

Association between Mechanistic Characteristics and Categories of Banking Employees

M. B. M. Ismail¹ and T. Velnampy²

¹Senior Lecturer in Management, Department of Management, Faculty of Management and Commerce, South Eastern University of Sri Lanka

²Dean, Faculty of Management Studies and Commerce, University of Jaffna, Tirunelvely, Sri Lanka

mbmismail1974@gmail.com

Abstract

Earlier studies have proved varying degrees and strength of association between mechanistic, organic characteristics and organizational characteristics. There were no uniform results in these studies. Thus, there was a great need to find the association between mechanistic and organizational characteristics. This research gap motivated researcher to study in this area. Thus, this study attempts to know the association between mechanistic characteristics and categories of banking employees of Peoples' Bank. This study has taken 34 members from each category of banking employees. Altogether 102 employees were considered in this study. A convenience sampling technique was used in this study. Data are analysed using SPSS. Pearson Chi-Square, Phi, Cramer's V and Contingency Coefficient are used in this study. Results of Chi-Square statistics proved that there is association between mechanistic characteristics and categories of banking employees. It is evidenced by values of Chi-Square along with 0.000 of Sig. values. Further, the strength of association between mechanistic characteristic and categories of employees of Peoples' Bank are witnessed by values of Phi, Cramer's V and Contingency Coefficient that vary between 0.5 to 0.8. All these values prove the strong association between mechanistic characteristics and categories of banking employees of Peoples' Bank.

Key words: Banking employees, mechanistic characteristics.

Introduction

Organizational forms have evolved over the decades. Organizational design reflects the systems view, which considers that structure consists of both hard and soft components, and is the superior composition of relationship between organizational elements. For example, Catherine and Pervaiz (2003) studied about structure and structural dimensions for knowledge-based organizations. Structural dimensions are traditionally examined along three dimensions of formal relationship: hierarchical, functional, and the dimension of inclusion and centrality, underlining two prime types of structure termed as mechanistic and organic organizations. Different studies have put forward different findings for mechanistic and organic organizations. These studies have proved different ranges of association. Specifically, Zanzi (2007); John, Gail and Rogers (1989) found different associations for mechanistic and organic organizational structures. This research gap motivated researcher to know about the association between mechanistic characteristics and categories of banking employees.

Statement of the problem

John, Gail and Rogers (1989) studied about interaction patterns in organic and mechanistic system. The researchers compared actual communication of managers and subordinates in two plants. One plant was organized by an organic, self-managing team philosophy. The other plant was organized by mechanistic, authority-based philosophy. Study used a relational control coding scheme to analyze and compare organic and mechanistic characteristic of organizations in these two plants. This study set hypotheses as there is no association between communication and organic system; between command and mechanistic system. Study found that conversational elaboration, a lack of managerial orders and commands characterized communication at the self-managed plant. In contrast, competitive interchanges, interruptions, and statements of nonsupport typified interaction at the authority-based plant. These findings provided empirical support for hypotheses suggesting that communicative forms are consultative in organic systems and command-like in mechanistic systems. Study confirmed that there is moderate association between communication and organic system;

between command and mechanistic system. Zanzi (2007) studied about determinants of organic/ mechanistic tendencies in a Public Accounting Firm. This study compared two units within a major public accounting firm in order to determine their organic/mechanistic tendencies and established the variables most closely related to these organizational characteristics. Further, this study set hypotheses between determinants mechanistic and organic characteristics and organizations. Results from a sample of 67 professionals balanced by unit and hierarchical level indicated that the process-oriented elements of an organization are the more relevant indicators of organizational development and provided a system for evaluating an organization on an organic/mechanistic continuum. Study found that rules and regulations, job roles, authority hierarchy and communication determines organic/ mechanistic tendencies of organizations. This study proved that few factors such as rules & regulations and job roles have strong association with organization. Other two factors such as authority hierarchy and communication have week association with organization.

Research Question and Objectives

Study conducted by John, Gail and Rogers (1989) tested and proved moderate association between communication and organic system and between command and mechanistic system. Study conducted by Zanzi (2007) found strong and weak association of determinants of organic/ mechanistic organizations. Based on these two findings of the study, it is confirmed that there is a research gap for knowing the association between mechanistic characteristics and categories of banking employees. Thus, this study selected Peoples' banks for the study purpose. On the basis of previous research findings, researcher wishes to raise "whether there is association between mechanistic characteristics i.e. rules & regulations, job & roles, hierarchy, communications and culture and categories of banking employees of Peoples' Bank?. So as to answer to this research question, researcher sets "to know the association between mechanistic characteristics i.e. rules & regulations, job & roles, hierarchy, communications and culture and categories of banking employee" as research objective.

Significance of the Study

This study is beneficial to different stakeholders such as employees, banks and government. Employees can be bale to aware of the mechanistic characteristics of banks. All banks in the banking industry can also be able to know the positive and negative aspects of mechanistic characteristics. Positive aspects of mechanistic characteristics can be used for the betterment of the banks. Similarly, negative aspects of the banks can eliminate to smooth function of the banks. Studies with respect to banks have been studies in different angles in different time bounds. For instance, Ismail (2013) studies about corporate social responsibility in selected local commercial banks of Sri Lanka. Ismail (2012) studied about corporate social responsibility in Peoples Bank of Sri Lanka. Banking studies is being popular time to time due to the fact that diverse researchers involve in different perspectives to study about banking.

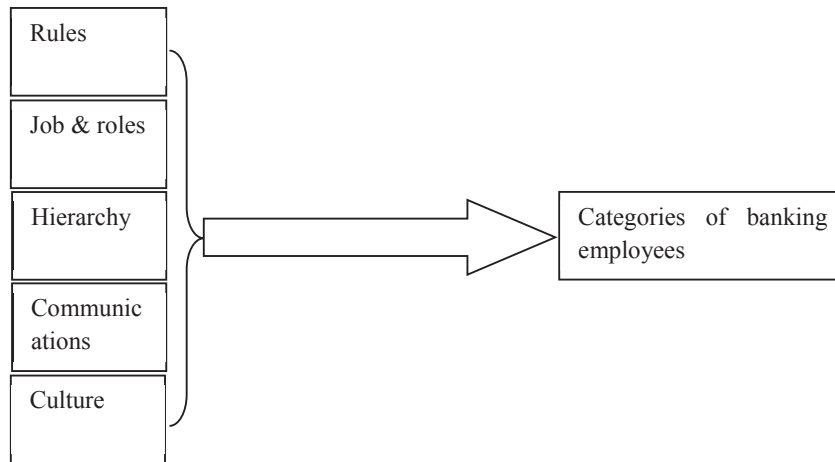
Review of Literature

Ambrose and Schminke (2003) studied about organization structure as a moderator of the relationship between procedural justice, interactional justice, perceived organizational support, and supervisory trust. This study examined how one aspect of context i.e. organizational structure affects the relationship between justice perceptions and two types of social exchange relationships, organizational and supervisory. This study suggested that under different structural conditions, procedural and interactional justice will play differentially important roles in determining the quality of organizational social exchange (as evidenced by perceived organizational support [POS]) and supervisory social exchange (as evidenced by supervisory trust). In particular, study hypothesized that the relationship between procedural justice and POS would be stronger in mechanistic organizations and that the relationship between interactional justice and supervisory trust would be stronger in organic organizations. The authors' results support these hypotheses. Ismail (2012 a) studied about service quality and bank client satisfaction in South Eastern Region of Sri Lanka. Ismail (2012 b) studied about service quality and bank client satisfaction in South Eastern Region of Sri Lanka. Ismail and Ilmudeen (2011) studied about risk assessment in transaction processing system. This study was based on quantitative and qualitative risk assessment of Hatton National Bank -HNB- in Ampara Coastal Belt Area. Ismail (2010) studied about determinants of retail customer satisfaction in banking industry in the Eastern Province of Sri Lanka. Lawrence (1984) studied about management accounting systems, perceived environmental uncertainty and organization structure. The research reported the relationships among an organization's environment, structure and information system. They established the relationship between organization environment and information system; organization environment and structure. They collected data from different organizations. It was a survey method of research. Based on an empirical study, it appeared that information systems and organizational structures are both a function of the environment. It can be concluded that information system and

organizational structures depends on environment. However, after controlling for the effects of the environment, it does not appear that an organization's information system and structure are significantly related to each other. Aiken and Hage (1971) studied about the organic organization and innovation. This study explored several variables that characterize organic organization to test whether they are associated with varying rates of innovation. The number of occupational specialties, the intensity of scheduled and unscheduled communication and, to a lesser extent, the decentralization of decision-making, are related to innovation. A review of the literature suggested other factors that are also associated with innovation: slack resources, joint programs, size, and history of innovation. With the exception of size, most of these factors are also found to be highly correlated with innovation. Study concluded that perhaps the technological gap is an organizational one and that, therefore, the solution to 'the American challenge' is an organic form of organization. Pillai and James (1988) studied about "meso" level approach that models charismatic leadership in organizations as a function of contextual factors (such as work unit structure, work group collectivism, and crisis), an issue that has rarely been explored in charismatic leadership research. Data were collected from 596 managers and subordinates embedded in 101 work units in a large, complex organization and were analyzed at the individual, group, and cross-levels of analysis. Results indicate that organic structure and collectivistic cultural orientation were positively associated with the emergence of charismatic leadership, whereas perceptions of crisis were negatively related to charismatic leadership. Further, subordinates' ratings of leader charisma were related to leader ratings of work unit performance. The implications of these results for research and practice are discussed.

Conceptual Framework

The succeeding conceptual framework is derived from previous literatures. This conceptual model is developed for study purpose. The developed conceptual model is depicted in Fig. 1.



(Source: Review of Literature)

Fig. 1: Conceptual model of mechanistic characteristics and categories of banking employees

Operationalisation

Review of literatures and conceptual models are used to operationalisation. Table 1 tabulates operationalisation.

Table 1: Operationalisation

Factors	Indicator/ measures
Rules	<ul style="list-style-type: none"> • Rules & regulations • Application of rules and regulations
Job & roles	<ul style="list-style-type: none"> • Clear jobs • Not rigid job duties • Not unchanging goals

Hierarchy	<ul style="list-style-type: none"> • Clear & order of hierarchy • Narrow span of control
Communications	<ul style="list-style-type: none"> • Oral instructions • Little upward communication
Culture	<ul style="list-style-type: none"> • Clear career path, competency

Methodology

Population and sample

Researcher faced difficulties in collecting the sampling frame. Thus, population size is not known to the researcher. Albeit, all banking managers, management assistants and security guards of Peoples' Bank in Eastern Province are population of this study. Sample refers to selected members of banking managers, management assistants and security guards of Peoples' Bank in Eastern Province for this study. This study has taken 34 members from each category of banking employees. Altogether 102 employees were considered in this study.

Sampling technique

A convenience sampling technique was used in this study.

Data collection

Data are collected from bank managers, management assistant and security guards in Peoples' banks of Eastern Province. Managers are top authority employees. Management assistants are employees who have moderate level of authority. Security guards are employees who have low power in banks. These three categories of employees were used in data collection.

Instrument design

Questionnaire was developed as an instrument for collecting data. Dichotomous questions were used for mechanistic organisational characteristics. Categories of banking employees were managers, management assistants and security guards. Both were considered nominal data.

Data analysis

Data are analysed using SPSS. Pearson Chi-Square, Phi, Cramer's V and Contingency Coefficient are used in this study.

Procedure

The factor of mechanistic organization is subdivided into several items. These items are cross tabulated with categories of banking employees. This study uses Pearson Chi-Square to know the association. Further, Phi, Cramer's V and Contingency Coefficient are used to know the strength of association. Values of Phi, Cramer's V and Contingency Coefficient may vary between 0 to 1.0 According to Pearson, Values of Phi, Cramer's V and Contingency Coefficient is less than 0.3, between 0.3 to 0.5, between 0.5 to 0.8 and 0.8 to 1.0 discloses poor, moderate, strong and the strongest strength of association.

Results and Discussion of Findings

Results are tabulated in Table 2, 3, 4 and 5. The first factor of mechanistic organization is the rules & regulations that are subdivided into clear rules & regulations, all employees follow rules & regulations and application of rules to everyone employee category. These items are cross tabulated with categories of banking employees. Results revealed that value of Pearson Chi-Square is 44.373, 26.229 and 28.589 with 2 degrees of freedom cum Sig. value of 0.000. It revealed that the first factor i.e. rules & regulations have association with categories of banking employees. With respect to this strength of association, values of Phi, Cramer's V and

Contingency Coefficient vary between 0.5 to 0.8. Thus, strength of association between rules & regulations and categories of banking employees is strong.

The second factor of mechanistic organization is the job & roles that are subdivided into clearly defined job, precisely defined job, no rigid job duties and unchanging goals. These items are cross tabulated with categories of banking employees. Results revealed that value of Pearson Chi-Square is 41.054, 29.028, 32.627 and 38.918 with 2 degrees of freedom cum Sig. value of 0.000. It revealed that the second factor i.e. job & roles have association with categories of banking employees. With respect to this strength of association, values of Phi, Cramer's V and Contingency Coefficient vary between 0.5 to 0.8. Thus, strength of association between job & roles and categories of banking employees is strong.

Table 2: Cross tabulation statistics for rules and regulations

	Clear rules & regulations * employee category			All employees follow rules & regulations * employee category			Application of rules to everyone * employee category		
	Value	df	Asymp. Sig. (2- sided)	Value	df	Asymp. Sig. (2- sided)	Value	df	Asymp. Sig. (2- sided)
Pearson Chi-Square	44.373	2	.000	26.229	2	.000	28.589	2	.000
Phi	.660		.000	.507		.000	.529		.000
Cramer's V	.660		.000	.507		.000	.529		.000
Contingency Coefficient	.551		.000	.552		.000	.568		.000

The third factor of mechanistic organization is hierarchy that is subdivided into clearly arranged positions, orderly arranged positions and narrow span of control. These items are cross tabulated with categories of banking employees. Results revealed that value of Pearson Chi-Square is 29.028, 36.615 and 32.627 with 2 degrees of freedom cum Sig. value of 0.000. It revealed that the third factor i.e. hierarchy has association with categories of banking employees. With respect to this strength of association, values of Phi, Cramer's V and Contingency Coefficient vary between 0.5 to 0.8. Thus, strength of association between hierarchy and categories of banking employees is strong.

The fourth factor of mechanistic organization is communication that is subdivided into top down communication, instructions about how to do and little upward communication clearly arranged positions, orderly arranged positions and narrow span of control. These items are cross tabulated with categories of banking employees. Results revealed that value of Pearson Chi-Square is 39.813, 32.627 and 39.813 with 2 degrees of freedom cum Sig. value of 0.000. It revealed that the fourth i.e. communication has association with categories of banking employees. With respect to this strength of association, values of Phi, Cramer's V and Contingency Coefficient vary between 0.5 to 0.8. Thus, strength of association between communication and categories of banking employees is strong.

Table 3: Cross tabulation statistics for job and roles

	Clearly defined job* employee category			Precisely defined job* employee category			No rigid job duties * employee category			Unchanging goals * employee category		
	Value	df	Asymp. Sig. (2- sided)	Value	df	Asymp. Sig. (2- sided)	Value	df	Asymp. Sig. (2- sided)	Value	df	Asymp. Sig. (2- sided)

Pearson Chi-Square	41.054	2	.000	29.028	2	.000	32.627	2	.000	38.918	2	.000
Phi	.634		.000	.533		.000	.566		.000	.618		.000
Cramer's V	.634		.000	.533		.000	.566		.000	.618		.000
Contingency Coefficient	.536		.000	.571		.000	.592		.000	.526		.000

The fifth factor of mechanistic organization is culture that is subdivided into clear upward career ladder and promotion based on technical competency. These items are cross tabulated with categories of banking employees. Results revealed that value of Pearson Chi-Square is 39.813 and 39.813 with 2 degrees of freedom cum Sig. value of 0.000. It revealed that the fifth i.e. culture has association with categories of banking employees. With respect to this strength of association, values of Phi, Cramer's V and Contingency Coefficient vary between 0.5 to 0.8. Thus, strength of association between culture and categories of banking employees is strong.

Table 4: Cross tabulation statistics for hierarchy

	Clearly arranged positions * employee category			Orderly arranged positions * employee category			Narrow span of control * employee category		
	Value	df	Asymp. Sig. (2- sided)	Value	df	Asymp. Sig. (2- sided)	Value	df	Asymp. Sig. (2- sided)
Pearson Chi-Square	29.028	2	.000	36.615	2	.000	32.627	2	.000
Phi	.533		.000	.599		.000	.566		.000
Cramer's V	.533		.000	.599		.000	.566		.000
Contingency Coefficient	.571		.000	.514		.000	.592		.000

Table 5: Cross tabulation statistics for communication

	Top down communication * employee category			Instructions about how to do * employee category			Little upward communication * employee category		
	Value	df	Asymp. Sig. (2- sided)	Value	df	Asymp. Sig. (2- sided)	Value	df	Asymp. Sig. (2- sided)
Pearson Chi-Square	39.813	2	.000	32.627	2	.000	39.813	2	.000
Phi	.625		.000	.566		.000	.625		.000
Cramer's V	.625		.000	.566		.000	.625		.000
Contingency	.530		.000	.592		.000	.530		.000

Coefficient									
-------------	--	--	--	--	--	--	--	--	--

Table 6: Cross tabulation statistics for culture

	Clear upward career ladder * employee category			Promotion based on technical competency * employee category		
	Value	df	Asymp. Sig. (2-sided)	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	39.813	2	.000	39.813	2	.000
Phi	.625		.000	.625		.000
Cramer's V	.625		.000	.625		.000
Contingency Coefficient	.530		.000	.530		.000

Conclusions

This study attempted to know whether there is association between mechanistic characteristics and categories of banking employees. Chi- Square statistics proved that there is association between rules & regulations, job & roles, hierarchy, communications and culture and categories of banking employees. It is evidenced by values of Chi- Square along with 0.000 of Sig. values. Further, the strength of association between mechanistic characteristic and categories of employees are witnessed by values of Phi, Cramer's V and Contingency Coefficient that vary between 0.5 to 0.8. All these values prove the strong association between mechanistic characteristics and categories of banking employees.

Managerial implications

This study has implication for bank managers with respect to negative aspects of mechanistic organizational characteristics.

Value addition

This study has introduced Chi- Square along with Phi, Cramer's V and Contingency Coefficient statistics.

Limitations and scope for further research venues

This study is based on convenient sampling technique. This study can be extended using probabilistic sampling techniques. Population size of the Peoples’ bank employees is not clear in this study. Thereby, researcher selected a convenient sampling method.

Acknowledgement

This study cited and refereed at appropriate places to the best of the authors’ knowledge.

References

Aiken, M. and Hage, J. (1971), “ The organic organization and innovation”, Journal of Sociology, Vol. 5 No. 1, pp. 63-82

Ambrose, M. L. and Schminke, M. (2003), "Organization structure as a moderator of the relationship between procedural justice, interactional justice, perceived organizational support, and supervisory trust", *Journal of Applied Psychology*, Vol. 88 No. 2, pp. 295-305.

Catherine L. Wang, Pervaiz K. Ahmed, (2003) "Structure and structural dimensions for knowledge-based organizations", *Measuring Business Excellence*, Vol. 7 Iss: 1, pp.51 – 62

Ismail M. B. M. (2013), "Corporate social responsibility (CSR) in selected local commercial banks (SLCB) of Sri Lanka (SL)", *ZENITH International Journal of Multidisciplinary Research*, Vol. 3, Iss. 2, pp. 108-119.

Ismail M. B. M. (2012), "Corporate social responsibility (CSR) in Peoples' Bank (PB) of Sri Lanka (SL)", *Paripex-Indian Journal of Research*, Vol. 1, Iss. 11, pp. 27–30.

Ismail, M. B. M. (2012), "Service Quality (SQ) and Bank Client Satisfaction (BCS) in South Eastern Region (SER) of Sri Lanka", *Proceedings of the International Conference on Synchronizing Management Theories and Business Practices: Challenges Ahead*, Pub. Annamalai University, India, pp. 251-55.

Ismail, M. B. M. (2012), "Service Quality (SQ) and Bank Client Satisfaction (BCS) in South Eastern Region (SER) of Sri Lanka", *Proceedings of the International Conference on Business and Information 2012: Challenges & Opportunities in the 21st Century*, Pub. University of Kelaniya, Sri Lanka, pp. 21-6.

Ismail, M. B. M. and Ilmudeen, A. (2011), "Risk Assessment (RA) in Transaction Processing System (TPS): An Approach of Quantitative and Qualitative Risk Assessment of Hatton National Bank -HNB- in Ampara Coastal Belt Area (ACBA)", *Proceedings of the International Conference on Business & Information 2011*, Pub. Faculty of Commerce & Management Studies, University of Kelaniya, Sri Lanka, p.129.

Ismail, M. B. M. (2010), "Determinants of retail customer satisfaction in banking industry in the Eastern Province of Sri Lanka", *Proceedings of the Annual Research Conference (ARC- 2010) on Knowledge for Reconciliation and Redevelopment*, Pub. University of Jaffna, Sri Lanka, p.82.

John A. C., Gail T. F., and L. E. Rogers (1989), "Interaction Patterns in Organic and Mechanistic System", *Academic Management Journal*, Vol. 32 No. 4, pp. 773-802

Lawrence, A. G. (1984), "Management accounting systems, perceived environmental uncertainty and organization structure: An empirical investigation", *Accounting, Organizations and Society*, Vol. 9, Iss. 1, 1984, Pages 33–47

Pillai, R. and James, R. M. (1988), "Context and Charisma: A "Meso" Level Examination of the Relationship of Organic Structure, Collectivism, and Crisis to Charismatic Leadership", *Journal of Management*, Vol. 24 No. 5, pp. 643-671

Zanzi, A. (2007), "How organic is your organisation?– Determinants of organic/ Mechanistic tendencies in a Public Accounting Firm", *Journal of Management Studies*, Vol. 24, Iss. 2, pp. 125–140.