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Influence of Corporate Culture, Structure and Strategy on Organizational Performance: An Empirical Study of Business Organizations in Sri Lanka*

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This study is a preliminary research aimed at developing a contingency model to examine the influence of organizational factors of culture, structure, and strategy on organizational performance. It is based on the responses of 91 managers from 63 companies in Sri Lanka. Research findings indicate that the relationships among members, speed of decision making, product strategies, creativity and innovativeness, quality of employees and technology, and strategic dynamism are significantly different among successful and unsuccessful organizations. Regression results showed that the return on investment was influenced by cultural, structural and strategic variables.

Introduction

For the past two decades, a high level interest has been seen within the business community in the concepts of corporate culture, organizational structure and organization strategy. What type of strategy would be much stronger in the face of new challenges and threats created by changing environments? What sort of organization structure would be more effective to combine the strategies and employees for a common goal of improved performance? To what extent would these axioms be affected by national as well as corporate culture? These are important questions in today's business world.

A good deal of research has been done on the relationship between various organizational factors and organizational performance. Much of these research addressed the same question of the influ-

* The authors wish to thank late Prof. Satoru Takayanagi for his valuable comments, and Dr. Henrich R. Greve of University of Tsukuba, and Prof. Itzhak Wirth of St. Johns University for their valuable comments and editing of the earlier version of this papar. However, the authors are responsible for any remaining errors and ambiguities. ence of organizational factors on performance from different viewpoints. It has been pointed out that performance in an organization is influenced by culture (Wilkins & Ouchi, 1983; Gorden & DiTomaso, 1992; Dowling, 1993), structure (Reimann, 1974, Beamish, Karavis, Goerzen, & Lane, 1999), strategy (Kotha & Nair, 1995; Mukherji, 1998; Hoang, 1998; Lee & Miller, 1996), strategy - structure fit (Hamilton & Shergill, 1992), and strategy – environment fit (Miller, 1991). Some recent research reported that deviation from fit prior to changes in environment proved to be profitable for savings and loan associations (Pant, 1998). The research results reported here will attempt to explain the synergy effect of organization culture, organization structure and organization strategy on the financial performance of an organization, as a step towards the empirical validation of the congruence of the above mentioned organizational factors.

Organizational Culture

Organizational culture is defined as patterns of shared values and beliefs which produce over time behavioral norms that are adapted in solving problems in the organization (Owens 1987; Schein 1990). Culture is created and transmitted mainly through

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sharing interpretations of events. It is the underlying mechanism, which helps structure of the organization implement the strategy, and considered as a bridge between organizational behavior at the operational level and its strategic management of the corporation. (Morgan 1993). The organization culture impacts many aspects of the organization including structure, role expectations and job, how to act on the job, how to solve problems, who makes decisions in various situations, how to behave toward co-workers and supervisors, and industry norms and practices (Hofstede, Neuijin, Ohayu & Sanders 1990). Dowling (1993) has postulated that if an organization possesses a "strong" culture, then it will perform a higher level of productivity. A strong culture enables people to feel better about what they do, so they are more likely to work harder. Successful organizations appear to have strong cultures that attract, reward and hold the allegiance of people who are performing roles to meet goals.

Smircich (1983) says that much of the literature on organizational culture appears to loose sight of the likelihood that there are multiple organizational sub-cultures. Bates, Amundson and Schroeder (1995) claim that a well aligned and implemented manufacturing organization was found to coexist with a clan oriented organizational culture. Wilkins and Ouchi (1983) have claimed that the organization that develops a distinct local culture or clan will have significant performance, but only under certain conditions. They believe that if there is a long history and stable membership in the absence of institutional alternatives, and if there is enough interaction among members, then it will develop a strong culture within the organization. That culture assumes to have a general paradigm and the perception of the goal congruence.

A substantial number of research can be found on the concept "strong" culture (Pascale 1985; Morgan 1993). Gorden and DiTomaso (1992), investigated the relationship of culture strength and two cultural values; adaptability and stability with corporate performance. They found that, strong culture, adaptability and stability are associated with better performance. Marcoulides and Heck (1993) hypothesized that culture is composed of five interrelated latent variables: organizational structure/purpose, organizational values, organizational climate, task organization and worker attitudes/goals. They indicated that all latent variables included as organizational culture had some direct effect on the level of organizational performance. Largest effects on performance were reported from worker attitudes and the task organization activities. Relatively large direct relations were noted between organizational values and organizational climate and between organizational values and employee attitudes. Based on the above findings, we assume that,

H1. The organization with culture that allows broad freedom and open communication will have higher performance.

H2. Organizations which have group oriented and self-satisfied members will have higher performance.

Organizational Structure

Organizational structure which responds to dynamic environments is featured by what Burns and Stalker (1961) labeled "organic". It gives an organization a life of its own, one that is independent of its specific participants. The structure can be designed and used to produce intended outcomes (Carroll & Hannan 1995). In other words, it is the means of implementing strategies (Hann 1991; Saleh and Wang 1993). Three decades ago, Organization Structure was defined by Chandler (1962), as the design of organization, through which the whole enterprise is administered. This design includes the lines of authority and communication between the different administrative offices and officers, and the information and data that flow through these lines of communication and authority. Much organizational theory consists of identifying and analysing abstract characteristics of decision-making and other organizational structure components. Those typically involve an organization's division of labour, authority system, group activities, and information flows. Organizations are often characterized in terms of their complexity, level of formalization, and degree of centralization. According to the previous research findings, complex organizational structure is potentially associated with better performance (Golden 1992). The larger firms seem to be growing faster

than others (Hamilton and Shergill 1992). O'Toole (1985) claimed that best managed companies have good relationships with their labour unions, lifelong training, benefits tailored to individual needs, participation in decision making, freedom of expression, and incentive pay systems. Decentralization permits lower level individuals greater participation in decision-making. It also facilitates information transfer and a freer exchange of ideas. All of these together encourage innovation (Khan and Manopichetwattana 1989) and better results in the long run. Every organization maintains a separate internal authority system that allows it to make many independent decisions. Roberts and O'Reilly (1974) documented the vital importance of the upward communication and its positive implications on organizational decision-making and performance. Supporting this, Boliko (1993) concluded as the more the employees are granted decision power, the more profit the organization enjoys. Therefore, we assume that.

H3. Organizations which include fast and cross information flow, authority delegation and classified job descriptions will have higher performance.

H4. Organizations which practice group decisionmaking, will have higher performance.

Organizational Strategy

Organizational strategy is defined by Chandler (1962) as the determination of the long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals. There are discernible patterns of strategic development in organizations. Decisions build one upon another, so that past decisions mould future strategy (Johnson 1992). It is a difficult task to arrive at an optimal strategy. Dealing with uncertainty and with limitations inside the organization, testing new ideas and experiments, strategies must develop gradually, while maintaining continual changes. Strategic contingency theory is still in its infancy. The literature stresses the need for fit or match between strategy and environment for better performance, especially in challenging settings (Miller 1988; Miller 1991; Lee & Miller 1996). A research by Kotha and

Nair (1995) found that both strategy and environmental variables are related to firm profitability, and only environmental variables are associated with firm growth in Japanese machine tool industry. They measured the realized strategy using the variables of cost efficiency, asset parsimony, differentiation, and scale/scope. They recommended that future studies on a "fit" between strategies and environmental conditions to consider possibilities that the fit may lead to superior corporate performance. Therefore we assume here as,

H5. Organizations which concern about quality, cost control, creativity and innovativeness more will have higher performance.

H6. Organizations which have diversified product /market strategies will have higher performance.

Theoretical Integration

As highlighted in the introduction, there have been many investigations done by contingency theorists. An underlying assumption of the contingency view is that there should be congruence between the organization and its environment, and among the various subsystems (Nightingale & Toulouse 1977). An appropriate fit between the organization and its environment, and an appropriate organizational design will lead to a greater effectiveness, efficiency and participant satisfaction (Kast and Rosenzweig 1985). Many research tried to derive a fit between either structure or strategy with the "environment". Environment covers a rather broad scope. To a larger extend it is uncontrollable and organizations need to adjust accordingly. The "culture fit" is something more important but seriously neglected. This study takes a configurational approach to organizational culture, structure, and strategy for goal congruance. Configurations are "tight constellations of mutually supportive elements" (Miller 1986). According to the classic work by Chandler (1962), strategy and structure are defined in relation to the threats and opportunities in the environment. A strategic fit is a situation in which all internal and external elements relevant for a company are in line with each other and with the corporate strategy. It relates to the basic content of the 7-S-Framework which states that the elements of strategy, structure, systems, style, staff,

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shared values, and skills must be in the same direction (Scholz, 1987).

The research findings in this arena are diverged or contradictory. Miller (1991) found that the match between strategy and the environment was positively related to financial performance, and was unable to find structure - environment match. Hamilton and Shergill (1992) made an attempt to find out the effect of fit between strategy and structure for better performance, and concluded that, the Chandler's strategy-structure thesis can be extended to the behavior of New Zealand companies. The reported differences were statistically significant proving that strategy is influencing the switch from functional to divisional structures in New Zealand. (1995)Birkinshow and Morrison used а configurational approach to explore the strategy structure relationship and its influence on performance in subsidiaries of multinationals.

In a research on corporate performance and organ-Varadarajan izational characteristics, and Ramanujam (1990) defined superior companies are those that have higher rates of return on total capital and higher sales growth. The performance in superior companies is associated with a broad product line accompanied by geographic diversity, an emphasis on planning coupled with sound financial controls and reporting systems, a high level of commitment to products and process innovations, investment in modernization of manufacturing facilities, a reputation for superior quality and customer service, and progressive human resource management practices. Goldsmith and Clutterbuck (1984) compared 23 excellent and specified troubled companies in UK. They found that troubled companies lacked some or most of the characteristics that made the excellent companies highly successful. The troubled companies had characteristics such as centralized bureaucracies, ineffective controls, lack of employee participation, little creativity, low level of concern for the customers, and a lack of integrity. Kawanishi (1997) followed a different approach to explain strategy structure relationship. He discussed about the interorganizational strategy and structure relationship. Extending Chandler's strategy-structure relationship to inter-organizational context, he concluded that the

performance of inter-organizational strategy depends on the specific nature of the inter-organizational structure. Depending on the above theoretical background, this study tries to bring the relationships among organizational culture, organizational structure and organizational strategy into an explanatory model of performance in the organizations in Sri Lanka, as a preliminary step towards building a model of fit between culture, structure and strategy with organizational performance.

Performance

Defining and measuring organizational performance is a complex task for academics as well as practitioners (Tatoglu and Glaister 1998; Simerly and Li 2000). The diversity of performance axioms cover qualitative vs. quantitative, organizational vs. social, and inter-industry vs. intra-industry perspectives. It can be measured through productivity, quality and new product development, but each has some limitations that hinder a general usage. Profitability, rate of sales growth, customer satisfaction, and market share are the most often used indicators of economic performance (Liouville and Bayad 1998).

Research Setting

A research setting was found in the Democratic Socialist Republic of Sri Lanka. For nearly 450 years, it was a colony under three nations, namely, Portuguese, Dutch and British. Since political independence was won in 1948, industrialization received a major attention. Import substitution was the main strategy in the industrial sector, in order to create a larger number of employment and to save foreign exchange through the use of domestic inputs. After introducing liberalized economic policies in 1977, a drastic change in strategy was introduced to promote an export orientation. In early 90's, buoyed by an aggressive privatization program, economy improved considerably and number of foreign companies increased. The imperatives of privatization demanded the development of qualified managerial personnel. The country's university system played a leading role in training managers to meet the present challenges. New entrepreneurs with creative

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thinking and strategic orientation have emerged. Everything was changed dramatically in private organizations due to the threat arising from better quality foreign imports. Due to strategically advanced approaches in internationalization, solid and well-managed companies surfaced in Sri Lanka. We sampled some of those companies in this research.

Questionnaire Design

Many experienced researchers viewed as the structured questions produce more relevant and comparable responses (Rosenthal and Rosnow 1991). This approach requires less time to answer, and the answers are easier to quantify. Therefore, the questionnaire was designed only to have structured questions. When a question requires a response to the complex and abstract issue, a central tendency bias is likely to occur. To avoid this bias, only four-point scales were used instead of five- or seven-point scales. The questionnaire was reviewed by professionals and practitioners, and pre-tested by interviewing managers who were the participants of a MBA program at the university of Sri Jayewardenepura in Sri Lanka.

Construction, Distribution and Collection of the Questionnaire

The data used to test the hypotheses were collected from managers working for a randomly selected companies registered in the Colombo Stock Exchange. Total number of listed companies in the Colombo Stock Exchange was 203 in 1994. 200 questionnaires were distributed. The number of responses was 91 from 63 companies (Table 1). Some of the companies in the sample are fullydecentralized plants or profit centres of multibusiness companies (Lee and Miller, 1999). We included them into our data set. The sample covers the sectors of bank, finance and insurance (6); beverage, food, and tobacco (3); construction and engineering (1); footwear and textiles (3); hotels and travel (11); investment trusts (1); land and property (3); manufacturing (10); motors (5); services (3); stores and supplies (12); and trading $(5)^{1}$. All questionnaires we personally handed to the managers after getting the permission from the chairman or the director of the company. A cover letter was attached to each questionnaire.

All respondents were promised strict anonymity and confidentiality to insure candid responses given the sensitive nature of information being requested. Telephone calls were given as notification before collection. At the time of analysis, 91 answered questionnaires were recovered constituting a response rate of 45.5 percent.

Measurement Devices

We have chosen the dimensions from the existing literature to measure organizational culture, structure and strategy. As a total, there are 50 question items in the data set. The question items used as cultural dimensions are; freedom to learn by doing mistakes, relationship with labour unions, relationships among members, group orientation, open communication with direct superiors, open communication with indirect superiors, new idea proposals, attitudes towards risk, degree of loyalty and satisfaction of being a member of the group. The structural dimensions consisted of complexity of structure, authority delegation, classified job descriptions, speed of decision making, speed of top-bottom communication, speed of bottom-up communication, speed of horizontal communication, decision making through pre approval, GDM (group decision making) for corporate objectives, GDM for functional objectives, GDM for new technology and development, GDM for transfers and promotions, GDM for reward system planning, time devoted for meetings and a size of capital investment. Twenty one variables, namely; new product introduction, product differentiation, company reputation, target achievement, product quality, waste control, quality of customer services, quality of supplier services, quality of equipment, quality of personnel, quality of personnel development & training, level of co-operativeness, creativity and innovativeness in products, creativity and innovativeness in processes, creativity and innovativeness in marketing, advancement in

¹⁾ This classification is based on Colombo Stock Exchange Classifications. Number of companies in each category is in the brackets.

the state was and

	Companies	

-	No.		Category
_		Company name	
	$\frac{1}{2}$	Abans Electricals Limited ACL Cables Limited	Manufacturing Manufacturing
	3	Acme Printing and packaging Limited	Manufacturing
	4	Asian Cotton Mills Limited	Footwear and Textiles
	5	Asian Hotels Corporation Limited	Hotels and Travels
	6	Associated Motorways Limited	Motors
	7	Autodrome Limited	Motors
	8	Cargills (Ceylon) Limited	Stores and Supplies
	9 10	Central Finance Company Limited Central Industries Limited	Bank, Finance and Insurance Manufacturing
	11	Ceylinco Housing and Real Estate Company Limited	Land and Property
	12	Ceylinco Insurance Company Limited	Bank, Finance and Insurance
	13	Ceylon Cold Stores Limited	Beverages, Food and Tobacco
	14	Ceylon Holiday Resorts Limited	Hotels and Travel
	15	Ceylon Printers Limited	Services
	16 17	Chemanex Limited Chemical Industries (Colombo) Limited	Stores and Supplies Stores and Supplies
	18	Colonial Motors limited	Motors
	19	Commercial Leasing Company	Bank, Finance and Insurance
	20	CTC Eagle Insurance Company Limited	Bank, Finance and Insurance
	21	Eastern Merchants Limited	Trading
	22	Glaxo Ceylon Limited	Stores and Supplies
	23	Haycarb Limited	Stores and Supplies
	24	Hayleys Limited	Trading
	25	Hayleys Exports Limited	Trading
	26 27	Hayleys Photoprint Limited	Services
	27 28	Heytech Marketing Limited Hotel Reaf Comber Limited	Trading Hotels and Travel
	20 29	Hotel Sigiriya Limited	Hotels and Travel
	30	John Keells Limited	Services
	31	John Keells Holdings Limited	Investment Trust
	32	Kandy Walk Inn Limited	Hotels and Travel
	33	Keells Development Limited	Land and Property
	34	Keells Food Limited	Beverage, Food and Tobacco
	35	Kuruwita Textiles Mills Limited	Footwear and textiles
	36 37	Lanka Ashok Leyland Limited Lanka Ceramic Limited	Motors Manufacturing
	38	Lanka Ceramic Limited Lanka Milk Foods (CWE) Limited	Beverage, Food and Tobacco
	39	Lanka Tiles Limited	Manufacturing
	40	Lankem Ceylon Limited	Stores and Supplies
	41	Lankem Developments Limited	Construction and Engineering
	42	Merchant Bank of Sri Lanka Limited	Bank, Finance and Insurance
	43	Metal Packaging Limited	Manufacturing
	44	Millers Limited	Stores and Supplies
	45 46	Muller and Phipps (Ceylon) Limited Office Equipment Limited	Stores and Supplies Trading
	40 47	Onally Holdings Limited	Land and Property
	48	People's Merchants bank Limited	Bank Finance and Insurance
	49	Pugoda Textiles Lanka Limited	Footwear and Textiles
	50	Reckitt and Colman of Ceylon Limited	Stores and Supplies
	51	Richard and Pieris and Company Limited	Manufacturing
	52	Richard Pieris Exports Limited	Trading
	53	Samson International Limited	Manufacturing
	54 55	Serandib Holiday Inns and Resorts Limited	Hotels and Travel
	55 56	Serandib Hotels Limited Singalanka Standard Chemicals Limited	Hotels and Travel Stores and Supplies
	56 57	Sigiriya Village Hotels Limited	Hotels and Travel
	58	Stafford Hotels Limited	Hotels and travel
	59	Statcon Rubber Company Limited	Manufacturing
	60	Tangarine Beach Hotels Limited	Hotels and Travel
	61	Union Carbide Lanka Limited	Stores and Supplies
	62	United Motors Lanka Limited	Motors
_	63	Walker's Tours Limited	Hotels and Travel

Operationalization			
Variables	Source of Literature		
1) Freedom to learn by doing mistakes	Saleh & Wang, 1993		
2) Relationship with labor unions	O'Toole, 1985		
3) Relationships among members	Lau & Mgo, 1996		
4) Group orientation	Bates et. al., 1995; Lau & Ngo, 1996		
5) Open communication with superiors	Marcoulides & Heck, 1993		
6) New idea proposals	Marcoulides & Heck, 1993; Lee & Miller, 1999		
7) Attitudes towards risk	Marcoulides & Heck, 1993		
8) Degree of loyalty	Bates et. al., 1995; Lau & Ngo, 1996; Lee & Miller,		
	1999		
9) Satisfaction of being a member of the group	Lau & Ngo, 1996; Lee & Miller, 1999		
10) Complexity of structure	Reimann, 1974; Miller, 1986; Miller, 1991;		
	Marcoulides & Heck, 1993		
11) Practical authority delegation	Reimann, 1974; Miller & Toulouse, 1986; Miller, 1991		
12) Classified job descriptions	Miller, 1991		
13) Speed of communication	Reimann, 1974; Miller, 1986; Marcoulides & Heck,		
	1993		
14) Decision making	Reimann, 1974; Miller, 1986; Marcoulides & Heck		
	1993		
15) Size of capital investment	Hoang, 1998; Beamish et. al, 1999		
16) New product introduction	Miller, 1991; Hoang, 1998		
17) Product differentiation	Miller, 1991		
18) Target achievement	Miller & Toulouse, 1986		
19) Product quality	Miller, 1986; Miller, 1991		
20) Waste control	Miller, 1991		
21) Creativity and innovativeness	Miller & Toulouse, 1986		
22) Advancement in international strategies	Miller, 1986		
23) Nature of strategies	Miller, 1991		
24) Attitudes towards organizational change	Miller, 1986		

Table 2 A List of Variables used for the Present Study with Sources of Literature used for the Operationalization

international strategies, exposure to international market, corporate identity, nature of strategies, long term planning, and attitudes towards organizational change are used as measures of strategic dimensions. Data for the above 46 variables were gathered through the questionnaire and the three performance variables, average sales growth rate, average net profit growth rate and return on investment were drawn from yearly handbooks of listed companies in Colombo Stock Exchange. A list of 63 companies from which we got the published financial data is given in the Table 1. Table 2 summarizes organizational variables used as operational measures for this study.

Measures of Performance

Financial data for five years from 1990 to 1994 were obtained from the Handbook of listed companies published by the Colombo Stock Exchange annually. Previous studies proved that a five years period is long enough to handle short term irregularities and provides a reliable estimate of firm performance, yet short enough to give a recent indicator of firm performance (Gomez-Meija 1992). Performance is a multidimensional construct, and therefore, any single index may not be able to provide a

Variables	mean (n=91)	s.d. (n=91)	success mean(n=27)	unsuccess mean(n=64)	t statistics
1) Freedom to learn by doing mistakes (a)	2.74	.91	2.71	2.75	.12
2) Relationship with labour unions (b)	3.65	1.34	3.14	3.75	1.57
3) Relationships among members (c)	2.71	.90	2.36	2.79	1.66*
4) Group orientation (d)	2.70	1.01	2.27	2.79	1.86*
5) Open com. with direct superiors (a)	2.89	.76	2.93	2.88	23
5)' Open com. with indirect superiors (a)	2.64	.72	2.64	2.63	04
6) New idea proposals (a)	2.99	.60	2.71	3.04	1.91 *
7) Attitudes towards risk (a)	⁻ 2.67	.92	2.43	2.72	1.09
8) Degree of loyalty (e)	3.20	.69	2.92	3.25	1.56
9) Satis. of being a member of the group (e)	2.88	.41	2.71	2.91	1.59

Table 3 Mean differences in Cultural Variables Based on t-tests

(*** p<0.001, ** p<0.01, ** p<0.10)

(a) for scales, "4"=always, "3"=many times, "2"=sometimes, "1"=not at all

(b) for scales, "5"=very friendly, "4"=somewhat friendly, "3"=somewhat hostile, "2"=very hostile, "1" no labor unions

(c) for scales, "4" = fairly wet, "3" = somewhat wet, "2" = somewhat dry, "1" = fairly dry

(d) for scales, "4"=fairly group oriented, "3"=somewhat group oriented, "2"=somewhat individual oriented, "1"=fairly individual oriented

(e) for scales, "4" = very high, "3" = somewhat high, "2" = somewhat low, "1" = not at all

com. = communication, Satis. = Satisfaction

comprehensive understanding of the performance relationship relative to the other constructs. Thus it is important to look at multiple indicators (Simerly and Li 2000). Average net profit growth, average return on investment and average sales growth (McGee, Dowling & Megginson, 1995; Miller & Toulouse, 1986) were used in our study as the measures of performance.

In categorizing successful and unsuccessful companies, we adopted the method used by Varadarajan and Ramanujam (1990). At first, median for each industry was calculated for both average Return on Investment (ROI) and Average Sales Growth Rate (SGR). Companies which have higher ROI and SGR

2) Admittedly, this is a good criterion to segregate companies in the context like Sri Lanka in which some of the industries are still in the stage of development. In some cases, industry median had negative values. Thus, we had to classify the companies with higher values than the industry median as successful, though the respective median value showed a negative one. than the median values in industry were selected as 24 successful companies. Other companies with both lower values of ROI and SGR or, higher value in one measure and lower value in the other, were considered as 64 unsuccessful companies²⁰. Under this procedure, 15 companies which include 27 responses to the questionnaires, showed higher values in both SGR and ROI. Those that were categorized as successful performers consisted of 48 companies covering 64 responses to the questionnaires. The above two groups, successful and unsuccessful companies, were subject to a series of comparisons by using t-test with respect to corporate culture, structure and strategy variables.

Survey Results and Analysis

To analyze group differences further, nonparametric tests and a regression analysis were used.

In H1, we hypothesized that the successful companies have free and open organizational culture. As Table 3 shows, t-test results prove this hypothesis to be untenable. There is a significant difference in the mean of new idea proposals at the 10% level, but in

Variables	mean (n=91)	s.d. (n=91)	success mean(n=27)	unsuccess mean $(n=64)$	t statistics	
10) Complexity of structure (a)	2.45	1.34	2.60	2.42	48	
11) Practical authority delegation (b)	3.10	.72	2.93	3.14	.99	
12) Classified job descriptions (b)	3.00	.73	2.80	3.04	1.17	
13-1) Speed of decision making (b)	2.88	.68	3.07	2.84	1.12*	
13-2) Speed of top-bottom communication (b)	3.36	.59	3.53	3.32	-1.27	
13-3) Speed of bottom-up communication (b)	2.63	.90	2.73	2.61	47	
13-4) Speed of horizontal communication (b)	3.10	.70	3.00	3.12	.61	
14-1) Decision making through consensus (c)	1.65	.50	1.53	1.68	1.03	
14-2) GDM for corporate objectives (d)	3.11	.91	2.93	3.15	.82	
14-3) GDM for functional objectives (d)	3.00	.82	2.93	3.01	.36	
14-4) GDM for new technology and develop-	2.96	.80	2.87	2.99	.52	
ment (d)						
14-5) GDM for transfers and promotions (d)	2.82	.84	2.80	2.83	.11	
14-6) GDM for reward system planning (d)	2.79	.91	2.67	2.81	.56	
14-7) Time devoted for meetings (e)	2.90	.74	2.79	2.93	.66	
15) Size of capital investment (f)	1.78	.67	1.60	1.82	1.15	

Table 4 Mean differences in Structural Variables Based on t-tests

(*** p<0.001, ** p<0.01, ** p<0.10)

(a) for scales, "1"=functional, "2"=divisional, "3"=matrix, "4"=profit centres, "5"=other

(b) for scales, "4" = very high, "3" = somewhat high, "2" = somewhat low, "1" = very low

(c) for scales, "1" = no, "2" = yes

(d) for scales, "4"=always, "3"=many times, "2"=sometimes, "1"=not at all

(e) for scales, "4"=fairly long, "3"=somewhat long, "2"=somewhat short, "1"=no time for meetings

(f) for scales, "1"=less than Rs.100.m, "2"=between Rs.100m to Rs.1,000m., "3"=more than Rs.1,000m., (Rs. is Sri Lankan Rupees and m. is million.)

contrast to what we expected, the successful companies have a less new idea proposals than unsuccessful companies. In H2, it was assumed that the members in the successful companies are group-oriented and self-satisfied. The result indicated when compared to the unsuccessful companies, the members in the successful companies are less group-oriented, and the relationships among themselves are rather individualistic. In H3, we expected that the successful companies have more advanced structure, fast and open communication flows, authority delegation and job descriptions with more specialized classifications. According to t-test results in Table 4, there is a significant difference in the speed of decision-making at the 10% level, showing a somewhat high decisionmaking speed in the successful companies. We failed to prove our H4, in which successful companies are predicted to do group decision-making at corporate and functional levels. None of the variables related to group decision-making was found significantly different. H5 was on product strategy and innovation. We assumed that successful companies are quality- and cost-concerned, and also more creative and innovative than unsuccessful companies. In H6, we hypothesized that successful companies have product/market diversification strategies. As shown in Table 5, it was found that nine out of nineteen strategic variables turned out to have statistically significant results. Among them, exposure to international market is higher in successful companies than unsuccessful companies. Other variables showed contrast results from what we expected. Unsuccessful companies are found to conduct new product development to have company reputation and to engage in target achievement and product quality activities higher than successful

Variables	mean (n=91)	s.d. (n=91)	success mean(n=27)	unsuccess mean(n=64)	t statistics
16) New product introduction (a)	2.60	.99	1.93	2.74	2.89 **
17-1) Product differentiation (b)	1.75	.47	1.64	1.77	.85
17-2) Company reputation (c)	3.53	.56	3.13	3.61	3.15 -
18) Target achievement (c)	3.11	.61	2.80	3.17	2.22 *
19) Product quality (c)	3.46	.62	3.13	3.52	2.25 •
20-1) Waste control (c)	2.76	.92	2.53	2.80	1.03
20-2) Quality of customer services (c)	3.31	.65	3.07	3.36	1.62
20-3) Quality of supplier services (c)	[.] 3.06	.75	3.79	3.11	1.49
20-4) Quality of equipment (c)	3.02	.75	2.87	3.05	.88
20-5) Quality of personnel (c)	3.20	.62	2.93 ·	3.25	1.84*
20-6) Quality of personnel dev.& training (c)	2.90	.78	2.93	2.89	18
20-7) Level of co-operative ness (c)	2.93	.81	2.67	2.99	1.39
21-1) Creativity and innova. in products (c)	2.78	.80	2.40	2.86	2.05
21-2) Creativity and innova. in processes (c)	2.74	.81	2.47	2.80	1.44
21-3) Creativity and innova. in marketing (c)	2.98	.76	2.53	3.07	2.57 •
22-1) Advancement in inter. strategies (c)	2.53	.96	2.47	2.54	.28
22-2) Exposure to inter. market (b)	1.71	.46	1.90	1.68	-1.40*
22-3) Corporate identity (b)	1.66	.48	1.50	1.70	1.42
23-1) Nature of strategies (d)	1.70	.46	1.50	1.74	1.77 •
23-2) Long term planning (e)	1.63	.92	1.62	1.64	.07
24) Attitudes towards organizational change (b)	1.45	.50	1.27	1.49	1.57

Table 5 Mean Differences in Strategic Variables Based on t-tests

(*** p<0.001, ** p<0.01, ** p<0.10)

(a) for scales, "4" = always, "3" = many times, "2" = sometimes, "1" = not at all

(b) for scales, "1" = no, "2" = yes

(c) for scales, "4" = very high, "3" = somewhat high, "2" = somewhat low, "1" = very low

(d) for scales, "1"=static, "2"=dynamic

(e) for scales, , "4" = more than 10 years, "3" = 7 to 8 years, "2" = 4 to 5 years, "1" = 2 to 3 years

innova. = innovativeness. Inter. = international

companies. Unsuccessful companies have qualified people, creativity and innovativeness in products and marketing, and more dynamic strategies.

When we look at the level of mean values in cultural, structural and strategic variables across companies sampled for the present study, we understand that the management practices in Sri Lankan organizations are quite different from those of western organizations. In general, among the Sri Lankan organizations, it is still rare to find complex organizational structures. Mostly they remain to have functional or divisional organizational structure and are not developed to have matrix or profit centre structure yet. Product differentiation is rarely used as strategy. They do not concern about the corporate identity in their organizations. Decision-making through consensus or prior consultation is a widely used method in Japanese management system. However, tt is not a common practice in Sri Lankan organizations. This result may reflect the presence of a higher discipline and rigid systems operating in successful companies. In other words, companies are likely to be more individual oriented and control mechanisms affect the workers' behavior more strictly minimizing deviations for maximum standardization.

Non-parametric tests of Kruskal-Wallis and Mann-Whitney U tests were conducted to test relationship Influence of Corporate Culture, Structure and Strategy on Organizational Performance: An Empirical Study of Business Organizations in Sri Lanka

Variables	Kruskal-Wallis Chi-Square	Mann-Whitney U
Culture		
3) Relationships among members	3.015*	337.0*
4) Group orientation	3.701 *	356.5*
Strategy		
16) New product introduction	7.215 **	267.5 **
17-2) Company reputation	7.869 **	337.5 **
18) Target achievement	4.145*	400.5*
19) Product quality	3.904 *	400.5*
20-5) Quality of personnel	2.919*	423.5*
21-1) Creativity and innova. in products	3.579*	377.5 •
21-3) Creativity and innova. in marketing	3.986*	386.5*
23-1) Nature of strategies	3.058 *	346.5*

Table 6 Chi-Square Results for Cultural and Strategy Variables tested between Successful and Unsuccessful Organizations

(Significant levels - p < 0.001, p < 0.01, p < 0.10)

between performance and categorical variables relating to culture and strategy in Table 6. Two cultural variables, relationships among members and group orientation were significantly different, confirming the successful companies have more individual oriented cultures. There weren't any significant differences derived in structural variables. Among strategic variables, under Mann-Whitney u test, we derived the significant differences between eight strategic variables showing very similar results as found in t-test. Among them, new product introduction and company reputation are significantly different at 1% levels. Quality of personnel and nature of strategies are not significant under Kruskal-Wallis test, but significant at 10% level under Mann-Whitney test. Target achievement, product quality, creativity and innovativeness in products, and creativity and innovativeness in marketing are significant at ten % levels under both Mann-Whitney and Kruskal-Wallis tests.

Multiple regression analyses were conducted to evaluate the influence of ten culture variables, fifteen structure variables and twenty one strategy variables on the organizational performance in successful and unsuccessful companies. A step wise regression method was conducted to identify a set of variables contributing to explain the performance differences.

Three performance variables were used as dependent variables: an average net profit growth rate, return on investment and an average sales growth rate. Table 7 shows the results of step-wise regression analyses.

As shown in the Table 7, the regression Model 1 was not effective, because the average net profit growth rate showed a linear relationship with only one structural variable, group decision making in functional objectives. The regression Model 2 came out with a significant combination of the three organizational variables to explain ROI, and a significant F value, supporting our idea of congruence among three types of variables, i.e. cultural, structural and strategy variables. The attitudes towards risk, speed of top bottom communication, and time devoted for meetings, have a negative influence on ROI. Although Table 4, only speed of top- bottom communication is higher in successful companies at the 10% level but it was found significant under the regression test at the 0.1% level. According to the mean values in Table 3 and 4, the attitudes towards risk and time devoted for meetings were found contradicting in contrast to our hypotheses. Then,

Unstandardized Coefficient	Standardized Coefficient	t-value
336.843	.381	2.913 -
-772.585		-2.816*
.145		
.128		
8.488 **		
44		
		·······
-4.555	383	- 3.059 **
-9.471	474	-4.069 ***
-4.914	315	-2.688 *
4.876	.347	2.620*
6.829	.360	2.753 **
.336		3.120 **
.429		
.367		
6.918 ***		
44		
	Coefficient 336.843 -772.585 .145 .128 8.488 44 -4.555 -9.471 -4.914 4.876 6.829 .336 .429 .367 6.918 	Coefficient Coefficient 336.843 .381 -772.585 . .145 . .128 . 8.488^{-} . 44 . -4.555 383 -9.471 474 -4.914 315 4.876 .347 6.829 .360 .336 . .429 . .367 . $6.918^{}$.

Table 7 Regression Results for the Influence of Culture, Structure and Strategy Factors on Performance

(Significant levels - p < 0.001, p < 0.01 level, p < 0.10)

both variables show significant negative effects on ROI confirming the previous findings. Workers may not react properly towards the speedy top-bottom communication in unsuccessful companies and thus it may have a negative impact on ROI. Quality of equipment and quality of personnel development and training have a positive influence on ROI. We could not derive a linear relationship between the average sales growth rate and any of the organization variables.

Conclusion

The objective of this research was to empirically evaluate the relationship between organization

culture, structure and strategy with their performance. In addressing this objective moderate support was found. To a large extend, the findings reported here must be regarded as preliminary. The results supported the argument that there are significant differences in cultural, structural and strategic factors in successful and unsuccessful organizations. The research findings revealed that, different aspects of performance showed different relationships with the different determining variables. To understand the reasons for such difference, it may require a deeper analysis at the organizational level. This work will require us to develop new criteria to assess organizational performance. On the whole, our

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results do not suggest an acceptance or rejection of the proposed contingency model, but rather present several alternative avenues of further theoretical and empirical research.

In general, the results indicated that the successful organizations in Sri Lanka have organizational culture consist with more individualistic workers. Organization structures in the successful companies have speedy top-bottom communication flows. These features are different from those of the western culture. This result indicates there exist the taller hierarchies, larger power distance and centralization in developing countries like Sri Lankan. This situation may be due to the influence by the Sri Lankan family tradition. In a traditional Sri Lankan family, the father is the respected head and he is unquestioned. He has a sole responsibility of his family, and therefore controlling power. If this tradition is working in the organization, it can be expected a strong authoritarian style leadership. Though the mean values showed a tendency towards group decisionmaking in all the decision areas, a significant difference was derived in the decision of functional objectives, but not in other areas. This result makes us to feel that successful organizations are rather individual oriented. This supports the research findings by De Silva (1989). A positive relationship found between quality of personnel and technology can be a result of well-educated workforce. This assumption is in accordance with the data published by the World Bank. It says that, Sri Lanka's indicators for the quality of manpower are the best among the 42 low-income countries in the world. This situation is the result of extensive investment in human resource development by successive post-independent governments. In the case of Sri Lanka, most of the bluecollar workers are qualified for white-collar jobs, but no alternative opportunities due to the high unemployment rate. It is very common that the organizations use them paying very low salaries (Peace net website, 2001). In contrast to Dowling's findings (1993), we could not identify strong cultures within the successful Sri Lankan companies. The culture we found looks like that of the leadership driven. Concerning the relationship between organizational variables and performance, our research findings are closer to Miller's (1991) than Hamilton and Shergill's (1992). Research findings by Lee and Miller (1999) showed that return on assets was strongly and positively influenced by interaction of organization's commitment to its employees and cost leadership, marketing differentiation and innovative differentiation strategies. They found findings in Korean companies, in which they believe the organization culture is group-oriented, self-motivated and well look after by their organizations. We found that Sri Lankan organizations are more individual-oriented and unable to maintain culture-driven strategies.

It is important to understand the result of this study with some limitations. One of concerns is that mainly one manager from each company was asked to represent the organization in responding the questionnaire. Therefore, there may be a bias in some information. On the other hand, the fact that respondents were limited to middle to upper level managers may have produced some disadvantages. They may not clearly represent the employees due to their pro-management positive perceptions in organizations.

The results of this study offer interesting insights for future research. It was found that rather distinct corporate culture exists in organizations in Sri Lanka. More comprehensive study is needed to understand the uniqueness of this culture and both positive and negative impacts of corporate culture on performance in Sri Lanka. In this research, we did not attempt to see the interactions of culture, structure and strategy on performance. That task needs to be carried out in future research. Further, the performance in the organizations lead by different types of chief executive officers (CEOs) is also worth to study. More solid analysis on cultural, structural and strategic fit is a vital importance.

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