


Toward a New Model of Service Management for Electrical Contractors

Virginia Polytechnic Institute and State University

Dr. Andrew P. McCoy



ELECTRI International
The Foundation for Electrical Construction, Inc.

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Table of Contents

- Executive Summary 1**
- Executive Take-aways 3**
 - Survey Responses 3
- Introduction 7**
- Part 1: Review of the Literature..... 9**
 - Service Management Theory 9
 - A Framework of Service Excellence..... 11
- Part 2: Mixed Methodologies..... 13**
 - Broad-based Questionnaire 13
 - In-depth Interviews..... 13
- Part 3: Findings and Analysis..... 15**
 - Broad-based Questionnaire 15
 - In-depth Interviews..... 21
- Part 4: Opportunities for Excellence 25**
 - Proposed Service Management Metrics for Electrical Contractors..... 25
- Limitations and Future Research Opportunities 27**
- Conclusion 29**
- References 31**
- Appendix A: Questions and Sources 33**
- Appendix B: Survey Instrument..... 35**



Executive Summary

Recent trends in the electrical contracting industry indicate a rising demand for service work, which entails performing maintenance, repairs, and warranty work. While electrical contractors (ECs) have historically pursued new construction projects as a means of generating revenue, service work represents a significant future growth opportunity and provides a strong incentive for firms to invest in the development of service competencies. Service management theory differs from traditional scientific management approaches and proposes an alternative perspective to a firm's marketing, organizational structure, and control systems. Opposed to the production-based efficiencies stressed in scientific management, service management is rooted in a relational understanding of business stakeholders. The primary goal of this research is to develop a model that helps ECs more effectively implement service management strategies and identify within a typical business plan opportunities for becoming more service-centric. The model is developed from insights obtained from: a review of interdisciplinary service literature, a broad-based questionnaire, and in-depth executive interviews of exemplar organizations in service-based work.

A literature review of service management theory reveals a fundamental shift in management philosophy from a scientific, production-oriented approach to a more holistic, relationship-oriented perspective. Today's service organizations are required to measure and meet both internal and external stakeholder expectations in order to keep employees and customers fulfilled. The literature also suggests that service management is driven by three primary business factors: *satisfaction*, *quality*, and *value*. Each factor has implications for the internal and external processes of service providers.

To determine a baseline for current service work best practices utilized by ECs, a questionnaire was administered to members of an international service-based contractor network of union and non-union ECs specializing in service work. Survey participants responded to questions regarding their present understanding of satisfaction, quality, and value as they pertain to their service offerings and management strategy. Additionally, four in-depth interviews were conducted with EC executives, of exemplar service-based organizations, to gain deeper insight into their approach to service management.

A comparison of existing service knowledge, survey data, and interview transcripts yields gaps in the present understanding of service management within the EC industry. ECs report a lack of feedback loops and formal metrics for gauging employee or customer satisfaction or service quality. Likewise, ECs are uncertain how to measure and create value, beyond pricing service work relative to the competition. Therefore a more thorough understanding of service management will be helpful for ECs hoping to outperform competitors in an increasingly service-oriented industry.



Executive Take-aways

Based on a comparative study of existing service knowledge, survey data and interview transcripts yield gaps in, but is not limited to, the present understanding of service management organizations within EC industry areas as follows:

Survey Responses

Quality

- Quality is a fundamentally important issue to EC firms, as 100% reported that quality was a part of their organization's customer-oriented marketing strategy. However, survey participants offered a broad range of answers for how they conceived service quality;
- Survey responses indicate that roughly 83% of survey respondents perceived that customers influence service quality (7);
- When asked how customers impacted service quality, the most popular answers were higher customer expectations and demand for accuracy;
- A slight majority (52%) of EC executives reported that they do not think that a firm's size impacts its ability to provide high quality services;
- EC firms are divided over marketing initiatives directed toward employees, with 55% reporting that they do market internally. Training opportunities, frequent communication, incentives, and uniforms are the most common practices among the firms that do invest in marketing to employees.

Value

- The concept of value was more difficult for firms to quantify or articulate. Over 10% of survey respondents indicated that they were uncertain of how value was measured, or that no formal value metrics existed;
- There was little consensus between survey takers concerning how value was created and measured;
- While 100% of respondents viewed customers as long-term relationships, 28% were unsure or unsatisfied that their marketing strategy addressed this long-term perspective. Other respondents indicated that continuous customer contact and multi-year agreements (warranties) were the primary marketing tools to maintain lasting relationships with customers;
- Employee productivity, a primary metric for gauging internal value, was not measured by 20% of the ECs polled. Of the remaining 80%, productivity was measured by a combination of work hours compared to revenue;
- Most firms, 71%, linked incentives with employee performance. Of those surveyed, 92% motivate employees

monetarily;

- Exemplar firms also incentivize employees with recognition and time-off, 75% and 58% of firms respectively implement these controls;
- On average, reporting ECs experience low rates of turnover at 4.92%. Low employee turnover is a primary indicator of satisfied and productive workers, positive workplace relationships, and superior value creation (10).

Satisfaction

- Despite acknowledging that customer satisfaction is a critical dimension of evaluating both service quality and value, 41% of ECs surveyed do not formally measure customer satisfaction;
- For the firms that do measure customer satisfaction, customer feedback surveys and follow-up phone calls were the primary means of obtaining customer satisfaction data;
- Using the ten service quality factors identified by Parasuraman et al. (1985), ECs managers perceive credibility and reliability as the strongest determinants of satisfaction. Price and value are also noted as integral components, however only two respondents offered these dimensions. ECs responses suggest that tangibles, physical evidence of work performed, are the least important. This supports the theory that consumers do not demand a constructed product itself, rather consumer demand stems from the future utility of a functional, constructed system (15);
- ECs firms were split evenly over the issue of measuring employee satisfaction. ECs that do assess employee satisfaction used surveys, periodic employee reviews, and informal daily conversations;
- Only one firm indicated using employee retention as a metric for gauging employee satisfaction;
- Every firm surveyed reported that employees were aware of who they served, a critical driver of employee satisfaction (10);
- In general, the majority of respondents indicated that employees were granted the flexibility and freedom to solve customer problems and those employees were generally in favor of the organization's technological support systems.

Management Strategies

- In response to which areas of a business plan could be strategically altered to become more service-centric as an organization, 8 out of 15 ECs indicated that marketing is the most important. When asked about the nature of the marketing change, all respondents described a need to develop more effective external communications to either reach a wider customer audience or maintain contact with current customers;
- ECs believed a general strategy change is imperative, citing a shift toward a customer-oriented mentality and the cultivation of service culture within the organization;
- No ECs perceived an accounting change is required;
- Approximately 21% of ECs indicate that they do not measure return on investment for service work, the remaining 79% use a combination of job costs, revenue, and profitability.

Interview Responses

The following list of executive management take-a-ways represents the *most commonly* reported answers to questions during in-depth interviews of service-based exemplar organization executives.

Service work in the EC industry is different than other types of work because of:

- Unpredictability
- Time-critical nature; one-shot to perform work correctly
- Soft skills, “people” personality, appearance, and attitude
- Cleaner environment
- Long-term relationship
- Relationship with the end-user
- Incentives required (for example, vehicle and gas card)

Service-based organizations measure success through:

- Profitability & gross margin
- Repeat customers & sales

Service-based organizations measure quality of work through:

- Dictated by code & industry standards (ISO compliance, NECA)
- Checks and balances driven by personnel in field (Bottom-up)
- Assess customer expectations

Service-based organizations create and measure value through:

- Services provided versus cost
- Price relative to competition

Service-based organizations measure satisfaction through:

- Customer phone calls & surveys
- Periodic visits to past and current customers
- Low employee turnover

Best ways to plan for becoming service-centric as an organization include:

- Accurate, timely accounting & invoicing
- Customer-centric philosophy
- Flexibility & willingness to adapt

Service-based organizations strategically measure return on investment for service-related work by:

- Measuring cost of operations vs. profitability



Introduction

As consumers become progressively more accustomed to higher levels of service, businesses in nearly every industry are recognizing the benefits of integrating value-added services to keep customers returning. Repeat customers are a critical objective of the service-oriented company; a 5% improvement in customer retention has been linked to increased returns up to 100%. Savvy managers are aware that the current service economy requires a strategic realignment of business goals and new metrics for gauging success. Customers and service-providing employees must be the primary focus of the modern service-minded enterprise. Balancing the ever-changing perceptions, expectations, and behaviors of key stakeholders becomes the essential task for today's service managers. To create and preserve competitive advantage, managers must develop an internal service culture that can nurture and sustain relationships.

This research cites current and future trends within the electrical contracting industry as grounds for a strategic shift toward service management. The research intends to identify and assess the extent to which EC managers currently perceive and implement service management strategies and identify opportunities for improvement through: 1) exploring business literature, which provides an overview of services, service management theory, terminology associated with service-oriented strategies, and existing models of service management; 2) proposing a conceptual framework for service management through a synthesis of theories from literature, and as a basic prototype to be refined through an exploratory investigation; 3) outlining the research methodology undertaken in the investigation; 4) assessing the extent to which EC managers currently perceive and implement service management strategies through a survey of union and non-union employers and in-depth interviews of current exemplar organizations of service work; and 5) identifying opportunities for excellence in service-based organizations. A concluding discussion follows comparing the literary best practices with survey results and an analysis of the interview transcriptions. This comparison reveals insights into the success criteria of service organizations and supports the development of a more refined model for service management in electrical contracting. The work concludes by noting the limitations of the research and opportunities for refinement of the framework in future studies.



Part 1: Review of the Literature

Service Management Theory

The term service management was invented in the early 1980s as an alternative to scientific management theories which favored production efficiency, cost reduction, economies of scale, and labor specialization (Gronroos, 1994; Schlesinger and Heskett, 1991). Scientific management theory is rooted in practices that emerged during the industrial revolution, when efficiency and mass production were the prevailing metrics for success (Gronroos, 1994). In the modern business world these principles have been codified in TQM programs, Six Sigma certifications, and ISO requirements. Today's goods-producing commercial enterprise strives to manufacture products at low cost, increase customer base, and capture first-mover advantages (Nanda, 2004). Practitioners of traditional management strategy create separate functional groups to maximize productivity, which is generally thought to hinder the relationship development process necessary for effective service management (Gronroos, 1994). Instead, service management promotes a long-term approach to teamwork, cooperation, and relationship building between customers, employees, and businesses (Gronroos, 1994).

The principles of service management have been refined through the lens of many disciplines to the extent that it cannot be distilled into a single doctrine, but can best be considered a management perspective (Gronroos, 1994). Gronroos's research identified five guiding principles of service management philosophy:

1. *It is an overall management perspective which should guide decisions in all areas of management (not only provide management principles for a separate function such as customer service);*
2. *It is customer driven or market driven (not driven by internal efficiency criteria);*
3. *It is a holistic perspective which emphasizes the importance of intraorganizational, cross- functional collaboration (not specialization and the division of labour);*
4. *Managing quality is an integral part of service management (not a separate issue); and*
5. *Internal development of the personnel and reinforcement of its commitment to company goals and strategies are strategic prerequisites for success (not only administrative tasks) (p. 7).*

Gronroos's definition of service management suggests that equal weight be applied to a firm's internal and external factors, including customers, employees, and quality (Gronroos, 1994). In contrast to the production-based efficiencies of industrial management theory, managing services requires an awareness of a new set of service economics (Schlesinger and Heskett, 1991). This paper proposes that service management economics are concurrently linked to customer and employee perceptions of satisfaction, quality, and value.

Satisfaction

Satisfaction is a challenging concept to define because it is generally regarded as experiential and is therefore highly subjective. Satisfaction judgments can occur in response to any aspect of a service encounter (Rust and Oliver, 1994). A considerable amount of literature explores how individuals formulate expectations; however, for the purposes of this research, satisfaction occurs through a process in which an individual's expectations are met or exceeded (Maloney, 2002). Satisfaction is inextricably related to an individual's conception of quality and value.

Internal Satisfaction

Keeping employees satisfied is an essential task for service providers. Satisfied employees are positively correlated with more productive employees and higher profits (Heskett et al., 1994). Employee satisfaction is rooted in the firm's policies and support systems that grant workers the freedom and ability to resolve customer issues (Heskett et al., 1994). There are many benefits of employee satisfaction. Firms avoid the costs associated with employee turnover, including training replacements and lost productivity, and employee satisfaction has been linked closely to higher rates of customer satisfaction (Heskett et al., 1994).

External Satisfaction

Customer satisfaction is derived through a series of service encounters in which customers process opinions and feelings based on perceptions of the events and behaviors that transpire during service encounters (Maloney, 2002). The formulation of satisfaction can be described as a process of expectancy disconfirmation, either meeting or exceeding expectations (Rust and Oliver, 1994). The quality of interaction between customers, frontline workers, and the service firm has significant implications on customer satisfaction.

Quality

Quality, like satisfaction, is also an elusive dimension to define. For service quality is embedded in individual perceptions and expectations (Rust and Oliver, 1994). Because services are generally intangible and highly variable, service quality is difficult to standardize, control, or measure. However, unlike satisfaction, service quality judgments are typically specific and do not require interaction between the service firm and the individual (Rust and Oliver, 1994). For instance, a customer can form an impression of a restaurant's quality based on an online review or friend's recommendation (Rust and Oliver, 1994). Service quality can generally be defined as the sum of perceptions regarding the respective inferiority or superiority of the firm and its service performance (Maloney 2002).

Internal Quality

Internal quality refers to the feelings and attitudes that workers exhibit toward their profession, co-workers, and employer (Heskett, 1994). Internal quality is a byproduct of the workplace culture instilled by managers. When embraced and practiced by employees, quality impacts employee and customer satisfaction and retention rates.

External Quality

External service quality is closely related to customer expectations and satisfaction factors. While quality management programs seek to implement a standardized approach to providing service quality, many researchers believe that consumers are the ultimate drivers of quality (Gronroos, 1994). Research has shown that there are ten determinants of service quality: reliability, responsiveness, competence, access, courtesy, communication,

credibility, security, understanding/knowing the customer, and tangibles (Parasuraman, 1985). Given the subjective nature of individual quality and satisfaction, firms must tailor these dimensions in an attempt to meet and exceed expectations. Indeed, service quality can be described a process of continuously adapting services to customer expectations (Lewis and Booms, 1983).

Value

Business enterprises fundamentally exist to create value for stakeholders. But like satisfaction and quality, value is not a well-defined concept. Even less clear is how value is created and sustained. Researchers have distinguished two meanings for value, value-in-exchange and value-in-use (Vargo, Maglio, and Akaka, 2008). Value-in-exchange, based on goods-dominant logic, proposes that value results from an exchange of goods or money, while value-in-use, based on service-dominant logic, contends that value is co-created through integrated and reciprocal processes of resource sharing (Vargo et al., 2008). Within the context of service management, a value-in-use approach to understanding value is appropriate.

Internal Value

If value is a byproduct of internal service quality, then it follows that satisfied, loyal, and productive employees are the originators of value (Heskett et al., 1994). Without investment in internal marketing and development initiatives, commitment to service quality falters, customers become unsatisfied, and profitability suffers (Gronroos, 1994). Thus, a firm's external value proposition is a reflection of its internal value.

External Value

While the holistic perspective of value co-creation, mutual participation, and value-in-use theory is useful for service managers, customers formulate value impressions at the intersection of quality and price (Rust and Oliver, 1994). Value can be understood as a function of the sum total of costs (not necessarily monetary) incurred and quality received (Heskett et al., 1994, Rust and Oliver, 1994, Maloney, 2002).

In service management, satisfaction, quality, and value are flows in a complex web of interconnected and reciprocal relationships between employees, customers, and service firms. Because service management theory has been shaped through a multi-disciplinary approach, frameworks are often proposed to help make service components more applicable in specific contexts. Next the paper explores some of these constructs, which influenced the development of a conceptual model of service management for ECs.

A Framework of Service Excellence

The Professional Service Firm

The professional service firm (PSF) exists to connect customers, employees, and shareholders in a relationship that results in a mutually beneficial pattern of value creation and value consumption (Reichheld, 2000). For service managers, forging these relationships requires the development of a value statement and a service strategy. In practice, this strategy must resonate with the stakeholders of the service firm (Nanda, 2004).

Service Quality

Rust and Oliver (1994) identify the essential components of service quality and describe their managerial implications. The authors propose a layer of value-added service dimensions to augment a firm's product offering. The service product relates to the intended features and specifications of a service as it is intended to be delivered (Rust and Oliver, 1994).

Service delivery refers to the roles performed by employees and customers (Rust and Oliver, 1994; Maloney, 2002). Lastly, the service environment describes the respective internal and external factors that influence workplace culture and the equipment, support systems, and materials required to perform services (Rust and Oliver, 1994; Maloney, 2002).

Service-Profit Chain

The service-profit chain describes the relationship between service quality, satisfaction, retention, and profits (Heskett et al., 1994). As a model, it identifies several of the internal and external metrics of service management economics and connects them to the firm's value creating process. The service-profit chain links internal satisfaction to quality through a closed-loop system and reveals that internal quality and employee satisfaction are both drivers of retention and productivity. These reciprocal relationships reinforce the service organization's delivery of service quality and satisfaction, as well as engender loyalty and increase profitability.

Combining the current thinking in service management, a framework of service excellence must identify perspectives of the service firm's key constituents, and the relationships that bind them together – through a reciprocal exchange of the core principles satisfaction, quality, and value. Such a framework would require that the transition to a service-oriented firm be driven by a top-down approach in which managers view customers and employees equally. The following study intends to identify specific methodologies and metrics for ECs, within a conceptual service management framework, as they relate to its core principles. In conclusion, the investigation will compare and contrast service theories identified in the literature review with the current practices of ECs.

Part 2: Mixed Methodologies

Because existing literature on service management has typically been researched outside of the context of the electrical contracting industry, an exploratory study was conducted to explore the concept of service management within the hybridized product/service environment of electrical contracting service work. To this end, EC firms were invited to participate in a broad-based online questionnaire. Data from the questionnaire was complemented by four in-depth executive interviews. The insight gained from these sources was contrasted with existing knowledge and used to develop a series of metrics for service management specifically for ECs.

Broad-based Questionnaire

An online questionnaire was developed to assess the diffusion of service management concepts currently embraced by ECs. Each survey question corresponded with specific findings from the literature review. Appendix A shows the table used to pair questions with their respective sources. The questionnaire was divided into categories based on the qualitative service management drivers identified from the literature review. Respondents were asked to report on (1) general demographics, including the size of their firm, metrics regarding both internal and external (2) quality, (3) value, and (4) satisfaction factors, as well as (5) strategic decisions.

The survey instrument, shown in Appendix B, was generated using Qualtrics online survey tool and distributed to approximately 75 members of an international, service-based contractor network of full-service electrical contractors. These contractors specialize in providing preventative and protective maintenance services for clients' electrical systems. ECs were notified via email about the opportunity to participate in the study. An initial sample of fifty members was targeted, based on their past willingness to participate in survey-type initiatives. Two weeks later, another twenty-five ECs were sent a link to the survey. Several reminders were issued over the course of a month. Non-English speaking contractor members were removed from the sample group, given the communication difficulties associated with responding to an English language questionnaire. Ultimately, 40 percent of respondents, or thirty management-level individuals, completed the survey with seventeen completing all questions. The team used descriptive statistics to summarize and draw inferences from survey responses. While the number of responses precluded statistically significant results, they provided valuable insight into the extent of service management currently practiced by professional ECs.

In-depth Interviews

Executives from four regional electrical contracting firms throughout the United States, as identified for excellence in service-based work by other ELECTRI Foundation members, were involved in individual interview sessions. Beyond basic demographic questions, interviewees were asked to respond to the following questions:

- Is the construction industry different than other industries? If so, how?
- Is the EC industry different from other parts of the construction industry? If so, how?
- Is service work in the EC industry different than other types of work? If so, how?
- How does your organization measure success?
- How does your organization measure the quality of its work?
- How does your organization create and measure value for its work?
- How does your organization measure satisfaction of its work?
- What is the best way to plan for becoming service-centric as an organization?
- How does your organization strategically measure return on investment for service-related work?

The research team conducted interviews over the phone, which lasted approximately thirty to forty-five minutes, and recorded them for transcription. The team distilled the interview transcripts into bullet points and clustered, based on common topics and terms, to determine patterns in the perspectives of EC managers.

Part 3: Findings and Analysis

A comparison of the data obtained through survey responses and executive interviews yields important insights into how ECs perceive and manage service work. The coming section begins with responses to the survey instrument, as found in Appendix B. Following the survey responses are in-depth interview responses.

Broad-based Questionnaire

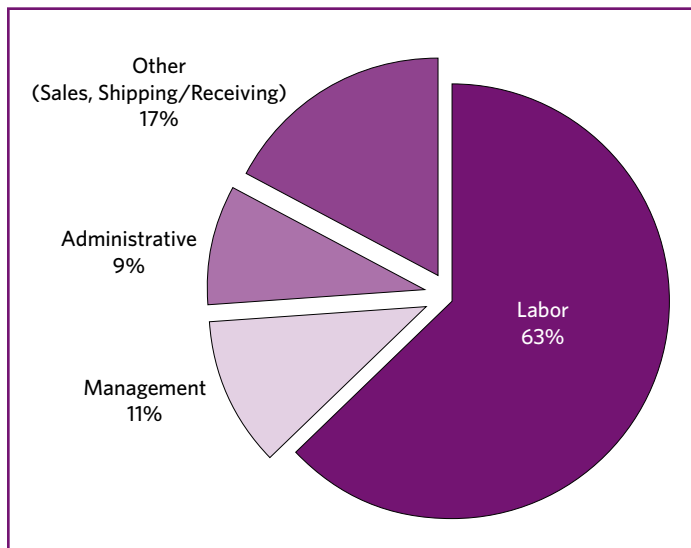
General Demographics. The first section of the survey instrument was intended to capture information regarding the general characteristics of the respondent's organization. Participants were asked to provide information to the following questions:

- What is your job title?
- What is the approximate employee make-up of your organization?
- Do you employ union or nonunion labor?
- Where do you primarily perform work?
- How many years has your organization been in business?
- Who typically makes purchasing decisions for your firm?
- How much of your organization's revenue is from new construction? Retrofits? Service and maintenance? Other?
- Is the electrical contracting industry different than other parts of the construction industry?

All respondents indicated that they occupied executive-level positions within their respective firms. Firm sizes varied in terms of employment, but the average organization employed 113 members. A percentage breakdown of employment by functional role can be seen in **Figure 1** (*next page*).

Of those surveyed, roughly an equal division exists between firms that hired union versus non-union labor, with 56% of respondents employing union workers. The map in **Figure 2** (*next page*) shows the locations where EC survey respondents perform work. A diverse group of states, provinces, and regions throughout the United States and Canada was represented in the survey group. Given the geographic variety and labor distinction of the sample, differences between union and nonunion ECs and U.S. versus Canadian EC firms were explored. The oldest organization surveyed has operated for 94 years, but on average, firms have been established for slightly more than 43 years. Purchasing decisions were executed at the managerial level across the board. The type of work performed by participants differs slightly from the data reported in the NECA Topline Report; however, this was not an unexpected finding given the survey group's reputation as a service-based network of ECs. On average, service work, maintenance, and retrofits represented a combined 48% of respondent's revenue portfolios. New construction amounted to 46%, with an additional 6% allotted to

Figure 1: Percentage composition of EC firms based on survey respondents



testing activities and specialty installations. Interestingly, only 61% of respondents feel that the electrical contracting industry differs from the construction industry. Approximately two-thirds of union based ECs viewed electrical contracting as different from the construction industry, whereas approximately 54% of nonunion EC perceived this difference. Two reasons were cited as distinguishing factors: the higher level of skilled labor required by ECs and the greater degree of danger inherent in electrical work.

Quality. The next portion of the survey revealed that quality is a fundamentally important issue to EC firms, as 100% reported that quality was a part of their organization’s customer-oriented marketing strategy. However, survey participants offered a broad range of answers for how they conceived service quality as seen in the chart on the

following page. The responses captured in **Figures 3 and 4**, and **Table 1**, provide evidence that the majority of ECs are aware that customers influence service quality (Gronroos, 1994).

Roughly 83% of survey respondents perceived that customers influence service quality. When asked how customers impacted service quality, the most popular answers were higher customer expectations and demand for accuracy. A slight majority (52%) of EC executives reported that they do not think that a firm’s size impacts its ability to provide high quality services. This finding contrasts with case studies from the literature review, in which a majority of executives from

Figure 2: States and provinces where EC survey participants perform work



Figure 3: Do customers influence service quality?

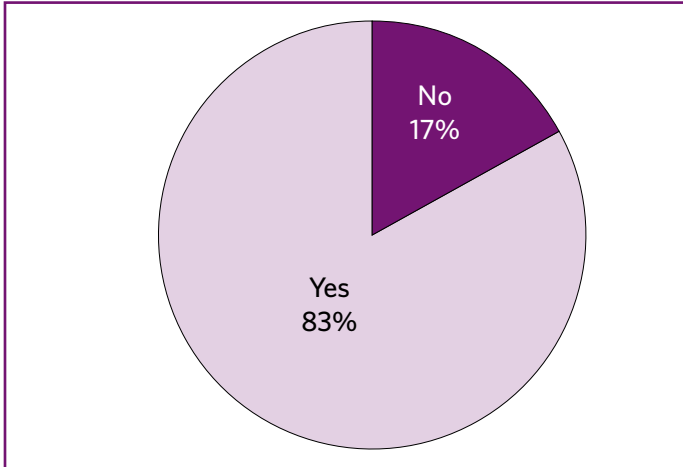


Figure 4: Does a firm's size influence its ability to provide high quality services?

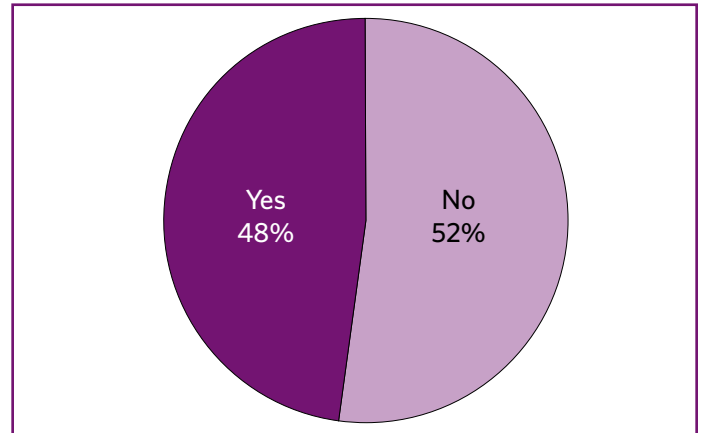


Table 1: How ECs define service quality

Customer Satisfaction	Repeat Business	Timely Response	Technical Experience	Referrals	Compliance
7	4	3	2	2	1

product repair and maintenance firms suggested that larger firms provided superior quality as indicated by their record of success and greater access to resources (Parasuraman et al., 1985). EC firms are divided over marketing initiatives directed toward employees, with 55% reporting that they do market internally. Training opportunities, frequent communication, incentives, and uniforms are the most common practices among the firms that do invest in marketing to employees.

Value. As the literature has suggested, the concept of value was more difficult for firms to quantify or articulate. Over 10% of survey respondents indicated that they were uncertain of how value was measured, or that no formal value metrics existed. There was little consensus between survey takers concerning how value was created and measured. **Figure 5** (next page) shows the variability in their responses. While 100% of respondents viewed customers as long-term relationships, 28% were unsure or unsatisfied that their marketing strategy addressed this long-term perspective. The remaining ECs indicated that continuous customer contact and multi-year agreements (warranties) were the primary marketing tools to maintain lasting relationships with customers.

Employee productivity, a primary metric for gauging internal value, was not measured by 20% of the ECs polled. Of the remaining 80%, productivity was measured by a combination of work hours compared to revenue. Most firms, 71%, linked incentives with employee performance. Of those surveyed, 92% motivate employees monetarily. Additionally firms also incentivize employees with recognition and time-off, 75% and 58% of firms respectively implement these controls. On average, ECs experience low rates of turnover at 4.92%. Low employee turnover is a primary indicator of satisfied and productive workers, positive workplace relationships, and superior value creation (Heskett et al., 1994).

Satisfaction. Despite acknowledging that customer satisfaction is a critical dimension of evaluating both service quality and value, 41% of ECs surveyed do not formally measure customer satisfaction, shown in **Figure 6** (next page). This finding is especially alarming because satisfaction is linked to higher quality and greater value for both customers

Figure 5: How ECs create and measure value

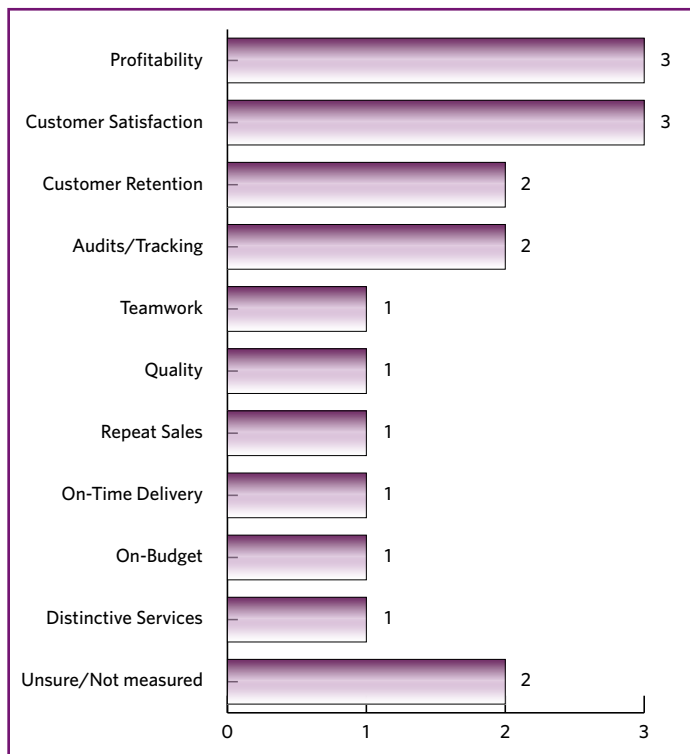
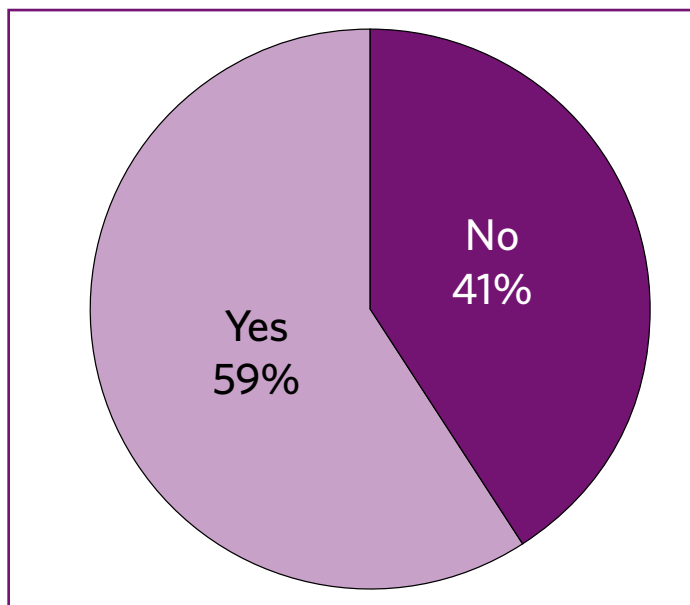


Figure 6: Survey respondents that measure customer satisfaction



the nature of the marketing change, all respondents described a need to develop more effective external communications to either reach a wider customer audience or maintain contact with current customers. Next, ECs believed a general

and employees. For the firms that do measure customer satisfaction, customer feedback surveys and follow-up phone calls were the primary means of obtaining customer satisfaction data.

Using the ten service quality factors identified by Parasuraman et al. (1985), ECs managers were asked rate on a Likert scale, of 1 being the least important to 5 being the most important, the perceived determinants of service quality. **Table 2** lists the answers provided by respondents for service quality.

Interestingly, **Table 2** shows that a majority of ECs perceive *credibility* and *reliability* as the strongest determinants of satisfaction, with very little disagreement among respondents. Outside of the quality factors represented in the literature, *price* and *value* are also noted as integral components, however only two respondents offered these dimensions. ECs responses suggest that tangibles, physical evidence of work performed, are the least important. This supports the theory that consumers do not demand a constructed product itself, rather consumer demand stems from the future utility of a functional, constructed system (Maloney, 2002).

ECs firms were split evenly over the issue of measuring employee satisfaction. ECs that do assess employee satisfaction used surveys, periodic employee reviews, and informal daily conversations. Only one firm indicated using employee retention as a metric for gauging employee satisfaction. Every firm surveyed reported that employees were aware of who they served, a critical driver of employee satisfaction (Heskett et al., 1994). In general, the majority of respondents indicated that employees were granted the flexibility and freedom to solve customer problems and that employees were generally in favor of the organization’s technological support systems.

Strategy. In response to which areas of a business plan could be strategically altered to become more service-centric as an organization, a majority of ECs indicated that marketing is the most important. When asked about

Table 2: EC perceived importance of service quality determinants

	1 NOT IMPORTANT	2 LESS IMPORTANT	3 NEUTRAL	4 IMPORTANT	5 VERY IMPORTANT	MEAN	STD. DEV.
Access (approachability and ease of contact)	0	0	1	7	9	4.47	0.62
Communication (keeping customers informed)	0	0	2	5	10	4.47	0.72
Competence (possessing the required skill to perform work)	0	0	0	4	13	4.76	0.44
Courtesy (politeness, respect, consideration, and friendliness of contact personnel)	0	0	0	6	11	4.65	0.49
Credibility (honesty, trustworthiness, and believability)	0	0	0	2	15	4.88	0.33
Reliability (consistency of performance and dependability)	0	0	0	3	14	4.82	0.39
Responsiveness (timeliness of service)	0	0	0	7	10	4.59	0.51
Security (freedom from risk, danger, or doubt)	0	0	2	5	8	4.4	0.74
Tangibles (evidence of work performed)	0	0	4	8	5	4.06	0.75
Personalized Service (understanding the customer's needs)	0	0	0	6	11	4.65	0.49
Other: Price	0	0	0	0	1	5	0
Other: Value	0	0	0	0	1	5	0

strategy change is imperative, citing a shift toward a customer-oriented mentality and the cultivation of service culture within the organization. No ECs perceived an accounting change is required, which opposes the notion that services should be governed by new service-specific economics (Schlesinger and Heskett, 1991; Nanda, 2004). This point is further reinforced by the final survey question, which asks how firms measure their return on investment for service work. Approximately 21% of ECs indicate that they do not measure return on investment for service work, the remaining 79% use a combination of job costs, revenue, and profitability.

Do you employ Union or Non-Union labor? By clustering the survey responses based on commonalities between the EC respondents, further insights can be gained. Unfortunately, given the limited number of Canadian and international

survey participants, inferences regarding geographic differences are limited. However, several interesting observations can be made from a comparison of responses between ECs employing union labor versus non-union labor. The responses to selected questions from the survey can be seen in **Table 3**, grouped by ECs that use union versus non-union labor.

Table 3: Cross-tabulation of union versus non-union survey respondents

Questions	Choices	Union Labor	Non-Union Labor
(Q11) Is the electrical contracting industry different than other parts of the construction industry?	Yes	8	6
	No	4	5
	<i>Total</i>	12	11
(Q14) Do you believe that a firm's size impacts its ability to provide high-quality service in your industry?	Yes	6	5
	No	6	6
	<i>Total</i>	12	11
(Q15) Is quality part of your marketing to customers?	Yes	12	11
	No	0	0
	<i>Total</i>	12	11
(Q17) Do your customers influence service quality?	Yes	10	9
	No	2	2
	<i>Total</i>	12	11
(Q19) Do you invest in marketing to your employees?	Yes	5	7
	No	7	3
	<i>Total</i>	12	10
(Q24) Do you view customers as long-term or short-term relationships?	Long-Term	10	7
	Short-Term	0	0
	<i>Total</i>	10	7
(Q27) Are incentives tied to employee performance?	Yes	8	4
	No	2	3
	<i>Total</i>	10	7
(Q28) If so, which incentives does your organization use to reward its employees?	Monetary	7	4
	Time-off	5	2
	Recognition	5	4
	Additional Benefits	2	1
	Other	0	0
	<i>Total</i>	8	4
(Q30) Do you invest in employee training programs?	Yes	10	7
	No	0	0
	<i>Total</i>	10	7
(Q32) Do you measure customer satisfaction?	Yes	6	4
	No	4	3
	<i>Total</i>	10	7

Most notably, union contractors are more likely to perceive the EC industry as a separate entity from the construction industry and tie incentives to employee performance more than their non-union counterparts. Non-union shops, on the other hand, tend to invest more in marketing initiatives geared toward employees. Fascinatingly, both union and non-union shops unanimously indicated that quality was part of their marketing to customers, that customers were viewed as long-term relationships, and that they invested in employee training programs. Additionally, union and nonunion ECs overwhelmingly share the opinion that customers influence service quality, however, only about 60% of respondents from each group measure customer satisfaction.

In-depth Interviews

Data gathered from four in-depth executive interviews served as a complement to the survey responses and a point of comparison. The interview script, as mentioned previously in the “General Demographics” section, was designed to capture information similar to the survey instrument. The interviews addressed satisfaction, quality and value in the EC environment. Contrasting responses from interviewees provided deeper insight into the service management practices of EC firms.

The organizations that participated in the interviews were, on average, older (90.5 years) and larger (264 employees) than the international, service-based contractor network survey respondents. Service work represented between 10 and 20% of each firm’s revenue portfolio, which is considerably less than the 48% reported by the service-based contractors. All interviewees employed union labor and operated on a regional scale.

Table 4 aggregates the data gathered from all four interviews. Duplicate responses are bolded and underlined to indicate their significance.

Table 4: Insights from executive interviews (duplicate responses are shown in bold)

Interview Question	Responses
Is the construction industry different than other industries? If so, how?	<ul style="list-style-type: none"> • Time-sensitive • Flexibility • Uncontrollable variables (weather) • <u>Highly volatile, reactive to market conditions</u> • Variability of day-to-day tasks
Is the electrical contracting (EC) industry different from other parts of the construction industry? If so, how?	<ul style="list-style-type: none"> • More design • More pre-planning • Highly engineered • More forethought • Technology and innovation oriented • Reactive to other trades • Scheduling and meeting milestones is more critical • More risk management • <u>Highly-skilled personnel</u> • <u>More dangerous</u> • Specialized training • Unique safety concerns • Stock more materials/inventory

Table 4 continued

Interview Question	Responses
<p>Is service work in the EC industry different than other types of work?</p>	<ul style="list-style-type: none"> • Reactive to emergencies • Not much vision for maintenance • <u>Unpredictable</u> • Greater preparation required • <u>Time-critical</u> • <u>One-shot to perform work correctly</u> • Technicians are "people" persons • Better candidates possess better attitude • <u>Soft skills, "people" personality, appearance, and attitude</u> • Self-selection of employees • Independent work ethic • <u>Cleaner environment</u> • Incentives (Vehicle and gas card) • Less market volatility • Customer-oriented mentality • <u>Long-term relationship</u> • <u>Relationship with the end-user</u> • Flexibility • Specialty equipment • <u>Incentives (vehicle and gas card)</u> • Extensive training for service work • Challenging
<p>How does your organization measure success?</p>	<ul style="list-style-type: none"> • <u>Profitability & gross margin</u> • <u>Repeat customers & sales</u> • Defections • Name-recognition of technicians • Satisfied customers • Customer Retention • Renewal agreements • Growth (# of employees and volume of work) • Achieving strategic goals
<p>How does your organization measure quality of its work? Internally and externally?</p>	<ul style="list-style-type: none"> • Quality culture • Investment in cooperation & coordination • <u>Dictated by code & industry standards (ISO compliance, NECA)</u> • Organizational structure • <u>Checks and balances driven by personnel in field (Bottom-up)</u> • Safety • Extensive training offered • Training and tools • Assess customer expectations

Table 4 continued

Interview Question	Responses
<p>How does your organization create and measure value for its work? Internally and externally?</p>	<ul style="list-style-type: none"> • Golden Rule • Repeat Business • Accessibility • Diversity of service capabilities • Targeted customer events • <u>Services provided versus cost</u> • <u>Price relative to competition</u> • Extended warranty period • Thank you letters • Return on investment • Based on customer expectations
<p>How does your organization measure satisfaction of its work? Internally and externally?</p>	<ul style="list-style-type: none"> • No formal process • Encourage customer contact • <u>Customer phone calls & surveys</u> • Complaints • Employee satisfaction influences quality and customer satisfaction • Customer events • <u>Periodic visits to past and current customers</u> • Open-door policy with employees • <u>Low employee turnover</u> • Employee development and empowerment • Latitude to solve problems • Number of call backs • Referrals
<p>What is the best way to plan for becoming service-centric as an organization?</p>	<ul style="list-style-type: none"> • Develop appetite for risk • Become opportunistic • Sell capabilities • Join associations • <u>Accurate, timely accounting & invoicing</u> • Flexible • <u>Customer-centric philosophy</u> • Knowledgeable technicians • <u>Flexibility & willingness to adapt</u> • Provide opportunities for new employees to try service work
<p>How does your organization strategically measure return on investment for service-related work?</p>	<ul style="list-style-type: none"> • <u>Cost vs. profitability</u> • Understanding customer needs • Separate measurement systems • Number of calls • More attuned to accounting cycles

Table 4 continued

Interview Question	Responses
Miscellaneous Insights	<ul style="list-style-type: none"> • Market volatility • Family culture • Service electrician assigned to projects prior to closeout • Commitment to accessibility through first point of customer contact • No job titles on business cards • Service orientation is a design issue • Opportunities for customers to self-service

The interview responses reinforce many of the findings from the literature review and survey. However, several important insights can be gleaned from the information shared by multiple interviewees. Each firm interviewed emphasized the criticality of performing service work correctly the first time, given the competitiveness of the EC industry. Similarly, all of the ECs interviewed indicated that service work employees differed from employees performing new construction work. Service workers were associated with words like “self-motivated”, “independent”, “flexible”, and “friendly,” and were highly valued by their respective organizations. As such, EC firms offered greater incentives to service employees, most frequently in the form of vehicles and gas cards.

While interviewees noted the connection between customer expectations and service quality, managers suggested that quality was a cultural value driven by a bottom-up commitment from employees. Interestingly, one interviewee noted that field workers understood the necessity of quality safety in the context of profitability. If a co-worker was injured or the firm’s quality reputation marred, it could threaten future work and employment. Self-policing in the field and ensuring the safety of fellow workers was encouraged. This reinforces another insight shared by several of the ECs interviewed, the notion of the firm as a “family.” Interviewees noted that their businesses suffered from very low rates of turnover that was directly attributed to the inclusive culture of the firm.

When questioned about the best way to plan for becoming a service organization, EC interviewees pointed to a more-timely accounting and invoicing system. Interviewees cited the need to provide fast and accurate invoices to customers, especially surrounding the end of the customer’s fiscal year. An investment in accounting systems is interesting because it is not consistent with the data gathered in the survey. It is, however, a practicable solution for firms transitioning toward service management. The next section of the paper identifies these solutions and connects them to the framework developed earlier.

Part 4: Opportunities for Excellence

Proposed Service Management Metrics for Electrical Contractors

In an effort to provide ECs with a more practical approach to service management, the research team linked the findings from the literature review, survey responses, and in-depth interviews to the primary business drivers (identified previously). The resulting **Table 5** is a synthesis of academic research and industry insights. It is intended to be a roadmap for ECs considering service management implementation by realigning business objectives, organizational structure, and the adoption of alternative metrics for service success. Building on the conceptual framework, the chart provides valuable tools for EC managers to effectively transition toward services.

Table 5 expands on the patterns and best practices identified from the survey data and executive interviews to craft these insights into more relevant practices for ECs to implement. Service metrics have been connected to specific areas within the conceptual framework as a means of quantifying, primarily qualitative, data. The goal is to develop a practical approach to managing service work by providing decision makers with an awareness of relationship-based metrics to effectively deliver services.

Table 5: Proposed service management tools and metrics for ECs

Service Dimension	Perspective	Tools	Metrics & Controls
Satisfaction	Employee Satisfaction	<ul style="list-style-type: none"> • Surveys • Interviews/Meetings • Knowledge of Customer • Inclusive Culture • Incentives • Development Opportunity 	<ul style="list-style-type: none"> • Employee Turnover • Productivity • Customer Satisfaction
	Customer Satisfaction	<ul style="list-style-type: none"> • Feedback surveys • Letters of complaint • Online Feedback • Defections • Phone Calls • Periodic Visits • Targeted customer events 	<ul style="list-style-type: none"> • Repeat Sales • Referrals

Table 5 continued

Service Dimension	Perspective	Tools	Metrics & Controls
Quality	Internal Quality	<ul style="list-style-type: none"> • Checklists • Daily Walkthrough • Inspections • Training • Leadership • Safety Briefings • Empowerment 	<ul style="list-style-type: none"> • Productivity • Safety/Accidents • Incentives
	External Quality	<ul style="list-style-type: none"> • Credibility • Reliability • Competence • Courtesy • Personalized Service • Responsiveness 	<ul style="list-style-type: none"> • Work completed • Customer Satisfaction Relative to Output
Value	Firm Value	<ul style="list-style-type: none"> • Strategic Goal Setting • Firm Culture • Accounting Systems • Customer Relationship Management • Human Resource Management 	<ul style="list-style-type: none"> • Profitability (cost vs. revenue) • Utilization • Customer Retention • Employee Retention
	Consumer Value	<ul style="list-style-type: none"> • Resolve Problems • Timely Billing • Surveys 	<ul style="list-style-type: none"> • Perceived Superiority • Price vs. Cost

Limitations and Future Research Opportunities

The proposed service management model for ECs incorporates both theoretical constructs from a review of service literature and practical insights from exemplars in the EC industry. It reflects a process in which the qualitative drivers of service management were identified and explored in the context of the EC firm. However, because of the limitations and subjectivity of many elements within the study, the research investigation leaves ample opportunity for future development.

Two noteworthy concerns limit the significance of this research endeavor. First, the small availability of survey respondents precludes highly statistically significant survey results. A larger sample of international, service-based ECs would likely yield more responses and patterns from which more meaningful inferences could be drawn. Likewise, a greater number of executive interviews would have likely resulted in data with more consistencies, which may have held more relevant implications for the development of the service management model. Nevertheless, the numbers accumulated for this work are more robust than other studies of service work in the EC industry and are significant at the appropriate level presented here.

While the research attempted to link quantifiable metrics with qualitative concepts, further study is needed to determine the accuracy and efficacy of these metrics within the context of an EC firm performing service work. A cost-benefit analysis of implementing the metrics proposed in the service management model would be useful to inform EC decision-makers and justify the adoption of pursuing service offerings. A more detailed case study of an individual or multiple EC firms transitioning to service management could yield opportunities to test the effectiveness of the model. Likewise, further research is required to determine if the suggestions from this study are universally applicable for EC managers, regardless of firm size, labor type (union vs. non-union), or geographic location.

Additional investigation into the service quality factors that EC customers perceive as important and the skill sets of service employees would provide a fascinating complement to the ideas introduced in this study. Interviewing customers to determine their behavioral patterns and criteria for success could help to identify opportunities for improvement in EC services, given that customer's perceptions have been identified as the shapers of service quality. Likewise, further exploration of the "soft" skills that differentiate service worker from other employees would expand the EC industry's understanding of how to identify, train, and cultivate service personnel.

Finally, studies could be performed using energy efficiency as a determinant of value for ECs. Given the increased demand for sustainability in the industry, calculating the cost advantages associated with reducing and re-tuning a customer's electrical system could be a significant competitive advantage for ECs able to market these services. Additional research is required to develop verifiable and consistent metrics for determining energy efficiency throughout the industry.



Conclusion

The findings of this study provide evidence that a strategic model of service management can be crafted to address the distinctive characteristics of service work in the EC industry. While many ECs continue to chase new construction contracts, service work is emerging as a viable opportunity for those firms that can provide it. It is imperative for ECs to develop service competencies and implement service management strategies to more effectively create value. Value can no longer be conceived in the limited context of price-to-cost ratios or profitability, though they are important measuring sticks. Instead managing relationships, including stakeholder perceptions and expectations should be seen as the drivers of value creation.

Electrical contracting may not be regarded as the most progressive industry, but radical innovations are on the horizon. As energy costs continue to rise, there is pressure to enhance the infrastructure that delivers electricity. After decades of marginal improvements, the country's electrical network is in the midst of a substantial transformation toward more intelligent, responsive technology. Martin Casstevens, Director of Directed Energy at the University of Buffalo notes, "Today, the industry looks toward developing a smart grid: one that is more efficient, more reliable and focused on being far more responsible to the electricity needs of consumers...this imminent paradigm shift will completely change the way electricity is produced, distributed and consumed, sparking new and exciting opportunities in a wide range of areas" (Casstevens as cited in Goldbaum, 2010). Now is the time for ECs to transition to service management, to add value-added services, and to become experts in performing service work, or else they risk being left in the dark.



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Appendix A: Questions and Sources

	DETAILED QUESTION	SOURCES
1	General Demographics: What is the size of your organization? Where do you perform work? How many years in the business? Years performing service work? What is your title? SHORT ANSWER	
1A	How much of your organization's revenue portfolio is: <ul style="list-style-type: none"> • New Construction? LIST PERCENTAGE • Retrofit? LIST PERCENTAGE • Service and Maintenance? LIST PERCENTAGE 	
2	Is the construction industry different than other industries? YES/ NO. If so, how? SHORT ANSWER	Barrett 2000; Gronroos 1994; Karna et al 2004; Maloney, 2003; Torbica and Stroh 2001; Yasamis et al. 2002
3	Is the electrical contracting (EC) industry different from other parts of the construction industry? YES/ NO. If so, how? SHORT ANSWER	Hanna et al., 1994
4	Is service work in the EC industry different than other types of work? YES/ NO. If so, how? SHORT ANSWER	Al-Momani 2000; Gronroos 1994; Maloney, 2003; Parasuraman et al. 1985; Reichheld and Sasser 1990; Schlessinger and Heskett 1991; Yasamis et al. 2002
5	Please list ways that your organization measures success? LIST ANSWERS	Ahmed & Kangari 1995; Barrett 2000; Gronroos 1994; Heskett et al. 1994; Schlessinger and Heskett 1991
6	How does your organization measure quality of its work?	Al-Momani 2000; Barrett 2000; Gronroos 1994; Heskett et al. 1994; Karna et al 2004; Parasuraman et al. 1985; Reichheld and Sasser 1990; Yasamis et al. 2002
6QE	How do you define service quality for your organization? Does quality of service depend on the size of the organization? Is quality part of your marketing to customers? If so, how? Do your customers drive quality? If so, how?	Gronroos, 1994; Parasuraman, 1985
6QI	Describe your workplace culture. Can you characterize the relationship between management and frontline labor personnel? Do you spend invest in employee marketing? If so, how? If not, why not? What criteria do you use to evaluate potential employees? How many people would you estimate you interview for each position? How many employees would you estimate are in middle management within your organization? What reporting tools do they use to disseminate information?	Maloney, 2002; Heskett et al., 1994; Maloney, 2002; Schlesinger et al., 1991

	DETAILED QUESTION	SOURCES
7	How does your organization create and measure value for its work?	Al-Momani 2000; Gronroos 1994; Parasuraman et al. 1985; Reichheld et al. 2000; Reichheld and Sasser 1990
7VE	Does competitive advantage come from smaller market orientation? Do you view your customers as long-term or short-term relationships? Why? How? Please describe your marketing approach. Are operations people part of this marketing plan? [These would include informal market knowledge by people on the front line, in the field] How does your service organization measure success? Reward Employees? (offer a M/C or % amount between profitability, customer loyalty, and employee satisfaction, loyalty and productivity)	Gronroos, 1994; Heskett et al., 1994
7VI	How is employee productivity measured? Do you tie incentives to employee performance? What is the rate of turnover within your company? How do you think this compares to the national average? Does this work with your company's business model? Do you invest in employee training programs? If so, what are they?	Heskett, 1994; Reichheld, 1990; Heskett, 1994; Schlesinger, 1991
8	How does your organization measure satisfaction of its work?	Al-Momani 2000; Ahmed & Kangari 1995; Gronroos 1994; Maloney, 2003; Parasuraman et al. 1985; Reichheld et al. 2000; Reichheld and Sasser 1990; Schlessinger and Heskett 1991; Torbica and Stroh 2001; Yasamis et al. 2002
8SE	Do you have a way of knowing about your customers' satisfaction and loyalty? If so, What has lead to dis-satisfied and defecting customers in the past? What has lead to returning and loyal customers in the past? What do you perceive to be the most important customer satisfaction factors? How does your organization measure productivity?	Gronroos, 1994; Maloney, 2003
8SI	Do you measure employee satisfaction? How? Do your employees know who their customers are? How much freedom do employees have to resolve customer issues and problem solve? What role does technology play in your organization? What are the technological support systems used by your company? Do employees like and utilize them?	Schlesinger et al., 1991; Reichheld et al., 1990; Heskett, 1994; Schlesinger, 1991; Heskett, 1994
9	What is the best way to plan for becoming service-centric as an organization? <ul style="list-style-type: none"> • Where would this change be written into a business plan? Do certain areas need to be altered? Amended? Deleted? • How might I change to service work differently, depending on the size of my company? • What criteria should influence the structure of my company? And my approach to customer and employee management?	Gronroos, 1994; Parasuraman et al., 1985

Appendix B: Survey Instrument

Consent

Q1 Informed Consent Form

You will be asked to complete a short survey. The questionnaire consists of 35 questions and is designed to take approximately 20 minutes or less. All data obtained from participants will be kept confidential and will only be reported in an aggregate format (by reporting only combined results and never reporting individual ones). If you have questions regarding this study, you may contact Dr. Andrew McCoy, at 540-449-1861, apmccoy@vt.edu or research assistant Chris Ternes, 757-288-1646, tcternes@vt.edu. If you have questions you do not feel comfortable asking the researcher, you may contact Dr. David M. Moore, moored@vt.edu.

Q2 I have read, understood, and printed a copy of, the above consent form and desire of my own free will to participate in this study.

Yes

No

If No Is Selected, Then Skip To End of Survey

General

Q3 What is your job title?

Q4 What is the approximate employee make-up of your organization?

_____ Management

_____ Labor

_____ Administrative

_____ Other

Q5 Do you employ union or non-union labor?

Union Labor

Non-Union Labor

Q6 Please list the jurisdictions in which you perform work.

Q7 Where do you primarily perform work?

Q8 How many years has your organization been in business?

Q9 Who typically makes purchasing decisions for your firm?

Q10 How much of your organization's revenue is from:

_____ New Construction:

_____ Retrofits:

_____ Service and Maintenance:

_____ Other (please specify):

Q11 Is the electrical contracting industry different than other parts of the construction industry?

Yes

No

Q12 Please list reasons why.

Quality

Q13 How does your organization define service quality?

Q14 Do you believe that a firm's size impacts its ability to provide high-quality service in your industry?

Yes

No

Q15 Is quality part of your marketing to customers?

Yes

No

Q16 How?

Q17 Do your customers influence service quality?

Yes

No

Q18 How?

Q19 Do you invest in marketing to your employees?

Yes

No

Q20 How?

Q21 Please list some of the initiatives within your organization between labor and management. Check all that apply.

Customer Feedback Meetings

Lessons Learned Debriefs

Project Status Meetings

Continuous Improvement Programs

Reward Programs

Health and Wellness Programs

Employee Image Programs

Other _____

Answer If Please list some of the initiatives within your organization... QID24 (Count) Is Equal to 1

Q22 If you selected any of the initiatives above, please briefly describe them.

- Customer Feedback Meetings
- Lesson Learned Debriefs
- Project Status Meetings
- Continuous Improvement Programs
- Reward Programs
- Health and Wellness Programs
- Employee Image Programs
- Other

Value

Q23 How does your organization create and measure value?

Q24 Do you view customers as long-term or short-term relationships?

- Long-Term
- Short-Term

Q25 How does your marketing strategy address this?

Q26 How is employee productivity measured?

Q27 Are incentives tied to employee performance?

- Yes
- No

Q28 If so, which incentives does your organization use to reward its employees? (Check all that apply).

- Monetary
- Time-off
- Recognition
- Additional Benefits
- Other _____

Q29 What is the percentage of employee turnover within your organization (no percentage symbol required)?

Q30 Do you invest in employee training programs?

- Yes
- No

Q31 If so, which?

Satisfaction

Q32 Do you measure customer satisfaction?

- Yes
- No

Q33 How do you measure customer satisfaction?

Q34 What factors do you perceive to be the most important to your customers? Please list any other factors you may consider relevant in the 'Other' category.

	1-NOT IMPORTANT	2-LESS IMPORTANT	3-NEUTRAL	4-IMPORTANT	5-VERY IMPORTANT
Access (approachability and ease of contact)					
Communication (keeping customers informed)					
Competence (possessing the required skill to perform work)					
Courtesy (politeness, respect, consideration, and friendliness of contact personnel)					
Credibility (honesty, trustworthiness, and believability)					
Reliability (consistency of performance and dependability)					
Responsiveness (timeliness of service)					
Security (freedom from risk, danger, or doubt)					
Tangibles (physical evidence of work performed)					
Personalized Service (understanding the customer's needs)					
Other					
Other					

Q35 Do you measure employee satisfaction?

Yes

No

Q36 How do you measure employee satisfaction?

Q37 Are employees...

	Yes	No
Aware of who their customers are?		
Granted freedom to solve customer problems?		
Using technology on a daily basis?		
Generally in favor of the organization's technological support systems?		

Strategy

Q38 What areas would you change within your organization's business plan to become more service oriented? Check all that apply.

Marketing

General Management

Operations

Financial

General Strategy

Human Resources

Accounting

Other _____

Q39 Please describe the nature of the Marketing change:

Q40 Please describe the nature of the General Management change:

Q41 Please describe the nature of the Operations change:

Q42 Please describe the nature of the Financial change:

Q43 Please describe the nature of the General Strategy change:

Q44 Please describe the nature of the Human Resources change:

Q45 Please describe the nature of the Accounting change:

Q46 Please describe the nature of the 'Other' change:

Q47 How does your organization strategically measure return on investment for service-related work?





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