

2016

Exploring Customers' Perceptions of Third Party Maintenance, Repair, and Operating Programs

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Walden University

College of Management and Technology

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Reginald E. Peterson

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Walden University
2016

Abstract

Exploring Customers' Perceptions of Third Party Maintenance, Repair, and Operating
Programs

by

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MBA, Kennesaw State University, 2002

BS, University of Florida, 1995

Doctoral Study Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Business Administration

Walden University

May 2016

Abstract

A survey of 25 industrial manufacturing organizations in the U. S. indicated that 70% of respondents experienced dissatisfaction with their outsourcing programs due to unfulfilled expectations, which caused negative continuance intentions. The purpose of this descriptive case study was to explore the experiences of customers who currently use 3PMRO outsourcing programs to determine what factors affect satisfaction levels in the Southern United States. The conceptual framework for this study was the expectancy disconfirmation paradigm, which connects consumer satisfaction level to the fulfillment of consumer expectations. Data were collected from interviews of 22 procurement professionals of maintenance, repair, and operating supplies; observations of 3PMRO supplier performance meetings; and the analysis of performance scorecard documents. Data were analyzed using pattern matching followed by thematic analysis. Three themes were identified through the data analysis that affected consumer satisfaction: inventory management services, utilization of outsourced labor resources, and total cost value of the 3PMRO program. According to results, satisfaction of 3PMRO consumers are based on the proper utilization of a 3PMRO program for the intended limitations of the organization, reduced MRO supply costs, improved inventory management strategies, and improved competitive advantage from the realignment of resources to focus on core competencies. Implications for positive social change include increased awareness of cradle-to-grave inventory management to prevent improper disposal of non-biodegradable materials into our environment.

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Section 1: Foundation of the Study

In general, outsourcing practices have disadvantages and advantages. Some outsourcing advantages can include cost reductions from economies of scale, technological risk mitigation, and optimization of intellectual resources to achieve increased focus on a company's core competencies (Pearce, 2014). Disadvantages can include excessive monitoring costs, security risks of confidentiality, loss of internal expertise, trust, loss of control, and increased transaction costs (Cigolini, Miragliotta, & Pero, 2011). Due to these disadvantages, the results and opinions of the success of outsourcing are mixed. While some organizational leaders noted performance improvement, some have not reported the achievement of the targeted improvements of outsourcing. Also, some leaders experienced failure due to a lack of trust, commitment and communication skills between business parties (Tsai, Lai, Lloyd, & Lin, 2012). For this reason, potential risks and outsourcing failures can affect the potential benefits, which may affect customer satisfaction.

Supply chain management is an approach that allows managers to explore and manage current supply chain networks to find profitable ways to manage the flow of inputs and outputs to improve the competitiveness of the organization (Janvier-James, 2012). Therefore, procurement and supply chain professionals of maintenance, repair, and operating (MRO) should be knowledgeable about an outsourced concept popularly known as integrated supply to manage the inventory, procurement, and logistical tasks of maintenance, repair, and operating (MRO) supplies. U.S. companies spend approximately \$106 billion annually on MRO supplies and some production materials

(IBISWorld, 2011). Some organizations use a form of outsourced solution to manage labor and materials within their supply chain as a strategy to reduce costs, improve productivity, and enhance internal core capabilities to drive competitive advantage (Kitcher, McCarthy, Turner, & Ridgway, 2013). The investigation of how these outsourcing benefits affected consumers' satisfaction of their third-party maintenance, repair and operating (3PMRO) outsourcing programs was included in this study. As demonstrated, outsourcing was a widely accepted practice extended to many industries and companies of varying sizes. A qualitative analysis of how procurement professionals and production managers perceive 3PMRO programs as a procurement strategy within their company is the basis for this research.

Background of the Problem

Freytag, Clarke, and Evald (2012) described outsourcing as the transferring of an internally managed task or function to an external service provider through a long-term agreement. There are many benefits to outsourcing. Despite the popularity and benefit of risk sharing in supply chain collaboration, many partnerships do not meet the expectations of the consumers (Cao & Zhang, 2011). In addition, it may be a challenge to assess the performance of outsourcing, so some plant managers may use satisfaction as an indicator of performance (Plugge, Bouwman, & Molina-Castillo, 2013). The exploration of customers' experiences with their 3PMRO programs is necessary to assess their level of satisfaction with this program within their organization.

A 3PMRO program assists MRO procurement managers to manage these supplies, which consist of thousands of part numbers, many suppliers, and poor

transactional process; which add costs to the supply chain (Karjalainen & Raaij, 2011).

There are limited peer-reviewed articles related to the 3PMRO program. The examination of scholarly articles relative to procurement outsourcing, inventory management, and supply chain activities of a company's MRO supplies is necessary to complete this study. This qualitative study can be used to provide inventory managers, supply chain managers, and procurement professionals with a scholarly article documenting the experiences of other colleagues' perceptions of common issues affecting satisfaction levels. Procurement managers can utilize this information to prevent common mistakes when deciding whether to use this outsourcing program. Also, this study contains information in which procurement professionals can use to monitor and gauge satisfaction levels of consumers to determine if they are receiving the desired outcomes.

Problem Statement

The organizational leadership within large manufacturing companies experiences dissatisfaction with their outsourcing strategies (Kang, Wu, Hong, & Park, 2012). Surveys indicated 70% of customers have disappointing outsourcing experiences, 20% of outsourcing agreements are terminated after 2 years, 50% terminated after 4 years, and 25% of customers brought their outsourced services back in-house (Freytag et al., 2012). Regardless of this negative perception, organizational leaders continue to outsource to reduce material and processing costs and realign resources (Plane & Green, 2012).

The general business problem is that poor satisfaction among organizational stakeholders may negatively affect outsourcing programs potentially causing the early termination of outsourcing agreements (Freytag et al., 2012). The specific business problem is that some procurement managers of manufacturing companies in the Southern United States may lack visibility into consumer satisfaction and continuance intentions for their 3PMRO program.

Purpose Statement

The purpose of this qualitative, descriptive case study is to explore the experiences of customers who currently use 3PMRO programs to determine what factors affect satisfaction levels. The research design for this study was a descriptive case study, which explored data from conducting in-depth interviews to determine consumers' satisfaction levels of their 3PMRO programs. The locations of this study were large manufacturing plants in the Southern United States and consist of the following states: Alabama, Florida, Georgia, North Carolina, South Carolina, Virginia, West Virginia, Texas, Louisiana, and Mississippi. The specific population for this study consists of approximately 150 MRO procurement professionals, consultants, and production managers in 98 large manufacturing plants in the Southern United States, currently utilizing 3PMRO outsourcing. These MRO consumers had responsibilities of procuring MRO materials, managing 3PMRO programs, or both. Outsourcing decision makers may utilize this study to explore adoption criteria of the 3PMRO concept, gauge performance, and provide valuable insight on customer satisfaction concerning 3PMRO programs through the experiences of their peers and colleagues. The societal significance of this

study may be used to help reduce emissions, decrease paper consumption, and aid in sustainability efforts by refining the purchasing process for MRO supplies and reducing the number of suppliers to optimize deliveries.

Nature of the Study

Exploring the experiences of a random, purposeful sample of consumers responsible for managing 3PMRO programs within manufacturing organizations required the utilization of a qualitative research method and a descriptive case study design. Qualitative researchers tend to collect data through hands-on methods such as exploring documents and observing behavior (Qu & Dumay, 2011). This qualitative approach complimented the social constructivist's worldview. A constructivist worldview is an approach to the qualitative study that research should depend on the experiences of the research participants with the phenomenon (Werhane et al., 2011). Since there were limited scholarly articles and research on this topic, personal experience with 3PMRO programs provided valuable insight when conducting this research and communicating with the participants. I did not use the mixed-method approach because this study's purpose did not support the mixing of the qualitative and quantitative research methods. A qualitative study supports the why and how questions while a quantitative study defines the relationship between certain elements of the research (Frels & Onwuegbuzie, 2013).

The descriptive case study approach relied on the experience of the participants to acquire complete descriptions of the 3PMRO program, which offered the foundation for a philosophical analysis that depicted the fundamental nature of the experience within its

context (Qi & Chau, 2012). This doctoral study includes data from an exploration of consumers' satisfaction levels and their experiences with their 3PMRO outsourcing programs through the collection of practical data from a sample of 22 clients from a population of approximately 150 consumers. The focus of this qualitative descriptive case study explores satisfaction perceptions of current customers of 3PMRO programs. The researcher could utilize a descriptive case study research design to gain a deep understanding of this program through a combination of data collection methods, which included interviews, observations, and document analysis (Petty, Thomson, & Stew, 2012). Whereas, Petty et al. (2012) suggested a phenomenological approach in order to solicit detailed information from the research participants. Other qualitative research design methodologies did not meet the needs of this study. I did not consider those methodologies as the preferable approaches for research analysis.

Research Question

The research question for this doctoral study was: What are customers' satisfaction levels related to their expectations of program performance of their 3PMRO outsourcing programs in the Southern United States?

Interview Questions

In order to keep the focus on the experiences and understandings of consumers who use 3PMRO programs, the use of open-ended interview questions were necessary as referenced in Appendix B. The goal of this study was to explore consumers' satisfaction levels related to the program's performance, and their decision to adopt this type of

program. The following interview questions (Appendix B) were used in the data collection process:

1. Based on your experience with your 3PMRO program, how would you describe your satisfaction level?
2. Based on your experience, what aspects of your program are you most satisfied?
3. In your opinion, why did you or your organization make the decision to use 3PMRO?
4. What do you think of your organization's internal decision-making process to outsource to a 3PMRO program?
5. Based on your experience, how would you describe your experience selecting the supplier to provide 3PMRO?
6. Based on your experience, in what ways would you suggest improving your organization's supplier selection process for 3PMRO programs?
7. Based on your experience, how do you measure the ongoing performance of your 3PMRO program?
8. Based on your experience, how does 3PMRO contribute to your organization's performance?
9. What elements of your 3PMRO program do you think provide a competitive advantage to your company?

10. How do think your 3PMRO program contributes to your company's sustainability (green) efforts?
11. In your experience, how satisfied are you with the inventory management criteria to your performance measurement activities?
12. Based on your experience, when transitioning to a 3PMRO program, how did you manage the implementation?
13. How would you describe your satisfaction with the implementation process of your program?
14. Based on your experience and current conditions in your plant, why would you *decline* to use a 3PMRO program?
15. Based on your experience and current conditions in your plant, why would you *approve* the use of a 3PMRO program?
16. What do you think are the *complaints or criticisms* of your current 3PMRO program from your internal stakeholders?
17. What do you think are the *compliments* of your current 3PMRO program from your internal stakeholders?

Conceptual Framework

The conceptual framework for this study was the expectancy disconfirmation paradigm (EDP). The expectancy disconfirmation theory was proposed by Richard L. Oliver in 1977 and 1980. Hartmann and Hietbrink (2013) defined EDP as satisfaction, which is a function of expectations, and consumers' ideas of expectations concerning the benefits of the product or services a supplier will provide (Hartmann & Hietbrink, 2013).

The utilization of the EDP theory is necessary to explain customer satisfaction with the 3PMRO outsourcing program, which is based on the premise that consumers experience certain levels of satisfaction according to the actual fulfillment of their expectations of benefits. Key constructs underlying this theory are customer expectations, perceived performance, disconfirmation of beliefs, and satisfaction. These constructs were the basis for the development of the interview questions for data collection.

The interview questions were created to extract rich, detailed information from the participants through open-ended questions. The application of this theory to the interview questions supported my expectation to allow participants to elaborate on their perceptions and experiences regarding their satisfaction with the 3PMRO program. The purpose of this exploration was to determine if consumers were satisfied with the 3PMRO program, and if this program met their expectations after the decision to adopt. In lieu of asking direct questions related to their continuance intentions, it was necessary to interpret participants' intentions to continue or discontinue their use of their 3PMRO program. The design of the interview questions further examines expectancy disconfirmation or the relationship between expectation and satisfaction.

Operational Definitions

A third-party maintenance, repair, and operating program (also more popularly known as integrated supply program) has a primary function to manage the supply chain activities of the company's MRO supplies. These supply chain activities include the distributor's on-site personnel receiving, issuing, and managing product; inventory management, sourcing, redesign and managing the procurement process; and providing

information technology (IT) solutions to manage these supply chain activities (Harris, 2011).

Bullwhip effect: The bullwhip effect occurs when a small variation in demand at the retail or end-user level produces increasing levels of order unpredictability further up the supply chain (Kristianto, Helo, Jiao, & Sandhu, 2011).

Competitive advantage: Competitive advantage is a general framework for thinking strategically about how organizational leaders acquire or develop a quality or combination of qualities that allow it to outperform its competitors (Weerawardena & Mavondo, 2011).

Consignment stock: In the consignment stock arrangement, the buyer assumes the responsibility of deciding the order quantity and shipment frequency, and the inventory holding costs are shared between the vendor and the buyer (Ben-Daya, Hassini, Hariga, & AlDurgam, 2013).

Indirect material: Indirect material is any material used in the production of a product or service, but not in the actual product or service.

MRO: Maintenance, repair, and operating supplies are indirect materials not directly attributed to a company's primary production, which includes office supplies, tools, spare parts, lubricants, and various services (Stephens & Valverde, 2013).

Resource-based view: This theory defines the resources and capabilities of an organization's management skills, and the knowledge it commands to select and execute strategies (Barney, Ketchen, & Wright, 2011).

Social constructivist worldview: This practice is an approach to a qualitative study with the assumption that research should depend on the participants' experiences with the phenomenon (Werhane et al., 2011). According to Werhane et al. (2011), the human mind organizes its experiences and knowledge based on these internal experiences, not on what may or may not exist separate from the participants' experiences in the peripheral (Werhane et al., 2011).

Supply chain management: Supply chain management is the universal and strategic optimization of business functions within the supply chain through the improved management of coordinating flows of inputs and outputs (Janvier-James, 2012).

Transaction costs theory: This theory is an economic theory, which uses the concept of transaction costs to rationalize exchanges along a supply chain by providing an analytical framework for investigating some of the organizational challenges and economic risks that affect companies (Garfamy, 2012).

Vendor Managed Inventory (VMI): VMI is a planning and management program in which the supplier manages the customer's inventory in order to maintain predetermined service levels, and the supplier makes all inventory replenishment and dispatching decisions (Zachariassen, De Haas, & Bürkland, 2014).

Assumptions, Limitations, and Delimitations

Assumptions

Certain assumptions apply to the problem of this qualitative study. For the purposes of this study, MRO refers to the maintenance, repair, and operating supplies. In this situation, the definition of MRO is items that support production and plant

maintenance. These items are maintenance supplies, production equipment, spare parts, and consumables used in the production process (Krauter, 2011). However, within the aviation industry, MRO represents maintenance, repair, and overhaul. The primary activities of aviation maintenance, repair, and overhaul programs include preventive maintenance, repair, modification, overhaul, inspection, and condition assessment.

Within the aviation industry, the primary function of an aircraft's maintenance, repair, and overhaul program is to ensure a fully serviceable aircraft is ready when required by the operators at a minimum cost and best possible quality (Ng & Nudurupati, 2010).

Although both material categories, spare parts and other indirect materials, are described as consumables, aviation MRO materials can include aircraft engines, accessories, instruments, avionics, electrical components raw materials, and other direct materials for aircraft and helicopters, not covered in the scope of plant MRO. In addition, aviation MRO programs include calibration of test equipment, consultancy, customized training, and quality function deployment in the aerospace sector. For the purposes of this study, aviation MRO programs were not the point of reference. This participant selection process ensured each participant was vetted to ensure he or she was not employed by the aviation industry and had similar backgrounds.

Limitations

The primary limitation of the study was what effect the relationship between the company and the supplier had on the success or failure of a 3PMRO program. The 3PMRO program required a certain degree of trust from both parties. A negative relationship could skew the data results during the interview phase. Unfortunately, there

was not a known methodology for preventing a potentially negative relationship from entering the participant pool. However, this concern was noted during the interview. Therefore, negative relationships were included in this study. The results from a negative relationship may prove to be beneficial to the study, and add another data point to further the nature of the study.

Delimitations

This study was delimited to the scope of the 3PMRO program containing the following functions; managing the company's on-site storeroom and including the distributor's on-site personnel receiving, issuing, and managing product; inventory management, sourcing, redesign, and managing the procurement process (Harris, 2011). Since the distributor offers many types of services under the 3PMRO program, it was necessary to notate specific services in this study. Some 3PMRO suppliers sold a wide range of services and materials through distributorship, or directly to the customers. Other 3PMRO suppliers only provided the service and did not sell products. The scope of this project included both types of 3PMRO providers.

Vendor Managed Inventory was not addressed in this study as an impartial program, but as a derivative of the 3PMRO program. In this study, VMI was related only to the vendor management of inventory for customers as a service offering to manage inventory for customers who required an outsourced inventory management solution for their maintenance, repair, operating, and production supplies. The retail VMI phenomenon, where the VMI partnership exists between a manufacturer and retailer, was not addressed in this study. In a VMI program in the retail industry, an uninterrupted

replenishment program occurs when the supplier is responsible for ordering the material, determining the order size, and establishing the reorder point on behalf of the retailer (Hariga & Al-Ahmari, 2013).

Significance of the Study

The organizational leadership within large manufacturing companies experiences dissatisfaction with their outsourcing strategies (Kang et al., 2012). Regardless of this negative perception of performance related to outsourced strategies, company leadership continued to utilize outsourcing programs, such as 3PMRO, to reduce material and processing costs, increase organizational spend visibility and control; and realign resources (Plane & Green, 2012). Management prematurely abandoned the outsourcing agreement, which generated various risks to the organization, including increased switching costs, scarcity of alternatives, and substantial loss of financial investment (Furneaux & Wade, 2011; Goode, Lin, Fernandez, & Jiang, 2014). When consumer expectation is met, satisfaction and continuance intentions are increased (Lankton, McKnight, & Thatcher, 2014). There was a need to understand the satisfaction levels to determine the continuance intentions of 3PMRO consumers so that expectations can be managed in order to realize the expected benefits of the program. In this study, the perception of consumer satisfaction in relation to their expectations was explored.

Contribution to Business Practice

Through an examination of consumers' satisfaction levels, the need to explore the continuance intentions of the clients was addressed. Through the analysis of participants' responses, a model was created to help investigate satisfaction levels before a decision

can be made to abandon the 3PMRO program prematurely. The experiences of the participants provided insights to help mitigate risks, which included a lack of trust, commitment, and communication skills among business parties. This study may serve as a scholarly article to assist procurement professionals in assessing satisfaction with the 3PMRO program through an understanding of the relationship between expectations, experiences, and satisfaction.

Implications for Social Change

The results of this study may be valuable to companies with corporate sustainability targets by increasing awareness of the sustainability advantages of 3PMRO programs. This qualitative study addressed potential contributions to positive social change by requiring participants to answer questions about their utilization of a 3PMRO program to enhance their corporate social responsibility (CSR) and sustainability targets. Unmanaged inventory in storerooms can go unnoticed. This inventory is consequently scrapped, which creates more trash for landfills. The primary cause of poorly managed storerooms is order management inefficiencies for MRO supplies (Harris, 2011). Harris (2011) further explained that the 3PMRO promoted the reduction of inventory waste and scrap, reduction of emissions, and a decrease in paper consumption. By achieving these advantages, organizations can receive increased sustainability through the implementation of inventory management processes, refining the purchasing process for MRO supplies, and reducing the number of suppliers delivering product to facilities (Harris, 2011). Consequently, managers that lacked a complete understanding of their supply chain would cause ordering inefficiencies as a reaction to sudden changes in

demand (Tsai et al., 2012). This reaction by unprepared managers can potentially cause high inventories, poor customer service, and lost revenues. When business leaders are aware of these inventory challenges, efforts can begin to mitigate the risks that are a detriment to the environment.

A Review of the Professional and Academic Literature

The review of the professional and academic literature covered the components of the 3PMRO program, various causes of customer satisfaction and dissatisfaction, and discussion on the concept of expectancy disconfirmation. The intent of the literature review is to explore the various causes of satisfaction and dissatisfaction, in relation to MRO consumers' outsourcing strategies. Based on the problem statement and conceptual model, the collection of professional and academic literature is based on the theory of outsourcing, inventory management, and customer satisfaction related to expectations. With this review, four main aspects of the 3PMRO program were investigated in relation to customer satisfaction; expectancy disconfirmation, inventory management, resource-based theory, and cost transaction theory analysis. Ninety-two percent (123 out of 134) of the references are from peer-reviewed journals, published within the past 5 years (since 2011).

The literature review contains a combination of scholarly research and practitioner assertions in (a) customer satisfaction via expectations, (b) how outsourcing matters, (c) an investigation of the 3PMRO program, and (d) inventory management strategies. In order to address each of these topics, the following sources were used: specialized literature, case studies, journal articles, and excerpts from books. Therefore,

it is necessary to provide evidence to support the purpose of this study from the evolution of outsourcing to the impact of consumer expectations to their satisfaction with their 3PMRO program. There are few empirical studies on procurement outsourcing of MRO categories, commonly known as integrated supply, or 3PMRO. In order to locate the peer-reviewed journal articles published in the last five years, the following search engines were used: Google Scholar, ScienceDirect, LexisNexis Academic, Thoreau, Business Source Complete, Emerald Management Journals, ABI/INFORM Complete, and Sage Journals.

Theoretical Foundations of Customer Satisfaction

The conceptual framework for customer satisfaction is the theory of expectation disconfirmation in its basic form. It is not the purpose of this study to investigate consumers' expectation related to the 3PMRO program, but to use this theory of disconfirmation to understand the consumers' satisfaction level with this type of outsourcing program. Expectancy disconfirmation is the basis of satisfaction dependent upon consumers' expectations of the supplier's actual performance of the service they are providing (Hartmann & Hietbrink, 2013; Van Ryzin, 2013). Further, disconfirmation refers to how the level of performance compares to consumers' expectations (Chiu, Wang, Shih, & Fan, 2011).

The investigation of participants in this study held to their understanding of whether they can determine if their experience met their performance expectations. The advantage of investigating customer satisfaction with the 3PMRO program through the lens of expectation helped to understand why managers adopt this type of program and

evaluate if current performance meets expectations (Hernandez-Ortega, Serrano-Cinca, & Gomez-Meneses, 2014). Mukhopadhyay, Bandyopadhyay, and Chatterjee (2011) surmised that another benefit of higher customer satisfaction levels translates to increases in customer loyalty, which provides an opportunity to realize the expected benefits of the 3PMRO program. The disadvantage to using this theory to assess customer satisfaction is the ability to manipulate expectations, which could distort actual expectations (Van Ryzin, 2013). Van Ryzin (2013) concluded that expectations could be manipulated by provocation of short-term expectations that could be disregarded when developing more profound expectations based on longer experience.

The Importance of Continuance

While the purpose of this study focused on consumers' satisfaction with their 3PMRO program, it is necessary to discuss consumers' motivations to continue or discontinue the use of their program. The importance of continuance was directly related to the increased costs of attaining new customers, which could escalate to five times more than the costs of retaining existing customers (Li & Shi, 2012). This same logic applies to companies who may prematurely abandon the outsourcing agreement with the supplier, which can generate additional costs, including increased switching costs and substantial loss of the initial financial investment (Furneaux & Wade, 2011; Goode et al., 2014). When considering outsourcing internal services, stakeholders expect significant cost reductions from various financial controls (Holweg & Pil, 2012). However, Kitcher et al. (2012) suggested that the act of outsourcing did not necessarily lead to increased productivity, cost reduction, or improved resource efficiencies. This theory is important

to this study because the participants' satisfaction levels related to their experience and expectations are under investigation, and the literature outlines the positive and negative outcomes of outsourcing programs.

Review of Literature on Outsourcing

Activities and processes associated with 3PMRO programs that support this common definition of outsourcing were explored in this study. The 3PMRO concept involves the outsourcing of many activities related to the procurement, inventory management, and supply chain management of MRO materials. The reader has to understand the definition of outsourcing, as well as the history of outsourcing to connect the 3PMRO concept with outsourcing. Outsourcing is the transfer of activities and processes previously conducted internally by an external party (Li, 2012). Outsourcing has become a key business trend, driven by firms' needs for business process improvements, access to expertise, and cost reductions (Lacity, Solomon, Yan, & Willcocks, 2011). Modern large-scale outsourcing began in the late 1990s with IT and business services, along with the debate concerning whether companies should focus on their core competencies or look to outsource certain services (Willcocks, 2011).

Firms' utilization of 3PMRO and its ability to support various functions associated with the procurement of MRO materials and management of the storeroom was supported by the literature. Companies using 3PMRO as an outsourcing strategy consider procurement, inventory management, and supply chain management of MRO materials as nonessential or non-core activities (Brewer, Ashenbaum, & Carter, 2013). Consequently, outsourcing has become a key business trend driven by firms' need for

greater efficiencies and cost reductions through the outsourcing of non-core functions (Brewer et al., 2013). This competitive global environment has forced companies to outsource core and non-core operational tasks (Wiengarten, Pagell, & Fynes, 2013). Therefore, exploring whether customers of 3PMRO programs understood if there is an opportunity to gain a competitive advantage by outsourcing those non-core activities is necessary to allow their staff to focus on their core activities.

A 3PMRO is a program that establishes processes for outsourcing the procurement of non-core materials, primarily MRO materials used to support production and maintenance of equipment in manufacturing facilities. As this practice grew in popularity and commonality, companies found many ways to utilize outsourcing methodologies. Companies outsourced information technology, core and non-core components, business processes, supply chain tasks, business processes, manufacturing activities, and customer service activities (Wiengarten et al., 2013). The potential problem with managing these other activities is that it may not be the original reason for outsourcing. Cesarani (2014) explained that a firm's decision to outsource was derived from companies needing to focus on their core competencies, in addition to an investigation into whether cost considerations had an impact on the firm's core activities as it relates to outsourcing MRO activities and processes.

Outsourcing is a widely adopted practice in many businesses and has many known benefits. Although many businesses adopt outsourcing programs to take advantage of the potential cost and strategic benefits, many of these businesses are unsatisfied with the results (Kang et al., 2012). There are many reasons for unfavorable

reviews of a company's outsourcing program. Many firms reconsider their outsourcing decisions due to unfulfilled expectations (Freytag et al., 2012). Therefore, outsourcing does have its share of risks. Most risks associated with outsourcing arise from process management, sharing of information, or opportunistic behaviors (Arias-Aranda, Bustinza, & Barrales-Molina, 2011). 3PMRO programs commonly possess these types of risks and may be detrimental to these programs and other outsourcing programs. Outsourcers typically found these types of risks during the implementation of the outsourced program. Many risks affect implementation, including legal issues, force majeure, confidentiality, conflicting goals, information exchange, performance interpretation, and liability (Freytag et al., 2012). These risks are more pronounced and prevalent related to outsourcing strategies.

Opportunistic behavior is a risk that can occur through the sharing of competencies (Handley & Benton, 2012). Handley and Benton (2012) further described the opportunistic behavior as the opportunity that exists when one party strategically seeks to take advantage of a partner's expertise. One example of this behavior was when one party took knowledge from their client and used that knowledge to serve their other customers (Carson & John, 2013). In relation to 3PMRO, the competence sharing issue is unlikely to occur because outsourcing occurs with storeroom activities and labor, which is typically an enclosed area away from the design or creative areas. However, this qualitative descriptive case study considered the customers' experiences and their feelings about their 3PMRO programs through exploration. Therefore, risk as an actual threat to the performance of 3PMRO programs was explored, which may be considered

during the decision-making process. According to Kaya (2011), risks can be mitigated through the synchronization of strategies between supply chain partners, which is necessary to increase profits (Kaya, 2011). If the opportunistic behavior is an actual risk, an exploration of mitigation strategies is conducted.

Many manufacturing firms in many different industries have adopted outsourcing practices. Procurement and supply chain functions adopt many outsourcing practices. However, there is a need to determine the optimal level of outsourcing an activity that improves performance. Outsourceability is the approach where procurement managers must determine whether to outsource internal activities (Kotabe, Mol, Murray, & Parente, 2012). In order to make this determination, procurement managers must be aware of any external or internal influences that affect the organization (Bhagat, Byramjee, & Taiani, 2010). In this case, management must decide which functions of their business it is incapable of performing effectively or efficiently, and consider the impact of these influences on the decision to outsource (Bhagat et al., 2010). Therefore, it was necessary to investigate what internal and external factors may influence the decision to outsource, as well as define the level of outsourcing needed for increased performance in 3PMRO programs.

Maintenance, Repair, and Operating (MRO) Supplies

A report generated by IBISWorld (2011) indicated U.S. companies purchased approximately \$106 Billion in MRO supplies annually. According to an Aberdeen study (2010), MRO typically represents 8 to 10% of a company's purchase volume, but 80% of its purchasing transactions. From a practitioner's perspective, MRO supplies include

cleaning, laboratory, office, industrial equipment, compressors, pumps, and valves. Other MRO supplies include items required for plant maintenance such as gaskets, lubricants, repair tools, fixtures, and furniture. The disadvantages that accompany the management of MRO supplies are that inventory consists of thousands of part numbers, many suppliers, overpriced material, poor transactional processes, poor inventory visibility, and often overstocked inventory. According to Harris (2011), companies purchase and utilize maintenance, repair, and operating (MRO) supplies in their operation and production processes. However, these supplies typically did not become part of the finished product. Consequently, MRO supplies add costs to the supply chain, but do not add value to the final product. Purchasing of these MRO supplies provided procurement managers with specific challenges because these products were low-value items and managing the procurement of these materials consumed a large proportion of the buyers' time (Harris, 2011). Consequently, MRO supplies account for 5 to 10% of a manufacturing company's investment (Younis, Turner, & Tiwari, 2013). This process allows organizational leaders to consider how they manage MRO supplies.

The Strategy of Outsourcing MRO Supplies

The primary function of a 3PMRO program is to manage the supply chain activities of the company's MRO, production, and original equipment manufacturer (OEM) parts and supplies (Harris, 2011). The supply chain activities necessary to manage these parts and supplies include the distributor's on-site personnel necessary to receive inventory, issue inventory, and manage these products. Also, 3PMRO programs manage inventory, the procurement process, and provide IT solutions to manage these

activities. Integrated supply is also known as third-party MRO, which may be more accurate in terminology as the integrated supply concept seeks to outsource procurement management, inventory management, receiving, and delivery of MRO within a facility (Harris, 2011).

Third party MRO purchasing program has been around since the early 1980's and utilized to reduce the cost of purchasing MRO products (Harris, 2011). The 3PMRO program originates from a business partnership concept known as blanket and systems contracts. Blanket and systems contracts are long-term contracts used to procure commonly used materials and supplies with a high transaction rate, which include MRO supplies (Noordewier, 1989). A blanket contract is an agreement conveying the customer's intention to purchase its material requirements from a supplier for a contractual period (Noordewier, 1989). Whereas a systems contract includes an agreement between the supplier and customer where the supplier provides purchasing administration, customer service, ordering, receiving, and inventory management services; as a complete program offering to the customer (Noordewier, 1989). Although the use of blanket and systems contracts terminology has elapsed over time, the concept of centralized, long-term agreements to define the business relationship between the supplier and the client is frequently used.

Outsourcing of an organization's procurement and inventory management tasks, including the procurement processes of MRO supplies is beneficial to an organization for several reasons. There are many articles and presentations written and created by practitioners either selling the 3PMRO service or convincing an organization's leadership

to convert to this outsourcing strategy. The plant's maintenance requirements were the primary reason noted to outsource MRO materials management because the benefits included achievement cost savings, better performance among supply chain partners, and the optimization of internal resources (Godoy, Pascual, & Knights, 2014). However, there were not many academic journal articles related to this strategy of 3PMRO.

Transaction cost-based theory and resource-based value theory are supporting theories for management's decision to outsource the procurement of MRO supplies. Both theories were used to explain the benefits of a 3PMRO program. Transaction cost economics and resource-based value theories were used to identify the critical factors necessary for a company's make or buy decision, or decide whether to outsource.

The Transaction Cost Theory Effect

The theory of transaction cost economics describes how an organizational leader should manage a transaction according to the current economic environment, and which transactions are appropriate for outsourcing (Dabhilkar, 2011). This decision is the make-or-buy decision using the transaction cost economics theory. Assessing the benefit of a 3PMRO program is complicated because it combines potential savings and improvements for products and service, along with outsourcing resources to manage the inventory and procurement of MRO supplies and services. Buyers assessing a value proposition from suppliers, typically utilize transaction cost economics to select suppliers. Consequently, evaluating 3PMRO proposals using this methodology only to consider pricing is a common mistake.

Transaction costs are costs related to planning, change adaptation, managing, and protecting the transaction exchange. The criterion of transaction costs makes evaluation more complicated than evaluating only pricing. The buyer evaluating using the transaction cost methodology must understand all facets of this theory for the proper evaluation of the make or buy decision to outsource. Two behavioral factors and two transaction factors determine the level of transaction cost (Dabhilkar, 2011). The behavioral factors are opportunism and bounded rationality (Dabhilkar, 2011). An investigation into whether these behavioral factors were common in 3PMRO programs and had any distinguishable impact on this program was conducted in this research.

The success 3PMRO program is dependent on a positive relationship between the organization and the supplier as these two parties work closely together in the same facility (Handley & Benton, 2012). Therefore, ethics may have an impact on how a supplier may act opportunistically, which may affect consumer satisfaction with the 3PMRO program within an organization. Traditionally, transaction cost economics did not take into account the impact of trust and opportunism on internal organizational governance (Mumdziev & Windsperger, 2013). Dabhilkar (2011) described opportunism as a situation when a supplier acts dishonestly by seeking to serve its own interests. The experiences of participants were explored to determine if trust was affected by their supplier's tendency to act opportunistically in a transaction. As the 3PMRO concept depends on a successful partnership, managers and buyers work to develop satisfaction in a business relationship to reduce the probability of opportunistic behavior (Mysen, Svensson, & Payan, 2011). Therefore, behavioral factors may affect the exchange

objective in any transaction while considering participants' satisfaction against their expectations.

The Resource-Based View Effect

The conceptual consideration of the resource-based value theory may be a conceptual consideration when assessing the usefulness of 3PMRO. Resource-based theory, since its emergence in strategic management during the 1980s, asserts that a company's decision to outsource is dependent on its decision to use internal resources or external resources to complete a business activity in order to enact competitive advantage (Brahma & Chakraborty, 2011). Resources discussed in this context are extremely valuable and without substitute. Consequently, outsourcing the procurement of MRO involves outsourcing the job functions of potentially intangible resources or transitioning these resources to tangible functions within the company, thereby improving the company's competitive advantage.

Outsourcing has evolved from a cost reduction strategy to a strategy that enhances a company's core competencies through gaining access to resources with unique talents (Edvardsson & Durst, 2014). This evolution supports the 3PMRO concept because this concept focuses on the transition of non-core activities performed by the organization's labor to the outsourcing provider. Understanding the resource-based value theory allows organizational leaders to focus on their business' core competencies, but also allows the identification of those non-core activities to outsource for sustainable competitive advantage. Therefore, when organizational managers choose to make the strategic decision to utilize a 3PMRO program, according to Buller and McEvoy (2012), one of its

motivations is the correct assignment of its human resources to the core business, and the recognition of the business' non-core activities. Therefore, organizational leaders must understand their human resources' core competencies to make an informed outsourcing decision (Buller & McEvoy, 2012). Also, individuals within the organization who possess specific knowledge and understanding of its core business tend to relate to the company's competitiveness and efficiency (Buller & McEvoy, 2012). Therefore, investigating the customers' satisfaction levels regarding their expectation of the 3PMRO program was necessary to create a competitive advantage by allowing the ability for these individuals to concentrate on these core competencies.

The 3PMRO (Integrated Supply) Concept

In order to complete this study, it was necessary to understand the benefits and risks of a 3PMRO program. However, limited scholarly articles or research existed on such a program. There are two types of sourcing models in the 3PMRO programs. One model is a single source partnership where the selected supplier sources all products and related services, and the other model is a multiple supplier partnership where the buyers select suppliers based on their expertise in specific product families (Friedl & Wagner, 2012). Moreover, 3PMRO programs have their usefulness dependent on the procurement strategy. When procurement managers consider the two choices, their decision is dependent upon whether they prefer to work with several suppliers categorized by their technical expertise or create a sole-sourced partnership with one supplier. According to Friedl and Wagner (2012), single sourcing enables cost optimization through a close and

long-lasting partnership, and multiple sourcing minimizes costs through ongoing competition.

The focus of this paper is outsourced supply programs responsible for the procurement and management of MRO materials. Outsourcing the management of these materials is a solution involving a supplier with the ability to provide a customized solution, incorporating the following three concepts for one total program to the customer: strategic sourcing, physical supply chain, and technology tools and integrations. Some academic journals addressed 3PMRO outsourcing programs. Other academic journals addressed elements of this concept. This type of outsourcing is called vertical outsourcing upstream where outsourcing services are delivered by a third party to perform activities which were previously performed internally (Juntunen, Juntunen, & Autere, 2012). The purpose of a fully integrated supply program streamlines the procurement process and reduces inventory and process costs in the supply chain (Harris, 2011). As a result, inventory management is a significant segment of the 3PMRO model and may have a direct effect on supply chain performance. Instead of managing hundreds of suppliers, resulting in thousands of invoices, the customer receives one invoice from one supplier.

The strategy of outsourcing procurement operations and inventory management services of an organization's MRO supplies may create a sustainable competitive advantage. The competitive advantage can exist through a cooperative partnership, which allows for information sharing, long-term trust and commitment that promotes efficient buying and selling (Juntunen et al., 2012). This argument supported the concept

of creating a competitive advantage for a manufacturing organization by implementing mutual performance targets within the supply chain. An example of this concept is a business relationship with shared values between the business and its supplier with performance targets that are mutually beneficial to both parties. This strategy is a recent form of collaboration used by some organizations. There was a correlation to how collaboration applies to the effectiveness of a 3PMRO program. According to Kim and Netessine (2011), despite the benefits of collaboration, it may not always be a positive gain for the supplier. A true collaborative relationship requires the equal exchange of information, which requires the supplier to reveal sensitive information, such as pricing structures (Kim & Netessine, 2011). Both parties must have had an incentive to collaborate, or exchange information, to create a benefit of competitive advantage.

The Benefits of 3PMRO

The purpose of this study is to explore customer satisfaction related to the benefits of 3PMRO. However, there are few scholarly articles on 3PMRO. The literature expanded upon existing articles related to the components of 3PMRO. Those components consist of inventory management and procurement outsourcing. There are many benefits to the company implementing a 3PMRO program. Blome and Schoenherr (2011) described these benefits as being closely related to the benefits of outsourcing, which include an increased focus on organizations' core competencies and efficient supply chain management. This focus is a primary factor of an organizations' operational strategy to increase competitive advantage (Blome & Schoenherr, 2011). Consequently, outsourcing MRO related activities should be a primary focus for many companies

because MRO inventory can comprise up to 50% of an organization's readily convertible assets (Younis et al., 2013). The approach for this study was to understand how expectations of these benefits affect customer satisfaction determines whether participants can relate outsourcing to the success of their business.

Customers view MRO supplies as being a problematic category of spending with thousands of products, a high number of transaction, significant ordering costs, and inventory costs (Sodhi, Sodhi, & Tang, 2014). Outsourcing strategies are most important to an organization when there is a need to manage transaction-based processes with demand uncertainty (Benaroch, Webster, & Kazaz, 2012). In particular, MRO spare parts are slow moving. Moreover, inventory is prone to mismanagement and overstocking, but is critical to production operations (Younis et al., 2013). The other components of the 3PMRO program include strategic sourcing, physical supply chain, and technology tools and integrations (Harris, 2011). Harris (2011) described benefits from these components as (a) warehouse space utilization, (b) increased employee productivity, (c) improved supplier relations, (d) improved purchasing administration, and (e) efficient receiving and delivery functions. These benefits produce a myriad of savings in the form of piece price savings and productivity savings. This outsourced service should not only be assessed in terms of the amount of cost savings generated, but also through the achievement of improved service, process improvement, improved margins, and innovation (Wagner & Sutter, 2012). It is necessary to explore in this study whether customers' perceptions agree with the theory that some companies transitioning

to 3PMRO do so as a benefit to reduce costs, increase procurement compliance, and improve service.

The need for compliance prevents maverick buying habits, or non-compliant purchasing, to leverage buying power and reduce risk (Karjalainen & Raaij, 2011). Krauter (2011) surmised that managers select a 3PMRO program because they experience maverick buying on a large scale. Some manufacturing companies consider MRO supplies as an uncontrolled expense because purchasing managers at the site level consider these types of supplies as inconsequential (Krauter, 2011). Maverick buying is the procurement of goods and services in which no contracts exist, and the procurement process is noncompliant (Karjalainen & Raaij, 2011). This non-compliant issue can create excess costs, and companies may not achieve the expected benefits (Karjalainen & Raaij, 2011). The participants' experiences relay information on whether they are satisfied with their programs' ability to mitigate non-compliant purchasing.

Inventory Management

The largest benefit of the 3PMRO program is the management of inventory at the customer's facility. The purpose of inventory management is to assimilate, systematize and automate decision processes related to the management and control of inventories (de Vries, 2013). This systematic inventory management process provides the information to decision makers within organizations on a strategic, tactical and operational level (de Vries, 2013). Based on this definition and purpose, 3PMRO can fulfill this purpose through an inventory management outsourcing framework. The inventory management function of 3PMRO is a collaborative, complex system, which enables improved

communication of information, service level, and better economical inventory management control (Chan & Prakash, 2012).

An on-site storeroom is a central location within a plant that contains inventory used to support maintenance and operations in a plant. The problem with on-site storerooms is that they contain inventory with uncertain demand, critical spare parts with low utilization, and obsolete MRO supplies (Baluch, Abdullah, & Mohtar, 2013). The bullwhip effect describes this type of storeroom problem. The bullwhip effect is a small variation in demand at the end-user level, which produces increasing levels of order variability further up the supply chain (Kristianto et al., 2011). To facilitate change that decreases the likelihood of the bullwhip effect on storeroom inventory, a supplier can install improved inventory management practices (Kristianto et al., 2011). These inventory management practices can help optimize inventory levels, improve end-user service within a facility, and improve revenues (Kristianto et al., 2011).

Inventory managers utilize different techniques to improve inventory management practices. However, despite all the theory available on inventory management practices, supply managers often use techniques that are basic, which can provide great benefits through rigorous adoption (Bacchetti & Sacconi, 2012). The participants in this study may provide information related to the advantages and disadvantages of inventory management that current customers experience in their 3PMRO program. In this study, it was necessary to investigate how procurement managers measured key performance indicators to judge if their experiences met their expectations of performance. Customers of 3PMRO programs utilize a computerized system to manage and control storeroom

inventories (Krauter, 2011). These systems can provide the necessary information to track inventory to measure the inventory benefits of a 3PMRO program.

This qualitative study explores how the 3PMRO program utilizes inventory management to support the entire program. When considering utilizing a 3PMRO program, procurement managers must decide whether to outsource inventory management of the storeroom. The decision matrix must notate the party responsible for inventory risk, the supplier or the consumer (Borade, Kannan, & Bansod, 2013). This collaboration among parties includes the constant communication, resources, and costs (Lee & Cho, 2014). The outcome of this collaboration can minimize inventory costs while maintaining optimal customer service levels, and increase joint profit (Yu, 2013). Nonetheless, it is necessary to explore whether participants' satisfaction is discussed during the exploration into the decision to utilize a 3PMRO program as an outsourcing strategy.

The Vendor-Managed Inventory Benefit

This study contains information that defines and expands upon the VMI model in order to provide a comprehensive view of this type of outsourcing model as the basis for exploring customer satisfaction with VMI function of the 3PMRO program. Vendor Managed Inventory is an outsourced function of inventory management, which allows a supplier to place inventory orders on behalf of its customers (Hariga, Gumus, Daghfous, & Goyal, 2013). Vendor Managed Inventory consists of many different models. The VMI model expands to include more collaborative functions with supply chain partners, upstream and downstream (Lee & Ren, 2011). This collaboration, no matter how subtle,

provides enough similarity to an IS model to provide clarification between the two models.

Vendor Managed Inventory is also considered a planning and management program that optimizes supply chain performance by enabling the supplier to be responsible for managing the customer's inventory levels and initiating orders on behalf of the customer; while the customer has responsibility for the inventory holding costs (Ben-Daya et al., 2013). Wal-Mart and Proctor and Gamble first popularized the VMI practice in the 1980s, which became the practice of choice for retailers searching for increased customer service levels and lower stock-out incidents (Kamezi & Zhang, 2013). Consequently, as the utilization of VMI has grown, VMI partnerships now span across many industries and companies in order to take advantage of these benefits (Kamalapur, Lyth, & Houshyar, 2013). Vendor Managed Inventory is a collaborative inventory practice, where the supplier makes replenishment decisions on behalf of the customer (Borade et al., 2013). There may be a correlation between this collaborative inventory practice and consumer satisfaction with the 3PMRO program. In either function, VMI is an outsourcing strategy that shifts inventory management and replenishment decision-making responsibilities to the supplier (Kamezi & Zhang, 2013).

The benefits of VMI programs exist in both the academic and practitioner realm. The purpose of explaining the benefits of the VMI practice should support how the satisfaction of consumers is affected by the 3PMRO program. Vendor Managed Inventory provides improved customer service by mitigating demand uncertainty, reducing supply chain costs, improving forecast efficiency, and increasing collaboration

and information sharing among supply chain partners (Mateen, Chatterjee, & Mitra, 2015). In order to expedite this information through the supply chain, customers and suppliers utilized electronic data interchange (EDI) to transfer electronic documents or company data between the supply chain to manage the availability of goods and plan production (Niranjan, Wagner, & Nguyen, 2012). Further benefits argue that VMI is an equally beneficial program for both buyer and supplier, because the supplier can plan its production and determine its replenishment schedule through enhanced information transaction (Borade et al., 2013). However, transaction risks can affect the selection of a trusted partner, which could have a negative effect on collaborative success between buyer and supplier (Dekker, Sakaguchi, & Kawai, 2013). This difference of perception is natural due to each entity's target level for optimal performance. Therefore, for entities to achieve their targets, entities within the supply chain require consistent collaboration. Vendor Managed Inventory may handle increased transparency of essential information among supply chain partners such as inventory levels, usage, and supply replenishment issues (Kannan, Grigore, Devika, & Senthilkumar, 2013). This increase in facilitation encourages decision-making between supply partners, to maximize profits (Kim & Park, 2010).

The complexities associated with the implementation VMI create risk because implementation usually occurs over an extended period and involves multiple departments within a company (Yao, Dong, & Dresner, 2012). The risk associated with implementing a VMI program is an attribute to consumer satisfaction with the 3PMRO concept. Inventory management involves the difficult task of maintaining adequate stock

levels while simultaneously decreasing inventory costs for the supplier and the organization (Liao, Hsieh, & Lai, 2011). The improper management of this task can lead to increased ordering costs, inventory carrying costs, and distribution costs (Liao et al., 2011). Vendor-managed inventory programs control the cost of inventory, enhance flexibility in production planning, and improve marketing efficiencies during market changes and demand uncertainty (Rad, Razmi, Sangari, & Ebrahimi, 2014). In this case, the supplier supervises the risks of these responsibilities, and analyzes customers' forecasts to meet demand uncertainty in the market, which helps in reducing costs (Kamalapur et al., 2013). Other associated with VMI include opportunistic behavior by the supplier, the creation of obsolete inventory, and depreciating trust between supplier and client (Kamalapur et al., 2013; Machado Guimarães, Crespo de Carvalho, & Maia, 2013).

With regard to continuous intentions, Zachariassen et al. (2014) found that only 30% to 40% of companies surveyed experienced VMI success, with the rest leaving the program. In this study, participants' experiences are the focal point in the investigation to determine if these issues affect their satisfaction levels. Furthermore, theories that are more modern exist to assist in solving these types of risks with VMI. One of these methods of mitigating risks in VMI is creating a contract that establishes effective instruments for trust and cooperation among the participants in the VMI program as it relates to sharing inventory costs and information (Lee & Cho, 2014; Niranjana et al., 2012). Consumers may acknowledge the benefits of sharing inventory costs and information as potential reasons for satisfaction with their 3PMRO program.

Consignment stock is a methodology utilized by the vendor to manage the buyer's inventory, in which the vendor maintains a stock at the buyer's facility, and the customer only pays for the inventory upon its use (Zanoni, Jaber, & Zavanella, 2011). This methodology is different from the traditional practice where a customer pays for the inventory in prearranged payment terms. Under the consignment arrangement, the customer has no concern with how long the materials sit on the shelves; the customers are only responsible for payment of materials when they consume the material (Adida & Ratisoontorn, 2011). Due to dynamic market uncertainties, organizations assume financial risk by carrying inventory and utilize the consignment stock approach to defer asset risk to the supplier (Cristina, Crespo, & Maia, 2013). The supplier, not the organization, incurs the financial risk of storage costs (Zanoni et al., 2011). Companies utilizing the consignment stocking approach require supply optimization to serve their customers that experience dynamic demand requirements (Cristina et al., 2013).

It is unknown whether consignment inventory is beneficial for manufacturing companies. In practice, the supplier and the customer determine the inventory levels. Although the benefits, risks, and usefulness of consigned inventory are documented, Adida and Ratisoontorn (2011) surmised that there is a concern that the consignment of inventory may not be in the best interest of the customer. In some cases, the consignment program is more of a benefit to the supplier than the organization (Adida & Ratisoontorn, 2011). The consignment concept debate is prevalent among academics along with their theories and justifications. The benefits and risks associated with consigned inventory are dependent upon the demand level of consignment required, or requested, by the

customer (Adida & Ratisoontorn, 2011). Although the primary benefit is the transfer of financial inventory risk, it may be unknown whether current customers' experiences meet their expectations regarding the potential benefits of consignment inventory.

Transition and Summary

U.S. manufacturing companies spend an estimated \$106 billion annually on MRO supplies, and many organizational leaders support the utilization of an outsourced solution to manage their maintenance, repair, and operations supplies as a strategy to reduce costs, improve productivity, and improve service (IBISWorld, 2011). The research participants may provide information on how 3PMRO programs perform as an outsourced procurement strategy through interviewing MRO consumers in various industries of 3PMRO. There was little academic literature on the subject of 3PMRO, but the literature review contains information from articles and studies on the components of this program, such as VMI, inventory management, outsourcing, resource-based theory, consignment, and transaction cost theory. In order to provide the basis for research, it was necessary to include justification by providing support literature from conceptual frameworks involved in the 3PMRO strategy. These conceptual frameworks include the decision to outsource procurement, inventory management, and supply chain activities of a company's MRO supplies. The limitation of the study was the effect the relationship between the company and the supplier may have on the success or failure of the 3PMRO program.

Section 2 contains the research method and design of this study. This qualitative descriptive case study used individual in-depth interviews to explore the experiences of a

random purposeful sample of consumers of 3PMRO programs in the Southern United States. The study served to extract practical data from consumers to assess their satisfaction level with their current 3PMRO programs. Section 2 also discusses the data collection process and procedures to ensure the accomplishment of this study's goal, as well as deem it reliable and valid.

Section 2: The Project

A qualitative research method and a descriptive case study research design were used to gather 3PMRO concept information from a small sampling of customers. The information validated current trends in the usage of 3PMRO, as well as discovered purposeful data about the utilization of this program by U.S. companies. Section 2 of the study covers (a) researcher's role, (b) description of participants, (c) target population, (d) sample population, (e) sampling procedures, (f) research design, (g) reliability, (h) data collection process, (i) data collection procedures, (j) data analysis, and (k) summary of research methodology.

Purpose Statement

The purpose of this qualitative, descriptive case study research was to explore the experiences of customers who use 3PMRO programs in order to examine their perceptions of satisfaction through their adoption strategy, and their interpretation of its current performance within their organization. The research design for this study was a descriptive case study approach, where the data was gathered through conducting in-depth interviews, the collection of performance evaluations, and observations. The purpose of this study was to determine customers' satisfaction or dissatisfaction with their 3PMRO programs. In addition, participants were asked what considerations were made in their decision-making process to adopt and measure this type of outsourcing program. The study focused on those clients utilizing 3PMRO programs in the Southern United States, which consisted of the following states: Alabama, Florida, Georgia, North Carolina, South Carolina, Virginia, West Virginia, Texas, Louisiana, and Mississippi.

The specific population for this study consisted of approximately 150 consumers in 98 large manufacturing plants in the Southern United States, currently utilizing 3PMRO outsourcing. The societal significance of this study is that this research may help reduce emissions, decrease paper consumption, aid in sustainability efforts by refining the purchasing process for MRO supplies, and reduce the number of suppliers to optimize deliveries in order to reduce the emission of carbon dioxide and other carbon compounds due to the consumption of fossil fuels. The research participants may provide information to help outsourcing decision-makers, through the experiences of their peers and colleagues, to explore adoption criteria of the 3PMRO concept, gauge performance, and provide valuable insight on customer satisfaction concerning 3PMRO programs.

Role of the Researcher

Researchers for qualitative case studies tend to focus on understanding the specific and distinctive in a case thoroughly and comprehensively (Petty et al., 2012). In this study, the 3PMRO program was the program being investigated for consumer satisfaction. As the researcher, I have over 13 years of experience as a procurement specialist and category manager of 3PMRO services. I utilized my professional experience with the 3PMRO strategy to plan and conduct this study. I demonstrated an understanding of the 3PMRO program, which allowed the interpretation of the data results. In addition, this understanding allowed the interpretation of the multiple realities of procuring MRO supplies and services from the perspectives of the participants. Moreover, my experiences with this program permitted me to elicit comprehensive information from the participants' experiences through comprehensive interviews.

I managed the data collection, which included interviewing all participants, and ensuring the adherence to all the ethical guidelines for this study. I was responsible for creating the criteria to select the participants from various industries and companies within the Southern United States. Also, my responsibilities included the development of the interview questions, which guided the interviews with the participants. Mitigating researcher bias during data collection in qualitative research is a challenge, especially when conducting interviews (Chenail, 2011). Chenail (2011) supported the testing of the interview instrument by conducting trial interviews before conducting any actual interviews is necessary. During the trial interviews, each participant gave feedback to identify any ambiguities and difficult questions. The time was recorded to determine how long it took to complete the interview. I also revised and eliminated questions that confused the participants. Once the questions were revised, I interviewed these participants, and requested feedback regarding their responses and asked if they were satisfied with the final version of the interview guide.

I conducted the transcription of the interview recordings and the documentation of any textual data received from the research participants. The methods for coding and analyzing textual data were critical to exploring large amounts of textual data and assisted with the categorization of themes through the determination of trends and patterns (Vaismoradi, Turunen, & Bondas, 2013). Therefore, I was responsible for coding and developing the conceptual data model that binds the data together to answer the research questions. I observed three quarterly business reviews as a second source in this descriptive case study. I participated in each review and took notes as an observer.

In order to comply with ethics as required by the Belmont Report protocol, I reviewed the Consent Form, as noted in Appendix A, and informed each participant of their rights and any risks of participating in this study. I also informed each participant that their participation was voluntary, and they could withdraw from this study at any time.

Verification of the data was essential in identifying inconsistencies and accuracy. Verifying the data ensured the findings and results were reliable. Furthermore, I managed the validation of the data by verifying whether the study correctly explored the intentions of the study. Data verification was necessary to build a report of the findings. This report was written in the constructivist style to capture the essence of this descriptive case study research. Under the constructivist paradigm, individuals construct the meaning of experiences and events in order to create the realities in which they participate in formulating their individual and shared meanings (Lauckner, Paterson, & Krupa, 2012). My final responsibility was to create a scholarly presentation of my interpretation of the findings and render these results available to the participants, at their request.

Participants

In order to gain the best results from this study, the selection of the appropriate participants was vital. O'Reilly and Parker (2012) confirmed that the selection of participants in qualitative research requires a range of different opinions and representation of the phenomenon being studied. The participants for this study consisted of customers of 3PMRO from various industries and companies to ensure impartiality regardless of the industry. Only those participants having a working knowledge of MRO

supplies, currently responsible for the strategic sourcing of MRO, and managed a 3PMRO program in the Southern United States contributed to this study. In order to provide multiple perspectives on 3PMRO in this study, the participants were required to have at least 50% of their job responsibilities dedicated to the management of a 3PMRO programs. The selection of participants was proportional to each applicable state within the Southern region of the United States. Applicability was dependent on whether the state had active 3PMRO programs that fulfilled the requirements of the study.

The primary characteristics of a qualitative study require a belief in multiple realities and copious commentaries from the participants related to their satisfaction levels of their 3PMRO program (Vaismoradi et al., 2013). Therefore, each participant was subject to scrutiny to ensure he or she possessed the required experience with the 3PMRO strategy to answer the research question. Participants were required to have specific experience with the 3PMRO program and an understanding of their satisfaction level, in order to reveal new distinctions during data collection (Englander, 2012). The participants have an extensive understanding of procurement. Each participant was either employed in the area of procurement, production operation, or as a consultant. Participants were required to have a responsibility implementing or approving a strategy for the company, as it relates to MRO supplies. In addition, it was imperative the participants have a comprehensive understanding of procuring MRO, whether as their primary job or as a consultant. In addition, each participant must have had MRO sourcing experience for one or more years. All participants were required to be able to

understand, read, and write English. Any opinion solicited must have been the original idea of the participant.

Three methods were utilized to establish a working relationship with the participants. First, the selection of each participant began from a pool of potential participants from the Institute of Supply Management (ISM) located in the Southern United States. ISM is an association responsible for managing procurement standards, education, and promotional activities for supply-chain management professionals. This association offered access to other MRO consumers who met the population and sampling requirements of this study. To protect the ethical rights for each participant, he or she signed the applicable consent form (see Appendix A). Included in this consent form was a clause allowing for their withdrawal, at any time, from participating in this study. This research did not utilize the participants' personal information or their company name.

Participating in this study did not pose any risk to the participant's safety or wellbeing. Nonetheless, each participant was allowed to choose whether he or she would be interviewed face-to-face or over the phone. Participants were free to decline to answer any question at their discretion or to stop the interview at any time. Further, each participant was notified that all audio files and textual data from this study were kept on a password-protected computer and a locked, fireproof file cabinet to protect the privacy rights of each participant.

Research Method and Design

The goal of this qualitative, descriptive case study was to help determine how customers perceive 3PMRO programs as a sustainable procurement strategy in the Southern United States. The concepts of 3PMRO programs, although in existence for many years, are still relatively unknown to the academic community researching and studying supply chain and procurement activities. In the area of 3PMRO programs, there was little academic literature available for this study. However, an abundance of literature exists to support 3PMRO, such as vendor-managed inventory, inventory management, and evaluating value propositions. In-depth interviews, with open-ended questions, were required to explore their assessment and use 3PMRO programs.

Method

A qualitative approach was appropriate to ascertain any existing or future trends of exploring decision criteria for using 3PMRO programs through the observation of the participants in this study. This research focused on a particular problem within this phenomenon, which was the evaluation of customers' satisfaction levels with their 3PMRO programs. According to Cameron (2011), a mixed-methods research uses multiple theoretical foundations and requires multiple data sources to understand the ineffectiveness of the phenomenon. The mixed-methods approach to studying the ineffectiveness of 3PMRO programs in the Southern United States was not useful because the only data source was customers and their experiences. A quantitative study was not appropriate because a quantitative study typically serves to generalize numeric results or outcomes across a large number of cases to make assumptions about a

particular topic (Thomas & Magilvy, 2011). A qualitative approach was utilized to focus on customer satisfaction of the 3PMRO program while gathering rich detail from the research participants.

Research Design

This qualitative, descriptive case study was completed utilizing individual in-depth interviews, examples of actual performance reviews, and direct observations of business reviews between the supplier and client. The interviews were necessary to explore the experiences of a random purposeful sample of consumers of 3PMRO, also known as Integrated Supply, programs in the United States. The observations were necessary to explore the participants' satisfaction levels as compared to measurable expectations or key performance indicators. The quarterly business reviews were meetings that allowed the 3PMRO provider to present to their clients the established key performance indicators, and discuss any topics of concern or present updates on any related initiatives. Since this is an outsourcing program, the opportunity to observe participants' satisfaction levels with their 3PMRO programs does not happen often. The quarterly business reviews were an optimal environment to observe participants discussing whether the 3PMRO program was meeting their expectations, current issues, supplier performance, and current initiatives. Lastly, the evaluation of actual performance reviews created a picture of how the supplier was meeting expectations in the form of pre-established targets.

A descriptive case study is an attempt to describe what happened in key events, which has rarely been a topic of a previous study (Yin, 2013a). The design of this study

was a descriptive case study approach because the primary focus required a scholarly exploration of the experiences of individuals using the 3PMRO concept. Yin (2009) stated that the strength in adopting a descriptive case study approach allows the researcher to preserve holistic and consequential characteristics of actual events. Yin (2009) further stated that a descriptive case study provides insights and robust aspects of customer experiences to present a philosophically precise approach to understanding the phenomenon. In this case, the phenomenon was the exploration of customers' satisfaction related to their adoption and performance criteria of 3PMRO programs.

The purpose of this qualitative, descriptive case study was to explore the experiences of customers who currently use 3PMRO programs to determine what factors affect satisfaction levels. Case research addresses both tangible and human elements, and is appropriate for conducting a comprehensive exploration of the phenomena (Voss, Tsiriktsis, & Frohlich, 2002). Also, case research is suitable for investigating and developing new theories and ideas, and for testing and refining theories (Voss et al., 2002; Yin, 2013a). As a result, there must be enough data present to fulfill a comprehensive study of consumer satisfaction, but not too large as to be repetitive (O'Reilly & Parker, 2012). At this point in the design phase, it was important to ensure the sample size was large enough to achieve data saturation. The collection of data continued until no new or relevant insights emerged. An appropriate sample size answered the research question with various interpretations of satisfaction (O'Reilly & Parker, 2012; Yin, 2013a) and included interviews, observations, and document review

during the data collection phase. The proper coding of the interviews helped discover the themes of the data, and presumably, at what point saturation occurred.

In this study, the foundation of the findings was a qualitative understanding that formed the theory of the primary levers of 3PMRO consumers' satisfaction and its impact on the validity of the program's success and purpose. The application of case study research design was suitable for creating a scholarly research that explored this 3PMRO outsourcing program to create an empirical inquiry investigating consumer satisfaction within its genuine context utilizing actual consumers as sources of evidence.

Population and Sampling

According to Qu and Dumay (2011), qualitative research studies require a small number of purposeful random samples. As indicated by Suri (2011), a purposeful, random sampling approach is used to extract detailed information from each interviewee to learn about the issues surrounding the primary purpose of the study. Practical and detailed data was extracted from a sample of MRO consumers that contained their interpretation of their satisfaction level of their 3PMRO programs. Understanding the experience level of the participants in the 3PMRO program was necessary to ensure the collection of rich detail was sufficient to answer the research question of this study. It was essential that each participant communicated positive and negative experiences, which ensured their experience was transferable to the doctoral study.

Unlike the quantitative research method, qualitative interviews require a significant amount of time and effort, and investigating a large or random sample of people with limited access is an enormous challenge (Qu & Dumay, 2011). This

qualitative, case research was dependent upon extracting detailed information from participants' experiences with 3PMRO programs that may be transferable to other sites, but quantitative research generalizes data extracted from a large random sample. The sample size for this qualitative study needed to be large enough to ensure all perceptions regarding the satisfaction of 3PMRO program appropriately represented the 3PMRO programs operating in the Southern States.

For this doctoral study, 22 participants were interviewed to establish perceptions of the population of approximately 150 consumers responsible for managing MRO in the Southern United States. The sample size for this qualitative study was adequate enough to ensure there was a full exploration of the study, but not too large where the themes become repetitive (Cope, 2014; Suri, 2011). In order to ensure enough quality data was collected, it was necessary to determine the point of data saturation (Walker, 2012). In order to make this determination, Francis et al. (2010) proposed that the researcher conducts at least ten interviews, followed by three more to determine if any new perceptions were offered. As a result, the sample size for this study consisted of 22 participants to achieve saturation. Walker (2012) confirmed that it is difficult to determine data saturation. In this study, the use of an Excel spreadsheet was used to track the textual data from the interviews to ensure the confirmation of data saturation. Proper coding helped to discover the themes from the data and presumably, at what point saturation occurred.

The sample of participants had direct responsibility for managing these programs. The 22 participants, through in-depth interviews, provided answers to each question from

the 3PMRO qualitative, narrative instrument. These responses invited readers of the research to make connections between elements of the doctoral study and their own experience. Moreover, there was an attempt to select participants that were representative of each state within the Southern United States. The sampling method was purposively random to present a constructivist's perspective on 3PMRO programs. A random purposeful sample identifies a subgroup of the population and requires the researcher to select a random sample from that subgroup (Seawright, Smith, Mitchell, & McClendon, 2013). Subgroup members were MRO consumers with at least one or more years of experience with 3PMRO programs and who had managed a program in the Southern United States.

There were two settings used to collect data from participants, face-to-face interviews and meeting observations. First, the interview setting for each participant was one-on-one in a private setting or over the phone. The preferred interview setting was face-to-face. However, where face-to-face interviews were not possible, phone interviews supported verbal communication with the participant during the interview. Each participant was contacted to arrange a time to meet in-person and asked how they would like to carry out the interview. Once the interview time and venue was established, an e-mail was sent to the participant confirming the time and venue. Each interview lasted approximately 30 to 45 minutes. As an observation, only five interviews were face-to-face. Scheduling conflicts and participant location were the reasons for the lack of face-to-face interviews. Secondly, the setting for participant observations took place during three quarterly business review meetings between the provider of 3PMRO

and three clients. Observational data is beneficial to provide supplementary information about satisfaction and stakeholder expectations (Yin, 2013a). The supplier's team consisted of the primary account manager, the site's storeroom manager, and a director level account executive. The client team consisted of the procurement manager, production manager, finance manager, operations manager, and plant manager. These meetings were not open to the public, and the information shared was confidential. The purpose of these meetings was to review established performance indicators, address current challenges with the program, and illuminate successes.

Ethical Research

The highest degree of ethics was maintained in this doctoral study, which was based on the requirements of Walden University. The completion of this qualitative study required a representative number of participants to establish transferability of customer satisfaction levels against 3PMRO programs in each state in the Southern United States. Prior to the interview, participants were required to sign the applicable consent form as referenced in Appendix A. Included in this consent form was a clause allowing for their withdrawal, at any time, from participating in this study. The participants' personal information and their organizations were not required to complete this study. The doctoral study only required data related to the participants' experiences with their 3PMRO programs. The collected data underwent a coding process, in which the transcripts from the interviews were analyzed for common themes and for similarities and differences in the emerging themes. There was no agreement to provide incentives to the participants. All audio tapes and any handwritten notes from each interview are

stored in a secure and fireproof file cabinet for the term of five years after this study is completed. These measures were necessary to protect the privacy rights of each participant.

Data Collection Instruments

In order to gain specific information about customers' satisfaction level, the necessary data was collected from multiple sources. As a participant-observer, three quarterly business reviews was observed. In addition, research participants provided the data by utilizing an interview script consisting of 17 open-ended questions, as referenced in Appendix B. The interview instrument contained open-ended questions, which are preferable when conducting a qualitative case study interview (Yin, 2013a). This instrument guided the interview of each participant. The name for this instrument is the 3PMRO qualitative, narrative instrument. The interview questions explored consumers' expectations based on outsourcing adoption criteria, evaluation methods, utilization, environmental sustainability, and overall satisfaction with 3PMRO program. The design of this instrument allowed the interviewer to probe deeply into the concepts of this study and enable each participant to respond freely concerning their experiences and perceptions of their 3PMRO programs.

Observational data was beneficial to provide supplementary information about satisfaction and stakeholder expectations with the 3PMRO program (Yin, 2013a). Participant observation is appropriate for case study research when dealing with a large organization (Yin, 2013a). As a participant-observer, I was an observer in two meetings and a meeting facilitator in the third meeting. The primary research question for this

study was: What are the customers' satisfaction levels related to their expectations of program performance of their 3PMRO outsourcing programs in the Southern United States? The purpose of participating in these meetings was to observe the interaction between the client organization and the supplier regarding the presentation of performance and the acceptance of those results to gauge actual satisfaction levels.

Investigating the data to identify the primary codes drove the data collection.

Therefore, several preliminary concepts were used to begin the search:

- outsourcing adoption criteria,
- supplier selection criteria,
- performance evaluation methods,
- 3PMRO utilization,
- customer satisfaction,
- environmental improvement considerations, and
- risks

According to Cartmill, Soklaridis, and Cassidy (2011), successful analysis of textual data utilizes the method of coding that assists with the categorization of emerging themes. At the first level of the coding process, the data exploited seven distinct categories, which formed the basic elements of the analysis. The coding method also developed the conceptual data model, which united the data together to answer the research questions (Cartmill et al., 2011). In the data collection process, the analysis of each theme was necessary to find commonalities that answered the research questions and supported the purpose of the study.

Member checking and a pilot test were utilized to enhance the reliability and validity of the data collection instrument. According to Chenail (2011), a pilot test of the data collection instrument can assist researchers to address instrumentation and partiality concerns in qualitative studies. Prior to the interviews, it was necessary to conduct a pilot study to validate the interview questions, confirm the approximate time of the interview, and ensure clarity of all questions. In addition to the pilot test, member checking was used to establish credibility for the study. According to Thomas and Magilvy (2011), member checking involves returning to the research participants to ensure the data collected was interpreted correctly. In this study, each participant was sent a copy of their interview to ensure their responses were accurately represented. Member checking is utilized by researchers to establish validity to qualitative studies by ensuring the documented experiences are immediately recognized by the research participants providing the data (Cope, 2014). The instrument was validated prior to data collection, and the data was confirmed after data collection to ensure credibility of this study.

Data Collection Technique

The data collection process was necessary to collect information that described the satisfaction levels of consumers in rich detail based on their experience with 3PMRO. Qualitative researchers tend to use interviews, field observations, and document analysis to produce and accumulate data for their research analysis (Chenail, 2011). Data was collected utilizing semi-structured interviews, field observation, and the review of documented performance scorecards. The 3PMRO qualitative, narrative instrument collected subjective information from current customers of 3PMRO, specifically

highlighting the current impact on their perspective firms and the future of their programs. Next, participant observations occurred at three sites at different times, in their natural environment to complement the interview data by observing performance evaluations of their 3PMRO programs. After the observations, the performance scorecards were reviewed for measuring performance to assess the satisfaction of customers with their 3PMRO programs.

Pilot Study

Prior to the interviews, it was necessary to conduct a pilot study to validate the interview questions, confirm the approximate time of the interview, and ensure clarity of all questions. According to Chenail (2011), a pilot study is a common practice for testing the quality of the instrument, which can assist researchers to address any procedural and partiality concerns for qualitative studies. Three individuals were selected to participate in the pilot study, utilizing the same selection criteria as for the research participants. These individuals were selected from the original pool of participants at random to participate in this pilot study. After contacting these three individuals by phone, and gaining their commitment to participate, scheduled times were set up to interview each pilot research participant.

Pilot study participants were notified both verbally and via email before the interview that their participation was voluntary, and that there were no incentives being provided. Each participant reviewed each question and wrote any recommendations for revisions on a printed copy of the survey. The pilot interviews occurred over the phone for approximately 45 minutes. The participants made minor suggestions for revisions,

but all agreed that the questions were understandable and relevant to the research question. Recommendations from the pilot study did not make it into the final study because the pilot study participants' recommendations expanded the study in areas outside of the research question.

Participant Interviews

This doctoral study contains data collected through in-depth interviews utilizing an instrument known as the 3PMRO qualitative, narrative instrument. The rationale for in-depth interviews is that they reduce the likelihood of respondents answering questions in a manner that others may view as favorable, otherwise known as social desirability (Luke, Clark, & Zulu, 2011). The exploration of the adoption and performance measurement of 3PMRO programs through the collection of primary data from in-depth interviews with MRO procurement professionals, consultants, and production managers currently managing this type of program was the foundation for this study. The 3PMRO qualitative, narrative instrument was used to guide the interview through a sequence of open-ended questions. The use of open-ended questions allows the participants to be reflective on their experience and keep the focus on the descriptions of the experience being studied (Bolling, 2012). Each interview, whether in-person or over the phone, lasted approximately forty-five minutes. Also, each interview was audio recorded. The goal was to allow enough time for each participant to give a thorough response to each question without a concern for time, which could limit the amount of rich information gained from the participants.

Observations

Participant observations occurred at the sites of three clients in their natural environment to complement the interview data. As a critical part of the case study data collection, conducting and documenting direct observations of events as they happen in a natural setting can illuminate routines and abnormal flow of activities (Yin, 2013b). I observed these meetings over a one-year period as a full participant observer. These meetings typically occurred quarterly, and in some cases semi-annually. It was not prudent to attend many of these meetings due to the time constraints of the project and the infrequent occurrence of the meetings. The setting for the observation was a quarterly business review meeting between the provider of 3PMRO and the client. The supplier's team consisted of the primary account manager, the site's storeroom manager, and a director level account executive. The client team consisted of the procurement manager, production manager, finance manager, operations manager, and plant manager. These meetings were not open to the public, and the information shared was confidential.

In addition to the interviews, the observations of these 3PMRO quarterly review meetings were used as a second method for pattern matching. The purpose of these meetings was to review established performance indicators, address current challenges with the program, and illuminate successes. The observer's participation in these meetings allowed for the direct observation of clients' actions and conversations related to their satisfaction levels. Therefore, it was necessary to take detailed field notes during these meetings. Since the satisfaction levels of the clients were the focus of this study, only the behavior that related to any discussion regarding the 3PMRO program

performance and the clients' expectations was documented. Van Ryzin (2013) concluded that evidence related to satisfaction levels is difficult to determine from observations in which customers' perceptions of expectations and performance are related to satisfaction. During these meetings, it was necessary to pay close attention to discussions related to the performance aspects of the program that caused the most attention from the consumers. After taking detailed notes in each of these meetings, the notes were placed into Microsoft Excel utilizing coding to build themes.

Through participant observations, some procurement managers established performance review meetings to gauge the performance of their 3PMRO programs. These reoccurring meetings addressed potential challenges and monitored the progress of any project initiatives. The collection of data from these meetings involved the use of the 3PMRO Quarterly Business Review Observation Protocol template, see Appendix C. In each of the meetings, the same general topics were (a) review of key performance indicators, (b) issues and challenges, (c) current project review, and (d) open forum. These meetings occurred at the customers' sites. These locations were in Georgia, Texas, and Alabama. In each meeting, there were representatives from both the supplier and the organization. There were multiple levels of management from both sides. The plant manager, finance manager, procurement manager, maintenance and operations managers attended from the organization. In attendance from the suppliers' organization were the local onsite manager of the tool crib, the client account representative, and the supplier's executive sponsor.

Observations of all meetings followed similar formats. The information from each meeting was highly confidential. The members of each company required the names and any information identifying the companies to be confidential. The meetings were organized based on location. Each location was identified as meeting one, two, or three. The location and meeting dates are displayed in Table 1.

Table 1

Location and Meeting Dates of Observations

Meetings	Locations	Meeting Dates
Meeting One	Atlanta, GA	March 2015
Meeting Two	Fort Payne, AL	January 2015
Meeting Three	Houston, TX	April 2015

Document Analysis

Another method of collecting data was to review three scorecards from different organizations and different suppliers of 3PMRO services to understand the participants' satisfaction related to their expectations. These documents were used to support and guide the quarterly business reviews. The primary categories of performance targets were (a) inventory management, (b) cost savings, and (c) service. The primary categories matched the themes discovered during the interviews and observations. For examples of these scorecards, see Figures 1, 2, 3, and 4.

Participants used the example noted in Figure 1 during their meetings to gauge performance. This template was also used to calculate their 3PMRO supplier's performance score. For this organization, there was a detailed calculation methodology to formulate a satisfaction to expectation score. This template was used to display

performance metrics, performance scoring, metric descriptions, and data sources. This performance score was also used to measure how the supplier's performance compared to the consumer's expectations. For this client and supplier relationship, the use of this scorecard template established the organization's expectations and contractual targets in the form of an overall customer rating score. The consistent use of this rating can help evaluate supplier performance, and determine the next course of action with the supplier. If the level of satisfaction was high, no further action was needed to improve the performance. However, if consumer satisfaction was low, participants established improvement tasks and targets for completion in a contractual timeline. If the tasks were not completed by the deadline, the client has a contractual option to terminate the agreement for non-compliance. According to the participants, termination for non-compliance to the agreement was rare.

Metric	Criteria	KPI Scoring	Metric Description	Data Source or Link
Cycle Count Accuracy %	Greater than or equal to 95% accuracy, with at least 95% of Cycle Count Population counted	95% or greater = 20 pts 93% to 94.99% = 15 pts 90% to 92.99% = 10 pts Less than 90% = 0 pts	Percentage of count accuracy. Site must count 95% of their Cycle Count Population at greater than or equal to 95% accuracy.	Cycle Count performance metric from Rick Ashley KPI dashboard
Monthly Stock Fill Rate	Less than or equal to 1 % accuracy, for the integrator controlled product	1.0% or less = 20 pts 1.01% to 1.50% = 15 pts 1.51% to 1.99% = 10 pts 2.0% or greater = 0 pts	Percentage of stocked items not available compared to the total number of available stocked items	Stock out performance metric from Rick Ashley KPI dashboard
Critical Spares Stock Outs	An item coded as a critical spare on the HNA data accuracy report with "0" inventory available and a customer requests the part	0 stock outs = 20 pts 1 stock out or greater = 0 pts	If a customer requests a critical spare item and HNA cannot fill the item and it is below the minimum level	Data accuracy report provided by HNA
On-Time Delivery (non-stock) - Service Level by Promised Date	Greater than or equal to 95.00 % on time delivery for spot buy business only	95% or greater = 20 pts 93% to 94.99% = 15 pts 90% to 92.99% = 10 pts Less than 90% = 0 pts	Percentage of orders delivered on or before the customer approved promise date	Service level promise date metric from Rick Ashley KPI dashboard
Monthly Late Lines	Less than or equal to 3 % of the open lines are late	3.0% or less = 10 pts 3.01% to 3.99% = 8 pts 4.0% to 4.99% = 4 pts 5.0% or greater = 0 pts	Percentage of lines passed their promise date compared to the total number of open lines	Late line performance metric from Rick Ashley KPI dashboard
Monthly Service Level by Availability - top 25%	Greater than or equal to 98.00 % of the open lines in the top 25 lines of billing are available	98% or greater = 10 pts 95% to 97.99% = 8 pts 93% to 94.99% = 4 pts Less than 93% = 0 pts	Percentage of open lines in the top 25 lines of billing are available	Service level by availability - top 25% from Rick Ashley KPI dashboard
Order Cycle Time - Stocked Lines	The cycle time for a stock order from time of entry to delivery to customer	No points scored. Measurement for tracking purposes only	The number of lines purchased out of stock compared to the number of days for the stock to be delivered	Order cycle time - stock from Rick Ashley KPI dashboard
Order Cycle Time - Non-stock Lines	The cycle time for a non-stock order from time of entry to delivery to customer	No points scored. Measurement for tracking purposes only	The number of lines purchased out as a non-stock item to be delivered	Order cycle time - non-stock from Rick Ashley KPI dashboard
Cost Savings Proposed	The dollar amount of cost savings marked as proposed in VPP	No points scored. Measurement for tracking purposes only.	The dollar amount of proposed cost savings loaded in the value plus program and provided to the customer	Dollar amount of proposed cost savings out of VPP from Rick Ashley Kpi dashboard
Cost Savings Approved	The percentage of approved cost savings loaded in VPP compared to the total applicable spend to those cost savings	No points scored. Measurement for tracking purposes only. Penalty covered on VPP guarantee	The dollar amount of approved cost savings loaded in the value plus program and provided to the customer	Percentage of approved cost savings out of VPP from Rick Ashley Kpi dashboard
Total Points		100		
Overall Customer Service Rating				
<i>The total points scored above from the first 7 KPI metrics will provide the overall customer service rating</i>				
<i>Maximum points = 100</i>				
<i>Maximum rating = 5</i>				
Points	Overall customer service score			
95.00 - 100	5			
90.00 - 94.99	4			
85.00 - 89.99	3			
80.00 - 84.99	2			
70.00 - 79.99	1			
Less than 70.00	0			

Figure 1. Organizational Performance Scorecard Measurement Template.

The other documents reviewed were excerpts of performance scorecards taken from each of the three meetings. In meeting one, the participants utilized a detailed performance scorecard, as displayed in Figure 2. The participants utilized this scorecard to concentrate their supplier's performance evaluation on financial performance,

inventory management, and service level. According to Figure 2, the financial performance included tracking inventory value, stock sales, and detailed reporting of cost improvements. These participants had concerns about the financial justification of their 3PMRO program. They ensured their program performed against very detailed financial performance indicators as indicated by the performance scorecard. Through the analysis of this scorecard, it was evident that cost improvements played a substantial role in determining whether these participants were satisfied with their 3PMRO program.

According to participants, customer service was assessed through tracking on-time e-orders (electronic orders), orders filled by the required date, and orders filled according to the contractual guidelines. The required date can differ from the contractual guidelines for on-time requirements. In order to ensure the supplier was maintaining optimal customer service, the supplier's performance for on-time delivery was evaluated on both requirements. These participants also differentiated their performance indicators for on-time delivery for line items related to a purchase order versus the specific stock keeping unit (SKU). The participants described this measurement relevancy to determine their satisfaction with filling the order by the required time versus the on-time delivery of a specific item. However, what this scorecard showed was the lack of targets, which allowed for some subjectivity in evaluating satisfaction.

Inventory	January 15	February 15	March 15	April 15	YTD
Total Stock Value	\$5,793,473	\$5,555,873	\$5,866,352	\$5,975,004	\$5,894,026.57
ON TIME					
On Time % of E-Orders based on REQUIRED DATE	71.35%	72.96%	72.38%	73.67%	77.47%
# E-Orders Submitted	520	673	717	866	4,700
# E-Orders OnTime	371	491	519	638	3,641
On Time % of Lines based on REQUIRED DATE	89.34%	80.07%	76.63%	85.39%	87.38%
# Lines Requested	7,019	10,310	11,014	11,188	70,090
# Lines Filled On Time	6,271	8,255	8,440	9,553	61,242
On Time % of SKUs based on REQUIRED DATE	91.88%	79.86%	81.59%	85.45%	88.33%
# SKUs Requested	50,925	72,232	73,018	78,301	478,724
# SKUs Filled On Time	46,790	57,686	59,577	66,905	422,875
On Time % of E-Orders basee on CONTRACT	87.12%	90.49%	92.61%	91.22%	87.91%
# E-Orders Submitted	520	673	717	866	4,697
# E-Orders OnTime	453	609	664	790	4,129
On Time % of Lines based on CONTRACT	94.24%	90.64%	90.63%	93.00%	94.74%
# Lines Requested	7,019	10,310	11,014	11,188	70,090
# Lines Filled On Time	6,615	9,345	9,982	10,405	66,404
On Time % of SKUs based on CONTRACT	95.64%	92.63%	92.41%	96.38%	95.94%
# SKUs Requested	50,924	72,232	73,018	78,301	478,723
# SKUs Filled On Time	48,706	66,910	67,474	75,465	459,270
Sales	January 15	February 15	March 15	April 15	
Stock Sales Order Line items	890	1,005	1,282	1,339	7,932
Stock Sales Order Dollars	\$475,134	\$573,413	\$727,117	\$664,907	
YTD Stock Dollars	\$1,834,884	\$2,408,297	\$3,135,414	\$3,800,321	\$3,800,321
NonStock Sales Order Line items	59	96	108	156	743
NonStock Sales Order Dollars	\$65,391	\$36,461	\$44,316	\$48,417	
YTD NonStock Sales Order Dollars	\$180,095	\$216,556	\$260,872	\$309,289	\$309,289
TOTAL MERCHANDISE SALES	\$540,525	\$609,873	\$771,434	\$713,325	\$4,109,611
Total Lines received	949	1,101	1,390	1,495	8,675
Warehouse Labor Dollars	\$70,100	\$52,808	\$56,123	\$67,999	\$401,924
Management Fee	\$78,323	\$90,364	\$112,792	\$105,259	\$597,710
Site Manager	\$5,806	\$5,806	\$5,806	\$5,806	\$40,642
Total Purchases	\$694,755	\$758,851	\$946,154	\$892,389	\$5,149,885
YTD Purchases	\$2,552,491	\$3,311,342	\$4,257,496	\$5,149,885	\$5,149,885
	January 15	February 15	March 15	April 15	YTD
Transactions					
Siemens Owned Inventory Lines	7,899	9,777	9,228	12,685	67,673
Siemens Owned Inventory SKUS	60,864	79,772	115,342	89,228	558,525
Siemens Owned Inventory Dollars	\$890,621	\$1,117,020	\$1,066,747	\$1,376,645	\$7,359,733
Cost Improvement / PROS Activity					
Hard-Dollar Price Savings:Standard Items	\$6,562	\$7,102	\$8,986	\$10,396	\$57,721
Total Standard Items Sales Month	\$337,774	\$433,606	\$527,190	\$516,709	
YTD Standard Items Sales	\$1,436,562	\$1,870,168	\$2,397,358	\$2,914,067	\$2,914,067
Approved PROS (Productivity) Projects	\$0	\$0	\$0	\$0	\$0
LABOR REDUCTION	\$5,672	\$2,644	\$2,934	\$2,825	\$26,772
MANAGEMENT FEE SAVINGS	\$28,253	\$32,596	\$40,686	\$37,969	\$215,655
Total Cost Savings for Month	\$40,487	\$42,342	\$52,606	\$51,190	
Savings as % of Total Purchases for Month	-8.52%	-7.38%	-7.23%	-7.70%	
Savings as % of STANDARD ITEMS for Month	-11.99%	-9.77%	-9.98%	-9.91%	
YTD Savings Dollars on Standard Items	\$154,010	\$196,352	\$248,958	\$300,148	\$300,148
YTD Savings as % of Total Sales	-8.39%	-8.15%	-7.94%	-7.90%	-7.90%
YTD Savings as % of STANDARD ITEMS	-10.72%	-10.50%	-10.38%	-10.30%	-10.30%
Value of Items Returned from Kit Inventory	\$434,279	\$633,143	\$728,611	\$835,273	\$4,384,622
Lines Returned from Kits	1,816	2,230	1,721	2,772	14,652
SKUS Returned from Kits	9,708	7,934	9,147	10,637	65,347

Figure 2. Meeting #1 Performance Scorecard excerpt.

The key performance indicators in Figure 3 were tracked utilizing the same criteria for evaluation for meeting two. A key difference was the participants published

their targets in their performance scorecards. Therefore, it was clearly determined if their program's performance met their expectations. This type of performance reporting gave those individuals who were not intimately involved in the management of the 3PMRO program a concise report to determine if the supplier was meeting expectations. This scorecard level of risk was associated with the achievement of a cost savings target. For these participants, the risk of deviations to cost improvement plans must be noted upfront.

Performance Scorecard Starting Oct 2014 Through Sep 2015							
Reporting Requirements	At Risk	Target	2015 YTD	Oct	Nov	Dec	Jan
Cost Not Comparable (CNC)		Baseline	\$41,104.84	\$41,104.84	\$26,456.84	\$57,186.45	\$34,522.83
Net Material Savings Year 1		7%	10.65%				
Net Material Savings Year 2		5%	5.08%	0.10%	7.98%	0.77%	4.90%
Net Material Savings Year 3	0.50%	3%					
Net Net Result of eBidding Year 1			38.02%				
Net Material Savings Year 2		2%	1.98%	0.38%	0.43%	3.40%	2.69%
Net Material Savings Year 3		2%					
On-Time Delivery (Nonstock)	0.50%	95%	96.93%	98.55%	99.29%	99.03%	96.58%
Inventory Accuracy (cycle count)	0.25%	98%	99.71%	99.81%	99.92%	98.93%	100.00%
Cycle Count Dollar	0.25%	98%	98.96%	99.62%	99.84%	99.70%	100.00%
Service Levels	0.50%	98%	99.98%	100.00%	100.00%	99.93%	100.00%
Productivity Savings - Presented			\$65,086.99	\$988.62	\$1,538.44	\$0.00	\$10,339.93
Productivity Savings - Pending			\$0.00	\$0.00			
Productivity Savings - Approved			\$31,220.00	\$0.00			
Productivity Savings - Disapproved			\$21,000.00	\$0.00			
SSI Beginning Inventory			\$152,184.23	\$152,184.23	\$150,315.83	\$149,946.71	\$145,619.13
SSI Ending Inventory			\$134,721.31	\$150,315.83	\$149,946.71	\$145,619.13	\$146,614.53
SSI Inventory - Variance			-\$17,462.92	-\$1,868.40	-\$369.12	-\$4,327.58	\$995.40
SSI Slow Moving Inventory			\$72,377.75	\$56,072.60	\$56,548.65	\$60,825.62	\$69,546.27
Client Beginning Inventory			\$197,371.39	\$197,371.39	\$205,468.32	\$211,005.47	\$257,959.58
Client Ending Inventory			\$257,573.28	\$205,468.32	\$211,005.47	\$257,959.58	\$261,881.57
Client Inventory - Variance			\$60,201.89	\$8,096.93	\$5,537.15	\$46,954.11	\$3,921.99
# SKU's Total			2121	2121	2169	2173	2179
# SKU's Critical Spares (stock only)			12	12	12	12	12
# Cycle Counts			2889	826	719	520	40
SSI Inventory Stock Turns (Goal is 4+)			9.08	9.20	7.63	8.64	8.02
Excess Inventory Buyback			\$66,026.57	\$0.00	\$0.00	\$24,317.81	\$0.00
# PO's			1399	287	238	168	219
# PO Lines			3445	663	601	416	569
Average \$ per PO			\$1,215.88	\$615.35	\$441.53	\$3,486.00	\$573.68
Average \$ per PO line			\$558.17	\$300.95	\$184.31	\$1,129.15	\$266.89
Materials Invoiced			\$1,043,580.29	\$182,353.63	\$147,030.85	\$182,392.90	\$158,757.27

Figure 3. Meeting #2 Performance Scorecard excerpt.

The participants in meeting #3 preferred a graphical approach when presenting their key performance indicators. In Figure 4 is an example of how the participants tracked their expectations for performance. In general, the tracking of the same criteria,

as in the other meetings, were common. The utilization of this methodology ensured the target was presented along with a monthly evaluation. As Figure 4 illustrates, all performance metrics met the prescribed target, except on-time delivery. As discussed in meeting #3, on-time delivery has considerable fluctuations, but there was no need for further discussion.

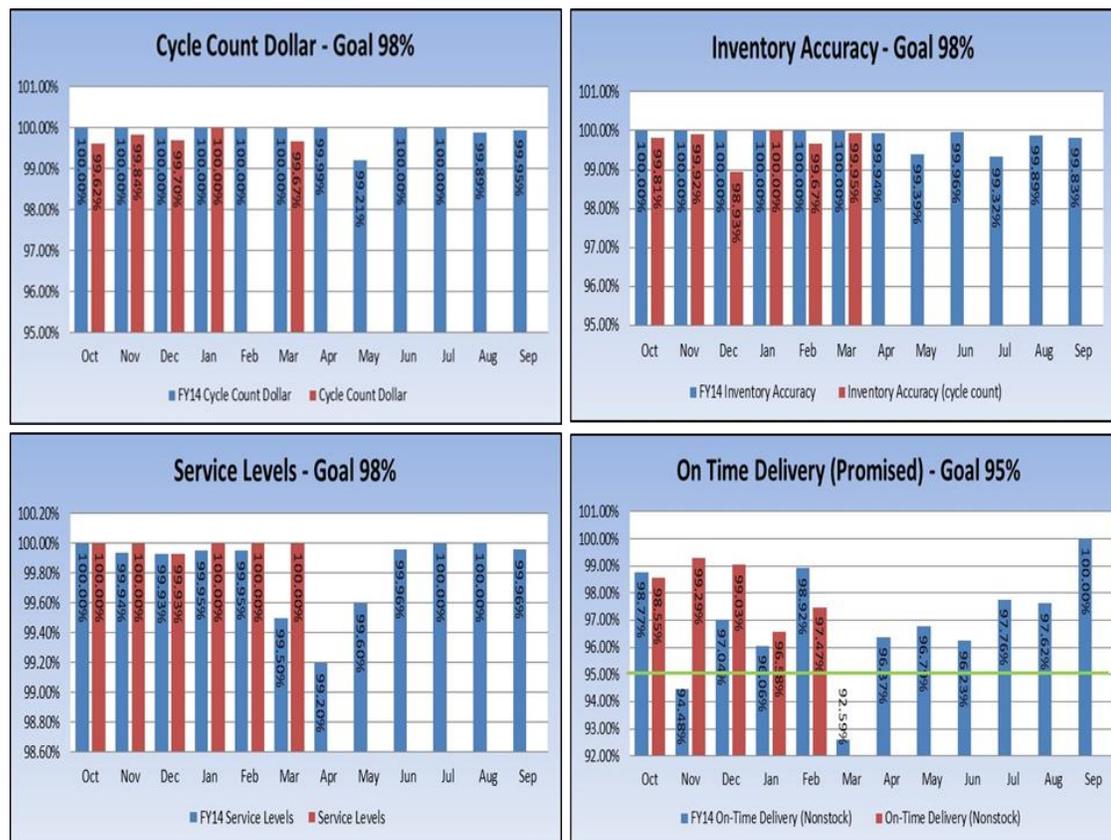


Figure 4. Meeting #3 Performance Scorecard excerpt.

Data Organization Technique

The fundamental tasks in qualitative research studies are the identification of themes (Elo et al., 2014). To ensure the responses from the interviews were accurate for this study, an audio recording was available for use to verify information collected from

each interviewee. To identify themes in this study, it was imperative during the data collection phase that the grouping of all data allowed for quick reference and textual comparison. Utilizing Microsoft Excel ensured effective organization of the data, as well as a quick reference during the coding process. In addition, when attempting to build theory through the categorization of data, collecting data in a methodical way helped maintain consistency throughout the data collection and analysis phases (Barratt, Choi, & Li, 2011). Instead of the participants' names and employer, a number represents each participant for easy recognition and filing. The data collected from the interviews were coded in Microsoft Excel by recognizing words and phrases frequently used by participants to answer the interview questions. It was essential to group common words and phrases into larger topics or themes for quick reference and textual comparisons for data analysis.

For each observation of the 3PMRO quarterly business review meeting, handwritten notes were taken and transferred into Microsoft Word for electronic storage. A hard copy of each interview transcription was locked in a file cabinet, and the electronic copy of the transcripts was stored on a password-protected computer. An electronic copy and the handwritten field notes from the quarterly business reviews were also stored in the same manner as the interview transcriptions.

Data Analysis

Case study data analysis should occur with or within the data collection phase, which can capture the reality of the study's topic (Barratt et al., 2011). According to Barratt et al. (2011), the practice of revising the interview questions or adding data

sources is common in case study analysis when pursuing emerging themes. As a result, the data analysis technique was a thematic approach along with pattern matching to analyze the data from interviews, observations, and document analysis. Pattern matching is a desirable strategy for case study analysis (Qi & Chau, 2012; Yin, 2013a). Pattern matching logic compares an observed pattern with an anticipated or alternate pattern. If the patterns concur, the outcomes may support internal validity (Barratt et al., 2011). Thematic analysis is a qualitative, descriptive method used in the identification of themes in the data, and a method for recognizing, investigating, and reporting themes within the data (Vaismoradi et al., 2013). In this study, the utilization of thematic analysis and pattern matching was used to ensure the thorough extraction of the themes. While analyzing the data, patterns were observed and noted. After the patterns were discovered and documented, themes in the data became apparent. This method was repeatedly used for all data extracted from the responses for each interview question to establish the themes for the data.

The 3PMRO Qualitative Narrative Instrument (Appendix B) was the interview guide that addressed the main research question and supported the purpose of this study. Handwritten notes were utilized from the observations of the 3PMRO program quarterly review meetings to ensure focus remained on addressing the research questions. Appendix C displays the meeting protocol template, the 3PMRO Quarterly Business Review Observation Protocol. After collecting the data from the participant interviews and the observations, the first step was to read and reread the collection of data. This step was necessary to ensure the participants' experiences became the focus of the study while

allowing for familiarization of the data. The next step was the initial notation phase, which allowed for the examination of the content of the responses on an exploratory level. In this stage of the analysis, the transcription of the entire interview of each participant ensured familiarity with specific ways the participant understood and thought about his or her 3PMRO program. This process was repetitious and continued with all 22 interview participants. The next step was to find the emergent themes within the interview responses and organize these emergent themes in chronological order utilizing coding to complete this phase of the analysis. Cartmill, Soklaridis, and Cassidy (2011) stated that coding is a favorable technique to categorize textual data into emerging themes and develop the conceptual data model. This conceptual model, combined with the data, was used to answer the research questions. The final step of the process involved searching for patterns across all cases. These patterns established connections between cases, determined whether these themes complemented another, and determined which themes were relevant.

There were two techniques utilized to ensure the overall data analysis was consistent with the research questions by ensuring each theme was identifiable. The initial open coding of the interview data were performed before using either of these techniques so that evolving themes were identified. The first technique identified word repetition to notate similar words used repetitively in the interviews. This process involved reviewing textual data to expose richness in the similarities and differences (Dierckx de Casterle, Gastmans, Bryon, & Denier, 2012). Cartmill et al. (2011) stated that it was necessary to compare and contrast themes to develop categories and

subcategories of the data. The similarities and differences in the data were identified by comparing and contrasting themes. Another approach is to scrutinize all transcripts and highlight with different colors, which determined similar and contrasting themes to find patterns in the qualitative data. The utilization of an Excel spreadsheet ensured simple filing and referencing for identification and documentation. The identification of the relationship and the isolation of the central evolving themes were necessary to finalize the results. The execution of this process ensured the data supported the concept of outsourcing. In addition, outsourcing is supported by the design of each interview question as each interview question investigated the participants' satisfaction level with every aspect of the 3PMRO program. Utilizing the interview questionnaire supported the identification of each customer's rationale, thoughts, and feelings toward outsourcing through the presentation, interpretation, and explanation of the data.

The research questions were created to determine the consumer's level of satisfaction generally and specifically to certain aspects of the 3PMRO program. Table 2 lists those categories of satisfaction along with its related research questions. As satisfaction is based on meeting consumer expectations (Hartmann & Hietbrink, 2013), the research questions were mapped to (a) holistic satisfaction, (b) organizational adoption decision satisfaction, (c) supplier selection process satisfaction, (d) program performance satisfaction, (e) satisfaction with ability to meet organizational sustainability targets, and (f) satisfaction related to the implementation of the program.

Table 2

Research Questions Relationship With Satisfaction Categories

Satisfaction Categories	Related Research Questions
Holistic satisfaction	<p>Based on your experience with your 3PMRO program, how would you describe your satisfaction level?</p> <p>Based on your experience, what aspects of your program are you most satisfied with?</p> <p>Based on your experience and current conditions in your plant, why would you decline to use a 3PMRO program?</p> <p>Based on your experience and current conditions in your plant, why would you approve the use of a 3PMRO program?</p> <p>What do you think are the complaints or criticisms of your current 3PMRO program from your internal stakeholders?</p> <p>What do you think are the compliments of your current 3PMRO program from your internal stakeholders?</p>
Organizational adoption decision satisfaction	<p>In your opinion, why did you or your organization make the decision to use 3PMRO?</p> <p>What do you think of your organization's internal decision-making process to outsource to a 3PMRO program?</p>
Supplier selection process satisfaction	<p>Based on your experience, how would you describe your experience selecting the supplier to provide 3PMRO?</p> <p>Based on your experience, in what ways would you suggest improving your organization's supplier selection process for 3PMRO programs?</p>
Program performance satisfaction	<p>Based on your experience, how do you measure the ongoing performance of your 3PMRO program?</p> <p>Based on your experience, how does 3PMRO contribute to your organization's performance?</p> <p>What elements of your 3PMRO program do you think provides a competitive advantage to your company?</p> <p>In your experience, how satisfied are you with the inventory management criteria to your performance measurement activities?</p>
Satisfaction with the ability to meet organizational sustainability targets.	<p>How do think your 3PMRO program contributes to your company's sustainability (green) efforts?</p>
Satisfaction related to implementation of program	<p>Based on your experience, when transitioning to a 3PMRO program, how did you manage the implementation?</p> <p>How would you describe your satisfaction with the implementation process of your program?</p> <p>What do you think are the complaints or criticisms of your current 3PMRO program from your internal stakeholders?</p> <p>What do you think are the compliments of your current 3PMRO program from your internal stakeholders?</p>

These categories of satisfaction, in connection with the research questions, also revealed opportunities for participants to discuss reasons and the basis for their satisfaction. Using deductive analysis, the utilization of the codes from the literature review supported the analysis of the data, which supported the research questions as illustrated in Table 3.

Through the analysis of the data sources, the coding scheme in Table 3 was utilized in the initial pass through the data. The themes and concepts identified were outsourcing practices, inventory management, and cost quality.

Table 3

Research Questions and Related Codes Generated From Deductive Analysis

Research Questions	Codes
Based on your experience with your 3PMRO program, how would you describe your satisfaction level?	What is the general satisfaction level of participants?
Based on your experience, what aspects of your program are you most satisfied?	Relevant? Experience level? What are the aspects of the program?
In your opinion, why did you or your organization make the decision to use 3PMRO?	What the expectations of participants? Justification?
What do you think of your organization's internal decision-making process to outsource to a 3PMRO program?	Did participant have visibility to the decision-making process? Do participants exhibit bias in the selection process?
Based on your experience, how would you describe your experience selecting the supplier to provide 3PMRO?	Does the participant have any experience in the selection process? Is satisfaction level related to the supplier selection experience level?
Based on your experience, in what ways would you suggest improving your organization's supplier selection process for 3PMRO programs?	Does the participant have any experience in the selection process? Can there be a further improvement to the selection process to increase satisfaction level?

(table continues)

Based on your experience, how do you measure the ongoing performance of your 3PMRO program?	Does participant measure performance to measure expectations?
Based on your experience, how does 3PMRO contribute to your organization's performance?	Is program performance important?
What elements of your 3PMRO program do you think provides a competitive advantage to your company?	How does the participant understand the relationship between benefits of this program and organizational performance?
How do think your 3PMRO program contributes to your company's sustainability (green) efforts?	Do participants recognize benefits that cause competitive advantage?
In your experience, how satisfied are you with the inventory management criteria to your performance measurement activities?	Recognizable and Relevant?
Based on your experience, when transitioning to a 3PMRO program, how did you manage the implementation?	Is sustainability a program expectation for participants?
How would you describe your satisfaction with the implementation process of your program?	Impact?
Based on your experience and current conditions in your plant, why would you decline to use a 3PMRO program?	Satisfaction relevancy?
Based on your experience and current conditions in your plant, why would you approve the use of a 3PMRO program?	Is inventory management a crucial element of the program?
What do you think are the complaints or criticisms of your current 3PMRO program from your internal stakeholders?	Participant involvement?
What do you think are the compliments of your current 3PMRO program from your internal stakeholders?	Consumers initial concerns with the 3PMRO program.
	Satisfaction level?
	The relationship between implementing program and satisfaction?
	Does reason for satisfaction equal expectations?
	Recognize challenges of the program against their organization's needs?
	Does reason exist for satisfaction expectations?
	Participant awareness of internal stakeholders' perceptions?
	Participant awareness of internal stakeholders' perceptions?

Reliability and Validity

In order for this research to be reliable and valid, it was critical for the results to confirm customers' level of satisfaction with their current 3PMRO outsourcing programs in the Southern United States. Reliability and validity are principles related to the measuring instruments used to acquire the research data. Validity is the correlation between the research question and the phenomena of customer satisfaction (Yin, 2013b). Whereas, reliability is a prerequisite for measurement of validity and is measured to determine how consistent the results are over time (Gibbert & Ruigrok, 2010), readers should be able to trust the results of this research, and ensure the results apply to the outcome of the study (Casey, Shaw, & Murphy, 2013).

Reliability

Gibbert and Ruigrok (2010) established that reliability is determined by how consistent the similarities of the results and how repetitive the data collection methods are. Reliability of this qualitative research signified that the methods and outcomes were consistent over time with other researchers and an accurate representation of the participants in the study. As such, consistent methodologies and procedures were utilized when collecting the data. In order to collect data for this study, it was necessary to interview each research participant with the same set of interview questions (Appendix B), administered in the same manner. This interview process was used to establish consistency. The questions in this interview instrument were used to explore the following research topics:

- outsourcing adoption criteria,

- evaluation methods,
- utilization,
- environmental sustainability, and
- overall satisfaction with all research participants' 3PMRO programs.

According to Gibbert and Ruigrok (2010), reliability is used by researchers to confirm the degree of consistency occurrences happen in the same category in different events or cases. Bias was removed when attaining the data and interpreting the results by the consistent measurement of the same criteria for all research participants. According to Wynn and Williams (2012), transcribing detailed notes can support the results of the scientific inquiry of the study and elicit increased control for the influence of biases on the research process and the results. The utilization of this process ensured the reliability of the study. Each transcript was reviewed for methodological consistency to minimize mistakes, which required the use of research logs to record each step of the process and observations from each interview. In addition, the use of the 3PMRO Quarterly Business Review Observation Protocol as displayed in Appendix C was used to ensure consistency of the process for gathering data at each meeting. During this research, varying interpretations and viewpoints from participants ensured numerous perspectives were present in the data.

To ensure reliability of the data, after observation, I reviewed the performance scorecards and any performance review templates that were available in order to ensure the findings from the interviews and the observations were feasible. The scorecards are a simplified way to understand how customers rate their 3PMRO programs. Researchers

often use document analysis to enhance the understanding of the context and establish the credibility of the findings (Petty et al., 2012). The identification of additional documents achieved organizational ambidexterity during the observation of the quarterly business reviews and individual interviews. In most cases, these scorecards were strictly confidential. Participants making these documents available did so under strict guidelines that their companies' names remain confidential.

To confirm this study was dependable and credible, it was necessary to demonstrate whether the results of the study were relevant and accurate. Therefore, peer debriefing and data triangulation were used to confirm validity for this study. According to Thomas and Magilvy (2011), peer debriefing is a process used to ensure communicative validation. The peer examination approach involved allowing the research participants to review the interpretations of the interviews as reported. Participants received a copy of their interview transcript, along with a request to provide feedback on whether my interpretations were an accurate representation of their experiences. Collecting data from multiple sources was necessary to gain rich detail from different perspectives.

Validity

Validity was crucial to the success of this study. Cope (2014) determined that data triangulation ensured trustworthiness in qualitative research by collecting data from multiple sources to determine conclusions. A purposeful sampling technique was utilized to select the participants for this study, to ensure a pool of unique characteristics related to the study's purpose. The themes collected from each data source had consistent

results. There was a common relationship between the sources of data received from (a) interviews, (b) observations, and (c) documents. Triangulation of these sources of data confirmed that cost savings, inventory management, and customer service were catalysts for satisfaction. There was no evidence of what Fielding (2012) labeled as bogus triangulation, which is the repetition of one opinion from all participants. In this study, there was a clear indication of merging concepts from the different sources. Houghton, Casey et al., (2013) surmised that trustworthiness of the results is established when the data gathered from different sources are consistent. The responses from the participants offered different perspectives, which allowed the exploration of their satisfaction levels with all aspects of 3PMRO programs. Bias was limited by ensuring all interview questions were answered by all participants regardless of their position. Additionally, participants received no compensation to participate in the study, and each participant had an opportunity to withdraw from this study at any time, thus reducing the potential for further bias.

Wilson, Pan, and Schumsky (2012) concluded that data saturation is used to determine content validity in a study. Content validity is revealed when the sample adequately represents all features of the 3PMRO consumers' population (Wilson et al., 2012). There were 22 interviews conducted. After data collection and coding, the data were logged into an Excel spreadsheet for further analysis and theme development. These codes were the basis of tracking the outcomes from the data. After analysis of the data, there was sufficient depth of information from the data to meet the purposes of this

study. As a result, there were enough interviews to add rich detail to validate reasons for consumer satisfaction for their 3PMRO programs.

In order to confirm the trustworthiness of the study, it was necessary to confirm external validity or transferability. Transferability refers to the ability of a study's results to be generalized and transferred to other locations or groups (Elo et al., 2014). In this study, it was necessary to interview procurement professionals and consultants in other parts of the country, who were also managing programs in the Southern United States. The reason for remotely managed programs was that most of these programs were corporately managed. In most cases, participants were required to manage multiple sites utilizing 3PMRO programs from a centralized location in other parts of the United States. Based on the results of the research, this situation had no effect on the answers received from the participants or bearing on the outcome of this study. The satisfaction levels were neutral, and transferability of the results can be applied to all 3PMRO programs regardless of location. Since this study contained interview results from participants within varying groups with procurement responsibilities, the results can be applied to other groups within the consumer base of the 3PMRO program.

Transition and Summary

A qualitative, descriptive case study approach was used in this doctoral study to explore the satisfaction level of customers of the 3PMRO. This research design was utilized to analyze data collected from the experiences captured through the use of the rich, detailed information from in-depth interviews with the participants. In order to interpret the multiple realities of procuring MRO supplies and services from the

perspectives of the participants, it was necessary to have an understanding of the 3PMRO program. The completion of this research required individual in-depth interviews to explore the experiences of a small, random purposeful sample of consumers from various positions in organizations utilizing 3PMRO. The 3PMRO qualitative, narrative instrument was utilized for each interview, which consisted of a series of open-ended questions. This qualitative research instrument was used to collect information in order to address and fulfill the purpose of this study. To verify the accuracy of the findings, the utilization of the following validity strategies were necessary: triangulation, peer debriefing, and the presentation of discrepant information.

Section 3 presents the results of the study, the applications to professional practice, and implications for social change. The presentation of the study's findings includes excerpts from participant interviews, results the observation of meetings, and document review. The results are presented in Section 3 by the corresponding themes. Section 3 contains detailed discussions of how the research may apply to professional practice and the implications for social change. Additionally, Section 3 includes recommendations for action, recommendations for further study, and reflections.

Section 3: Application to Professional Practice and Implications for Change

Outsourcing is a widely adopted practice in many businesses and has many known benefits. However, potential risks and outsourcing failures can affect the potential benefits, which can affect customer satisfaction. The level of satisfaction with 3PMRO programs exists on many levels from very satisfied, mixed satisfaction, and dissatisfaction. Levels of satisfaction also exist in different aspects of this outsourcing program. Scholarly contributions in the area of outsourcing have revealed that this practice has many advantages, but can also produce disadvantages. Organizational leaders have adopted outsourcing strategies to take advantage of cost reductions, promote flexibility, and focus on the organization's core business (Carson & John, 2013). Some outsourcing disadvantages include a lack of trust between parties and inadequate understanding of how to manage outsourcing relationships (Rai, Keil, Hornyak, & Wullenweber, 2012). In addition, benefits have been known to be minimized or negated due to poor supplier management activities, and lack of visibility into the organization's business strategy (Rai et al., 2012). Due to these pros and cons, customers' perceptions can be affected by their level of satisfaction. Consequently, the focus of this study gravitated toward how clients and users of 3PMRO perceived their level of satisfaction with this program especially because of limited research on this type of business process outsourcing. In the Southern region of the United States, 22 clients of 3PMRO programs were interviewed to assess satisfaction levels. These clients' levels of satisfaction were evaluated against different aspects of their programs.

Introduction

The purpose of this qualitative, descriptive case study was to explore the experiences of customers who currently use 3PMRO programs to determine what factors affect satisfaction levels. The four primary themes that emerged from the research for satisfaction and dissatisfaction were (a) outsourced resources, (b) inventory management, (c) cost savings, and (d) MRO expertise. The satisfaction and dissatisfaction comments received from the participants were stimulated through the interview questions, as along with reasons for their satisfaction levels. Based on the interview responses, the observations of the quarterly review meetings, and document reviews; it was evident that most participants were satisfied with their 3PMRO programs. Participants were satisfied with (a) the outsourced resources operating the 3PMRO program, (b) MRO supplies procurement process improvement, (c) inventory management, (d) customer service, and (e) cost savings. Finally, participants identified cost savings as the primary benefit of the 3PMRO program, with the outsourcing of non-value added tasks as a close second.

Presentation of the Findings

The research question for this doctoral study was: What are customers' satisfaction levels related to their expectations of program performance of their 3PMRO outsourcing programs in the Southern United States? Common themes were developed from the participants' interviews, observations, and document reviews. According to the participants, customers were satisfied with the outsourcing of procurement and management of MRO supplies, which was justified by the themes of the study. The identification of repetitive words or phrases in the data from the interviews was necessary

for coding. Based on this analysis, many themes were drawn from participants' experiences regarding their satisfaction. Through the analysis of the data, clusters of information from meaningful statements from the participants were discovered. The primary themes discovered were the utilization of outsourced resources, inventory management, and cost savings.

Themes were validated through the interpretation of the results. Therefore, it was necessary to evaluate the codes further to search for more similarities. Table 4 displays the development of the themes from the coding of the data. This relationship between the outsourced labor and the plant affects the features that cause satisfaction or dissatisfaction depending on how the supplier performed these tasks. It was important to note that customer service was far more a catalyst to satisfaction levels than cost and inventory management. Kang et al. (2012) suggested that organizations should expect more from their outsourcing suppliers than cost savings and that organizational leaders should expect other benefits that include productivity improvements, flexibility, and sustainability. Therefore, outsourced labor was the dominant theme.

Table 4

Theme Development From the Coding Methodology

	Number of codes	Coding totals
Theme development with data code descriptors		
Outsourced labor theme w/ coding totals		117
Code: MRO expertise	37	
Code: Outsourced Resources	29	
Code: Customer Services	20	
Code: On-time & Correct Delivery	19	
Code: Procurement Process Improvement	12	
Cost savings theme w/ coding totals		63
Code: Cost containment	63	
Inventory management theme w/ coding totals		46
Code: Inventory Management	33	
Code: Availability of Critical Inventory	13	

Themes around satisfaction that were identified include cost savings, inventory management performance, and customer service. Inventory management consisted of various ways to measure performance. Consumers paid close attention to the tracking of total inventory value and the value of obsolete inventory. There were also great concerns with inventory shrinkage and the cost associated with this criterion. Upon observation, customers paid close attention to the results of the performance indicators and became negatively emotional when the results were not favorable. During these meetings, the key concerns observed for the clients were cost savings, inventory management, and customer service. Consumers' satisfaction levels were highly affected by cost savings. Many consumers based their satisfaction on whether the 3PMRO provider was achieving those targets. The customer service topic was addressed through the performance of the supplier's onsite labor. In relation to customer service, the meeting participants discussed

(a) on-time delivery at the point of use, (b) product knowledge, (c) procurement expertise, and (d) how well the suppliers' resources interacted with the internal stakeholders. Each of these criteria, covered in these meetings, represented the themes of this study.

Theme 1: Outsourced Resources

The advantages of outsourcing practices include cost reduction, customer satisfaction, product quality improvement, internal knowledge diffusion, and increased time spent on core competencies (Kitcher et al., 2013). Participants explained the practice of outsourcing resources to manage MRO supplies as a significant contributor to their level of satisfaction. This feature of outsourcing complements resource-based theory. Brewer et al. (2013) affirmed that resource-based theory notes that a company's decision to outsource is dependent on its decision to use internal resources or external resources to complete a business activity in order to enact competitive advantage. In 3PMRO, participants verified the use of the suppliers' resources to manage their MRO procurement, storeroom management, and inventory. Participants confirmed that the primary effect of their satisfaction was the outsourced resources.

Participants' satisfaction with outsourced resources. Question 2 was created to solicit responses from participants to understand what particular characteristics affected their satisfaction level with their 3PMRO program. According to participants, outsourced resources were a primary feature recognized by them that provided satisfaction and dissatisfaction feedback through customer service. The benefit of outsourced resources as a feature related to satisfaction was acknowledged by 55% of

participants. Those participants who were dissatisfied or had mixed satisfaction levels did not explicitly state outsourced resources were the cause of their dissatisfaction.

When observing how many times participants mentioned their outsourced resources as a benefit, this feature was second only to inventory management as a key measure of satisfaction, as shown in Appendix D. Those participants were describing their satisfaction related to outsourced labor, which amplified their explanations by stating the precise benefits received from their outsourced resources. Participant 22 stated, “I am most satisfied with the pace and leadership we have providing services at our facility. We have many people that have been there for many years, as they understand our requirements.” Through interviews, meeting observations, and document reviews, participants also described other enablers of outsourced resources. The benefits described were the delivery of parts to the point of use, on time delivery and improved customer service from outsourced resources. The responses from 50% of the participants revealed that a positive satisfaction level was directly related to the outsourced resources management of inventory. Participant 22 was the only participant who did not mention a correlation between satisfaction with the outsourced resources and management of MRO inventory. Three participants identified their desire and satisfaction with having resources onsite who had MRO supplies expertise. The key benefit was the ability to have their internal resources focused on their core competencies. Every participant throughout the interviews recognized this particular benefit.

Satisfaction with the selection process of 3PMRO services. The purpose of questions 3, 4, 5, 6, 14, and 15 was to explore the participants’ satisfaction related to their

selection process and criteria. These questions were used to explore their point of view of management's reasons for choosing to utilize a 3PMRO program, and explore the experiences of participants' selection process. It was most common for participants to describe their experience with their company's overall supplier selection process as being the same as the process for selecting their 3PRO program. During the interview, participants discussed how they would improve their supplier selection process. To explore participants' interpretation of their satisfaction level, participants provided rich detail on how outsourced resources affected their satisfaction level with their selection process.

The reasons why participants and their organizational leaders chose 3PMRO were explored in this research. As an observance, three participants stated they inherited their programs and had little insight into their management's decision to use a 3PMRO program. However, these participants speculated on the reason a decision was made through feedback from their internal stakeholders. During the coding process, it was noted that participants gave seven reasons why they chose 3PMRO programs. According to Appendix E, participants' rationale behind why they chose their 3PMRO programs. The responses from 29% of participants' responses, the primary reason to utilize a 3PMRO program was that management realized that managing MRO supplies was not their core competency. Participants confirmed at a response rate of 13% that they utilized outsourced labor so they could focus on their companies' core business. In addition, participants gave a 13% response rate stating a need for MRO expertise because

this expertise did not exist internally. Furthermore, organizational leaders recognized the need for their internal resources to focus on improving their organization's core business.

General responses from the participants indicated seven types of justifications for choosing their 3PMRO programs. The rationale that supported the outsourced resources was the lack of internal MRO expertise, which was documented as a secondary reason. Many benefits can be provided through outsourced labor. Outsourcing providers are required to integrate specialized knowledge for their clients (Rai et al., 2012). Participants' responses indicated that the scope of work contained language requiring the 3PMRO supplier to provide outsourced labor with MRO expertise. Consequently, 30% of the responses from other participants indicated that they did not have the MRO expertise internally and described this issue as not having the core competency of MRO experience.

Participants reported during their interviews that they were satisfied with their organizations' internal decision to use 3PMRO. The purpose of this question was to pursue a greater understanding of participants' satisfaction by gaining insight into their organizations' process to select their 3PMRO program. According to participants' responses, 48% of participants were satisfied with their management's decision-making process to utilize a 3PMRO. Also, according to responses, 38% of participants either were dissatisfied or experienced mixed satisfaction with their organizations' decision to use 3PMRO. Dissatisfied participants cited an incomplete scope of work, which did not clearly identify their needs. Participant P2 stated, "I think the decision was made based on incomplete information. A thorough investigation was not completed, and we did not

have enough data to understand our business.” There was not a significant relationship between the dissatisfaction of participants to outsourced resources. Concerning outsourced resources, 16 participants, or 73%, exhibited satisfaction with their supplier selection process. However, only three of the 16 participants specifically evaluated the value and competencies of the outsourced resources as part of the request for proposal (RFP) process. Four participants inherited their programs without the experience or input on their supplier selection process. However, these participants had suggestions on how to improve, but only one gave a suggestion related directly to subcontracted resources. For example, P17 stated, “Including all the right personnel, including those folks in the procurement organization that has the expertise and experience in the area.” Further, in the interview, P17 commented that the reason you implement a 3PMRO supplier was “to supplement those areas where you’re not as strong, because they’re supposed to be mutually beneficial,” and “if you bring in all the right internal players, and you do it in a proper sourcing fashion, which is based on qualitative and quantitative data.” Consequently, participants with dissatisfied and mixed satisfaction indicated there was no correlation between outsourced resources and their satisfaction level.

Participants responding to questions 14 and 15 gave their responses to why they would approve or decline the use of a 3PMRO program. The purpose of these questions helped to explore their experience with their 3PMRO program and what elements existed that would affect their satisfaction through their selection process. As shown in Appendices F and G, are the results of participants’ responses on why they would approve or decline the use of a 3PMRO program. As shown in Appendix F, at a response

rate of 16%, which was the number two reason, customers indicated they would decline to use 3PMRO if they had the ability to perform the same services in-house and receive the same benefit. P15 stated, “If our organization had the same expertise, process and tools in-house, then a 3PMRO provider would not be an appropriate solution.”

Participants P5 and P15 supported declining the use of 3PMRO if they did not have internal MRO expertise.

As displayed in Appendix G, participants indicated at a rate of 17% that customers would approve the use because MRO management was not their core competency. Participants also indicated at a response rate of 13%, the second highest response rate, that they would approve the utilization of a 3PMRO program because of the availability of outsourced resources for non-value-add activities. These responses, although different in their description by the participants, correlated directly with the theme of outsourced resources. Participant P2 stated, “At the current time, we do not have a system or resources in place to handle it ourselves, so we continue to use an integrator.” Participants P3, P6, P8, and P9 shared those same experiences of not having the resources and expertise internally to manage MRO supplies. During the exploration of the participants’ responses from this question, it was noted that they placed a high value on the benefits they would receive from outsourced resources of the 3PMRO program.

Measuring the ongoing performance of 3PMRO. In this section of the research study, the participants’ perceptions of their 3PMRO program performance related to their satisfaction level were investigated. Participants discussed how they measured the

performance of their program and how their program affected the performance of their organization. The intent of these questions was to determine how participants considered the performance of their subcontracted resources as part of their overall performance of their 3PMRO programs. Also, participants described what specific elements of their programs provided a competitive advantage to their organization and contributed to their organizations' performance. Because of these questions, participants provided insight into their utilization of outsourced resources. Furthermore, the questions also revealed how these resources contributed to the organizations' performance and a competitive advantage.

As displayed in Appendix H are the key performance indicators (KPI) participants stated that they utilized to measure the performance of their 3PMRO program. The results from the collection of data indicated no direct correlation to outsourced resources. Participants did not state how they measured the performance of the resources providing the services of their 3PMRO program. As an observation, although participants placed a significant value on outsourced resources from the 3PMRO program, no participant articulated a method for how to measure the performance of their 3PMRO resources.

Participants indicated that 3PMROs contributed to their organizations' performance by providing the criterion listed in Appendix I. These criteria were responses given by participants during their interviews. Participants indicated at a response rate of 15% that a primary benefit of outsourced resources allowed organizational management to focus on their core business and not use internal resources to focus on non-value-add activities. Another 15% indicated that there was a benefit of

having outsourced resources to provide MRO expertise, storeroom management, and other MRO management services. Participant P8 stated:

We don't have to worry about buying a screwdriver. We don't have to worry about hiring somebody to train us on the use of particular new tools. We don't have to worry about ordering, shipping, receiving product anymore. All that non-value-added work that went into purchasing MRO products does not exist anymore.

Supporting the importance of outsourced resources, Participant P14 stated, "I do not have to intervene that much, which frees up time for my team and me to focus on other strategic things." The benefit of outsourced resources originates from the outsourcing routine activities, enabling organizational leaders to focus on its core business (Schwarz, 2014). Outsourced resources provided a significant competitive advantage for their organizations, according to the participants in this research. Participants P1, P8, P11, P12, P14, P15, P16, and P17 represented 36% of all participants who supported the importance of outsourced resources to improving the performance of their companies.

Participants gave 40 responses to the question describing the contributions their 3PMRO programs provided to the organizations. According to the data, 30% of participants' responses indicated their programs helped their organizational leaders to focus on their core business, which assisted in making a better product, so their organizations are competitive in the market. The conceptual framework related to this discovery was resource-based theory, which suggests that management should focus its

internal resources on its core competencies as the basis for competitive advantage and a measure of the company's performance (Morgan, 2012). This phenomenon has a direct relationship between companies' performance to the level of competitive advantage it experiences in the market.

Participants in this study denoted outsourced resources handling non-core activities with little to no value attributed to providing a competitive advantage to their organization. The benefit of outsourced resources was in retaining internal core activities that were essential for the competitiveness of the organization, with non-core activities being outsourced (Nordigården, Rehme, Brege, & Chicksand, 2014). As displayed in Figure 5, the data from the interviews exhibited 34 responses regarding what elements of 3PMRO provided a competitive advantage for their organizations. Those responses, 29%, showed the primary factor giving a competitive advantage to their organization was outsourced resources that managed non-core activities. According to the data, 45% of participants indicated that utilizing outsourced resources provided a competitive advantage for their organizations through various approaches. Participant P1 stated, "We've been able to take resources or remove overhead costs from operations." Participant P8 stated, "Minimizing redundant work for non-value activities and allowed us to concentrate on our core business so we can improve our competitive edge." Participants P11, P12, P14, P15, P16, P17, P18, and P20 supported the concept of building competitive advantage by focusing on the core business of the company.

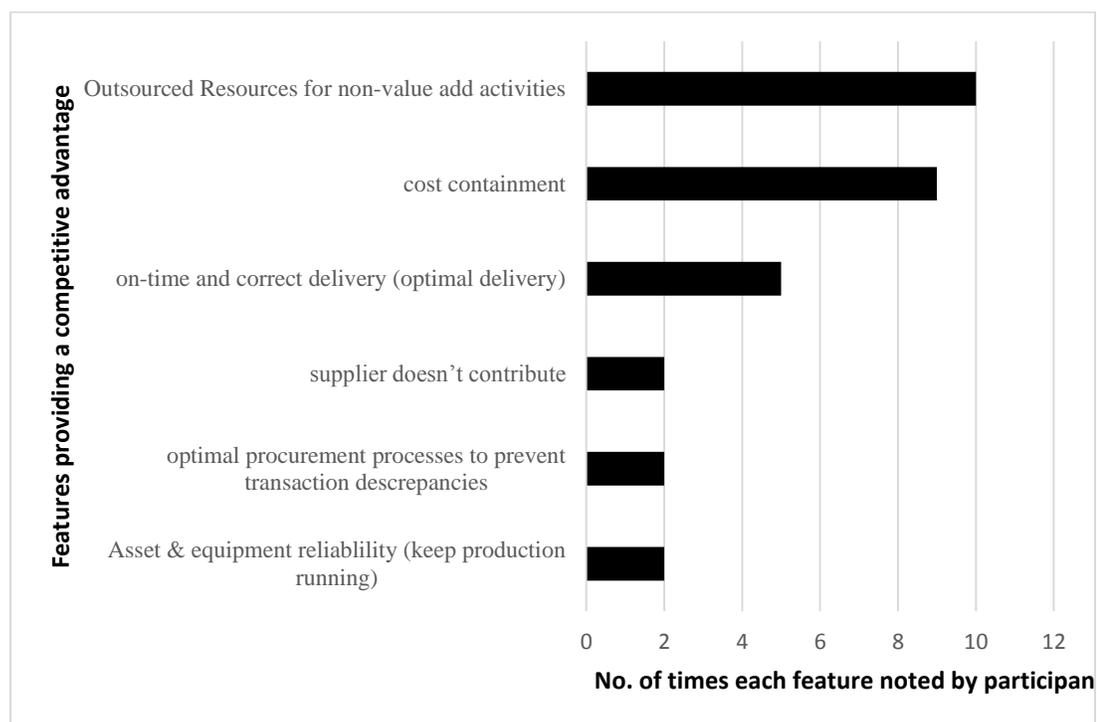


Figure 5. 3PMRO features providing a competitive advantage.

Compliments and Criticisms of 3PMRO. In this section, participants described their experiences regarding their internal stakeholders' criticisms and compliments for their 3PMRO program. The purpose of these questions was to explore further the participants' depth of a holistic view of the satisfaction of 3PMRO in the company. This level of understanding was necessary as 3PMRO touches many areas of the organization. The participants supported many stakeholders within the organization. Consequently, the stakeholders' satisfaction had a direct effect on the participants' satisfaction. According to Appendix J, participants did not link complaints directly to the outsourced resources, but noted several complaints indirectly related to outsourced resources. Participant P2 stated, "The vendor did not have a sense of urgency to meet the needs." Participant P9 stated, "They do not feel the pressure or constraints that we do on overall spend." In this

case, P9 expressed his concern for a different standard and target for the 3PMRO supplier, which may not have allowed the supplier to feel the same pressure as the internal stakeholders. For a partnership in an outsourcing program to work successfully, these arrangements required trust as well as operational connections (Mohr, Sengupta, & Slater, 2011). Trust was challenging to achieve if the supplier did not exhibit empathy with the internal stakeholders. Participant P13 stated, “They do not provide customer service.” Participant P17 acknowledged that their management and stakeholders were no longer seeing the benefits, and were now “at a point where we have to build up internal resources with the skill set to tackle what these guys are doing.” This participant demonstrated how difficult it was to change from external resources to internal resources in a 3PMRO program due primarily to securing the MRO expertise.

Research participants discussed their stakeholders’ compliments of their 3PMRO program. A collection of data from the participants during their interviews is displayed in Figure 6. According to Figure 6, there were 56 total responses, and 21% of the compliments were connected with customer service, 7% connected to the suppliers’ MRO expertise, 5% connected with the providers’ use of outsourced resources for non-core activities, and 4% of the responses related to the benefit of having point of use deliveries. As participants discussed the compliments they heard from their internal stakeholders, they associated each of these compliments to the outsourced resources of the 3PMRO program. Participant P2 stated in terms of the customer service received, “employees are very helpful, deliveries are very quick.” Participant P16 also spoke in terms of customer service by stating, “Generally, no news is good news, they

(stakeholders) would call up the 3PMRO supplier and that person would resolve it for them on the spot.” As an observation, participants mentioned several times during the interviews that they were satisfied with their programs if they do not hear anything about the program. Many stated, “I do not have to think about it,” which meant the program was integrated into the organizations’ established processes so that it was performing well.

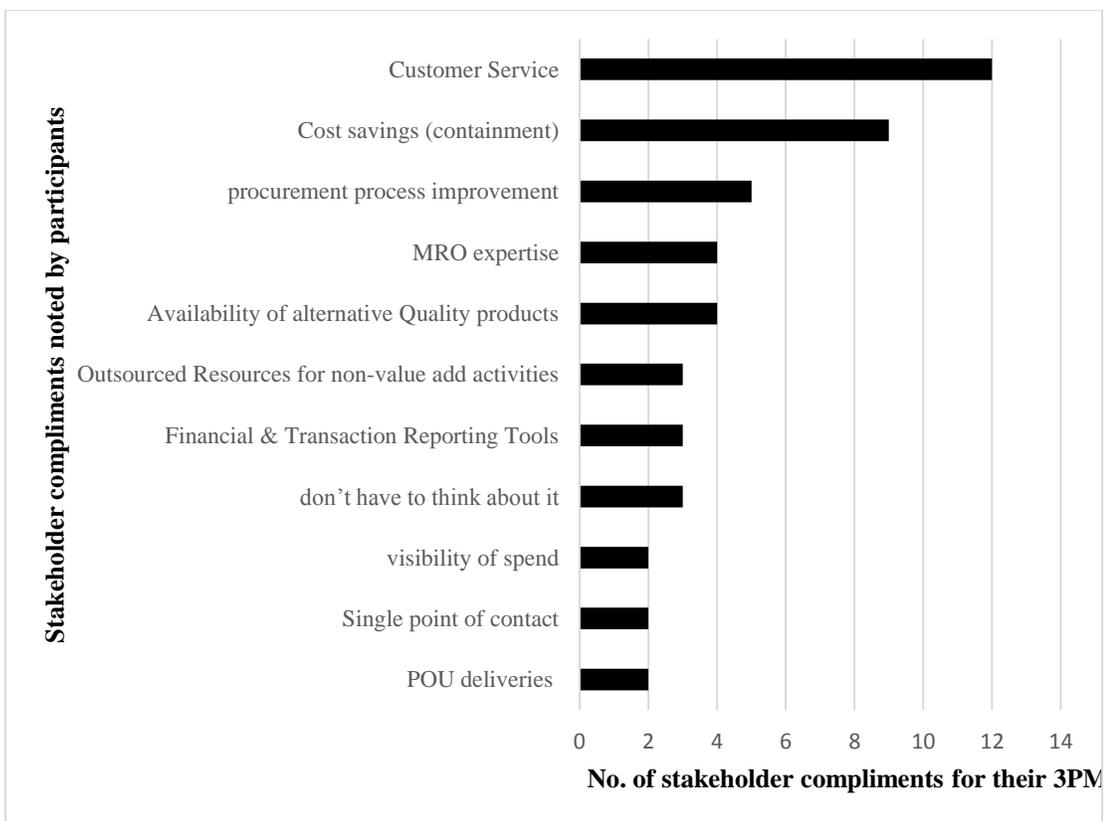


Figure 6. Stakeholder compliments of 3PMRO programs.

Theme 2: Inventory Management

Inventory management was one of the key features of this program, but it was important to understand how participants’ express satisfaction with this feature. In the

case of 3PMRO programs, the management of inventory and the conceptual framework vendor-managed inventory were the same. However, vendor-managed inventory is a replenishment program where the supplier has access to the customer's demand forecast and inventory levels (Dejinega, 2012). Through the coding process, participants indicated inventory management as a theme. Responses from the participants indicated at 16% that inventory management was a primary contributor to their satisfaction level. According to participants, inventory management was a concept used to affect a significant number of areas within the organization to elicit a satisfaction response. Areas affected by inventory management services included the storeroom, which is where spare parts and MRO inventory are stored and managed. According to the research participants, spare parts and MRO inventory were critical because these materials kept the plant and production online.

Participants' satisfaction with inventory management as a 3PMRO feature.

Inventory management was a key feature of the 3PMRO program. In most cases, this function was under the management of the 3PMRO supplier and referred to as vendor-managed inventory. Vendor managed inventory is where the supplier manages the procurement and the inventory flow of MRO supplies (Zachariassen et al., 2014). The data results of participants' satisfaction level with inventory management are displayed in Figure 7. This chart shows that 36% of participants were very satisfied, 41% were satisfied, 14% were dissatisfied, and 9% were neutral. Those participants who were either very satisfied or satisfied discussed differences in their suppliers being able to forecast demand, satisfying their minimum requirements, trustworthy, and avoid surplus

inventory. Participant P6 confirmed his satisfaction with inventory management but stated, “I do not hear a lot of issues. Inventory is reduced, but the biggest challenge is our ability to forecast demand. We tend to tell the supplier what to stock and not trust the supplier.” Those participants were affirming their dissatisfaction by alluding to process issues with their supplier. Participant P2 indicated that violating internal inventory process guidelines such as substituting material without approval was a common problem. Participant P20 confirmed his or her dissatisfaction by stating, “I have no confidence they can meet our expectations because they cannot show me their storeroom management process document.” Participants, regardless of their satisfaction or dissatisfaction, noted similar areas for improvement for inventory management.

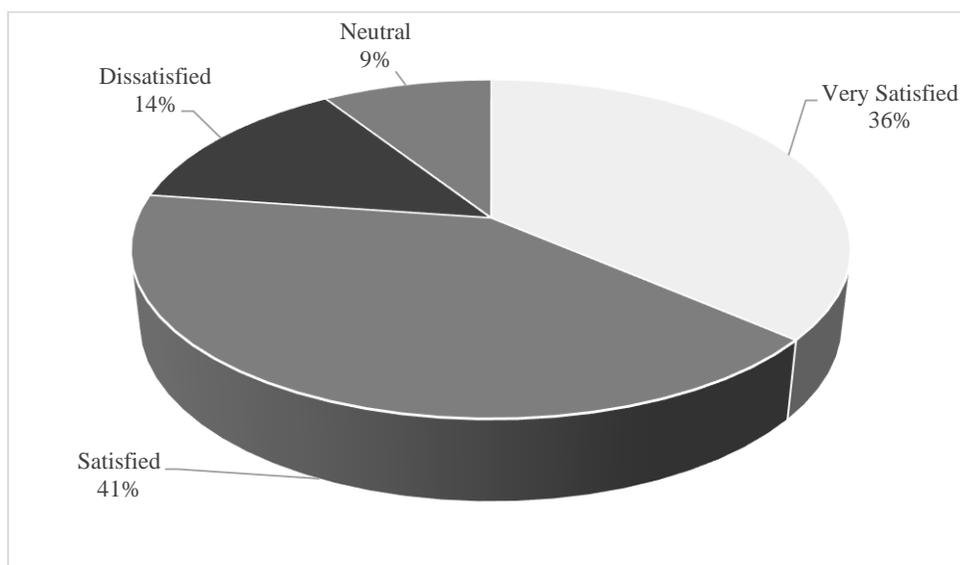


Figure 7. 3PMRO inventory management satisfaction level among participants.

Participants’ responses to their satisfaction with certain 3PMRO features indicated that the number one feature was inventory management. See Appendix D for details. The number of participants stating their satisfaction with this feature was 55%.

There were 48 responses to this question, and 19% of those responses indicated inventory management as a feature of 3PMRO with the most satisfaction responses. Participants noted reasons for their satisfaction with inventory management by referencing the use of vending machines, direct delivery of inventory to the point of use, and the management of critical spare parts. Participant P1 stated, “We have stock that our people do not have to manage, not having to use a resource to check our inventory.” This participant’s satisfaction was about the advantage of having resources to manage the inventory, primarily referencing the management of the inventory storeroom by outsourcing the labor to manage the inventory. Participant P4 stated, “I am least satisfied with the inventory management.” P4 stated his or her dissatisfaction with the inventory management feature of the 3PMRO program because it was a manual process. Participant P7 stated, “The management of inventory tends to be the low-hanging fruit in terms of satisfaction,” due to how important this feature was to the overall success of the program and its effectiveness in preventing stock-outs and reducing costs.

Satisfaction with the selection process of 3PMRO services. According to Appendix E, only 11% of the responses from participants identified inventory management as a reason to implement a 3PMRO program. Participant P16 supported this approach to outsourcing inventory management by stating, “The decision was made to ensure that we do not run out of critical stock.” Participant P21 further supported the selection of the 3PMRO program by affirming their supplier specialized in optimizing inventory. Participants who transitioned to a 3PMRO program indicated inventory management as the primary reason.

During the investigation of participants' satisfaction with their management's decision to utilize a 3PMRO program, only three participants stated their consideration of suppliers' inventory management capabilities as part of their selection criteria. Participant P10 evaluated the implication of reducing their inventory costs by saying, "The amount of inventory we were keeping in stores and moving that inventory to the vendor shelves, instead of on our shelves." Participant P11 preferred the supplier's "availability of inventory." Participant P13 stated, "We wanted them to hold our inventory, to have next day delivery." Participants P10 and P13 supported their selection strategy by considering suppliers' ability to provide consigned inventory and assume the financial risk. Consigned inventory is an approach to inventory management where the buyer incurs the stocking costs for those products in storage at the buyer's warehouse, but does not incur any other costs because the item is purchased on demand (Yi & Sarker, 2013). Based on this data, there was not a high correlation between the satisfaction of the overall program and the improvement of their current selection process for 3PMRO.

Participants responding to questions 14 and 15 gave their responses to why they would approve or decline the use of a 3PMRO program. The purpose of these questions was to explore whether inventory management would affect their satisfaction through their selection process. As shown in Appendix F, participants revealed inventory management was not a reason to decline the use of 3PMRO. As displayed in Appendix G, 22% of participants indicated inventory management as part of their rationale for authorizing the use of 3PMRO. However, only 11% referenced inventory management as a reason to approve the use of 3PMRO. Participant P6 approved the use to receive

better inventory management. Participant P10 stated, “We are not in the inventory management business, distribution companies have the core competence of managing the inventory that is one of the primary reasons we made that move.” Participant P18 stated,

The biggest benefit is to the operational needs of the business, especially when it comes to the uptime of the asset because ultimately that is what we are trying to accomplish. The asset being available, up and running at the right time is a far more efficient way to run the business.

P18 established that keeping the production equipment up and running was the primary benefit of having reliable inventory, particularly critical spare parts with intermittent demand. This type of demand existed whenever a component failed or required replacement on production equipment instead of inventory demand generated by buying behaviors of consumers (Syntetos, Babai, & Altay, 2012). The data confirmed that collectively participants would approve the use of a 3PMRO program if there were a lack of confidence in their internal ability to provide inventory management services efficiently.

Measuring the ongoing performance of 3PMRO. This section of the research study contains data related to how participants’ satisfaction was affected by the performance of their 3PMRO programs. Participants discussed how they measured the performance of their program. The participants determined, through their responses, whether there was a relationship between inventory management and the measurement of ongoing performance of their 3PMRO programs. When measuring ongoing performance, 68% of participants referred to inventory management as a key performance indicator in

measuring their programs' performance. According to Appendix H, participants listed 68 performance metrics with inventory control accounting for 26% of all parameters.

Participant P21 supported the approach of utilizing performance metrics to measure satisfaction with 3PMRO program performance by stating, "Inventory optimization, not having overstock, but the right amount of inventory." Participant P16 stated, "We look at the turns of the stock, how long have they had items in their stock." Fifteen participants referenced the need to have inventory management metrics when measuring the overall performance of their program. These participants noted that inventory management affected their satisfaction level significantly, referencing inventory accuracy, stock-outs, inventory turns, and management of critical spares as key performance indicators they regularly tracked.

Participants' satisfaction level was dependent on what elements of their program contributed to the performance of their organization. Each participant indicated how leadership expected his or her program to help contribute to the overall performance of the organization. As displayed in Appendix I, the data indicating that 25% of responses from participants revealed that their 3PMRO programs contributed to their companies' performance by ensuring inventory was available to improve uptime of assets that keeps production online. In support of this logic, P1 stated,

It has been a benefit by having critical parts available to improve uptime of assets.

A couple of hundred people on the production line idle for an hour add costs, and then the cost of the material becomes negligible compared to the soft costs of a production shutdown

As an observation, with 45% of participants showing concern with ensuring inventory was available to keep production online, there was a noticeable amount of passion surrounding this question. Each participant alluded to how they felt direct pressure from their organizational leaders and how they were accountable for the success and failure of the performance of their 3PMRO program.

In this section, inventory management was investigated to determine how it could affect an organization's competitive advantage. Therefore, it was necessary to evaluate participants' satisfaction with inventory management services of 3PMRO. Chan and Prakash (2012) suggested that better economical inventory management through optimal collaboration between supply chain partners creates a competitive advantage for the company. Overall, participants did not mention inventory management directly as an element of their 3PMRO program that provided a competitive advantage to their company. Participants P1, P3, P4, P5, and P21 implicitly referenced on time and correct delivery of inventory to ensure their production was reliable and operating efficiently. Participant P1 stated, "Making sure we have the material there when we need it to keep production running. So from an inventory standpoint and a production efficiency standpoint, that is the main benefits we've gotten." Other participants shared the same concern. Ensuring that inventory was available so that production efficiency was operating at an optimal level was important to participants when determining whether their program provided a competitive advantage for their organization.

Compliments and Criticisms of 3PMRO. The participants supported many stakeholders within the organization, and these stakeholders' satisfaction and experiences

directly affected the participants' satisfaction and experience. According to Appendix J, 41% of participants indicated that poor performing inventory management services were a criticism of their 3PMRO program. Other criticisms about inventory included poor uptime of assets and availability of inventory and critical products. Participant P6 stated, "People complain if suddenly they use too much inventory compared to the history and then they are out of the item. They place the blame on the integrator for not having the right amount of inventory." Participant 20 stated, "They do not have the right parts. Their inventory is inaccurate." Participants noted inventory management received significant criticisms from their internal stakeholders, which affected their satisfaction level. As an observance, complaints and criticisms from the internal stakeholders were taken seriously. Most participants referred to stakeholders as their customers.

Participants' responses concerning their stakeholders' compliments of the 3PMRO program indicated limited references to inventory management, as only 7% of responses referred to this theme. Participant P4 stated, "Some of the ideas that they bring forth of product replacements, and substitutions that may be a stronger tool that may have more uses or longer use than what we currently designed ourselves." According to the results, participants received compliments of the suppliers' catalog of MRO product. Based on the limited compliments of inventory management, there was no effect on participants' satisfaction level. The small number of stakeholders relating to inventory management in their compliments demonstrated the lack of interest from customers.

Theme 3: Cost Savings

During the coding process, it was noted that participants referenced their suppliers' ability to provide cost savings having a significant effect on their satisfaction level. In support of this impact, 26% of the responses referenced cost savings as a primary influence on their satisfaction level. At a 26% response rate, participants referenced cost savings most often. The value benefits from 3PMRO programs produced a myriad of savings types through piece price savings, as well as productivity savings. The decision to outsource was motivated by potential cost reductions (Brewer, Ashenbaum, & Ogden, 2013). In order to capture these cost savings, procurement managers require suppliers with significant economies of scale and operational efficiencies with market agents (Brewer et al., 2013). Therefore, cost savings was a result of mitigating economic risks of an organization. Transaction cost economics provides an organization the framework for investigating organizational challenges and financial risks that firms face in their transactions (Garfamy, 2012). Therefore, participants placed a high value on their 3PMRO programs to produce cost savings. Participants also indicated their organizational leaders depended on their programs to provide costs savings and held them accountable if they did not.

Participants' satisfaction with the achievement cost savings as a 3PMRO feature. Cost savings was a critical feature of the 3PMRO program. Referencing Appendix D, participants showed cost savings receiving a response rate of 15%. Supporting the response rate, 27% of the participants alluded to having satisfaction with the cost savings attribute of their program. The data showed that participants preferred

their 3PMRO supplier to provide lower product costs through the leveraging power of the supplier. Participant P8 showed satisfaction with the supplier “being able to negotiate lower costs based on usage.” This comment from P8 indicated how participants believed the supplier handled providing costs savings. Participant P11 stated, “I would say the year over year cost savings and focus on the total cost of ownership.” Participant P20 stated, “I am most satisfied with the 3rd party's ability to leverage their buying.” Therefore, participants indicated that their satisfaction level was positive if the supplier met the targeted cost savings.

Satisfaction with the selection process of 3PMRO services. Cost savings was a rationale for choosing a 3PMRO program by 36% of all participants. In some cases, realizing the benefit of achieving costs savings was the primary reason for selecting their 3PMRO program. Overall, participants selected cost savings, after inventory management and outsourced resources, as a feature of the highest satisfaction level. Participant P6 stated, “Cost saving’s the number one reason, probably the only reason.” Participant P20 stated, “The most troubling reason was to reduce costs immediately.” Participants did not always agree on how important cost savings were to the overall importance of the program, which affected the different levels of satisfaction for cost savings. Participant P20 supported this statement by saying, “Where the true cost savings comes in is when you actually take the headcount out and outsource this task, which is a true cost saving for me.” Participant P20 expanded beyond cost savings on material by suggesting that there should be a reduction in overhead costs and resources to see the financial impact. Participant P8 stated, “There is an opportunity to leverage our MRO

purchasing volume.” All eight participants cited a perceived advantage in leveraging their MRO spend with a company with a larger spend to experience a reduction in their MRO spend. As a result, if the participants did not see a reduction in pricing, their satisfaction level was negative.

The responses from only four participants indicated strong considerations for the achievement of cost savings as part of management’s decision to utilize a 3PMRO program. Participants P8, P9, and P22 implied they were satisfied with their management’s decision-making process and reference the consideration of achieving cost savings as a factor in the selection of their current program. Based on the data, these participants believed that cost savings were not a primary factor in their management’s decision to utilize a 3PMRO program to manage their MRO supplies.

For those participants with involvement in the selection process, 56% cited cost savings as a condition of their selection process. There were significant considerations to cost savings through a comparative pricing analysis of an extensive list of MRO items, or the market basket. This type of analysis compared proposed pricing from the supplier against the historical pricing of current MRO items in stock. Participants P4, P14, and P15 supported the use of a market basket analysis of pricing during the supplier selection process. Participants P2, P3, P5, P6, P10, P13, and P20 used cost savings analysis during the supplier selection process, but did not explicitly reference the market basket approach. These participants focused on the management fees and referenced the material price as a benefit through leveraging against the suppliers economies of scale. Participant P3 stated,

My responsibility is to save money for the company. I have to look at the pricing to see how we can save money for the company for the long term, for the total contract period, not just for year one.

As procurement professionals, organizational leaders required these participants to save money. The participants who stated they used cost savings analysis during the supplier selection process had a strong sense of obligation to focus on savings as a primary selection criteria.

Participants responding to questions 14 and 15 gave their responses to why they would approve or decline the use of a 3PMRO program. This section was used to explore the data to determine if cost savings would affect their satisfaction during their selection process. As shown in Appendix F, 17% of all reasons from participants indicated a lack of cost savings as part of their rationale for declining to use. Further, 50% of research participants revealed not achieving cost savings was the primary reason to decline the use of 3PMRO. Participants indicated if the total cost of the 3PMRO program was higher than actual expenses or the cost of insourcing, was the primary reason to decline the use of 3PMRO. As an observation, participants were sensitive, and vocal, when inquiring about their satisfaction level about cost savings. Participant P1 supported this sensitivity by stating,

The other reason would be from a cost standpoint. The supplier we moved to handle everything now, the costs are higher than what I was paying for the same service, but more items. It is a little frustrating from that standpoint.

In discussing evaluating costs, participants alluded to the potential scalability of their supplier in leveraging their customers' MRO purchasing volume. Participants P8, P15, P18, and P22 directly stated their satisfaction was dependent upon their suppliers' ability to leverage their MRO purchase volume to gain better costs. Participant P8 stated, "If that supplier does not have the ability to leverage at a higher level (globally) as required by our vision" their management would decline to use a 3PMRO program.

As shown in Appendix G, participants indicated cost savings has a significant impact on participants' motives to approve the use of a 3PMRO program. In support of authorizing the use of 3PMRO, 17% of all reasons from participants indicated cost savings and the potential to receive better pricing as part of their rationale. Further, 31% of participants indicated a preference to approve the use of a 3PMRO program based on potential cost improvement in their MRO supplies and management of their MRO program. Participant P4's justification for authorizing the use of a 3PMRO program was, "My thinking is that my company, we are not set up as a distributor for a lot of the brands that we use in tooling and that we would not get the same type of pricing structure or discount." Participant P9 stated, "They have better industry contacts and better price structure than what we have as a company." Similar to the participants' reasons for declining to use a 3PMRO program, participants noted the same reasons for approving the use of a 3PMRO program. Participants mentioned this logic for cost savings to support the sensitivity for the achievement of cost savings in direct relation to the satisfaction level of 3PMRO programs.

Measuring the ongoing performance of 3PMRO. This section of the research included an investigation into how participants' satisfaction related to the performance of their 3PMRO programs. The participants determined if there was a relationship between cost savings and the measurement of ongoing performance of their 3PMRO programs. When measuring current performance, 77% of participants referenced cost savings, or cost-effectiveness, as part of their key performance indicators to measure their programs' performance. According to Appendix H, participants registered 68 total responses for performance metrics, and the measurement of cost savings had a 22% response rate as a key performance indicator, which was the second largest response rate. Participants required some measurement of cost savings as part of their performance measurement of their 3PMRO programs. Participant P5 stated,

I continually talk to them on a monthly basis. We go over all the projects that are going on. We pull the high dollar projects, and we try to find the high spend where the most money could be saved.

The seventeen participants in support of cost savings as a performance metric elaborated further on this metric during their interview as a measurement of year-over-year savings and a total cost of ownership savings. The realization of these savings was through the improvement of costs of materials and other fees based on the costs of the previous year. Participants also considered productivity savings from the 3PMRO supplier to offset capital investments. It was also important to note that each participant does not consider only costs to gauge performance, but costs as part of a balanced approach to other metrics.

Participants determined their satisfaction levels by how the achievement of total cost reductions from their 3PMRO program could contribute to the company's performance. Each participant indicated that organizational leaders expected their program to contribute to the overall performance of the organization. As displayed in Appendix I, 25% of participants indicated their 3PMRO programs contributed to their companies' performance by helping to reduce the cost so that their company was more competitive in their industry. In this case, 45% of participants referred to productivity and efficiency when discussing savings as it related to its effectiveness on their organizations' performance. Participant P1 stated,

When you compare paying higher prices to ensure you have critical parts compared to having a couple of hundred people on the production line idle for an hour, then the cost of the material becomes negligible compared to the soft costs of a production shut down. It has done its job.

Participant P13 further supported the savings approach to the organization's performance by stating, "There is a whole gamut of costs that can be taken out the organization."

When measuring productivity savings, Teng (2014) explained that productivity savings could be achieved if the number of outputs was increased as the number of inputs decreased. Participant P20 stated, "Making sure we have the reliability of our equipment and having the right parts at the right time to reduce the cost of downtime." Participants' satisfaction has a significant relationship with how their programs affect costs that have an impact on their organizations' performance.

According to Cao and Zhang (2011), organizational leaders search to lower transaction costs and increase productivity to gain a competitive advantage. Therefore, it was necessary to evaluate participants' satisfaction with achieving cost savings from their 3PMRO programs. Overall, 45% of participants mentioned cost savings as a feature that has a positive effect on their companies' competitive advantage. The response rate from participants indicated that 26% of elements given were related to cost savings issues, which affected participants' satisfaction level. Participant P6 stated, "Being cost competitive is important. I would say that gives us a competitive cost advantage over the competition." Participant P21 stated, "If you can keep your manufacturing and materials management costs down, [it] can help you keep your product price down in the marketplace, which can provide a competitive advantage." According to the data, participants believed that achieving savings from their 3PMRO programs can affect their organizations' competitive advantage.

Compliments and Criticisms of 3PMRO. According to the data results, internal stakeholders' satisfaction levels are influenced by cost savings generated by their 3PMRO programs. The participants supported many stakeholders within the organization, and their satisfaction and experiences directly affected their satisfaction and experience. According to Appendix J, 45% of participants indicated that limited cost savings and perceived higher costs from their 3PMRO program as the primary complaint. Due to the many types of criticisms from participants, 17% was the largest percentage of all responses received from participants. Participant P5 stated, "The management fee percentage they (stakeholders) have to pay is too high." Participant P6 stated, "You have

complaints that they are saving us any more money on piece price. Why can't we do this on our own?"

Participants disclosed that their stakeholders included individuals from the finance department who vetted the cost savings from their 3PMRO programs. At times, the finance department did not agree with the savings submitted by the supplier.

Participant P15 stated,

“They had savings goals and objectives, and when they submitted them based on the contract and the methodology that we agreed to, finance scrutinized it and either discount it because they didn't see it as a profit and loss savings.”

According to the data, participants indicated their stakeholders believed some costs were higher with their 3PMRO program, and did not feel it was beneficial to continue to use this type of program.

According to Figure 16, in response to what participants believed were compliments of their 3PMRO programs, 41% of participants indicated that their programs achieved cost improvements, and their stakeholders noticed optimal costing of materials. In support of participants' inputs, 16% of the total responses referred to this theme, which was the second largest response for this interview question. Understanding cost savings was a catalyst for satisfaction was important to companies that perform well consistently (Allred, Fawcett, Wallin, & Magnan, 2011). Participant P15 stated, “I think they realized that the solution that they have could have been at a lower cost.” This participant confirmed stakeholders may not have a complete understanding of the savings, but as they obtained familiarization with the 3PMRO program, they became

familiar with the savings calculation methodologies. This perception by stakeholders was widespread and received support from four other participants for 3PMRO programs. Participant P9 stated, “The pricing structure, or the price of the product that they can purchase, is pretty good with respect to some of our vendors in other locations within our company.” Information gathered from the participants cited costs savings as a compliment they regularly heard from stakeholders. These participants indicated a significant reliance on savings to gauge the performance of their 3PMRO programs. As a result, savings played a noteworthy role in the establishment of satisfaction for this outsourcing program.

Customer Satisfaction Findings

Exploring customers’ perceptions of satisfaction required the creation of questions that captured overall satisfaction and the aspects that caused the most satisfaction. The purpose of these questions was to explore participants' satisfaction with their organization’s internal decision-making process to outsource, supplier selection process, and inventory management. Although contributors gave rich detail regarding their satisfaction, participants were more inclined to give information regarding areas for improvement instead of reasons why they were satisfied. Satisfaction is a representation of the perceived effectiveness of the relationship (Schwarz, 2014). The importance of the participants’ satisfaction levels also gave insight into their perception of performance for their 3PMRO programs.

Overall, 72% of participants were either satisfied or very satisfied. Other participants expressed dissatisfaction or mixed satisfaction. Participants’ satisfaction

levels with their 3PMRO programs are displayed in Figure 8. Most participants answered the question with rich detail and from hands-on experience. Also, participants offered suggestions on what problems existed and areas in which their 3PMRO program could improve. For example, Participant P21 stated:

Satisfactory, but there are problems with the program. Problems with inventory accuracy; can the storeroom deliver the product it says is in stock. The provider has to have clear goals and key KPI's that you measure the 3PMRO against to ensure the customer is getting what they need.

Seven out of the sixteen participants who gave satisfied or very satisfied responses answered Question #1 in this manner. Although these participants indicated their satisfaction level as positive, it was obvious there was room for improvement noted for their programs.

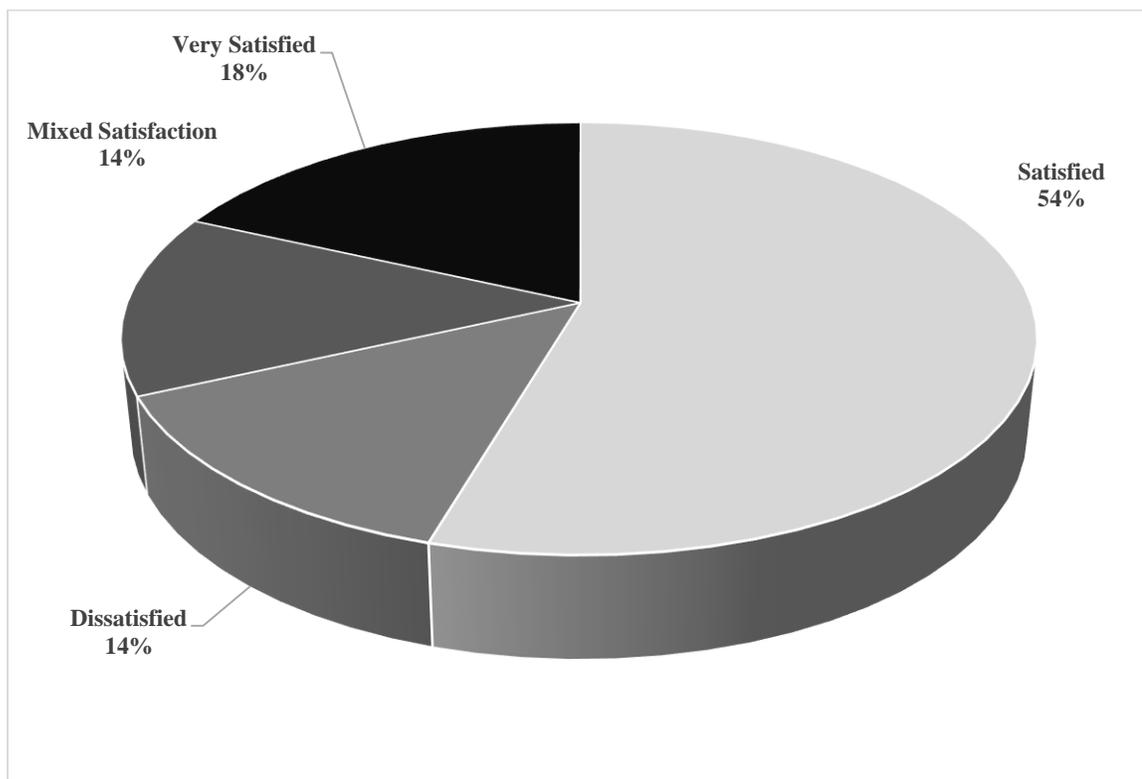


Figure 8. Customers' satisfaction levels with 3PMRO programs.

Participants noted areas for improvement for these programs as inventory accuracy, implementation challenges, and customer service. This phenomenon occurred in the interviews when participants explained their satisfaction. In these cases, each participant pointed to distinct elements of their program that caused them dissatisfaction. Mukhopadhyay et al. (2011) described this phenomenon as being distinctive to an individual's evaluation in connection with a specific instance. Although participants were satisfied with the program, each participant pointed to distinct areas that caused some dissatisfaction. Moreover, each participant felt these issues were correctable, and their current suppliers were capable of improving in these areas.

After coding, 17% of the responses indicated that participants would improve the capabilities vetting process. Table 5 shows how the suggestions were split, which indicates that participants had different suggestions for improving their supplier selections process.

Table 5

3PMRO Supplier Selection Process Improvements

Suggestions for improving 3PMRO selection Process	Responses
Improve capabilities vetting process	5
Keep internal stakeholders involved in the RFP process	4
Utilize a MRO sourcing expert to lead selection process	3
Gain buy-in from internal stakeholder	2
Make bids blind to internal stakeholders until process is completed	2
Measure total cost of ownership when evaluating bids	2
Develop internal strategy and KPI's prior to RFP	1
Find alternative to market basket evaluation	1
Ensure the scope of work is clear prior to RFP	1
Improve data analysis	1
Improve speed to execution of decision	1
Include logistics in evaluation process	1
Internal discussion on best program structure prior to RFP	1
Leverage MRO volume	1
Include mature program advantages	1
Take more time evaluating supply program	1
Use fewer number of suppliers	1
Use qualitative and quantitative evaluation	1
Total	30

Dissatisfaction, although minimal, occurred with different levels of enthusiasm.

As an observation, participants P2, P12, and P20 spoke about their dissatisfaction succinctly. All three participants confirmed that the primary reason for their dissatisfaction was that their program did not meet preconceived expectations.

Moreover, these participants said their program failed to define the scope of work

preliminarily or set expectations correctly. Participant P20 stated, “It simply comes down to the fact that the contract was not specific enough with the expectations of deliverables and the goals and the overall scope of the program.” This statement was supported by the literature. Freytag et al., (2012) assessed that program failure is a risk, which is due to unfulfilled expectations or objectives. Also, the performance of the 3PMRO program did not meet Participant P2’s expectations for satisfaction on core responsibilities such as inventory accuracy and maintaining a safe work environment. Among those participants providing an overall mixed satisfaction rating, dissatisfaction was noted with certain aspects of the 3PMRO program. When participants spoke of their dissatisfaction, they also pointed to distinct areas that caused their dissatisfaction. As an observation, based on their tone and passion, it was evident these participants had given up on their program and prepared to remove the current supplier. During this portion of the interview, it was necessary to explore participants’ satisfaction level with other aspects of the program to gather more rich detail about their experience with 3PMRO.

Participants’ satisfaction with 3PMRO features. The questions in this section were intended to explore participants’ satisfaction to discover which areas they were most satisfied. In this study, there was not a specific question related to what causes the most dissatisfaction. This question was purposefully not included to give the participants an opportunity to be forthcoming about reasons for their dissatisfaction. This method was used in order to provide an opportunity to ensure their reasons for dissatisfaction was authentic. Giorgi (2012) described this method as a presentation of a straightforward

description of the experience with meanings, even though the description is from another source.

In this research, participants described which aspects of their 3PMRO program that caused the most satisfaction. Regardless of their satisfaction level, participants described at least one favorable feature of their program. Participants noted many features with which they were most satisfied. The primary features included inventory management, the benefit of outsourced resources, cost savings, and the improved procurement process for their MRO supplies. Appendix D displays the data that shows all the reasons provided by the participants, as well as the number of times mentioned during their interviews. Some of the lesser features were a secondary result of the top three features mentioned the most by participants. For example, MRO expertise was directly related to the expertise provided by outsourced resources from the 3PMRO provider. When participants P10 and P21 spoke of the direct deliveries to the point of use in their factory, they were describing their satisfaction and requirement for this enhanced customer service.

Understanding why satisfaction exists required participants to be descriptive in the answers to this question. Participants gave 48 responses to this question. Participants were able to define as many features as were needed to express their satisfaction during the interview. Participants' responses displayed a considerable favoritism towards the inventory management, cost savings, and outsourced resources benefits. As shown in Appendix D, the following themes were noted by research participants: (a) inventory management, mentioned 15 times; (b) outsourced labor, mentioned 8 times; and (c) total

cost value, mentioned 7 times. Among these top features noted, were the procurement process improvement and customer service features.

Applications to Professional Practice

The purpose of this qualitative, descriptive case study was to explore the experiences of customers who currently use 3PMRO programs to determine what factors affect satisfaction levels. Managing MRO for many organizations was not a core competency and was geographically limited. Those professionals utilizing 3PMRO programs tended to manage more than just one program in an organization. In many instances, the responsibilities of these participants were not location-specific, meaning some participants were working in different locations from their responsible 3PMRO programs. The data results concerning satisfaction from this study can be applied to all 3PMRO programs. Consequently, this case research study may contribute to effective business practice by increasing the awareness of the 3PMRO program and sharing this information with other procurement professionals.

The expectation for this research was to explore customers' overall perception of satisfaction related to particular aspects of the program. The basis for overall satisfaction among participants were (a) cost reduction, (b) inventory management, and (c) the utilization of outsourced labor resources. These aspects were participants' perceived catalysts to customers' satisfaction level of 3PMRO programs. According to the results, total cost reduction was a core feature of the 3PMRO program. The achievement of cost savings positively influenced an organization's competitive advantage and performance due to reducing transaction costs. Transaction costs occur from finding quality

intellectual resources, developing partnerships, performance tracking, and flexibility in changing economic conditions (Crook, Combs, Ketchen, & Aguinis, 2013). According to participants, management would not approve the 3PMRO approach unless this program can reduce the total costs of managing MRO versus managing it internally. Participants indicated that improved costs were initiated from leveraging MRO supplies purchased from 3PMRO providers and the utilization of outsourced labor resources instead of using internal staff. The application of the value benefits received can produce a myriad of savings types through piece price savings, as well as productivity savings for organizational leaders seeking to reduce costs of their operation.

The adoption practices based on the participants' experiences indicate an attraction to 3PMRO programs to manage non-value functions. Therefore, organizational leaders could focus on their core functions to be more competitive in their marketplace. Utilizing subcontracted labor resources for non-value functions is a conceptual framework for resourced-based theory, which accentuates an organization's resources to provide a sustainable competitive advantage and optimal performance (Costa, Cool, & Dierickx, 2013). According to the results, participants valued the outsourcing of labor to manage the inventory, procurement of MRO supplies, and services. Participants favored this feature because organizational leaders then had the opportunity to focus on the improvements of their organizations' core products and service. Those benefits were a catalyst for satisfaction levels for the overall program. If management or stakeholders did not realize these benefits, their satisfaction or dissatisfaction transferred to the buyers or managers of the program and had a significant influence on their satisfaction level.

Satisfaction is a representation of the perceived effectiveness of the relationship (Schwarz, 2014). The participants provided insight into their perception of performance in relation to their satisfaction for their 3PMRO programs. The perception of customers on performance was an observation of reality based on their experience with their 3PMRO programs, which was imperative when accessing performance. The research participants provided information on the primary catalysts that influenced satisfaction with the 3PMRO program for potential customers responsible for MRO categories and 3PMRO industry experts.

Implications for Social Change

Organizational leaders may influence sustainability efforts within their organizations by providing information that promotes CSR and sustainability targets through their 3PMRO program. Corporate Social Responsibility issues include organizational diversity, treatment of workers, environmental pollution, financial transparency, and other societal factors have become consistent newsworthy events. This topic represents a growing organizational phenomenon with implications for practitioners, scholars, and the organization (Christensen, Mackey, & Whetten, 2014). Although research participants indicated minimal awareness of the CSR advantages of the 3PMRO program, several benefits can reduce environmental pollution. According to data collected from the research participants, the environmental sustainability benefits available through the 3PMRO program were (a) inventory waste reduction, (b) inventory management optimization, (c) refined purchasing process for MRO supplies, (d) reduction of suppliers providing product to facilities, and (e) delivery optimization to

reduce emissions. Therefore, these benefits represent the ability for organizations to reduce waste of potentially dangerous parts, materials, and chemicals. To take advantage of these benefits, procurement professionals and other stewards of the 3PMRO programs have to focus on communicating these benefits to organizational leadership.

The 3PMRO program can be used by organizational leadership to create, implement, and manage corporate CSR initiatives related to the materials provided by the supplier. These are services not typically taken advantage of by consumers of the program. Within this program, organizational leaders have opportunities to increase CSR awareness and achievement by allowing the 3PMRO providers to supervise cradle to grave management of tools and equipment. According to Bogue (2014), existing RFID (radio frequency identification) technology can be utilized to optimize cradle to grave management. If this technology can be used to track MRO parts through the supply chain, it can also be used to monitor that same part when its usefulness has ended and tagged for destruction. The purpose of this use of technology would be to avoid MRO parts and equipment ending up in landfills and other dumps. These parts consist of metals and other materials that do not decompose and can be potentially harmful to the environment. Theoretically, this technological capability could drastically reduce the number of non-biodegradable parts and equipment from being dumped into our environment, if utilized properly within the 3PMRO program. Therefore, responsible personnel within the organization can ensure the proper destruction of these obsolete and unused parts.

The efficient use of 3PMRO programs can be used to increase the containment of plant emissions through the reduction of the number of deliveries to the plant. This

initiative could reduce emissions of carbon dioxide and other carbon compounds necessary to deliver goods to the plant. In this role, management can influence their suppliers, customers and other parties in their supply chain to do the same. This influence by organizational leaders is important because emissions from road freight account for 30% – 40% of all road transport emissions that in major economies internationally (Liimatainen, Stenholm, Tapio, & McKinnon, 2012). Organizational leaders are encouraged to pursue aggressive environmental improvements utilizing their 3PMRO suppliers, most of which have significant contacts with sustainability experts and typically bring them to the plant to help initiate, implement, and manage sustainability programs.

Recommendations for Action

According to the results, customer satisfaction is dependent upon the implementation of evaluation criteria of cost savings, outsourced labor resources, and optimal inventory management. The evaluation criteria can be used to determine whether organizational leaders should adopt this program for their organization, manage ongoing performance, and deciding whether to cancel the program. When assessing performance, organizational leaders and procurement managers should utilize the themes from this study to enhance their 3PMRO programs by implementing criteria related to what satisfies these customers. Recommendations for further action should be for organizational leaders to use the results of this study as a guide for the improvement of the supplier selection process, implementation process, performance reviews, and the preparation of relevant customer satisfaction surveys.

Steps to Useful Action

The research participants outlined specific areas for improvement. Areas for improvement started with the 3PMRO supplier selection process. Organizational leaders should be cognizant of the satisfaction levels regarding the supplier selection process. Those participants not satisfied indicated a lack of a formal RFP process. To improve the selection process, consumers need to conduct a comprehensive capabilities examination of potential 3PMRO providers and include internal stakeholders in the selection process. Participants recognized that organizations might not have the MRO expertise to conduct a proper assessment a 3PMRO program. Therefore, organizational management should hire an MRO sourcing expert to manage the selection process. Consequently, there was a need noted in the research as a lack of MRO expertise within the plants. Therefore, management should select a procurement lead with MRO expertise to manage the selection process, as well as any other issues organizational leaders may want to address with this 3PMRO program. The procurement manager should lead the supplier selection process to provide procurement expertise, and consult an experienced MRO procurement professional during this process. The supplier selection process should be well organized and managed by a cross-functional team that includes representatives from each area of the plant affected by the program. However, before the determining whether to utilize a 3PMRO program, management must gain buy-in or agreement from the stakeholders within the organization for the program to be successful. These recommendations will provide confidence to the organization and the internal stakeholders that implementing

the program was the right decision. Also, it may also increase the likelihood of success and longevity.

According to the research participants, the implementation process has a significant impact on satisfaction. Therefore, understanding the importance of implementation satisfaction can lead to the recognition of other related challenges that could influence the performance of the program. During the implementation process, the manager should maintain and facilitate constant communication between the supplier and the internal stakeholders. This communication should include regularly scheduled project meetings with all parties involved in the implementation, consistent project timeline reviews, and accountability of team members. As recommended by the research participants, procurement managers should utilize the supplier's implementation plan and resources for a more efficient implementation and contributed to the longevity of the program. Procurement professionals can easily utilize this recommendation as 3PMRO suppliers provide program implementation services as part of their standard offerings. Non-management of the implementation process could create a lack of trust between supplier and customer and slow down the implementation process. Therefore, implementation of the 3PMRO program should be well-planned, organized, and optimal communication between the provider and organization.

After implementation, it should be required for procurement managers to assess the performance of the 3PMRO program. The purpose of this type of evaluation is necessary to assess customer satisfaction, and determine the performance level of the 3PMRO program. Since monitoring performance is a catalyst to consumers' satisfaction

level, procurement managers should develop and use a formal scorecard to measure key performance indicators of their 3PMRO program. This performance scorecard can be used by managers to measure predetermined key performance metrics. The recommendation is to examine various financial metrics, inventory metrics, customer satisfaction, on-time delivery, and key ongoing projects. Since the financial impact of the program and inventory management was the primary factors that determine program performance, managers should always include evaluation criteria of these metrics in their performance review. Also, the same scorecard should be used within the organization among its various facilities utilizing 3PMRO.

Although participants alluded to the significant impact of their outsourced labor resources as a critical influence on their satisfaction, there were no indicators mentioned to measure their performance. Therefore, it is recommended that the managers use customer surveys to measure the performance of the outsourced labor resources of the 3PMRO program. Outsourced labor of the 3PMRO program is typically responsible for services consisting of in-plant deliveries, inventory management services, the recommendation of availability of alternative or substitute products and the effectiveness of MRO expertise. Consequently, if the program was not performing well, then stakeholders prematurely determined the labor as the cause of nonperformance. The reason for this phenomenon was the suppliers' personnel interacted directly with the organizational stakeholders and tended to be directly responsible for overall customer service. This interaction can create bias in the performance evaluation. Therefore, a customer satisfaction survey must be established to eliminate this bias and ensure actual

performance is evaluated based on clear and measurable survey questions. This type of survey will allow minimal subjectivity on performance, and allow for more quantitative questions for customers to evaluate the service aspect of the program.

Who Needs to Pay Attention

Based on the interest generated by the participants for this study, it was imperative that the results be available to the relevant industry and its patrons. The results of this study were useless if any segment of society found no value in it. The participants in this study, through their experience, provided the influencing factors of satisfaction among customers of 3PMRO outsourcing programs. Considering the amount of interest from the participants, the findings from this study may receive interest from the research participants' peers because the results stem from participants' practical experience rather than theory.

Procurement Professionals and Consultants. The 3PMRO program is an outsourced, strategic procurement approach. This procurement approach may be beneficial to procurement professionals and consultants responsible for the acquisition of MRO and production supplies and services. Procurement professionals and consultants may use the findings from this study to evaluate internal satisfaction to improve the overall effectiveness of the procurement and inventory management of MRO supplies. The results of this study may be useful to procurement professionals to assess risks with certain elements of their current or prospective 3PMRO programs. The MRO procurement leaders can use the framework of this study to evaluate further performance

and make a determination to continue or discontinue the current program related to consideration for internal satisfaction for 3PMRO.

Procurement Professional Organizations. There were no relevant peer-reviewed or scholarly articles related to 3PMRO, though many trade, supply chain, and procurement magazines have published articles about 3PMRO. Consequently, there was a need to produce a scholarly article that discusses 3PMRO and general satisfaction to generate attention for this program in the procurement community. The procurement community disseminates information regularly to help procurement managers, and procurement consultants become more proficient and knowledgeable about their work. A vast range of topics related to many concerns active today in the procurement community was covered in the results of this study. Those concerns include proper evaluation of the outsourcing decision implementation, supplier performance, and internal customer satisfaction related to the 3PMRO program. Practical information based on the experience of procurement professionals' views of their current 3PMRO program was described in this descriptive case research study. With the proper dissemination of the results, valuable information could be provided to the procurement community interested in 3PMRO programs.

3PMRO Suppliers. The 3PMRO providers should show a keen interest in the outcome of this study. In this study, a sample of 3PMRO consumer satisfaction was displayed. The results provide a detailed description of why current customers are satisfied or dissatisfied. This information may be valuable to the providers because they can examine their current offerings and evaluate where they can improve. After

evaluation of their current offerings, evidence of successful performance will allow the suppliers the opportunity to advertise those offerings as a key benefit for potential customers. Also, 3PMRO providers can utilize the results of this study to evaluate the need to conduct the same type of detailed customer satisfaction study with their current customers to determine how well they are performing.

Manufacturing Organizations. Leaders of manufacturing companies may find value in the results of this study. Organizational leaders confirmed improved stock price performance, better return on assets, lower expenses, or higher profits, because of their outsourcing decision (Lacity et al., 2011). These organizational leaders are under significant pressure to reduce their production costs consistently, and maintenance costs can represent between 15 and 70% of productions costs (Ghodrati, Ahmadi, & Galar, 2013). It was necessary for manufacturing organizational leaders to ensure their suppliers were providing the services as agreed and performing at an optimal level for this category of spending. One indication that the 3PMRO program was functioning as needed was the assessment of the internal stakeholders' satisfaction. Organizational managers can find value in the results of this study, which contains empirical data on users' experience with 3PMRO programs. This data provided rich detail regarding current strengths and weaknesses in their 3PMRO program based on users' satisfaction levels.

Dissemination of Results

The results of this study will be accessible to readers through different means of delivery. ProQuest has the tools to make this study available from its website to

academic communities. The results of this study should be accessible to the procurement, industrial supply chain, manufacturers, and other related professional organizations through seminars, conferences, and workshops. Other researchers may reference the results from this study in their perspective research to make the information from this study available to diverse business and education communities, entities, and individuals. Finally, it is critical this information is published in other trade, procurement, supply chain magazines, and other online media venues. This dissemination is necessary to ensure a practical application of the results.

Recommendations for Further Study

A recommendation for further study would be to conduct a quantitative correlation study to determine if a relationship exists between some variables that may influence the success or failure of the program. There is little empirical evidence in this study to suggest that any relationship between the supply chain partners may influence the success or failure of a 3PMRO program. The 3PMRO program includes outsourced laborers that provide many services, which require interaction with the organization's employees. Although this relationship was noted in this study, a deeper analysis of the types of services utilized by the client, and how the outsourced laborers providing these services influence the satisfaction levels of the stakeholders representing the organization was not examined. There is limited information in this study on how much of an impact from stakeholders' satisfaction can cause a positive or negative performance rating. According to the participants, the 3PMRO program requires a certain degree of trust between the supplier and the client to be successful. This disclosure is necessary to

support this recommendation to conduct a further study into the relational impact between the provider and client.

Another recommendation into further defining the 3PMRO supplier and client relationship is to construct separate studies for these program benefits (a) inventory management services, (b) cost savings, and (c) the resource-based value. An examination of these topics can isolate the catalysts to satisfaction by program elements and the resources providing services. According to the results, managers' satisfaction is dependent on how the 3PMRO suppliers address their current challenges. Therefore, further research should include an examination into whether a conceptual model can be created to exploit patterns of behavior among outsourced laborers that causes an optimal and poor performance rating. This type of study will give organizational leaders a comprehensive metric to measure the performance of the supplier's labor, and how they affect an organization's operational challenges.

Reflections

In reflecting on my experience with this research process, I believed my many years of experience as a procurement professional managing MRO would guide me through this research. I felt my expertise in this area would help me complete this research promptly while ensuring interest in the topic remained. Consequently, what initially guided my interest in this research was the lack of relevant peer-reviewed studies or scholarly articles related to 3PMRO. During the research on 3PMRO programs, there were many 3PMRO articles found in trade, supply chain, and procurement magazines, but none had the richness in the qualitative and quantitative analysis. While conducting

this research, I wanted to capture as much detail about the 3PMRO program while addressing and solving the overarching research question. This challenge was not easy to navigate through, as I found myself being too detailed in my analysis and consistently going beyond the focus of the study. This issue was corrected by going back to interview guidelines and allowing the data to form the results. This process allowed me to uncover rich details on this topic it caused me to overanalyze the themes into potentially several other subcategories that could be utilized in other studies.

As this study focused on those programs in the Southern United States, it was often necessary to speak to procurement professionals and consultants in other parts of the country, but managing programs in the Southern United States. This observation was a preconceived idea suspected to be true, based on my experience in the procurement field and with the subject matter. Regardless, this phenomenon was addressed with each participant during the selection of each research participant. In most cases, each participant managed multiple sites utilizing 3PMRO programs. As a point of observation, most 3PMRO programs were part of a corporate procurement strategic initiative where various versions of the program existed dependent on the type of facility requiring this service. Based on the results of the research, this issue had no effect on the data received from the participants or bearing on the outcome of this study.

The assumption made during this study was that procurement professionals managing 3PMRO programs had extensive knowledge about this program and the organizational effects the organization. This experience was necessary to explore in rich detail, along with the satisfaction of the research participants. If the research participants

possessed this extensive experience, I would be able to draw from this experience the necessary information to complete this research thoroughly and efficiently. During the interviews of the research participants, it was evident that participants had varying levels of experience with 3PMRO programs. The varying degrees of experience heightened the intensity of information received was discovered during the interviews. Since each participant had different levels of experience, a holistic view of their satisfaction level of the 3PMRO program that seemed more pragmatic of the phenomenon was discovered. This practical observation gave the research a point of view, which addressed the satisfaction, as well as the dissatisfaction with the program.

Summary and Study Conclusions

The purpose of this descriptive case research was to explore customer satisfaction through the experiences of customers who used 3PMRO programs. During the establishment of the general business problem, literature proved a poor satisfaction among customers with the financial and strategic performance of organizational business process outsourcing programs. In this study, factors that influenced satisfaction and dissatisfaction among customers of 3PMRO outsourcing programs were identified. According to the results, the majority of participants was satisfied with their 3PMRO program and noted particular advantages as primary catalysts to satisfaction. Therefore, during the data collection from multiple sources many factors were identified that affected satisfaction.

There were three primary themes affecting participants' appreciation for the 3PMRO programs (S^1 , S^2 , and S^3). Those themes were the achievement of total cost

value (S^1), inventory management performance (S^2), and the appropriate utilization of outsourced labor resources (S^3). Further exploration into participants' satisfaction with inventory management services resulted in two primary influences on inventory management performance. The first influence was the improvement of the uptime of assets (S^4) by having the right product in stock at the right time to keep production operating. The second influence was a properly managed storeroom (S^5) to manage all facets of MRO inventory services. The second theme of total cost value resulted in three primary influences on productivity savings (S^6), improved procurement process (S^7), and improved MRO material costs (S^8). Participants identified productivity savings (S^6) or gains, significantly as a secondary influence on satisfaction related to the total cost value. Productivity gains mentioned were (a) assisting in manufacturing lean efficiency initiatives, (b) optimized deliveries, and (c) improving uptime of assets. Next, improvement of procurement processes (S^7) was the secondary influence on total cost value. This relationship was established through the optimization of the current procurement process to achieve a financial impact based on a reduction in resources needed to manage the new procurement process. There were further improvements to the processing time, reduction in the number of invoices and purchase orders. Each participant mentioned receiving better MRO material pricing (S^8) as a significant catalyst to satisfaction by gaining improved pricing on MRO materials. Participants also identified leveraging opportunities presented by 3PMRO programs as a benefit of this program. Research participants indicated that having external MRO expertise (S^9) was a derivative of outsourced labor resources as an influence on satisfaction. In some cases,

the external MRO knowledge was desired to assist procurement leaders in their supplier selection process, implementation, and storeroom set up to enhance inventory management of MRO materials to improve satisfaction. Also, company leaders hired the suppliers' resources due to the recognition of MRO materials management was not the organization's core competency (S^{10}). Managers wanted to focus on the improvement of their organization's core competency to be more competitive in their perspective industry. Research participants supported storeroom management (S^{11}) as a secondary influence of satisfaction from outsourced labor resources. Organizational leaders utilized outsourced labor to transition non-value-added tasks required to run an internal MRO storeroom. This change allowed management the opportunity to focus on the organization's core competencies, enhance performance, and improve competitive advantage.

There are few instances of dissatisfaction and mixed satisfaction, with the 3PMRO program. The primary reason for dissatisfaction and mixed satisfaction among participants was not meeting the deliverables and targets expectations of the participants. Also, participants cited an inaccurate definition of deliverables and targets in the scope of the contract. Research participants displaying dissatisfaction and mixed satisfaction did not refer to the resource-based theory as a source of dissatisfaction. However, suppliers' personnel had a slight effect on dissatisfaction with customer service, but there were no significant data gathered to solidify direct measurement of satisfaction in this area. Edvardsson (2011) confirmed this outcome, as there has been no universally accepted form of measurement of outsourced labor resources, but was distinguishable from either

financial or nonfinancial benefits. Therefore, outsourced labor can produce evidence to produce total cost value, or ineffective inventory management practices, which causes dissatisfaction and the recommendation to bring these services back in-house.

Although participants gave rich detail regarding their satisfaction, participants were more inclined to give information regarding areas for improvement instead of reasons why they were satisfied with their interview. There was not a convincing association between the satisfaction of the overall program and the improvement of their current selection process for 3PMRO. Participants were either very satisfied or satisfied with inventory management services noting differences in their supplier being able to forecast demand, meeting their minimum requirements, lack of trust and surplus inventory. There was a connection between the proper management of inventory to improved company performance and competitive advantage as it related to a positive satisfaction level. Schwarz (2014) surmised that this relationship enhanced the satisfaction level because it was often used as a representation of the perceived effectiveness of performance of the relationship. The importance of the participants' satisfaction levels also gave insight into their perception of performance. Stakeholders influenced the participants' satisfaction level as a catalyst to how well the program was performing. As satisfaction was a representation of the perceived effectiveness of the 3PMRO program, the importance of the participants' satisfaction levels gave insight into their programs' performance.

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Appendix A

Consent Form

The researcher is inviting you to take part in a qualitative research study to explore the adoption and evaluation criteria of current 3rd party maintenance, repair, and operating (3PMRO) programs in the United States. The researcher is inviting procurement professionals currently utilizing or managing 3PMRO or more popularly known as Integrated Supply programs to participate in the study. This form is part of a process called informed consent to allow you to understand this study before you agree to participate in this study.

The researcher conducting this study is Reginald E. Peterson, a doctoral student at Walden University. You may already know the researcher as a Procurement Manager, but this study is separate from that role.

Background Information:

The purpose of this study is to explore the experiences of customers who currently use 3PMRO programs in order to explore their perceptions of satisfaction with their adoption strategy, and their interpretation of its current performance in their organizations. I will explore qualitative data from in-depth interviews to understand how customers of these programs view them as sustainable procurement strategies. In addition, I will explore their experiences with their 3PMRO program, as well as their reasons for adopting this program as a procurement strategy for managing their MRO materials. This study will be applicable to procurement professionals, company leadership, inventory managers, and supply chain managers by offering a scholarly article

capable of helping to gauge customer satisfaction with 3PMRO programs in the Southern United States, as well as determine whether to adopt a 3PMRO concept. Moreover, the data from this study may help to reduce emissions and decrease paper consumption, aid sustainability efforts by refining the purchasing process for MRO supplies, reduce the number of suppliers, and optimize deliveries.

Procedures:

If you agree to participate in this study:

1. You agree to participate in a 1-hour interview to assist in completing the necessary questions. Each participant has the option to decline the interview and only complete the 3PMRO qualitative, narrative instrument.
2. You agree to make yourself available for a possible follow-up interview to either clarify responses from the interview or answer additional questions to further the study's purpose.
3. Here are some sample questions:
 - Based on your experience, how would you describe your storeroom management approach?
 - Based on your experience, why did you or your organization make the decision to use 3PMRO?
 - What do you think of your organization's internal decision-making process to outsource to a 3PMRO program?

- Based on your experience, how would you describe your experience selecting the supplier to provide 3PMRO?
- Based on your experience, in what ways would you suggest improving or standardizing your organization's supplier selection process for 3PMRO programs?

Voluntary Nature of the Study:

This study is voluntary. If you decide to join the study now, you may change your mind later. You may stop and remove yourself from the study at any time.

Risks and Benefits of Being in the Study:

Participating in this study will not present any risk to your safety or well-being. Some of the research questions may make you uncomfortable to answer. You are free to decline to answer any questions you do not wish to or to stop the interview at any time. The potential benefits of this study may solidify a widely acceptable framework for the decision to adopt a 3PMRO program through a thorough examination of customer satisfaction of other MRO procurement managers in the Southern United States.

Privacy:

Any information you provide is confidential. The researcher will not use your personal information for any purposes outside of this research project. In addition, the researcher will not include your name or anything else that could identify you in the study reports. The researcher will collect and manage all electronic information, and store in the researcher's password protected personal computer. The research will keep

all data, including audio tapes and signed consent forms, secure for a period of at least five years, as required by the university.

Contacts and Questions:

You may ask any questions at any time. Alternatively, if you have questions later, you may contact the researcher via email at Reginald.Peterson@waldenu.edu. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. Dr. Endicott is the Walden University representative who can discuss this with you. Dr. Endicott's phone number is 1-800-925-3368, extension 1210. Walden University's approval number for this study is **01-16-14-0175602**, and it expires on **January 15, 2015**.

The researcher will give you a copy of this form to keep.

Statement of Consent:

I have read the above information, and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Printed Name of Participant:

Date of consent:

Participant's Signature:

Researcher's Signature:

Appendix B

3PMRO Qualitative Narrative Instrument

1. Based on your experience with your 3PMRO program, how would you describe your satisfaction level?
2. Based on your experience, what aspects of your program are you most satisfied?
3. In your opinion, why did you or your organization make the decision to use 3PMRO?
4. What do you think of your organization's internal decision-making process to outsource to a 3PMRO program?
5. Based on your experience, how would you describe your experience selecting the supplier to provide 3PMRO?
6. Based on your experience, in what ways would you suggest improving your organization's supplier selection process for 3PMRO programs?
7. Based on your experience, how do you measure ongoing performance of your 3PMRO program?
8. Based on your experience, how does 3PMRO contribute to your organization's performance?
9. What elements of your 3PMRO program do you think provide a competitive advantage to your company?

10. How do you think your 3PMRO program contributes to your company's sustainability (green) efforts?
11. In your experience, how satisfied are you with the inventory management criteria to your performance measurement activities?
12. Based on your experience, when transitioning to a 3PMRO program, how did you manage the implementation?
13. How would you describe your satisfaction with the implementation process of your program?
14. Based on your experience and current conditions in your plant, why would you *decline* to use a 3PMRO program?
15. Based on your experience and current conditions in your plant, why would you *approve* the use of a 3PMRO program?
16. What do you think are the *complaints or criticisms* of your current 3PMRO program from your internal stakeholders?
17. What do you think are the *compliments* of your current 3PMRO program from your internal stakeholders?

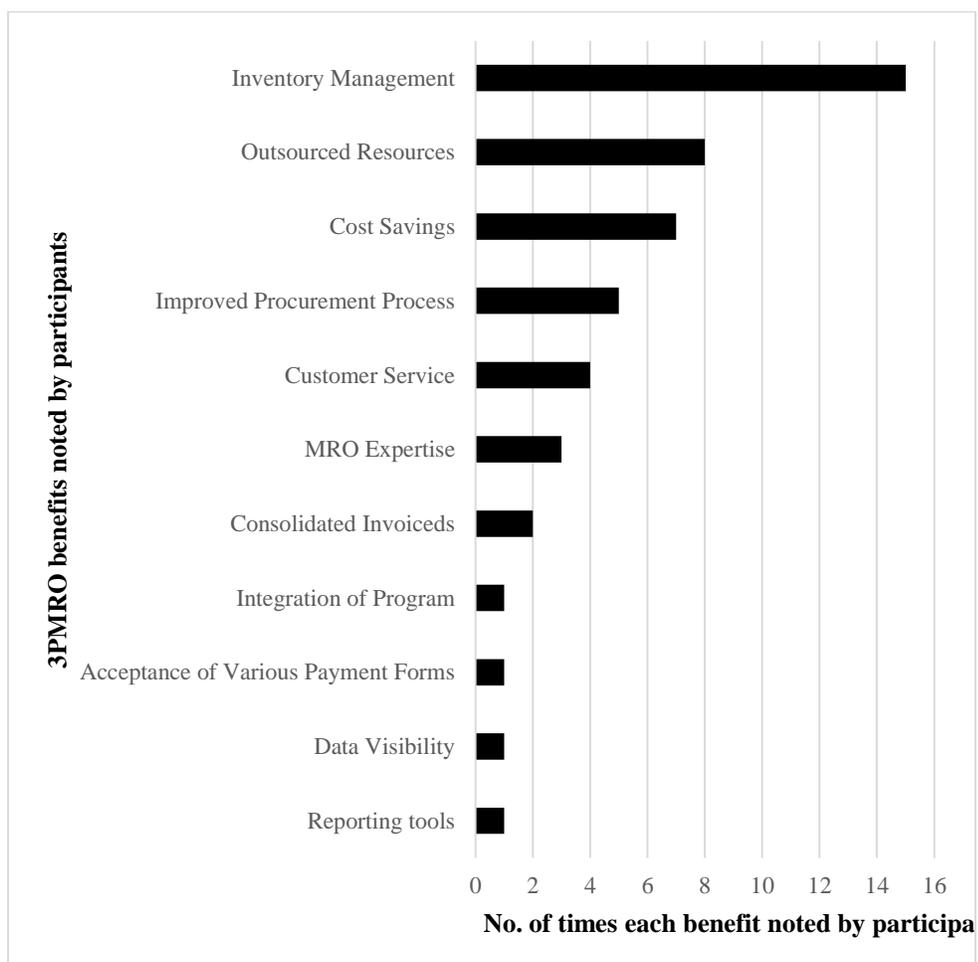
Appendix C

3PMRO Quarterly Business Review Observation Protocol

3PMRO Quarterly Business Review Observation Protocol	
Meeting Date:	
Participants:	
Meeting Agenda Topics	Notes
Review of Performance Scorecards	
Expectation Notes	
Satisfaction Level Notes	
Issues & Challenges	
Current Projects Updates	
Open Remarks:	

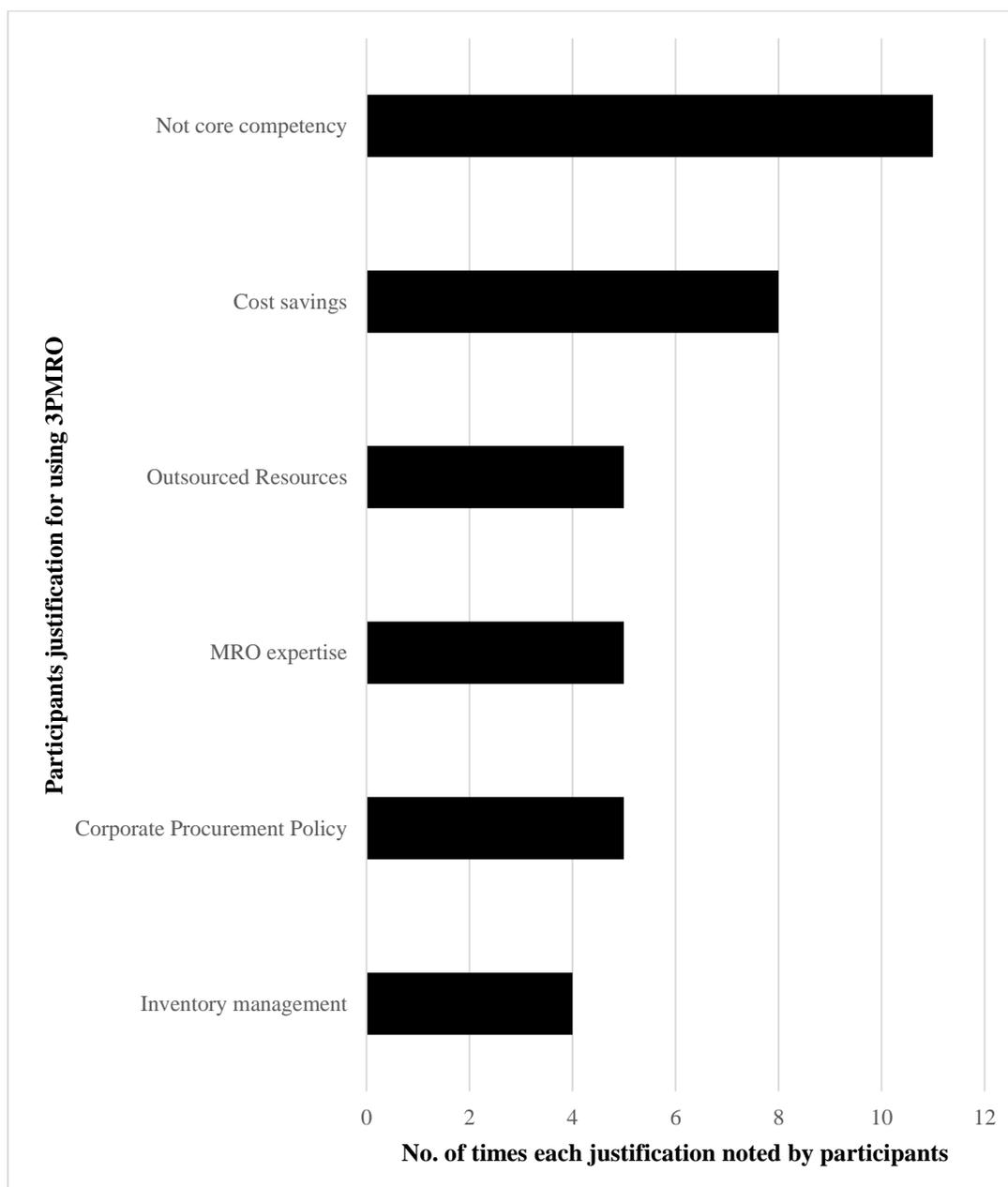
Appendix D

3PMRO Features Creating Satisfaction



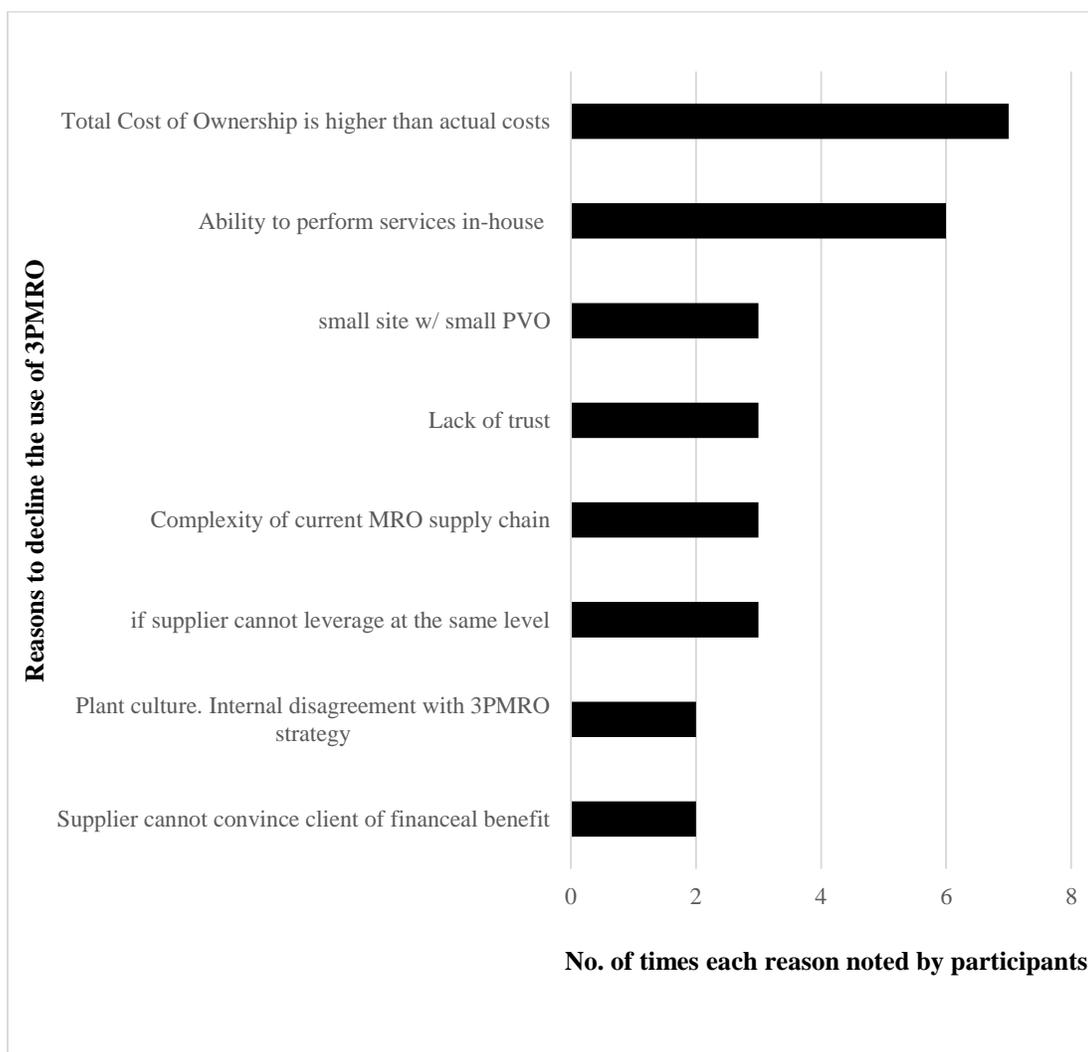
Appendix E

Organizations' Justifications for Utilizing 3PMRO



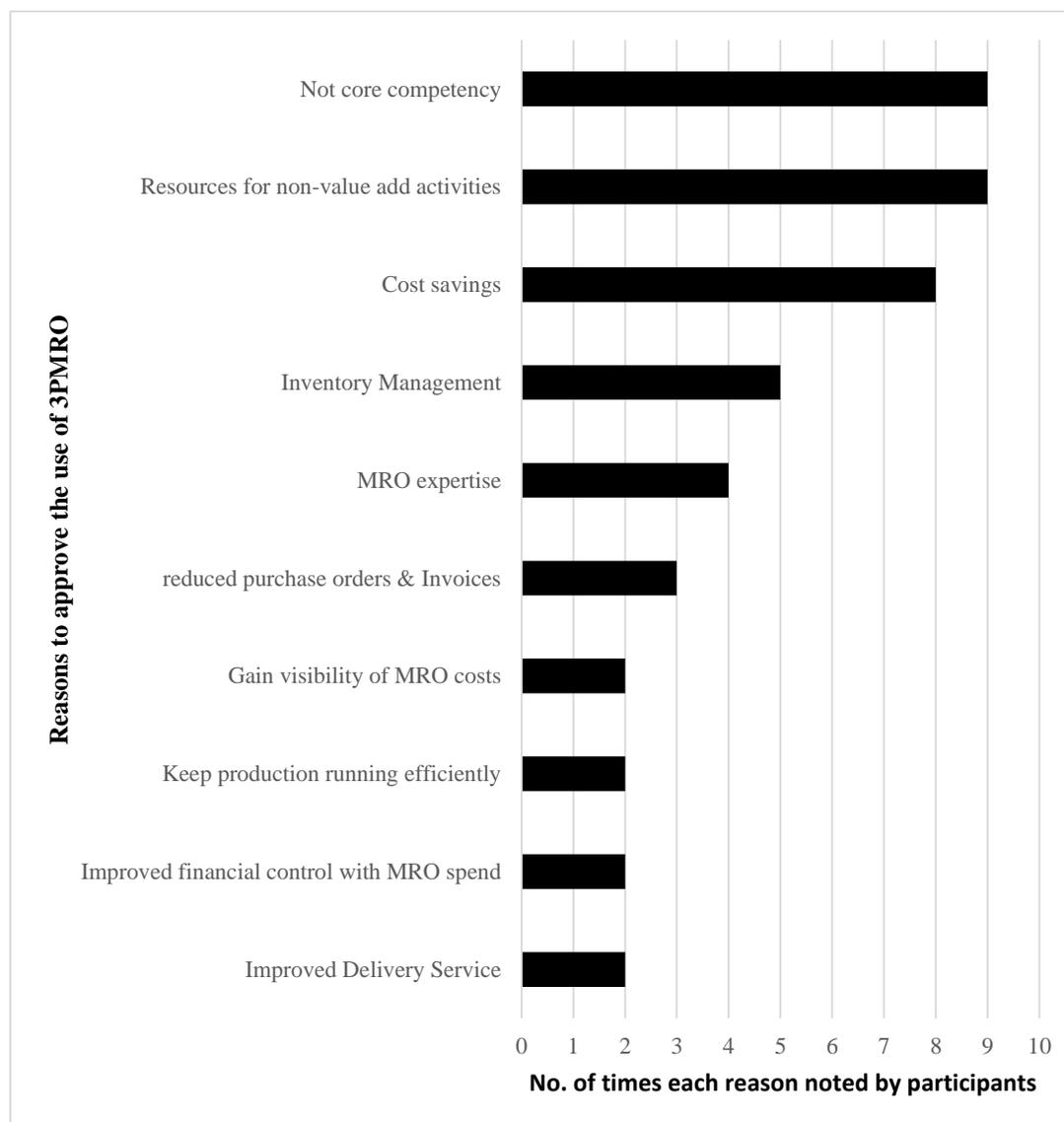
Appendix F

Reasons Customers Declining to Use 3PMRO



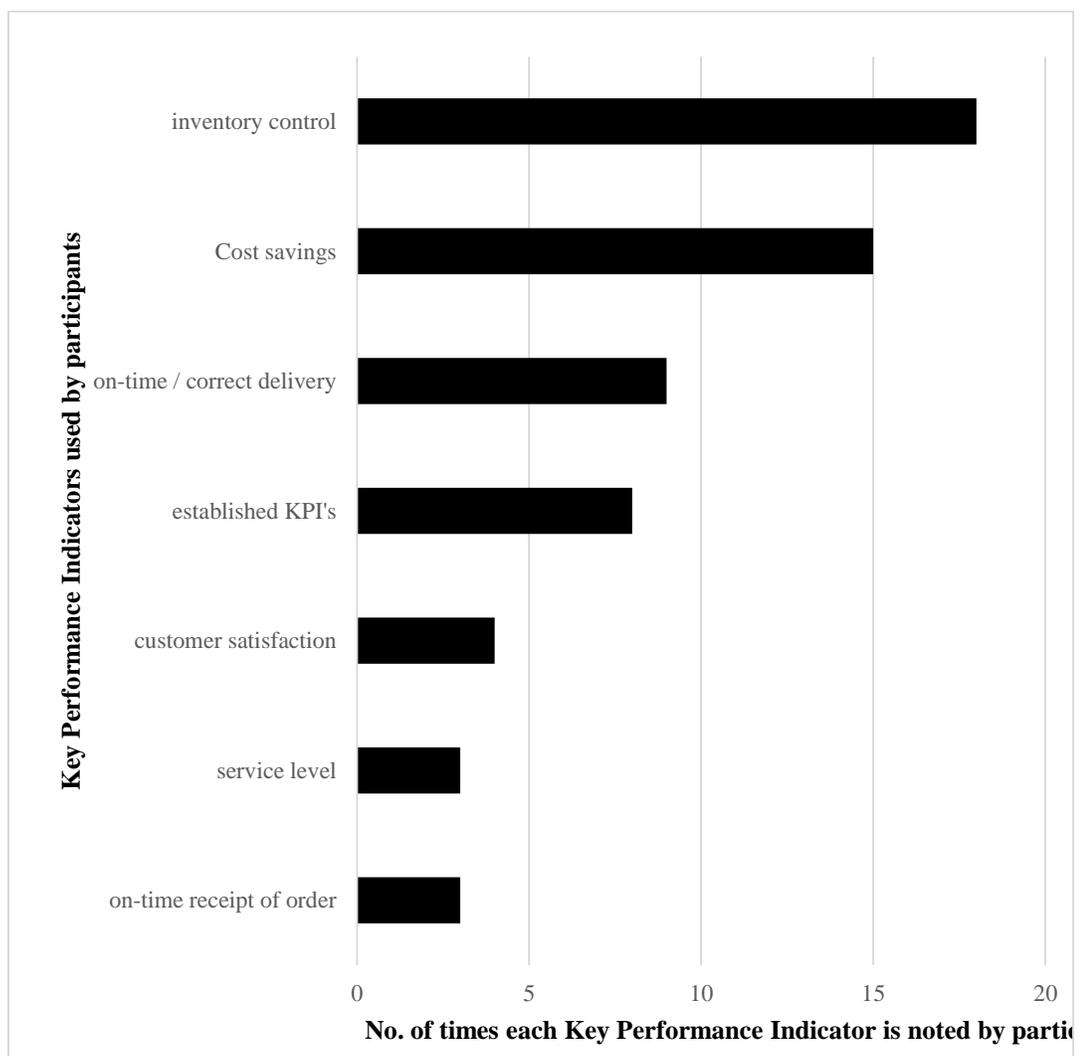
Appendix G

Reasons Customers Approve the Use of 3PMRO



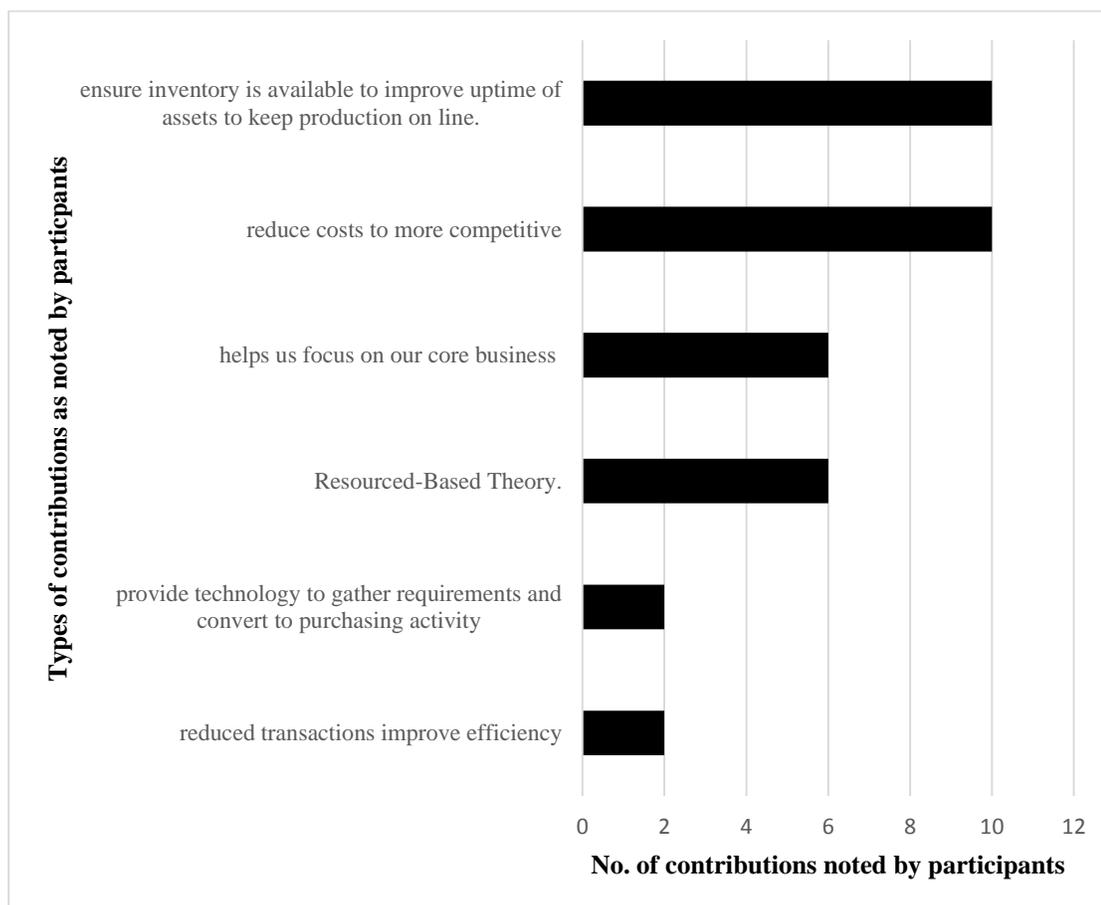
Appendix H

Key Performance Indicators that Measure Performance of 3PMRO



Appendix I

3PMRO Contributions to Organizations' Performance



Appendix J

Stakeholder Complaints of 3PMRO Programs

