



# Exploring Relationship between Information Systems Strategic Orientation and Small Business Performance

*R. Rajendran, Sri Ramakrishna Institute of Technology, Coimbatore, India*

*K. Vivekanandan, Bharathiar University, India*

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## ABSTRACT

*Businesses invest in developing information systems resources to gain competitive advantages. Literature has demonstrated the requirement of strategic alignment in converting these competitive advantages into sustained superior business performance. The knowledge of information systems strategic orientation and its relationship with business performance will enable these businesses to fine tune their strategic information systems applications portfolio in achieving required strategic alignment. This study focuses on the information systems strategic orientation of small businesses and investigates its relationship with their perceived business performance. The organizational impact of adoption of the initial stages of electronic business development is also examined. The data were collected from small businesses on nine strategy areas, through mail survey. The result reveals three multifaceted dimensions of information systems strategic orientation. These dimensions of strategic orientation have significantly influenced their business performance. For the adopters of Web presence, all these three dimensions remain significant in explaining their business performance.*

*Keywords: business performance; e-business in SMEs; organizational impact; strategic alignment; Strategic information systems; strategic planning; strategic orientation; Web presence*

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## INTRODUCTION

Small businesses are an important and integral part of every nation's economy and their contributions are significant in the present business environment of globalisation and digitization. In response to changes in their environment, these

small businesses are investing in information technologies at an increased rate to develop information systems to support their business strategy. The small businesses use the Internet and establish Web presence as a complement to traditional way of competing. Weill (1990) found that investment in strategic information

systems, rather operational information systems, was risky but with a potential for high payoff in the long term. The Internet architecture has turned information systems into a far more powerful tool for strategy (Porter, 2001).

The translation of information systems investment into the attainment of competitive advantage and increased business performance are the focus of the attention of these small businesses. The knowledge about the extent to and manner in which information systems complement company strategy will help small firms to prioritize relative information systems investments. This enables small businesses to adjust portfolios of strategic information systems so that they could provide more business support that leads to superior business performance.

The present study examines the information systems strategic orientation in small businesses and explores its relationship with business performance. To study further the consequences of adoption of Web presence, one of the earlier stages of electronic business development (Figure 1), the impact of Web site ownership on the degree and the direction of this relationship is investigated.

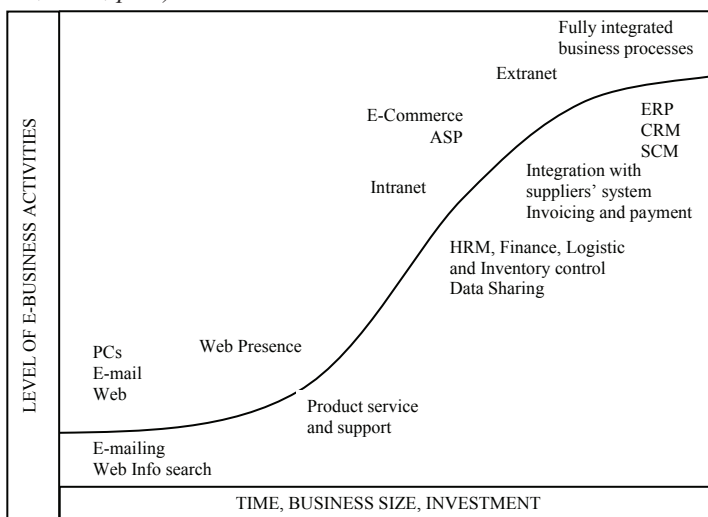
The subsequent sections present the review of literature on strategic management of information systems in small businesses and describe the methodology used by the present study and it is followed by the presentation of results. Then the research findings and their implications are discussed. The article concludes with the summary of the study and its contributions.

### Literature Review

Businesses allocate resources to develop information systems because it is believed that these investments provide them with competitive advantages and economic returns. While small businesses have been traditionally seen reluctant to develop information systems strategy (Hagmann & McCahon, 1993; Mehrtens, Cragg, & Mills, 2001), evidence over the past decade shows an increase in strategic use of information systems in small businesses (Naylor & Williams, 1994; Poon, 2000).

The information systems have evolved from its traditional orientation administrative support toward a more strategic role within an organization (Henderson & Venketraman, 1993). Blili and Raymond (1993) emphasize that small businesses must adopt some kind of

Figure 1. E-business development (Source: E-Commerce and Development Report 2004, United Nations, Geneva, 2004, p 53)



framework for strategic planning information systems, if they wish to create information systems-based strategic advantage. Levy and Powell (2000) propose an approach (Figure 2) to information systems strategy development for small businesses.

For small businesses, the strategy execution perspective (Figure 3) proposed by Henderson and Venkatraman (1993) is more appropriate. This perspective is anchored on the notion

that a business strategy is the driver of both organizational design choice and the design of information systems infrastructure. They argue that the top management should play the role of strategy formulator to articulate the logic and choices pertaining to business strategy, whereas the role of the information systems manager should be that of a strategy implementer, who efficiently and effectively designs and implements the required information infrastructure

Figure 2. Information systems strategy approach for SMEs (Levy and Powell, 2000)

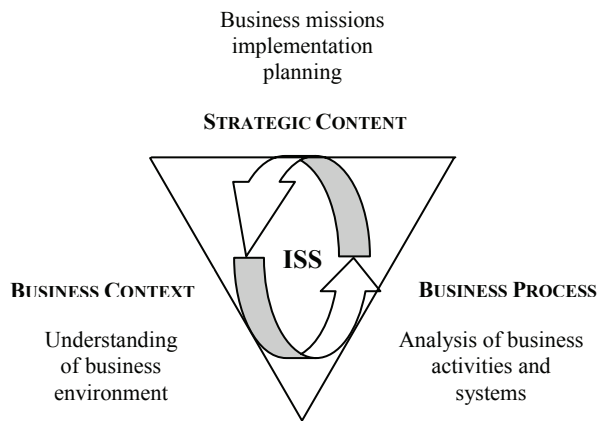
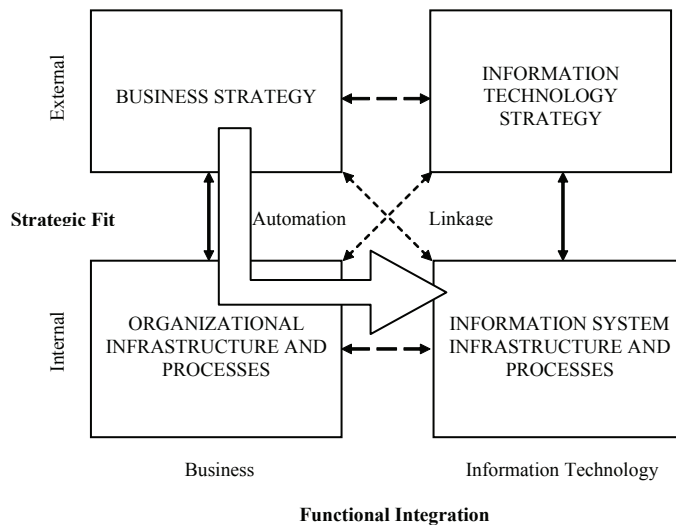


Figure 3. Strategy alignment model with strategy execution alignment perspective (Henderson and Venkatraman, 1993)



and processes that support the chosen business strategy.

The resulted information systems strategy with implemented information systems infrastructure and processes, constitute the information systems resource for small business. The organizational performance impact of the information systems resource is commonly referred to as IT Business Value (Melville, Kraemer, & Gurbaxani, 2004). The process of IT business value generation is shown in Figure 4.

Wade and Hulland (2004) describe information systems resources using six resource attributes viz., value, rarity, appropriability, imitability, substitutability, and mobility based on the finding of prior information systems

research. In resource-based view (Figure 5), these information systems resource attributes will enable a firm to achieve competitive advantages over others and lead to superior long-term performance.

However, resources rarely act alone in creating and sustaining competitive advantage. The information systems resources normally act in conjunction with other firm resources to provide strategic benefits (Ravichandran & Lertwongsatien, 2002). Benjamin and Levinson (1993) conclude that performance depends on how information systems resource is integrated with organizational, technical, and business resources. Chan, Huff, Barclay, and Copeland (1997) argue that the impact of information

Figure 4. IS business value model (Melville et al., 2004)

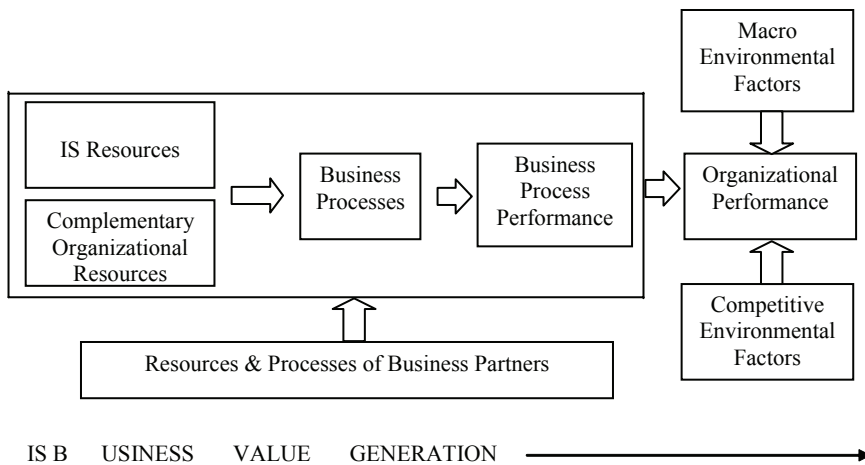
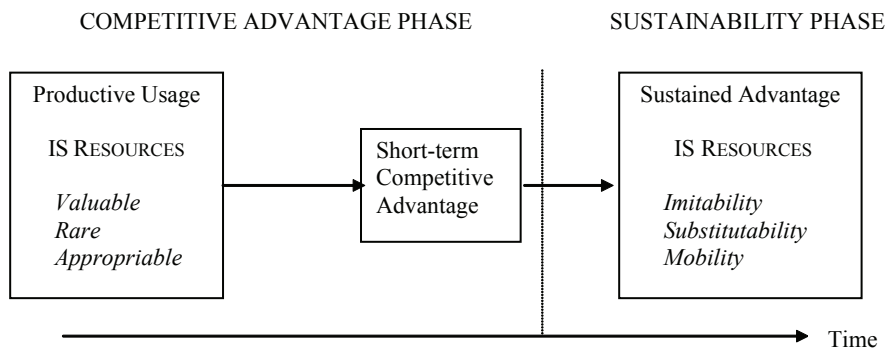


Figure 5. Resource-based view of IS (Wade and Hulland, 2004)



systems on performance may not be a direct one, but intermediated by other factors such as the alignment between information systems strategy and business strategy.

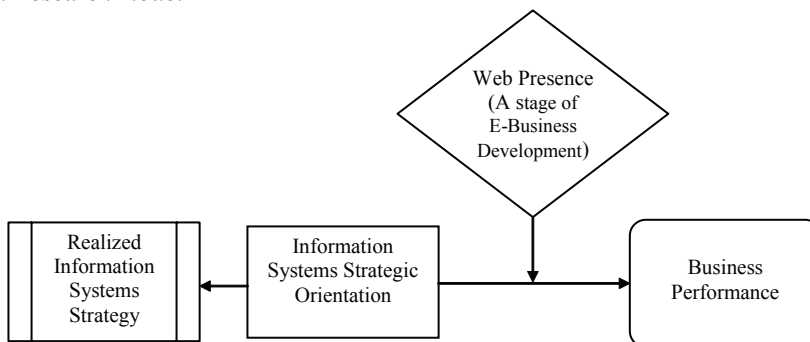
Luftman, Lewis, and Oldach (1993) recognize that for companies to succeed in an increasingly competitive, information intensive, dynamic environment, the alignment of business strategy and the information systems strategy is a necessity. Alignment expresses an idea that the objective of design, for example, an organizational structure or its information systems must match its context in order to be effective (Iivari, 1992). Strategic orientation expresses this context and its relationship with business performance, will set the direction to the measurement of strategic alignment. The moderation model of strategic alignment suggests that the strategic orientation of a business determines the relative importance of the alignment dimensions. Strategic orientation of information systems indicates the degree of information systems support for each strategic alignment dimension.

The strategic orientation of the existing portfolio of information systems applications, representing the general pattern of realized information systems strategy provides valuable predictive information regarding perceived business performance. Venkatraman (1989) identifies key traits of business strategic orientation based on the theoretical perspective and specifies the following six characteristics

as dimensions a priori in developing valid measurement for strategic orientation of business enterprises (STROBE): Aggressiveness, Analysis, Defensiveness, Futurity, Proactiveness and Riskiness. Chan, Huff, Barclay, and Copeland (1997) use these dimensions to hypothesize the structure of information systems strategic orientation. But the empirical findings of their study suggest a parsimonious taxonomy of three generic realized information systems strategies. The three core dimensions of information systems strategic orientation that emerged are information systems support for anticipation, information systems support for analysis and information systems support for action. But the emergence of these dimensions is ignored in the further analyses of their study. However, they conclude that the concept of information systems strategic orientation is somewhat novel and is an area ripe for future information systems strategy research. Thus, a relevant question for small business information systems strategy research study could be to derive information systems strategic orientation and examine the efficacy of the dimensions of orientation to generate business value within the conditions set by the information systems resources (Figure 6). The approach represented in the research model (Figure 6) is to empirically derive dimensions of information systems strategic orientation, a posteriori.

The recent streams of studies on net-enhanced large business organizations suggest that

Figure 6. Research model



e-business initiatives tend to make information systems resources more valuable. Zhu and Kraemer (2002) emphasize that Web presence promotes the business value generation capability of information systems resources. To validate this finding in the small business context, the role of the Web presence in determining the relationship between information systems strategic orientation and their business performance could be investigated (Figure 6).

## RESEARCH METHODOLOGY

### Research Instrument

The studies of business strategy in small businesses provide evidence that small businesses have to adopt numerous strategies. Storey (1994) identifies strategy as one of the three main components that contribute toward growth among small businesses. Sougata (2004) argues that the environment played a significant role in shaping business strategy during reforms. These studies have drawn on typologies based on large firms viz. Ansoff (1965)'s matrix of strategies (Barkham, Gudgin, Hart, & Harvey, 1996; Hewitt-Dundas & Roper, 1999) and Porter (1980)'s generic strategies (Namiki, 1988; Reid, 1993; Kakati & Dhar, 2002). Julien, Joyal, Deshaies, and Ramangalahy (1997) have found out that exporters compete on price, technical superiority, product quality, and customer service. Gunasekaran, Okko, Martikainen, and Yli-Olli (1996) identify productivity and quality improvement strategies based on cost control, improving quality, new product, lower price, fast delivery, and increased market share, for small and medium enterprises in the manufacturing sector.

These studies have produced different typologies and have failed to provide a consensus model of strategy for small businesses (Southern & Tilley, 2000). As the approach to strategy formation in small business is informal, inexplicit, intuitive, and incremental (Mintzberg, 1988), the explicit identification of strategy is found to be more difficult (Lefebvre et al., 1992). Cragg, King, and Hussin (2002) extracted key factors that contributed toward small business

competitiveness from these studies. Pretesting with practicing owner/managers of small businesses, they refined this list of business strategy items. For the present study, these nine strategies (Table 1) are considered as business strategies of small businesses.

As explained in the earlier paragraphs, the planning and development of strategy in small businesses are embryonic and informal. To capture the actual and realized deployment of information systems applications, the instrument for information systems strategies was designed around the same nine business strategies shown in Table 1 (Chan et al., 1997; Cragg et al., 2002). For each business strategy item (question), a parallel information systems strategy item was created to assess the extent to which the information systems support that particular aspect of business strategy. A five point Likert scale was used for measurement.

From a business perspective, performance is a complex and multifaceted concept (Venkatraman & Ramanujam, 1986). Strategic management research literature proposes a subjective approach to measure business performance and it is appropriate in a small business context where financial data are often unavailable or unreliable (Dess & Robinson, 1984; Sapienza, Smith, & Gannon, 1988). Khandwalla (1977) developed a four items (long term profitability, sales growth, availability of financial resources,

*Table 1. Business strategies of small businesses*

Sl. No.	Business Strategy
1	Pricing Strategy
2	New Market Strategy
3	New Product Strategy
4	Quality Service Strategy
5	Quality Product Strategy
6	Intensive Marketing Strategy
7	Process Efficiency Strategy
8	Product Differentiation Strategy
9	Product Diversification Strategy

and image and client loyalty) instrument to measure business performance based on the owner/manager's subjective assessment of the company's performance relative to its competitors. This business performance instrument was validated in the small business context (Raymond, Pane, & Bergeron, 1995; Cragg et al., 2002) and deemed appropriate for the present study. The suitability and face validity of the instrument along with business and information systems strategies were confirmed during the pretesting stage of the questionnaire development.

The status and the usage of information systems infrastructure of small manufacturing knitwear exporters with a Web site differ significantly from that of exporters not having a Web site (Vivekanandan & Rajendran, 2005). To examine the contingency effect of Web presence on the linkage between information systems strategic orientation and business performance, the necessary provisions were made in the questionnaire to collect details about their Web presence.

### Research Method

A mail questionnaire survey was conducted among the small businesses of Tirupur, India. This cluster of small manufacturing businesses is well known for its excellent export performance and its participation in the global apparel supply chain as a quality supplier (Vivekanandan & Rajendran, 2006). The total number of knitwear apparel exporters identified was 1100. The manufacturing sector was selected as they could provide a range of levels of information systems sophistication (Cragg & King, 1993; Rajendran, 1999). Each questionnaire was sent with a prepaid business reply envelope and a letter explaining the purpose of the study. The questionnaire was pretested with two professionals associated with small businesses and then with the owner/managers of five leading exporting organizations and was suitably modified. Further, a pilot test was conducted among a randomly selected 150 exporters and it resulted in minor modifications in the questionnaire.

Thus, the questionnaire was refined at three stages (Dillman, 1978).

The refined questionnaires were sent to other 950 exporters and in total 129 useable questionnaires were returned. To assess the nonresponse bias, the first 30 and last 30 responses were compared on the nine information systems strategy items (Armstrong & Overton, 1982). The Mann Whitney test revealed that the differences are not significant except for the new product strategy and so concluded that the nonresponse bias is not a significant factor that could affect the results of the data analysis.

### Results

The results of preliminary analysis of the data are shown in Table 2.

The mean score and standard deviation of business performance and information systems strategies are shown in Table 3 and Table 4.

Factor analysis is a multivariate interdependency technique used for data reduction and structure simplification (Hair, Anderson, Tatham, & Black, 1998). To assess the appropriateness of factor analysis, the Bartlett test of sphericity was conducted and it was found satisfactory (Sig. 0.000). As the increasing the sample size causes the Bartlett test to become more sensitive, the measure of sampling adequacy (MSA) was used to reassess the appropriateness of factor analysis. The MSA index of 0.845 revealed the meritorious nature of the data for factor analysis. Under factor analysis procedure, the principal component analysis was used to extract minimum number of factors that explain maximum percentage of variation. The Varimax rotation with Kaiser normalization was used to simplify the revealed structure (Table 5).

The three factors extracted explained 76% of variation and were considered as the dimensions of information systems strategic orientation. These dimensions of information systems strategic orientation were labeled as 1. Cost-Quality Leadership, 2. Product Development and 3. Market Development. The rotated component matrix of the simplified structure (Table 5) reveals the convergent and discrimi-

Table 2. Profile of the respondents

Description	Range	Frequency	Percent
Company Age	Up to 10 yrs	34	26.4
	10 to 20 yrs	70	54.3
	Above 20 yrs	25	19.4
Ownership Status	Proprietorship	38	29.5
	Partnership	73	56.6
	Private limited	17	13.2
	Public limited	1	00.8
Growth Stage	Conceptual	2	01.6
	Survival	15	11.6
	Stabilization	30	23.3
	Growth Orientation	48	37.2
	Rapid Growth	20	15.5
	Resource Maturity	14	10.9
Internet Experience	More than 3 yrs	107	82.9
	2 – 3 years	12	09.3
	1 – 2 years	7	05.4
	Less than one year	2	01.6
	Not applicable	1	00.8
Web Presence	Ownership	79	61.2

Table 3. Business performance score

Performance Criteria	Mean	Std Deviation
Public image and client loyalty	4.15	0.77
Sales Growth	3.87	0.72
Financial Resources	3.69	0.75
Long term profitability	3.68	0.84

Scale: 1- Strongly Disagree, 5 – Strongly Agree

Table 4. Information systems strategy score

Information Systems Strategy	Mean	Std Deviation
Quality Service	3.93	0.97
Process Efficiency Improvement	3.84	0.95
Cost reduction	3.83	0.95
New Market Expansion	3.71	0.85
Quality Product	3.67	0.90
Intensive Marketing	3.47	0.80
Product Differentiation	3.29	0.84
New Product	3.22	0.93
Wide Product Range	3.19	0.85

Scale: 1- Strongly Disagree, 5 – Strongly Agree



Table 5. Simplified structure of information systems strategic orientation (rotated component matrix)

Information Systems Strategy	Component		
	Factor 1	Factor 2	Factor 3
Process efficiency improvement	<b>.79</b>	.26	.22
Cost reduction	<b>.79</b>	.20	.02
Quality service	<b>.78</b>	.17	.34
Quality product	<b>.66</b>	.35	.18
Wider product range	.21	<b>.89</b>	.08
New products	.27	<b>.84</b>	.24
Product differentiation	.31	<b>.78</b>	.20
New market expansion	.14	.12	<b>.90</b>
Intensive marketing	.29	.27	<b>.80</b>

Extraction method: Principal component analysis.

Rotation method: Varimax with Kaiser Normalization.

nant validity of the above three constructs. The reliability coefficient, Cronbach's alpha being the most widely used measure (Peter, 1981) was used to assess the internal consistency of these constructs. The values of Cronbach's alpha were 0.83, 0.88 and 0.78 and these are well above the lower limit of 0.70 (Nunnally, 1978; Robinson, Shaver, & Wrightsman, 1991). The factor scores were computed based on the factor loadings of all variables on each factor, to replace the original scores of nine information systems strategies.

The Business performance was the dependent variable in this study. The factor analysis was conducted to convert the multiple measure of business performance into a single composite measure. However, the Principal Component Analysis resulted in a single factor that explained 56% variance with construct validity of 0.73 (Cronbach's alpha). The factor score was generated as a composite measure of business performance.

As the primary object of this study was to explore and explain the relationship between the dimensions of information systems strate-

gic orientation and business performance, the multiple regression analysis was used. The multiple regression analysis is a multivariate dependency technique used to analyze the relationship between a single dependent (criterion) variable and several independent (predictor) variables.

The regression equation generated is a linear combination of the independent variables that best explains and predicts the dependent variable. It is the regression variate that is formed by a set of weighted independent variables. The weights (regression coefficient) represent the relative contribution of the independent variables to the overall prediction and facilitate interpretation on the influence of each variable in making the prediction. The correlations among the independent variables are also referred to as multicollinearity. Multicollinearity reduces the variables' predictive power and complicates the interpretation process (Hair et al., 1998).

The multiple regression analysis was conducted with the business performance as dependent variable and the dimensions of information systems strategic orientation as in-

Table 6. Results of regression analysis – Coefficients and its significance

Predictors	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics
	B	Std. Error	Beta			VIF
(Constant)	.000	.077		.000	1.000	
Cost-Quality Leadership	.355	.077	.355	4.586	<b>.000</b>	1.000
Product Development	.261	.077	.261	3.374	<b>.001</b>	1.000
Market Development	.242	.077	.242	3.124	<b>.002</b>	1.000

Dependent variable: Overall business performance

dependent variables. To ensure the minimization of impact of multicollinearity, the factor scores generated in the factor analysis with Varimax as an orthogonal rotation method, were used in the regression procedure.

The coefficient of determination ( $R^2$ ) for the regression model generated was 0.252 with adjusted  $R^2$  equal to 0.234. The model was statistically significant (ANOVA – Sig. 0.000). All the three dimensions of information systems strategic orientation significantly influenced the business performance. The details of regression coefficient and their significance are shown in Table 6. To assess the influence of Web presence, the regression analyses were conducted independently for exporters having Web site and for others. The results are shown in Table 7.

## DISCUSSION

The results of the preliminary analysis of the data show that 74% of the respondent businesses are more than 10 years old and 89% have reached the business growth stage of stabilization and beyond. As expected, the proprietorship and partnership are predominant (86%). All the exporters have Internet connectivity and two thirds of them have Web presence. Eighty three percent of the respondents have more than 3 years of experience in using Internet. This indicates their high receptivity to the adoption of initial stages of electronic business practices.

The quality service strategy receives the highest mean score and it is followed by process

Table 7. Results of regression analysis—Web-site owners and non-owners

MODEL COMPONENT	EXPORTERS WITH WEB SITE	EXPORTERS WITHOUT WEB SITE
Independent Variables		
Cost-Quality Leadership		
Regression Coefficient	0.404	0.179
Beta Coefficient	0.403	0.176
t value	4.022	1.244
Sig.	<b>0.000</b>	0.220
Product Development		
Regression Coefficient	0.332	0.117
Beta Coefficient	0.351	0.111
t value	3.593	0.845
Sig.	<b>0.001</b>	0.402
Market Development		
Regression Coefficient	0.233	0.333
Beta Coefficient	0.237	0.341
t value	2.368	2.418
Sig.	<b>0.020</b>	<b>0.020</b>
Model Fit		
$R^2$	0.285	0.206
Adjusted $R^2$	0.257	0.154
ANOVA Sig.	<b>0.000</b>	<b>0.013</b>

efficiency improvement and cost reduction strategies. The mean score of all the other strategies are also above 3.00 and the overall mean score is 3.57. The exporters perceive that the information systems in general support their business strategies. Thus, these small businesses are upgrading their ways of competing that can lead to successful national economic development

(Porter, 2004). These small businesses assess their competitive positions in all four criteria of business performance as strong.

The factor analysis reveals the three dimensions of information systems strategic orientation. The strategies of process efficiency improvement, cost reduction, quality service, and quality product emerge as indicators of the information systems strategic orientation dimension, Cost-Quality Leadership. The other two dimensions of information systems strategic orientation are Product Development (wider product range, new product, and product differentiation strategies) and Market Development (new market expansion and intensive marketing strategies). These are in line with Ansoff's matrix of strategy and Porter's generic strategies.

The defensiveness (Venketraman, 1989) is the predominant characteristic of the Cost-Quality Leadership dimension. The Proactiveness (Venketraman, 1989) is the predominant characteristic of the Product Development dimension and Aggressiveness (Venketraman, 1989) is the predominant characteristic of Market Development dimension. The result presented in Table 5 was scrutinized to analyze the percentage of variance in each information systems strategy score, explained by these common factors and specific factors (Table 8). This analysis reveals that these three characteristics (common factors) mainly constitute the means (dimensions of strategic orientation) to achieve the formulated goals within the conditions set by the information systems resource in the external and internal domains. These characteristics are held together by unique factors that are specific to the concerned strategic goals. A few of these specific factors are jointly significant and may include the characteristics of Analysis, Futurity, Riskiness (Venketraman, 1989), and so forth. As they are not common to other strategies, these characteristics are not explicitly brought out by the factor analysis. All these characteristics collectively describe the information systems strategic orientation.

The extraction of a single factor from multiple measures of business performance indicates

that the four different criteria reflect the overall business performance. The factor score is an indicator of their business performance and is used as dependent variable in the regression analyses. Multiple regression analysis provides insight into the relative importance of each dimension of information systems strategic orientation in the prediction of business performance. The order of importance is cost-quality leadership, product development and then market development. The strategic orientation, like strategic alignment, is a process and not an event. The information systems strategic orientation is strategy specific and industry oriented, whereas the strategy alignment is strategy independent and applicable to all industries. However, the strategic orientation analysis has set the direction to the measurement of alignment and its linkage with business performance.

The knowledge about the predictive value of the information systems strategic orientation is highly useful in understanding the business value generating process of information systems resource deployment in a given business setting. This facilitates the fine-tuning of the information systems investment and adjusting the portfolio of information systems applications by knowing the efficacy of a particular information systems strategy to attain certain ends within a particular setting. And strategic orientation as a process does not normally lead to competitive convergence (Porter, 2001).

### Implication for Strategy Research

The major contribution of the present study is the revelation of three core multifaceted dimensions of information systems strategic orientation in small business context. This emphasizes that small businesses explicitly indulge in information systems strategic planning for business performance management (Frolick & Ariyachandra, 2006). Future research could focus on small business information systems strategic planning and investigate their strategy making process (Miller, 1987).

As the newer strategic management research paradigm explicitly separate goals from strategy, the information systems strategy could

also be viewed as means to attain certain ends within a particular setting. Empirically deriving dimensions of strategic orientation a posteriori has certain limitations (Venkatraman, 1989). A valid operational measure could be developed specifying the identified dimensions a priori.

In net-enabled organizations (Straub, Hoffman, Weber, & Steinfield, 2002), strategy is fast becoming a dynamic process of recreating and executing innovative options to gain and sustain competitive advantages (Teece, Pisano, Shuen, 1997). The insight gained through the present study into the relationship among core dimensions of information systems strategic orientation in their prediction of business performance could be used in assessing and choosing emerging and enabling information technologies (ET). Selecting ET is the first stage in the Net-enabled Business Innovation Cycle (Wheeler, 2002) that asserts that choosing IT proceeds rather than aligns with business strategy in developing dynamic capabilities (Eisenhardt & Martin, 2000) to turn timely net-enabled business innovations into customer value (Chen, Chen, & Wu, 2005).

Future research studies could investigate whether the contingent effect of the Web presence on the relationship between information systems strategic orientation and business performance is a direct one or intermediated by any other factor. The capabilities of the Web site could also be examined in detail to ascertain its role (Whinston & Geng, 2004) in determining the degree and character of association between information systems strategic orientation and business performance.

### Implications for E-Business Development

The Web presence strengthens the relationship between information systems strategic orientation and business performance as a "promoting" variable. This emphasizes the strategic benefits of adoption of Web presence, one of the initial stages of electronic business development. The market development dimension of information systems strategic orientation is equally significant for exporters who have not yet adopted

Web presence (Table 7). Even though their regression model explains only 15% of the variation in their business performance, the model remains significant.

It seems that their participation in the global production networks, and the extent of trade liberalization forced these exporters to adopt the first stage of electronic business development viz. e-mailing and Web information search as a means of expanding their market. The near universal desire of business to gain advantages over their competitors, in addition to extend their markets, reach new markets, and protect existing markets, is perhaps the most significant force (Gibbs, Kraemer, & Dedrick, 2003), driving these exporters to move to the next stage of electronic business development viz. Web presence. It appears that Web presence creates information visibility (Straub et al., 2002) forcing the small businesses to improve their internal processes and strategic positioning that in turn lead to superior business performance.

As the strategic planning in small businesses is incremental in nature (Mintzberg, 1988), the demonstration of the beneficial results for adopters will enable the small businesses to move forward in the electronic business development. Rogers (1983) argues that change agents should recognize their responsibility for the consequences of the innovation they advocate. Thus, the results of the present study have practical implications to government and nongovernmental organizations that promote the diffusion of electronic business adoption in small businesses.

### CONCLUSION

The small businesses are investing in information and communication technologies to develop information systems applications to support their business strategy and thereby establish a competitive advantage based on the distinctive capability created in their markets. However, these small businesses struggle to achieve business benefits from their information systems investments and in particular to obtain a sustained competitive advantage and superior business performance. To explore the

relationship between the strategic orientation of these information systems and business performance, a study was designed. The mail survey was conducted among 950 small businesses manufacturing and exporting knitwear apparels.

The results reveal the three general patterns of their realized information systems strategies viz. cost-quality leadership, product development, and market development. These dimensions of information systems strategic orientation have strong positive relationship with their business performance. The consequences of their adoption of Web presence promote the degree of the linkage between information systems orientation and their business performance. The study demonstrates the business value of information systems investment and adoption of initial stages of electronic business development.

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*R. Rajendran is a professor in the Department of Management Sciences at Sri Ramakrishna Institute of Technology, Coimbatore, India. He has prior industry experience and served as senior engineer for the Bharat Electronics Limited, India. His research focuses on strategic information systems management, electronic commerce, and electronic business. His research has been published in Journal of Electronic Commerce Research, Digital Business Review, and Organization Management.*

*K. Vivekanandan is the director of Bharathiar School of Management and Entrepreneurship Development at Bharathiar University, India. He received his PhD in computer simulation from the same university in the year 1996. His research interest includes electronic commerce, electronic business, and data mining. His publications have appeared in Journal of Electronic Commerce Research, Digital Business Review, and other national and international research journals.*

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