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ORGANIZATIONAL EFFICACY OF SMALL AND MEDIUM-SIZED SUPPLIERS: THE ROLE OF INFORMATION QUALITY AND CONTINUOUS QUALITY IMPROVEMENT

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ABSTRACT

The role of information quality and continuous quality improvement was analyzed in regards to the organizational efficacy of small and medium-sized suppliers. It was anticipated that both variables would have positive relationships with organizational efficacy. Results supported these hypotheses and demonstrate the importance of firms controlling the flow of quality information and emphasizing continuous quality improvement in order to strengthen organizational efficacy. Given the significant impact of efficacy on individual and group performance and the relationships confirmed as part of the current study, future research is called for such that we might better understand the qualities that characterize the successful supply chain relationships for SMEs.

INTRODUCTION

The success of small and medium-sized businesses (SMEs) in supply chain management is often dependent on the development of strategic relationships that allow partners to gain a competitive advantage. However, if SMEs are to be successful in partnering with larger firms they must develop a strategic approach to supply chain management (Beekman & Robinson, 2004). These firms must adopt practices that allow them to be viewed as reliable partners capable of creating mutually beneficial relationships, and not just short-term suppliers that are easily replaced. In addition, SMEs must believe themselves to be capable, authentic partners in the interorganizational relationship if they are to realize their potential.

Some of the potential obstacles that small suppliers must overcome include limited information processing capabilities, resource constraints, and a greater dependency on a smaller customer base (Morrissey & Pittaway, 2006). However, in a more positive light these perceived limitations can allow SMEs to invest in strategic relationships with key customers and emphasize factors such as response times and customer service (Gélinas & Bigras, 2004). These more intimate and personalized relationships can serve as a competitive advantage in a highly complex and competitive business environment.

SMEs serve as important suppliers for many larger organizations and additional research is needed to better understand these potential dynamic relationships. The purpose of the current study is to examine the role of information quality and continuous quality improvement in regards to the organizational efficacy of the small supplier firms. A comprehensive understanding of the relationship among these variables will provide insight into the buyer-supplier relationship in the small business arena. This knowledge can be used to enhance the strategic business practices of SMEs and help them develop partnerships that are more mutually beneficial.

LITERATURE REVIEW

Past research has demonstrated the importance of supply chain management as a strategic competency; however, there has been a call for a greater focus on its impact on small businesses (Gélinas & Bigras, 2004; Nelson & Ratliff, 2005; Morrissey & Pittaway, 2006; Redondo & Fierro, 2007). Whereas large companies generally have a formal logistics function, small businesses often lack such an organized system and rely instead on the personal skills of the owners and/or managers (Quayle, 2000). Many business plans do not adequately address the importance of supply chain management; in fact it is not until a business has reached approximately 26 to 50 employees that someone is typically dedicated to managing supplier relationships (Morrissey & Pittaway, 2006).

In regards to supply chain management, small businesses frequently rely on a limited processing system and a more informal managerial style and decision making process (Matlay, 1999). This can cause a situation where these smaller suppliers face intense price pressure and unrealistic customer service expectations (Kasouf & Celuch, 1997). Even as these small firms grow and mature, there is still a significant imbalance in the availability of resources in comparison with larger organizations that have a dedicated department for this function.

Research by Redondo & Fierro (2007) produced interesting findings when comparing the buyer-supplier relationships within small businesses. They found that communication was a critical tool for relationship development, and that trust and commitment had a significant impact on the length of the business relationship. They also found that frequent inter-firm contact and firm flexibility and adaptability were key factors in developing effective supply chain relationships.

Beekman and Robinson (2004) suggest that small business owners focus on partnering with organizations interested in long-term mutually beneficial relationships. This is critical since prior studies have shown that organizational size has a direct impact on the power dependency with the distribution channel (Redondo & Fierro, 2007) such that small businesses may find themselves in subordinate relationships (Gélinas & Bigras, 2004; Mudambi, Schruender, & Mongar, 2004). Nevertheless, when small suppliers are able to identify effective partners they can be very successful at providing personalized customer service. The flexibility and commitment of small suppliers can provide an invaluable strategic advantage to their larger customers (Devins, Gold, Johnson, & Holden, 2005; Morrissey & Pittaway, 2006). These supply chain management practices allow small businesses to develop partnerships with customers of all sizes, thereby creating greater dependency and growth opportunities. This creates a situation where the supply chain function becomes a competitive advantage for small businesses (Ahuja 2000).

Supply chain management is an important area of research and practice for small businesses. Both large and small organizations are constantly searching for ways to lower costs, increase efficiency and productivity, and develop a competitive advantage through the supply chain function (Mentzer, DeWitt, Keebler, Min, Nix, & Smith, 2001). As researchers, we must continue to examine variables that may impact business effectiveness and performance; organizational efficacy is one such variable of interest. In terms of relational variables, information quality (Huber & Daft, 1987) and continuous quality improvement (Deming, 1975; Prybutok & Ramasesh, 2005) are potentially important aspects of interorganizational relationships that can potentially affect firm efficacy.

Organizational Efficacy

One construct that shows great promise when studying the performance of organizations is that of efficacy; however, there is very little research on efficacy at the organizational level. As an important element of goal setting theory, efficacy plays a major role in the motivation literature (Locke & Latham, 1990). Furthermore, motivation is an important precursor of individual performance (Vroom, 1964; Bandura, 1977; Allen, Lucero, & Van Norman, 1997; Jessup & Stahelski, 1999; Vancouver & Putka, 2000). Organizational efficacy, the belief that an organization is capable of performing well, is the construct of interest in the current paper. Empirical findings are needed to support the idea that organizational efficacy is a driving factor in the performance of individual organizations within the interorganizational network.

Motivation is a broad concept which has at its core several theories that continue to drive its study and research. One area of motivation that has received significant attention is self-efficacy (Bandura, 1977). Locke and Latham (1990) indicate that

efficacy is an important aspect of motivation because efficacy contributes to the goal-setting aspect of motivation since those individuals who experience efficacy are more capable of establishing attainable goals. Self-efficacy examines the individual's confidence in his or her ability to be successful at a given task. It implies that individuals will evaluate their own individual capabilities and make decisions on their assessment of the best possible outcome based on that evaluation. Bandura emphasized that efficacy expectations, an important aspect of motivation, can lead to greater performance due to the individual's perceived ability to execute the necessary behaviors to produce the outcomes that are desired (Bandura, Adams, Hardy, & Howells, 1980). Self-efficacy is related to both the creation of individual goals and performance (Vancouver, Thompson, & Williams, 2001). In addition, efficacy continues to have a profound impact on organizational behavior and human resource management research since it is significantly linked to performance within the leadership, selection, and training arenas (Gist, 1987).

While self-efficacy and efficacy expectations are prevalent in the organizational behavior literature, there is very little examination of efficacy at the interorganizational level. This presents a promising area of research. This is not to say that there is no efficacy research at higher levels within the organization. The study of groups has taken efficacy and applied it to the group performance and motivation to perform. Researchers have applied self-efficacy to groups and termed it collective efficacy. The definition of collective efficacy is a group's collective belief in their task-fulfilling competencies (Parker, 1994; Bandura, 1997; Zellars, Hochwarter, Perrewe, Miles, & Kiewitz, 2001). Empirical evidence indicates that collective efficacy is a strong predictor of team performance. Gully, Incalcaterra, Joshi and Beaubien (2002), in their meta-analysis, find that collective efficacy has a strong relationship with team performance. The results of their study further suggest that the collective efficacy-performance relationship is even stronger than the individual's efficacy-performance relationship. Thus, there is support for application of the efficacy variable to the group level.

In addition to group level efficacy, Gist (1987) proposes the idea of a corporate or organizational level efficacy that may be useful for examining functions at the strategic business level. The idea of corporate efficacy, however, is less developed in the literature. Since the previous study of organizational efficacy only investigated the effects of leadership on organizational efficacy (Bohn, 2002), there is room for examination of this variable in interorganizational relationships. For the current study, the definition of organizational efficacy is the cognitive confidence and assurance that the organization will perform well. This competency consists of the internal belief that the organization has the capabilities, judgment, confidence and intention necessary to be successful.

Because organizational efficacy has not been extensively examined in the existing research literature, the current study focuses on understanding potential antecedents of it within a sample of small businesses acting as suppliers to a large organizational entity. While not directly examined as part of the current study, it is posited that organizational efficacy plays a significant role in interorganizational relationships within the supply chain network.

Information Quality

Good information, or information quality, is vital to organizational success (Huber & Daft, 1987). The definition of information quality for this study is the degree to which the information the individual organization receives from the other organization is accurate, timely, adequate, complete, and credible (Daft & Lengal, 1986; Huber & Daft, 1987; Monczka et al., 1998). Effective communication through the availability of information is a vital component of collaboration through cooperation. Guetzkow (1965) found that information must be systematically available for the effective completion of required tasks. Not only is information exchange necessary for performance, but Schuler (1979) finds support for increases in satisfaction when information is systematically available within an organization. In examining collaborative relationships, Devlin and Bleackley (1988) found that the exchange of quality information predicts the success of a partnership.

Better information flow has important benefits for interorganizational relationships. Advancements in technology and data sharing enhance information flow. By utilizing advanced systems, companies are reducing costs and utilizing their resources successfully (Martin, 1995). Because of this, interorganizational partners are continuing to develop better methods for transferring information that are beneficial for each party (Gopal & Cypress, 1993). This leads to greater success because of the ability to speed up the entire transaction between the partners (Murphy, 1998). These benefits are becoming more and more available to companies and supply chains, regardless of size, because of increasing technology, such as the internet, which facilitates these exchanges and thus produces greater performance (Stefansson, 2002).

Interorganizational relationships are utilizing better information to facilitate the ability to plan more strategically and respond more successfully to the demands of the partner. In the supply chain, this ability to plan key variables, such as capacity of the supplier, through good information provided by the buyer, creates a better and more efficient chain which benefits both parties (Chapman & Carter, 1990; Raturi, Meredith, McCutcheon, & Camm, 1990). This quality information exchanged between the partners plays a key role in the relationship and the performance of the supplier.

Because quality information allows better coordination between the actors within an interorganizational relationship and helps the supplier better plan for meeting the buyer's needs, information quality plays an important role in enhancing performance within the relationship. Agrell et al. (2004) indicate that it is a key part of the supply chain, meaning that organizations that have better information quality will have better success.

In their study on supply chain relationships, Ellram and Hendrick (1995) find that partnering organizations continually share information needed for mutual understanding, operational information necessary for smooth operations, and information regarding high corporate level issues important for good coordination. In addition, the examination of supply chain partnerships done by Anderson and Narus (1990) finds that the sharing of information is very important for interorganizational relationships. What is necessary is a norm of information exchange between member firms where information that might be

useful or helpful is given and received frequently and openly (Heide & John, 1992), rather than simply because of controls that try to force information exchange.

Building on the premise that the relationship between communication and performance is influenced by supplier attitudes and behaviors, it is suggested that greater levels of information are related to greater levels of organizational efficacy. Path-goal theory (House, 1971) proposes the idea that in order for a leader to move a follower to performance, there must be good information communicated by the leader to the follower of exactly what is expected. When the follower has clear direction and a more insightful understanding of the expectations, the follower will have efficacy, or confidence, in the ability to achieve that goal. Applying House's (1971) path-goal theory to the interorganizational relationship, when the supplier receives meaningful and timely information, there will be a greater confidence in the organization's ability to perform well, thus producing more organizational efficacy. Therefore, we offer the following hypothesis:

> *H1: There is a positive relationship between information quality and supplier organizational efficacy in business relationships.*

Continuous Quality Improvement

One area within organizations that continues to receive a great deal of attention in both literature as well as practice is the area of quality. The definition of continuous quality improvement (CQI) in this study is the process implemented within organizations that seeks higher quality within an organization that will lead to better products and services with lower defects and with lower costs (Deming, 1975; Prybutok & Ramasesh, 2005). Three primary factors of CQI are of interest with this definition. First is the quality of data and information gathered internally. Second is the use by the organization of the internal and external quality data. Third is the quality documentation by the organization internally. In his discussion of quality in the telecommunications industry, Pence (1993) discusses the necessity of suppliers to subscribe to and follow a path towards quality improvement in order to maintain strong interorganizational relationships with the network partners. This emphasizes the necessity of quality programs.

Quality practices within an organization are significantly related to success in that organization. Several areas of quality performance lead to success. Magal (1991), Rands (1992), and Ferguson and Zawacki (1993) all find that service quality is highly related to organizational success. System quality is another aspect of quality that affects success (Davis, 1989).

Continuous quality improvement lowers costs, improves accuracy, and lowers defects. Continuous quality improvement in the interorganizational setting is a type of ability because the processes and systems exist to more effectively and efficiently carry out the organization's tasks with a minimum of waste. Therefore, CQI as an ability should lead to greater organizational efficacy. Processes and systems that focus on increased quality within an organization will give the organization a greater confidence in the ability to perform. Based on this prior research we hypothesize:

> *H2: There is a positive relationship between continuous quality improvement and supplier*

organizational efficacy in business relationships.

METHODOLOGY

Sample

An electronic survey was administered via email to the approved vendors for a large university in the southwestern United States. The respondent for each vendor was the primary contact for the university and business vendor. Of the 498 accessed surveys, 156 surveys were completed indicating a 31% response rate of those accessing the survey. Of the 156 completed surveys, there were 134 usable surveys that were considered SMEs (those having fewer than 500 employees). The average firm size was 34 employees.

Measures

Participants were asked to specify the size of the organization by giving the number of employees (Kimberly & Evanisko, 1981). As has been mentioned earlier, the size of the organization can impact the relationship between the supplier and the buyer (Redondo & Fierro, 2007). In addition, respondents were asked for the number of years the organization had been a vendor to the university to assess the degree of institutionalization, which can potentially affect the vendor's ability to respond to customer demands (Dimaggio & Powell, 1983). The average length of time the organization had been working with the university is 6.39 years. They were also asked to indicate the length of time that the respondent had worked with the organization which can help to indicate the person's tendency to observe, accept, and adopt the values and norms of the organization (Chao, O'Leary-Kelly, Wolf, Klein & Gardner, 1994). The average length of time the respondent had been working with the company is 9.49 years.

Organizational efficacy (Gist, 1987; Bohn, 2002) is measured in this study using an adaptation of Riggs and Knight's (1994) assessment of collective efficacy belief scale (previous α=.84) and collective outcome expectancy scale (previous α=.71). This efficacy scale with nine items examines the capabilities, purpose and confidence of the organization using a seven point Likert-type scale with responses ranging from strongly disagree (1) to strongly agree (7). These items, along with the items for information quality and continuous quality improvement, can be found in Table 1.

Information quality was examined using five dimensions of information-- accuracy, timeliness, adequacy, completeness and credibility (Daft & Lengal, 1986; Huber & Daft, 1987; Moczka et al., 1998). If one of these items proved not to be ranked high, the quality of information may not be as good. For example, if information comes in too late that a certain product has changed, the supplier may use the wrong product in servicing the buyer. Thus, the information is no longer useful. Using Mohr and Spekman's (1994) five questions on information quality (previous α = .910), respondents indicated their level of trust on a seven point Likert-type scale ranging from (1) not timely (accurate, adequate, etc.) to (7) very timely (accurate, adequate, etc.).

Continuous quality improvement (Deming, 1975; Prybutok & Ramasesh, 2005) consists of three factors: quality data and information gathering, quality internal and external data usage, and quality documentation. These factors were assessed using an adaptation of Prybutok and Spink's (1999) seven items for continuous quality improvement (previous α = .852). These seven items were tested using a seven point Likert-type scale with

responses ranging from strongly disagree (1) to strongly agree (7).

Table 1: Efficacy, Information Quality, and Continuous Quality Improvement Items

Construct	Items
Organizational Efficacy	1. The company has above average abilities to perform for the buyer 2. The company performs well compared to other companies doing work for this buyer. 3. My company is able to perform as expected for our buyer. 4. The employees of my company have excellent job skills. 5. It is important for my company to do good work for this buyer. 6. My entire company benefits when we do good work for this buyer. 7. My company would notice if we did not do good work for our buyer. 8. My company needs the work done for our buyer. 9. My company expects good outcomes when we perform well for this buyer.
Information Quality	1. The information we receive from this buyer concerning what is expected from us is ***timely***. 2. The information we receive from this buyer concerning what is expected from us is ***accurate***. 3. The information we receive from this buyer concerning what is expected from us is ***adequate***. 4. The information we receive from this buyer concerning what is expected from us is ***complete***. 5. The information we received form this buyer concerning what is expected from us is ***credible***.
Continuous Quality Improvement	1. Our organization has well documented processes and techniques used to ensure data and information ***reliability***. 2. Our organization has well documented processes and techniques used to ensure data and information ***consistency***. 3. Our organization has well documented processes and techniques used to ensure data and information ***accessibility***. 4. Quality data and information gathered ***internally*** is systematically analyzed to help support our organization's overall quality objectives. 5. Quality data and information gathered ***externally*** is systematically analyzed to help support our organization's overall quality objectives. 6. Our organization adequately ***maintains*** documentation required to support its quality assurance, assessment, and improvement efforts. 7. Our organization adequately ***uses*** documentation required to support its quality assurance, assessment, and improvement efforts.

Data and Scale Analysis

The data were screened and prepared using Kline's (1997) recommended procedures. After a full analysis, cases with missing data points, as well as outliers identified with the frequency distribution of standard scores, were removed. Univariate normality was assessed by examining each item for skewness and kurtosis. The test showed a normal distribution. Cronbach's alpha was used to establish the reliability of the scales (Nunnally & Bernstein, 1994; Henson, 2001). The coefficient alpha's for each scale was well above Nunnally and Bernstein's (1994) suggested reliability coefficient of .70. These reliability estimates are found in Table 2.

The item scores were assessed to evaluate the consistencies of the measurement items with construct validity. Utilizing a confirmatory factor analysis (Ahire & Deveraj, 2001), LISREL was used to examine the latent variable with its corresponding items. The latent constructs were analyzed using principle components factor analysis to extract the analysis pattern. Using the K1 rule (Kaiser 1960), information quality and continuous quality improvement extracted only one factor. Therefore, there is only one latent construct per list of variables (Hattie, 1985). The initial factor pattern/structure coefficients, as well as the communalities, eigenvalues, and Cronbach's alphas, are presented in Table 2.

Table 2: Initial Factor Pastor/Structure Coefficient for Efficacy, Flexibility and Performance

Variable Item #	**Organizational Efficacy**			**Information Quality**		**Continuous Quality Improvement**	
	Factor 1	**Factor 2**	**h^2**	**Factor**	**h^2**	**Factor**	**h^2**
1	.825	-.283	.761	.845	.714	.847	.718
2	.576	-.163	.358	.961	.923	.867	.751
3	.869	-.036	.756	.930	.865	.860	.740
4	.769	-.349	.714	.959	.919	.848	.718
5	.834	-.222	.746	.908	.825	.802	.643
6	.821	-.152	.697	*n/a*	*n/a*	.915	.837
7	.735	.398	.698	*n/a*	*n/a*	.897	.804
8	.561	.700	.805	*n/a*	*n/a*	*n/a*	*n/a*
9	.726	.347	.647	*n/a*	*n/a*	*n/a*	*n/a*
Total Variance Explained	56.779			84.911		74.458	
Initial Eigenvalue	5.110			4.246		5.212	
Second Eigenvalue	1.071			.357		.696	
Alpha	$\alpha = .904$			$\alpha = .955$		$\alpha = .942$	

Because two items in the organizational efficacy scale fell below .7, the items in this scale were examined further. Following analysis of the factor pattern/structure coefficients and examination of the questions on the scale, item eight and item two were removed from the scale. These items did not fit well with the other items and had low factor pattern/structure coefficients. Cronbach's alpha was checked as well as the factor pattern/structure coefficient for the efficacy scale. The final

factor pattern/structure coefficient resulted in a seven-item scale with one factor extracted with an alpha of .909, an improvement of almost one percent, and a total variance explained of 65.086 which is also an improvement over the original value. The final factor pattern/structure coefficient can be seen in Table 3.

Table 3: Final Coefficients

Variable Item #	**Organizational Efficacy**		**Information Quality**		**Continuous Quality Improvement**	
	Factor	**h^2**	**Factor**	**h^2**	**Factor**	**h^2**
1	.845	.715	.845	.714	.847	.718
2	*n/a*	*n/a*	.961	.923	.867	.751
3	.877	.770	.930	.865	.860	.740
4	.784	.615	.959	.919	.848	.718
5	.863	.745	.908	.825	.802	.643
6	.836	.698	*n/a*	*n/a*	.915	.837
7	.709	.503	*n/a*	*n/a*	.897	.804
8	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
9	.714	.510	*n/a*	*n/a*	*n/a*	*n/a*
Total Variance Explained	65.086		84.911		74.458	
Initial Eigenvalue	4.556		4.246		5.212	
Second Eigenvalue	.758		.357		.696	
Alpha	$\alpha = .909$		$\alpha = .955$		$\alpha = .942$	

A LISREL model assessed the fit of the individual items with the latent construct. Examining the fit indices allows for a test of discriminant validity. The results of these analyses are found in Table 4. A test of discriminant validity allows further investigation. First, the scale reliabilities are sufficiently larger than the correlation averages with other constructs. In addition, the interscale correlations, the correlations between items within a scale, are adequately different from one, meaning they are not perfectly correlated. In addition, for this analysis, the percent of variance extracted by the items from the scale are greater than the squared interscale correlations of the latent variable. Another aspect of discriminant validity includes the examination of average item-to-total correlations of non-scale items (Ahire & Deveraj, 2001). The results of this analysis indicate good fit to the data. In addition, the overall means, standard deviations, Cronbach's alphas, and correlations of the latent variables are found in Table 5.

RESULTS

This study examined the relationship of information quality and continuous quality improvement with organizational efficacy within SMEs. Hypothesis one posited a positive relationship between information quality and organizational efficacy in SMEs. Similarly, hypothesis two postulated a positive relationship between continuous quality improvement and

organizational efficacy. In order to test both of these hypotheses regression analysis was used. The first step included the control variables of organizational size, the length of tenure the buyer had been resourcing the supplier, and the length of tenure of the respondent as the manager of the supplier organization. The addition of information quality and continuous quality improvement came in the second step of the regression model. Model one, only the control variables with organizational efficacy, resulted in an ANOVA with an F statistic of 1.739 that was not statistically significant ($p>.05$). The second model, including the control variables as well as information quality and continuous quality improvement, was statistically significant yielding an ANOVA with an F statistic of 18.243 ($p<.01$). These predictor variables improved the fit of themodel with an R^2 of .405, an adjusted R^2 of .383, and a ΔR^2 = .368 that was statistically significant ($p < .01$). Additionally, the relationship of information quality and continuous quality improvement with organizational efficacy was examined using standardized and unstandardized coefficients, statistical significance, and confidence intervals. The results of this regression analysis indicate that both information quality and continuous quality improvement are statistically significantly related to organizational efficacy in SMEs ($p<.01$), thus supporting both hypotheses. Table 6 provides a summary of the results.

Table 4: Construct Fit Indices

Construct	χ^2	d.f.	CFI	GFI
Organizational Efficacy	78.80	14	.94	.86
Information Quality	3.37	5	1.00	.99
Continuous Quality Improvement	174.64	14	.89	.73

Table 5: Means, Standard Deviations, Cronbach's Alphas, and Correlations

Construct	Means	S.D.	1	2	3
Organizational Efficacy	6.311	.695	(.904)		
Information Quality	5.836	1.062	.531*	(.955)	
Continuous Quality Improvement	6.107	.893	.511*	.383*	(.945)

Note: *Correlations are significant at the 0.01 level (2-tailed). Reliability coefficients are presented on the diagonal.

Table 6: Results of Simultaneous Regression Analysis for Prediction of Efficacy in SMEs

Variable	*B*	*SE B*	β	95% CI Lower	95% CI Upper	VIF
Step 1:						
# of Employees	.000	.000	.029	.000	.001	1.011
Comp Years	.017	.008	.169	.000	.033	1.045
Manager Years	.005	.007	.059	-.009	.019	1.055
Step 2:						
# of Employees	.000	.000	.026	.000	.000	1.011
Company Years	.011	.007	.111	-.002	.024	1.066
Manager Years	.008	.006	.095	-.004	.020	1.071
Information Quality	.234	.047	.358*	.140	.327	1.191
Continuous Quality Improvement	.292	.056	.379*	.182	.402	1.180

Note. R^2 for first model = .037 R^2 for second model = .405 ΔR^2 = .368
*p < .01 N = 134 Two-tailed tests.

DISCUSSION AND STRATEGIC IMPLICATIONS

While there exists a significant body of literature that discusses the development of self-efficacy at the individual level (Bandura, 1994; Heslin, 1999; Lent and Hackett, 1987), this represents one of the first attempts at better understanding the antecedents of efficacy at the organizational level in the small business arena. As hypothesized, both information quality and continuous quality improvement were found to be significantly related to SME's beliefs that they were capable of fully meeting the needs of a larger buyer.

When an organization fully understands expectations, the likelihood of delivering successful results is greatly increased. Similarly, when a supplier-firm has high quality information that accurately delineates the expectations of its buyer it feels more confident in its ability to effectively meet them. SMEs generally rely on factors such as trust, collaboration, and communication as part of their business model (Redondo & Gierro, 2007); this bodes well for the sharing of high quality information. As such, SMEs should focus deliberate effort on communicating with partner organizations in order to ensure both sides have a shared-framework of expectations and understanding of how they will be met. As an antecedent of organizational efficacy, information quality is highly aligned with Bandura's notion that psychological reactions are also associated with efficacy attainment (Bandura, 1994).

The finding that continuous quality improvement is an antecedent of organizational self-efficacy is consistent with the fact that mastery experiences are the primary means by which efficacy is gained (Bandura, 1994). Continuous quality improvement results in an organization's processes and systems working more effectively and efficiently; it lowers costs, improves accuracy, and lowers defects. These are the organizational definition of a mastery experience. Given this, it is imperative that SMEs continue to invest both time and fiscal resources in service and system quality improvement initiatives that will

facilitate their efforts to be both flexible and customer-oriented partners of choice to larger organizations.

Our results affirm the practical importance of SMEs capitalizing on their strengths in the supplier-buyer relationship. In particular, it is critical that smaller firms take advantage of extensive communication to ensure high quality information and implement the processes and systems that focus on increased quality within the firm. In doing so, the organization and its members will develop greater confidence in their ability to successfully perform, thus motivating its members to persist in efforts toward continued success.

All organizations need to be flexible and adaptable in order to develop successful long-term business relationships. While large companies invest significant resources managing the supply chain, the practices of SMEs are typically less refined and focus on personal connections and communication sources (Morrissey & Pittaway, 2006). Therefore, higher levels of organizational efficacy can directly impact the ability of smaller firms to establish interorganizational relationships and successfully manage these relationships.

The advanced technology-driven logistical systems of large organizations typically lead to greater speed and efficiency, but the high levels of customer interaction provided by SMEs may be better suited to develop interorganizational trust and commitment, thereby increasing the likelihood of more long-term strategic relationships. As suggested by Li and Qian (2007), strong business alliances are built on sharing information and resources, thereby reducing the risk for all parties involved. Greater organizational efficacy can allow SMEs to refine their information gathering and sharing capabilities through continuous improvement processes.

Strategic relationships play a critical role in supply chain management for all sized organizations. SMEs are not generally noted for their strategic approach to logistics, but perhaps this is not the case. But rather, it is the type of tools that SMEs use to establish strategic relationships that differ from their larger counterparts. The more informal and personalized tools used by SMEs can be quite effective in developing strategic relationships. Although these tools are not as sophisticated as the data processing capabilities of large corporations, they can be effective if the communication process is genuine and information is exchanged in an open and mutually beneficial manner.

While large companies are often more rigid and less adaptable to quick change, SMEs can be designed to integrate continuous quality improvement in all facets of its business operations, and quickly adapt to the rapid changes that occurs in a dynamic business relationship. There are many approaches that can lead to strong supply chain relationships; it seems that SMEs are more likely to use an approach to that relies on personalized collaboration and communication. Therefore, it is important that owners and managers of SMEs be aware of the best practices for exchanging information, maximizing resources, and encouraging continuous improvement in their processes and approaches to customer service.

FUTURE RESEARCH

There exists significant literature supporting the notion that efficacy is positively related to performance at the individual and group levels (Gist, 1987; Gist et al., 1991; Zellars et al., 2001; Jung & Sosik, 2003; Tasa & Whyte, 2005); however, efficacy has had little empirical examination at the interorganizational level. The current study begins this process by examining antecedents of organizational efficacy so that we might understand how it can be developed. Unfortunately, the goals of the current study do not extend to examining the actual impact of efficacy on organizational outcomes. As such, the impact of organizational efficacy on actual supplier performance is an area of promise for future research.

Given the newness of organizational efficacy as a construct of business importance, future research needs to be conducted to further verify the construct and examine its applicability to broader organizational settings. In particular, other potential antecedents of organizational efficacy should be considered and examined. In addition, psychometric studies that refine its construct definition via studies of convergent and discriminant validity are of potential theoretical interest.

It may also be interesting to extend this research to organizations of varying sizes and in different interorganizational relationships. The current study focused on small firms interacting with a larger buyer organization. The degree to which the antecedents of efficacy seen here translate to other types of relationships and sizes of firms should be examined.

Extensive research exists that supports the importance of efficacy in individual and group performance, continuous quality improvement in firm performance, and information quality in interorganizational relationships; the current study brings together these three distinct lines of research in a novel fashion. Although limited to SMEs, by expanding the concept of individual and group efficacy to the organizational realm and exploring the concepts of information quality and continuous quality improvement as antecedents of this efficacy, greater strategic insight is gained into the qualities that characterize the successful supply chain relationships for SMEs.

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