Assessing Outsourcing Strategy on Quality and Performance of US Long-term Healthcare

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US healthcare executives face the continual challenge of reducing costs while maintaining quality patient care in an environment of continuous change. As such, outsourcing has become one of the strategic tools healthcare organizations use to control costs without adversely affecting patient care. This study uses transaction cost economic theory to argue that contractual relationships among firms arise from efficiency-seeking actions. This research reveals that a well-developed outsourcing strategy reduces operational costs and improves the quality of long-term care facilities. Furthermore, the results show that healthcare facilities can increase financial performance by building trust and relationships with outsourcing vendors.

INTRODUCTION

Outsourcing has been implemented in many areas and industries such as finance, accounting, information systems, manufacturing, and personnel. Outsourcing has been defined as an "act of moving some of a firm's internal activities and decision responsibilities to outside providers" Chase et al. (2004, p. 372). Recently, numerous manufacturing companies have outsourced part of their production process (Boulaksil and Fransoo, 2010). Outsourcing is often called a "make-or-buy" decision. Many firms must choose what to perform internally versus what to "buy" in the marketplace. Generally, the common reasons for companies to decide to outsource involve the potential to reduce costs and increase flexibility. Many studies have indicated the predominant reason for offshoring and domestic outsourcing is a short term price saving (Ellram et al., 2008).

Companies might outsource professional services in information technology, accounting, and payroll which require unique skills, thereby providing companies with better and more state of the art services than they are able to afford internally. Notably, many organizations have been warned not to outsource items that are part of their core competency (Arnold, 2000; Prahalad and Hamel, 1990; Venkatesan, 1992; Quinn and Hilmer, 1994). A focus on core capabilities is one reason that organizations are increasingly outsourcing non-core activities to external vendors (Krause, 1999). For a traditional manufacturing organization, the development and maintenance of new technologies that do not directly support manufacturing activities may lead to a drain on company resources, and thus, become a suitable candidate for outsourcing (Samaddar and Kadiyala, 2006). Nevertheless, the firms should maintain suitable controls and monitoring of outsource relationships.

The US healthcare industry has utilized outsourcing to cope with reimbursement reductions from the 1997 Balanced Budget Act and managed care regulations. Specifically, US healthcare executives face the

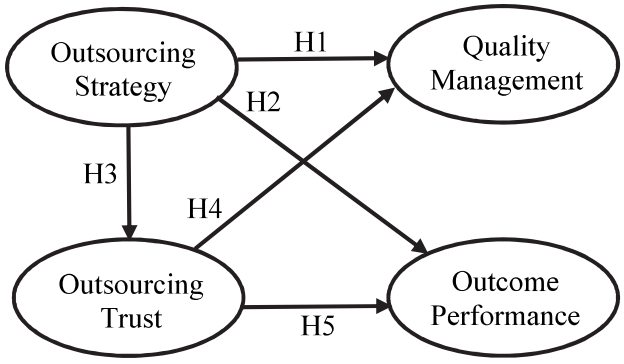
challenge of reducing costs while maintaining quality patient care in an environment of continuous change and turbulence. Most US hospitals and healthcare systems are dealing with reimbursement reductions due to budget cuts in Medicare and Medicaid. Recently, the Affordable Care Act requires improvement of quality indicators in order to receive reimbursements. In order to cope with this situation, the healthcare industry has begun focusing on outsourcing as a way of lowering overall costs. As such, outsourcing has become one of the strategic tools healthcare organizations use to control costs without affecting patient care. In a typical skilled nursing facility (SNF), numerous parties exchange goods and services in the delivery of care. Specifically, resident care is rendered through a complex series of transactions among various parties, including, but not limited to: physicians, pharmacists, equipment distributors and manufacturers, rehabilitation therapists, laboratorians, and dieticians. Some of these transactions occur among the employees of the nursing home while others involve contractual relationships with outside parties (Zinn et al., 2003). The most outsourced functions in US healthcare are information technology (29%), finance (20%), and support services (19%) (Roberts, 2001).

Given the continued growth expected in healthcare outsourcing, healthcare executives need to avoid the failures and problems experienced in other industries by strategically managing outsourcing. This study suggests that contractual relationships among and within firms arise from efficiency-seeking actions transition into outsourcing strategies; likewise, organizations incur costs as a result of planning, implementing, and enforcing exchanges with other organizations. With respect to external supplier exchange relationships, transaction costs can include contract negotiations, monitoring adherence to contractual terms, providing financial incentives or penalties, and losses resulting from supplier noncompliance. This research maintains that a well-developed outsourcing strategy can reduce operational costs and improve the quality of long-term care facilities. The results also show that healthcare facilities can increase financial performance by building trust and relationships with outsourcing vendors.

LITERATURE REVIEW AND HYPOTHESES

This section provides the literature review for outsourcing strategy and outsourcing trust. Furthermore, the theoretical hypotheses will be established within the literature review. Please see Figure 1 for the research model.

FIGURE 1
RESEARCH MODEL



Control variables:
HHI & Urban/non-urban

Outsourcing Strategy

Manufacturing outsourcing has been common practice for decades. Thus, manufacturing outsourcing was given much attention in the late 1980s and early 1990s. At that time, a fear existed that industrialized

nations were compromising their long-term competitiveness by "hollowing out" their manufacturing through outsourcing. Presently, attention is more often focused on the outsourcing of professional services (Ellram et al., 2008). Some managerial concerns regarding outsourcing are that firms might suffer a loss of control of their core activities; however, other viewpoints exist in which managers focus on the strategic implications (Quinn and Hilmer, 1994), financial and human resource implications (Lever, 1997), and the outsourcing of logistics functions to outside vendors (Andersson and Norrman, 2002).

Beyond the initial motivations and implications of outsourcing, many studies have investigated the benefits of outsourcing (Jiang et al., 2007), as well as the risks (Schniederjans and Zuckweiler, 2004). Many organizations are outsourcing non-core activities to external organizations in order to concentrate on core capabilities (Krause, 1999). Some companies wish to preserve their company's resources due to the high cost of R&D and attaining new technologies that do not directly support their core competency; these areas could then become candidates for outsourcing (Samaddar and Kadiyala 2006).

Strategic outsourcing decisions have been mainly motivated by the transaction cost theory (TCT) (Holcomb and Hitt, 2007), resource-based view (RBV) (McIvor, 2009), and a focus on core competences (Prahalad and Hamel, 1990). This specifically involves the decisions related to whether to outsource or not, the operational planning and control of outsourced operations, as well as resolving any operational issues that follow the outsourcing decision. Certainly, the strategic outsourcing process can be very complex among different functional departments. Thus, careful planning of the structure process for outsourcing is essential. Moreover, determining which functional activities or areas are suitable to be outsourced and which suppliers or vendors are qualified is an important process. Furthermore, risk associated with the outsourcing process and outsourcing contracts must be considered. These are crucial elements for good design strategic outsourcing (Amaral et al., 2006). A firm’s performance may suffer disproportionately due to outsourcing an amount that is different from the optimal degree of outsourcing. This relationship brings about an inverted U shape, which shows how a firm has veered away from the optimal degree of outsourcing (Boulaksil and Fransoo, 2010).

Due to dependence on governmental reimbursement policies, US healthcare firms face the challenge of reducing costs while maintaining quality patient care in an environment of continuous change and turbulence (Chen and Taylor, 2016). Outsourcing involves transferring services or operating functions that are traditionally performed internally to third-party service providers and controlling the sourcing through contract and partnership management (Amaral et al., 2006). Recently, outsourcing has become one of the key strategic tools used by healthcare executives to control costs without affecting patient care. In general, similarities exist between healthcare industries and manufacturing firms regarding outsourcing: (1) whether to allocate the resources to generate most efficiency and (2) whether to reduce resources when they are not effective. Thus, healthcare management must determine the areas in which they are least efficient and outsource to the most efficient vendors. However, since healthcare is a highly service oriented industry, customers require more personal contact. In certain situations, outsourcing might undermine the core competencies for the firm’s future capabilities and development (Roberts, 2001).

Information technology (IT) has the potential to improve quality and dramatically reduce costs by streamlining back office operations. IT is known for better problem-solving and seeking higher efficiency, which may include reducing the cognitive burden of practitioners, and automating patient safety practices in healthcare (Hillestad et al. 2005). In US healthcare, a level of diversity exists among technological tools and software which may have a positive effect on the ability to provide better quality of care due to its support of administration, clinical, and patient care (Alexander and Wakefield, 2009). Nursing home technologies have been lacking business applications concerning billing/claims, eligibility processing, and the minimum data set. In addition, nursing homes rarely reach these levels of sophistication; for example, few nursing homes incorporate electronic health records into clinical processes (Alexander, 2008). Thus, the skilled nursing facilities (SNF) might not have the necessary expertise in information technology. If SNFs implement effective strategic outsourcing of IT to external vendors, SNFs can concentrate on the core-competencies in patient care. Therefore, we propose:

Hypothesis 1: Strategic outsourcing will lead to improved quality management.
Hypothesis 2: Strategic outsourcing will lead to improved performance.

Outsourcing Trust

In most circumstances, the process of outsourcing is very complex. Therefore, outsourcing plans must be organized carefully and risks should be considered as well. Strategic outsourcing can be partly managed by investing in processes and information systems to further building a good relationship with contractual suppliers (Amaral et al., 2006). Zinn et al. (2003) stated that transaction costs with subcontractors can be assessed via contract negotiations, incentives or penalties, and monitoring the contractual conditions or noncompliance from suppliers. Generally, firms may encounter two internal uncertainties: not knowing what they want from the process and being unable to confirm whether a supplier has performed all the contractual requirements (Ellram et al., 2008). When conflict happens without incentives to settle disputes, the firms eventually change providers (Lavoie et al., 2010). Contractual deficiencies may lead to marginalized service performance; in such instances, the standards of service often are difficult to measure and monitor effectively. These deficiencies lead to further obligations for firm's internal staff to cope with unfulfilled work by external vendors. Thus, detailed contractual arrangements should be established among two parties (Young and Macinati, 2012). Moreover, building a relational contract which is co-operative and flexible allows mutual planning and bargaining between the firms. Hence, a stable process of building trust can occur through a series of negotiation and communication among the parties. Relationship and trust develop over time via repeated interactions, established goodwill, taking risks and matched performance (Fernandez, 2009). Consequently, higher levels of trust can reduce the need to monitor subcontractors thereby reducing unnecessary transaction costs (Lavoie et al., 2010).

Kossover et al. (2014) noted that of the 50 states, 88% allow subcontracting to outside vendors to provide routine medical services onsite to assisted living residents. When it comes to outsourcing of healthcare, many executives have fears which include loss of control and flexibility over the delivery of outsourced services and becoming completely dependent upon vendors or becoming responsible for their actions. Moreover, if outsourced confidential information is exposed by the vendor, then severe consequences may result. As mentioned early regarding outsourcing IT service for the US healthcare industry, some concerns exist for the administrators for SNFs. When a contractor deviates from the agreement, a loss of internal technical skills (IT) and expertise (human resources) occurs, revealing greater risks with outsourcing. There could also be a negative outlook upon an organization's reputation due to the fact that outsourcing is viewed by many Americans as the exploitation of low-cost workers (Roberts, 2001). Furthermore, compliance violations must be considered when an organization outsources billing and reimbursement claims, namely Medicaid and Medicare. In order to prevent a lack of compliance, organizations must evaluate each future outsourcing partner and consider their history of compliance violations in order to determine what measures must be taken to ensure compliance (Gustafson, 2000). Moreover, Zinn et al. (2007) studied such "make-or-buy decision" on nursing home therapy. They found that SNFs shifting from outsourcing therapy to in-house therapy tends to provide better financial performance due to the administrators proactively monitoring outsourcing costs.

However, benefits of outsourcing in healthcare are evident. External vendors can offer integrated services which increase the value for the clients. Additionally, SNFs are reimbursed by the Medicare program under a reasonable cost based system; which directly bill the Medicare program for services rendered onsite, allowing SNFs to avoid clinical and financial expenses associated with administering these services. Nearly 70 percent of nursing home facilities contracted with outside vendors for all physical or occupational therapy services (Zinn et al., 2007). Moreover, highly qualified specialists can deliver IT to enhance the lack of depth of knowledge among SNFs (Roberts, 2001). IT outsourcing generally involves a clear description of the contractual agreement regarding the services to be offered. Both parties should establish good communication regardless of the distance and time between two entities (Thouin et al., 2008). Lorence and Spink (2004) surveyed 16,000 healthcare information managers in the US to assess preferences for outsourcing information systems. They found that the

managers believe that outsourcing can improve patient care, cost savings, and competition. Therefore, outsourcing trust and building outsourcing relationships should begin with a well-defined outsourcing strategy and contractual agreements between two parties. Through the process of building the trust with partners, outsourcing can benefit and improve patient quality of care and reduce costs for healthcare industry. Thus, we propose:

Hypothesis 3: Strategic outsourcing will lead to increased outsourced trust.

Hypothesis 4: Building outsourced trust will lead to improved quality management.

Hypothesis 5: Building outsourced trust will lead to improved performance.

DATA AND METHODS

Data Collection

1,500 surveys were distributed to the administrators of U.S. skilled nursing facilities. 264 surveys were received, including the mailings with incorrect mailing address, unwilling participants, or surveys received with more than 20% of the survey items unanswered. A small quantity of missing data items were replaced with scale average scores for this study. Some research studies suggest that facilities with less than 30 beds contain staffing characteristics with low signal-to-noise ratios and should not be included in the analysis (Liu and Castle, 2009). Therefore, the final sample size of 243 valid surveys were analyzed to comprise a response rate of approximately 16.2%. The differences in size of nursing facilities and differences in organizational status (for profit and not-for profit status) were examined between responding and non-responding facilities to test how the sample might differ from the population. The Chi-square test statistic is assessed for the number of beds and indicates a value that is not significant (χ^2 = 0.71, *d.f.* = 2, P = 0.701) showing that the response rate in the number of bed sizes is not significant. Non-respondent bias by nursing home ownership (For Profit, Not-For Profit) was evaluated and also indicated no significant difference between respondents and non-respondents (χ^2 = 2.28, *d.f.* = 2, P = 0.32).

Source of the Data

The data were collected from an archival dataset, followed by a distribution of mail surveys for this research. The archival data were collected from Healthcare Cost Report Information System (HCRIS) which is available through the Center of Medicare and Medicaid Services. The Center for Medicare and Medicaid Services (CMS) gathers nursing home data through surveys or self-reporting systems, including performance of cost, utilization, case-mix severity and quality aspects. The information is compiled into annual summary reports for individual private nursing facilities, nursing home chains and state regulatory agencies (Lenard and Shimshak, 2009). CMS ensures that the data/records/reports to HCRIS are complete, accurate, and comprehensive at the time of publication. This cost report reveals providers' information such as facility characteristics, cost and charges by cost center, utilization data, and financial statement data. Therefore, the outcome performance of operational efficiency and financial performance measurement items are abstracted from the Healthcare Cost Report Information System.

Additionally, a mail survey was conducted by sending survey instruments to the administrators of 1,500 SNFs. The 7-point Likert-scale survey items included in the questionnaires were tested prior to being sent out and validated by other empirical studies. These survey items were comprised of outsourcing and quality management measurements. Please see Table 1 for the data sources. The survey items involving quality management were obtained from Meyer and Collier (2001) who tested the seven categories of the 1995 Baldrige Health Care Pilot Criteria framework. Since then, Baldrige has published the newest 2015-2016 Malcolm Baldrige Health Criteria. However, the content remains similar to the 1995 criteria with only slight modifications of the seven categories' designations to (1) Leadership, (2) Strategic Planning, (3) Customer Focus, (4) Measurement, Analysis and Knowledge Management, (5) Workforce Focus, (6) Operations Focus, and (7) Results.

Validity Measurements

A second-order reflective construct for quality management is designed for this analysis to reflect Malcolm Baldrige Health Care Criteria. Next, confirmatory factor analysis of indicators for construct validity is assessed to test for general reliability by applying Partial Least Squares Structural Equation Modeling (PLS-SEM) to model internal consistency procedures (Gefen and Straub, 2005). All composite reliability values are between 0.981 and 0.813 which exceed 0.70, thereby indicating acceptable reliability. All average variance extracted (AVE) values range between 0.963 and 0.531 (at construct level) which is greater than 0.5. This suggests that convergent validity at the indicator and construct levels are verified. The square root of each AVE is examined for the discriminant validity and should be greater than 0.7 (Chin, 1998) and exceed the related inter-construct correlations for reflective constructs. All the square roots of AVE are greater than the related inter-construct correlations. Construct validity, composite reliability, convergent validity, and discriminant validity are described above and all the criterion are met for further data analysis (Table 1).

TABLE 1
MEASUREMENT SCALES AND LOADINGS

Outsourcing – Strategy: (AVE=0.693 /CR= 0.876 /CA=0.816)	Item Loading
Source: Samaddar *et al*. (2006)	
Outsourcing information systems can increase our competitiveness	0.827
Our competition has reduced its overall costs by outsourcing	0.803
Our facilities will increase outsourcing in the future	0.785
Our outsourcing decisions can reduce our overall costs	0.783
Outsourcing –Trust: (AVE=0.687 /CR=0.867 /CA=0.769)	
Source: Ellram (2008) and Samaddar *et al*. (2006)	
We trust our outsourcing vendors	0.896
We are satisfied with our outsourcing vendors	0.882
Our outsourcing vendors maintain their contractual obligations	0.692
Quality Management: (AVE=0.531 /CR=0.955) Second-order factor	
Source: Meyer and Collier (2001)	
Leadership: (AVE=0.598 /CR=0.881 /CA=0.830)	
Our senior executives are involved in quality activities	0.842
Our senior executives focus on improving patient care	0.785
We use performance feedback to improve our quality of care	0.783
We integrate public responsibility into performance improvement efforts	0.736
Our employees can articulate the nursing home's mission	0.712
Workforce Focus: (AVE=0.640 /CR=0.899 /CA=0.860)	
We use a variety of methods to measure employee satisfaction	0.828
Employees are rewarded for learning new skills	0.810
We derive employee development objectives from strategic objectives	0.796
Our work environment supports the well-being and development of all employees	0.792
Frontline employees are trained on how to handle service failures	0.775
Customer Focus: (AVE=0.693 /CR=0.900 /CA=0.852)	
Using multiple sources for patient feedback	0.868
Coordinating patient feedback across all departments	0.846
Using patient feedback to plan future service delivery systems	0.830
Identify potential (currently unserved) market segments	0.784

Measurement, Analysis and Knowledge: (AVE=0.585 /CR=0.875 /CA=0.821)	
Organizational planning is based on objective data which we have collected and analyzed	0.819
We use our data to identify trends that help us set priorities in how our resources are used	0.794
We use objective data to identify our competitive strength	0.788
We use benchmarking information to identify areas that need improvement	0.726
Our information systems support front line employees	0.692
Financial Returns: (AVE=0.692 /CR=0.813 /CA=0.628)	
Source: Healthcare Cost Report Information System (HCRIS)	
Net Patient Revenue	0.967
Operational Margin	0.670
Operational Efficiency: (AVE=0.963 /CR=0.981 /CA=0.962)	
Source: Healthcare Cost Report Information System (HCRIS)	
Operating Expenses	0.982
Total Salary	0.981

AVE=average variance extracted, CR=composite reliability, CA=Cronbach alpha

Outcome Performance Variables

Financial performance was determined by two measures: net patient revenue and operational profit margin. Net patient revenue is defined by deducting contractual allowances (Weech-Maldonado et al., 2003):

Net patient revenue = Log (Net patient revenue/number of residents)

The operational profit margin included the core business operations which removed the influence of non-operating revenue:

Operational profit margin = (net patient revenue – operating expense)/net patient revenue

Operational efficiency was assessed by two measures: operating expenses and total salary:

Operating expenses = Log (Operating expense/number of residents)

Total salary = Log (total salary/number of residents)

Control Variables

Environmental control variables are associated with the level of competition in the local nursing facility market which might affect both quality and financial performance. The Herfindahl-Hirschmann index (Liu et al., 2010) and urban location (Davis et al., 2011) can be applied in order to balance the degree of market competition. A highly-competitive environment might decrease performance due to more competitors constraining the available capacity of the environment. The Herfindahl-Hirschmann index (HHI) is a measure of competition in the local market of nursing home beds with scores ranging from 0 to 1, whereas 0 represents perfect competition and 1 signifies a higher concentration with less competition. The urban population is based on a community size of 50,000 or more. The total population of each city is used as one of the control variables (Weech-Maldonado et al., 2003). Thus, both HHI and urban location will be used for the data analysis for quality management and outcome performance.

Statistical Analysis

Partial Least Squares Structural Equation Modeling (PLS-SEM) analysis is utilized for Hypothesis 1 to Hypothesis 5. PLS-SEM was originally introduced by Wold in the 1960s. Later, Chin (1998) regenerated this technique in the information systems area. PLS is a structural equation modeling (SEM) technique which constructs a vector of coefficients to associate a group of independent variables with a group of dependent variables (Hair et al., 2012). As there are no strict normality distribution assumptions for the data, both reflective and formative constructs can be modeled within the same study (Chin, 1998; Hair et al., 2012). In many instances, health care financial data from CMS (i.e., net patient revenue, operational profit margin, operating expense, total salary) are not normally distributed; hence, PLS-SEM

is a preferred structural analysis technique for our data analysis. The bootstrap procedure, involving 200 and 500 times of resampling, is applied to obtain the path coefficients, t-statistics, and 95% confidence interval.

RESULTS

From the PLS-SEM results, *outsourcing strategy* have a significant positive relationship ($p < 0.01$) with *quality management* (H1) but no significant relationship was identified between *outsourcing strategy* and *financial returns* (H2). However, *outsourcing strategy* was linked with *operational efficiency* (H2). This finding suggests that a suitable outsourcing strategy could reduce operational expenses. Next, *outsourcing strategy* and *outsourcing trust* (H3) has a significant positive relationship ($p < 0.01$). Additionally, *outsourcing trust* (H4) have a significant positive relationship with *quality management* ($p < 0.01$). Finally, outsourcing trust indicates a positive relationship with financial returns (H5). Conversely, outsourcing trust demonstrations a significant relationship with operational efficiency (H5). However, this association shows that firms which maintain higher outsourcing trust with the customer would require higher operational expenses. Table 2, Summary of Hypothesis Tests contains the results of the structural model with coefficients, t-statistic and 95% confidence interval to estimate whether the hypotheses tests are positively or negatively supported.

TABLE 2
SUMMARY FOR HYPOTHESIS TESTS

		PLS result		
		Coefficient	T-stat.	95% Confidence interval
H1	Out. Strategy → Quality Mgmt.	0.196	2.548***	(0.073, 0.314)
H2	Out. Strategy → Finance	-0.073	1.144	(-0.181, 0.033)
H2	Out. Strategy → Oper. Eff.	-0.100	1.735**	(-0.205, -0.021)
H3	Out. Strategy → Out. Trust	0.306	4.122***	(0.190, 0.426)
H4	Out. Trust → Quality Mgmt.	0.314	3.931***	(0.183, 0.448)
H5	Out. Trust → Finance	0.095	1.671**	(0.001, 0.189)
H5	Out. Trust → Oper. Eff.	0.082	1.427*	(-0.010, 0.184)

* p<.10, **p<.05, ***p<.01

The R^2 of endogenous constructs in Table 3 are 0.175, 0.078, and 0.048 for *quality management*, *financial returns*, and *operational efficiency*, respectively. Therefore, with the exception of *quality management*, these constructs do not appear to be very strong based on Chin (1998).

TABLE 3
RESULTS OF R^2 AND Q^2 VALUES

Endogenous Latent Variable	R^2 Value	Q^2 Value
Quality Management	0.175	0.090
Financial Returns	0.078	0.038
Operational Efficiency	0.048	0.037

The control variables, Herfindahl index and urban location display various results for dependent variables – process management, operational efficiency, and financial returns. Both financial returns and operational efficiency are negatively related to the Herfindahl index which means that less competition will decrease financial returns and operational costs. Urban location demonstrates that a negative relationship exists between operational efficiency and financial returns. When the nursing facilities are located in an urban area, these facilities will have higher operational expenses but they also will obtain higher financial returns.

As with any endogenous predictor constructs, the impact of outsourcing strategy and outsourcing trust is assessed with the size of the R^2 values and calculated to reflect the effect size of Cohen's f^2 (Cohen, 1988; Hair et al., 2012). The results of f^2 effect size is presented in Table 4. Cohen (1988) stated that values of 0.02, 0.15, and 0.35 are considered small, medium, and large, respectively. The f^2 effect size for the predictive value of *outsourcing strategy* on quality management is 0.034, which indicates that *outsourcing strategy* has a small effect in producing the R^2 for *quality management*. The f^2 effect sizes for the predictive value of *outsourcing strategy* and *outsourcing trust* on *financial return* are 0.0054 and 0.0054, respectively, which are considered relatively small effect sizes. By evaluating the magnitude of the R^2 value as a criterion of predictive accuracy, Q^2 value suggests the model's predictive relevance. $Q^2 > 0$ shows the model has predictive relevance (Hair et al., 2012). PLS-SEM blindfolding for all endogenous latent constructs offers the output for Q^2 values (Table 3). The predictive relevance Q^2 of quality management has a value of 0.090, which indicates that our model has small predictive relevance for this construct. Also, Q^2 values are greater than 0, indicating acceptable predictive relevance. The q^2 effect size (0.0429) for the predictive relevance of *outsourcing trust* on *quality management* indicates that *outsourcing trust* has a small effect in producing the Q^2 (predictive relevance) for *quality management* (Table 4).

TABLE 4
SUMMARY OF RESULTS – PATH COEFFICIENTS, f^2 AND q^2

	Quality Management			Financial Returns			Operational Efficiency		
	Path Coefficien	f^2 effect	q^2 effect size	Path Coefficien	f^2 effect	q^2 effect size	Path Coefficien	f^2 effect	q^2 effect size
Out. Strategy	0.196	0.034	0.0143	–0.073	0.0054	0.0000	–0.100	0.009	0.0052
Out. Trust	0.314	0.089	0.0429	0.095	0.0054	0.0010	0.082	0.0052	0.0020

CONCLUSION

The predominant reason for outsourcing in healthcare is cost savings. As US long-term care facilities rely on Medicare and Medicaid reimbursements, outsourcing might be a method of cutting operational costs and increasing financial performance without affecting patient care. In the healthcare industry, strategic outsourcing can be effective, especially for long-term healthcare facilities. Healthcare administrators must understand outsourcing strategy and how to establish relationships and develop trust with vendors over time.

Our results show that outsourcing will not negatively affect the quality of patient care. Furthermore, our findings indicate that SNFs can reduce operational costs by implementing strategic outsourcing (e.g. information technology or outsourcing strategy plans). Outsourcing strategy can also lead to a strong relationship with vendors when building trust between two partners. Over time, outsourcing trust with vendors leads to higher financial performance, but the results did not reflect reduced operational expenses. Evidently, time and effort/expenses are necessary to build relationships and establish trust between two parties; eventually, this effort will be reflected in improved financial returns. The bottom

line is that long-term care facilities should carefully assess the impact of outsourcing on patient care and financial performance before deciding to outsource their services. Also, firms should evaluate the vendors' capabilities and potential risks before selecting the final outsourcing partners.

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