instruments such as negative cases, peer debriefing, prolonged engagement, persistent observation, iterative questioning, progressive subjectivity (reflective commentary), investigator credibility, disconfirming evidence and contradictory interpretations, audit trails (the course of development of a research process) and member checks and participant review (seeking clarification from participants), to be used to achieve trustworthiness. The characteristic of the investigator, who must be responsive and adaptable to changing circumstances, is also important (Guba and Lincoln (1981). As qualitative research is iterative rather than linear, a qualitative researcher moves back and forth between theory and data to ensure robustness and fitness of data into analysis and interpretation. Verification strategies

help the researcher to monitor and confirm constantly and to identify when to continue, stop or modify the research process in order to achieve credibility and ensure trustworthiness.

Illustrating Verification of Rigour and Trustworthiness: Saturation was achieved through the application of prolonged engagement (spending extended time with respondents in their native culture), whilst verification for rigour and trustworthiness was established with the application of iterative questioning (the use of probe to elicit detailed data) and disconfirming evidence or negative case analysis (to assess and establish credibility and validity by refining the research questions until they address all cases within the data). These helped to extract the properties and dimensions in each category and resolved 'data overwhelm' (Glaser, 2003, p.24). Other verification techniques adopted in the research being reflected include: progressive subjectivity (reflective commentary where the researcher scrutinised and recorded initial and emerging assumptions and interpreted them in relation to the project); investigator subjectivity (avoidance of value judgement and researcher's bias, feelings, opinions and preferences arising from the instigator's experience, knowledge, training and emotions) which may distort the "truth" about the research;   audit trails (This helped to establish confirmability of research findings based on the participants' narratives and to illustrate how the research process developed, how data are collected and analysed in a transparent manner); and member checks and participant review (seeking clarification from participants by checking the accuracy of the data. This process took place on the spot at the end of the data collection dialogues. It helped to check if the words of the participants as recorded matched what they intended and confirmed if the articulation of the interview has been accurately captured).

Grounded Theory: Coding and Analysis of data: Grounded theory is a methodology, which is characterized by the iterative process and the interrelatedness of planning, data collection, data coding and analysis, and theory development. Grounded theory involves a systematic method, which provides abstraction from the data and helps to develop a theory that is grounded in the empirical data. These methods include different coding procedures, which are based on the method of constant comparison. In the research being reflected, it emerged that ineffective information sharing, and poor management of relationships with the retailers were the key challenges for most clothing SME manufacturers. After the qualitative data had been gathered to saturation, the grounded theory coding (open, axial and selective) procedures were applied to enable fracturing and analysis of empirical data. Theoretical memos were used to identify conceptual connections between categories and to guide steps in further data collection, coding, and analysis. According to Glaser (1978), memos are "the theorizing write-up of ideas about codes and their relationships as they strike the analyst while coding". These activities were continuous until no new properties or dimensions were emerging from the data. The grounded theory techniques, thematic analysis, and constant comparative narratives helped the emergence of core categories related to information sharing relationships in the supply chains of SME garment manufacturers. Themes were developed and full data set was categorized and analysed. Two new theories emerged, 1. Integrated Unique Alliance Principles (IUAP), and 2. the Open-share-Framework (OSF)) emerged from which

mechanisms for information enriched supply chain were proposed.

The issues of access to case study companies: Gaining access and arranging interviews with the chosen case study companies were difficult and complicated at the early stages of the research. This put a lot of demand on research time and resources. 'Mortality' (Robson, 1997; 2013) was a major problem, not in terms of actual death, but in terms of the inaccessibility or non-availability of the case study subjects as a result of unexpected geographical moves, change in nature of business (one particular case changed business within two months, from being a clothing supplier to electronic supplies during the period between first encounter and the researchers second visit for data verification purposes), business close downs, outright withdrawal from participation or unwillingness to participate, and even abrupt discontinuation after initial indication to volunteer information and be part of the research. Access route to key informants were by opportunistic encounters, invitation and attendance at organised trade meetings between clothing retailers and SME manufacturers. These encounters provided the initial contacts and agreements with interviewees were established and later followed up for arranged interviews. Other important access route to case study companies was through personal introductions by personal friends who worked with, or knew people who worked with, the case study companies. Consents were secured and all the people interviewed expressed willingness to participate. These approaches helped to ease access problems tremendously. Interviewees were guaranteed anonymity and confidentiality and were assured of contacting them to verify the accuracy of representation of information they volunteered.

DISCUSSION

The research process and design enabled a consistency of approach across the case studies. The analysis followed an iterative process of developing themes and explaining events. Figure (1) model enabled the researcher to move repeatedly between theory and data whilst labelling, categorising, finding relationships and theory building, were carefully executed. This iterative process enabled the researcher to constantly validate theory by means of continuous dialogue between theory and evidence as the field work progressed. The process also helped considerable advances in theory building from the research questions through to discussion and suggestions for further research. The outcome of the study was the emergence of new, more dynamic models for supply chain information sharing approaches for owner managers and how the new idea could support relationships with their trading partners. Investigation found that clothing retail partners had the luxury of encountering complete demand information and passing it upstream the supply chain, although in a diminished quantity and quality as it moves through the tiers of supply. It emerged from the research that the information sharing culture of clothing manufacturers with their suppliers further upstream and retailers downstream the supply pipeline was deficient in terms of management, co-ordination as well as in efficient and effective optimisation. The research established that qualitative methods of research in the field of supply chain management were not only of great value where existing theory is weak or poorly defined or conflicting or even non-existent, but that they were also of value in terms of opening up ideas for supportive quantitative research. Evidence from the research also affirmed

that qualitative research was comparatively resource-intensive and provided the richness which could have been absent if quantitative research approach were employed.

Conclusion

This paper has demonstrated the evolution, relevance and application of qualitative research standards and the efficacy of qualitative case study inquiry. The paper emphasised the necessity that qualitative research results must be well documented in order to help our understanding. It presented, as shown in figure 1, the research design and process and reiterated the importance for researchers to understand more clearly how a qualitative research progressed from when the research aim was set to the conclusion of the research. As this paper has discussed, qualitative case study is a reliable methodology when executed with due care. he key contributions of this reflective paper are that knowledge are twofold: first, that qualitative research can offer the rigorous, step-by-step methodological approach to theory development; it illustrated how a variety of concepts, techniques and tool can be used to achieve credibility and trustworthiness. Second, it specifically illustrated how qualitative techniques corroborated a multiple case study methodology in a supply chain setting and how it could help to increase knowledge through discovery and establishment of new theories. Despite the general constraints of being the most difficult and the least codified method, this reflective research had demonstrated that qualitative techniques remain the best approach available for studying complex fields like supply chain management. Experience from the study being reflected shows that investigators must often be willing to spend lunches, evenings, and weekends collecting data at the site. This meant the researchers must not underestimate the time and effort required to conduct a qualitative study. In conclusion, it is gratifying to note that qualitative studies are gradually becoming more acceptable in the field of management. Meanwhile qualitative researchers will have to work harder, be more creative, and come up with more robust methodological tools to have their work recognised and accepted in a community that tends to be sceptical of qualitative studies. Applying well-defined qualitative research techniques, instrument and protocol will help to position qualitative studies more in the mainstream of management research.

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