

Organisational Life Cycle Stages and Management Control Systems in Service Organisations

Sofiah Md. Auzair (Corresponding author)

School of Accounting, Faculty of Economics and Business

Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, Malaysia

Tel: 60-3-8921-3745 E-mail: rsofiah@hotmail.com

Abstract

It is argued that service firms' control systems need to change throughout the life cycle stages to meet the varying needs of management. The challenge to most service organizations is to address their unique characteristics which had been identified to cause difficulties in controlling quality, measuring performance and controlling costs. Despite this challenge, a review of the literature suggests that the organizational life cycle variable is more researched in organizational studies, compared to Management Control Systems (MCS) studies. To fill in the gap, this study is undertaken to gain understanding of the MCS in mature and growing service firms. A survey methodology was employed. Questionnaires were administered to financial controllers of service organizations operating in Australia. Using t tests and multiple regression analysis, the results indicate that, mass service and mature firms place greater emphasis on more bureaucratic form of MCS as compared to professional service and growing firms.

Keywords: Organizational life cycle, Management Control Systems

1. Introduction

The life cycle literature suggests that consistent patterns of development occur in organizations over time, even across a diverse sample of firms in which organizational activities and structures differ (Miller & Friesen, 1980b; Quinn & Cameron, 1983; Hanks, Watson, Jansen & Chandler, 1994). Accordingly, organizational characteristics vary across life-cycle stages to respond to the turbulence of continual environmental changes (Auzair & Langfield-Smith, 2005; Moores & Yuen, 2001). Nevertheless, prior studies suggests, organizations are prone to pursue strategies that proved effective in past but may become inappropriate and ineffective when new stages of development occur (Greiner, 1972).

Brignall (1997) argued that service control systems might need to change throughout the life cycle to fit in with changes in the competitive environment, business mission and generic strategy. Failure to account for the stages of the life cycle in budgetary policies has been found to result in inefficiencies of resource allocation (Czysewski & Hull, 1991). Therefore, it is a challenge to management accountant to supply relevant, accurate and timely information adaptable to varying management needs across life cycle stages. This is especially a tough task for management accountant working in service organizations as unique characteristics possessed by services makes service organizations 'just-in-time' organizations with short-term inter-organizational relationships between them and their clients (Homburg and Stebel, 2009) These characteristics cause difficult problems for service managers to schedule operations, control quality, measure performance and trace and control costs (Brignall, Fitzgerald, Johnston, & Silvestro 1991; Brignall, 1997).

Nevertheless, a review of the literature suggests that the organizational life cycle variable is more researched in organizational studies, compared to Management Control Systems (MCS) studies. Among those few published empirical work in the MCS area includes Moores and Yuen (2001), Auzair and Langfield-Smith (2005) and recently Kallunki and Silvola (2008). The purpose of this paper is to add to the limited body of knowledge in this area. Specifically, the association between the design of MCS and the organizational life cycle stage in professional and mass service firms will be investigated.

The remainder of this paper is organised as follows. First, the conceptual framework that forms the focus for this study is presented, followed by formulation of testable hypotheses. In the following section, the research method is outlined detailing the sample and measurement of variables. The results of the study are then provided. The findings of the study are then reviewed while major themes are discussed. In the final section, the limitations of

the study are presented and areas for future research are suggested.

2. Theoretical Framework

The study of Management Control Systems has widely adopted the contingency approach developed within organizational theory to understand the relationships between contextual factors and its design (Covaleski, Dirsmith, & Samuel, 1996). While criticized as presenting ‘a deterministic, historical view of organizations that provides limited insights as to the mediating processes of organizations’ (Covaleski, Dirsmith & Samuel, 1996, p. 4), it has also been argued that this critique stems from a misinterpretation of the basic contingency argument that may have been reinforced by the deceptiveness of terminology and the methodology underpinning much contingency research (Modell, 1998).

The contingency approach is adopted to understand the relationship between MCS design and organizational life cycle stage. A firm’s stage of growth represents a contingency or driving force to which appropriate organizational responses must be matched (Miller & Friesen, 1984). Moores (1990) developed conceptual arguments for different characteristics of management control systems across the organizational life cycle and maintained that there are points in the life of a company where too much control can stifle creativity and hinder its development. In service organizations, management control style is also found to differ between different service process types (Fitzgerald et al., 1991). It has been suggested that the professional service firms emphasized a less bureaucratic style of control, while mass service firms emphasized a more bureaucratic style of control.

In this study, the relationship between both organizational life cycle stage and service process type and MCS design will be studied. Prior studies in MCS have considered both variables in a piecemeal manner, probably for ease of tracking research findings. However, in this study, both variables will be studied in a single model. The framework for the study is presented in Figure 1.

PLACE FIGURE 1 HERE

The model stems from the recognition that the type of the service process and the organizational life cycle simultaneously influence the choice of control design within an organization to form an effective system. As an organization strives to achieve effectiveness, it will seek to attain ‘fit’ between the contingent variables and the MCS, thereby creating relationships between these variables and the MCS.

3. Conceptualizing MCS

Concerns have been voiced on the limited number of contingency-based MCS studies examining broader elements of control (Chenhall, 2003). MCS do not operate in isolation, thus studying MCS as a package is an important research agenda (Malmi and Brown, 2008). Amigoni (1978) suggested that some distinctive features of MCS should be identified when proposing a conceptual framework useful in designing and implementing MCS in any specific organization.

Accordingly, several distinctive features of the MCS were identified from prior studies to characterize MCS (Ouchi, 1979; Modell, 1995; Merchant, 1998; Whitley, 1999; Chenhall, 2003). They include Action/Results Controls, Formal/Informal Controls, Tight/Loose Controls, Restricted/Flexible Controls and Impersonal/Interpersonal Controls. Including these dimensions in a MCS framework is expected to provide a broad perspective of the system. Organizations are expected to exercise control along a continuum for each of the MCS dimensions. It is suggested that on one end of the control continuum is the *more bureaucratic* - action, formal, tight, restricted, and impersonal controls. Accordingly, the other end of the continuum is the *less bureaucratic* - results, informal, loose, flexible, and interpersonal controls.

4. Hypothesis Formulation

As the six individual MCS dimensions selected for the study will form a *composite measure* of MCS design, the relationship to be proposed would therefore, mainly, be concerned with how the organizational life cycle stage and service process types relate to the degree of bureaucracy of the overall MCS design. Relationships with the aggregated MCS (all MCS dimensions) are expected to exist, and will be based on the similar more and less bureaucratic character shared by these dimensions.

Miller & Friesen (1984) found that firms in the maturity stage would place more emphasis on *formal cost controls* and budgets. Moores & Yuen (2001) utilized Miller & Friesen’s organizational configuration concept to study MAS in the clothing and footwear industry. Contrary to most life cycle literature Moores & Yuen (2001) expected that MAS formality would be highest at growth stage, and relax at maturity. Their results supported their hypothesis. However, Miller & Friesen (1984) found that generally, firms at the growth stage are associated

with a bold, innovative and organic orientation. Mature firms, which are stable and larger organizations, demonstrate conservative practices, encroaching on bureaucracy. Belak and Mulej (2009) also found that firms move towards a more bureaucratic style of functioning as they become more mature. In summary, this implies that growth firms are more likely to adopt less bureaucratic controls compared to mature firms.

With regard to the service organisations' process type, it is expected that mass service firms such as transportation are more likely to face less uncertainty, while professional service firms such as legal firms are more likely to face high uncertainty. This is based on the understanding that, mass service firms are faced with less contact with customers that represent a major factor to task uncertainty, as compared to professional service firms. When tasks are easy to define, *tightening the controls* may provide a means for ensuring that people are acting as the organization wishes. On the other hand, when tasks are highly uncertain, these controls may prohibit creativity and could result in dysfunctional behaviour. Thus, some controls have to be *loose* to accommodate uncertain work demands if the firm is to operate efficiently. Prior study has also found that when 'task' is uncertain, *results control* is more likely (Eisenhardt, 1985). According to Eisenhardt (1985), the 'task', which refers to selling task in retail services, is found to be a principal determinant of whether commissions (a form of *results control*) or salaries (a form of *action control*) are used. Similarly, Homburg and Stebel (2009) found that when services is characterized with verifiable service provider behavior, action control is more likely, while in the condition where output of the services is verifiable, results control will dominate.

In case studies undertaken in several service organizations by Fitzgerald, Johnston, Brignall & Silvestro (1991), it was found that service quality measurements in mass service firms are structured and *formal*, while unstructured and *informal* measurements are found in professional service firms. Fitzgerald et al. (1991) also found that professional service firms appeared to have higher degree of *flexibility* than the mass service firms. This indicates that an MCS that allows quick responses is more critical in professional service firms, if they are to operate efficiently. Professional services need flexible job scheduling systems to support the negotiation of delivery dates with customers, and the high degree of customisation offers greater specification flexibility.

Otley & Pierce (1995) suggested that the working environment uncertainties made a highly considerate style more helpful than a structured style. The auditor is exposed to boundary-spanning activities to a greater degree than many other professionals, giving rise to additional layers of uncertainty. A structured leadership style may offer little or no role clarification, while a considerate style promotes a supportive work environment in which the uncertainties can be addressed effectively. As the considerate leadership style closely resembles the *interpersonal* emphasis and a structured style could be perceived as more impersonal style of the MCS design, it could be inferred from this study that professional services (of which public accounting firms are an example) would be more likely to emphasize an interpersonal form of control than mass service firms that relatively face less task uncertainty.

In summary, the findings of these studies suggest that professional service firms, are more likely to emphasize results, informal, loose, flexible, and interpersonal controls (which represents a less bureaucratic form of MCS). Accordingly, as mass service firms are positioned at the other end of the continuum, a more bureaucratic control is expected to be more suitable.

The preceding discussion demonstrated that both organisational lifecycle and service process types may influence the degree of management control bureaucracy. In summary they indicate that a more bureaucratic MCS is more likely to be adopted by mass service firms at the mature life cycle stage. On the other hand, a less bureaucratic MCS is more likely to be adopted in professional service firms at the growth life cycle stage. Therefore, the following hypothesis is proposed.

H₁: *Mass and mature service organizations will be more likely to adopt a more bureaucratic form of MCS as compared to professional and growing service organizations.*

5. Methodology

5.1 Sample and survey procedure

Survey questionnaires were administered to financial controllers of service organizations from diverse service industries operating in Australia including retail and wholesale, health services, education, hospitality, transportation, finance and insurance, professional services, communications, business services, leisure and advertising. Financial controllers were targeted as the respondents as they were expected to have the best knowledge of the various aspects of their organizations, but in particular knowledge of the MCS.

A total of 155 responses were received of which 149 were usable. A data screening procedure was undertaken to analyze missing responses and outliers. This step further reduced the sample to 121 responses. Most firms

surveyed (87.6 per cent) were over ten years old. Over fifty per cent (50.4 per cent) had less than a hundred equivalent full-time employees.

5.2 Measurement of Variables

A four-page questionnaire was constructed as part of a larger study. The questionnaire was refined based on the feedback of a pre-test with 20 service company managers and 10 academic staff representing peer reviews. After minor modification, the final instrument was developed.

MCS. A brief explanation of the nature of the controls for each MCS dimension was provided in a series of semantic differential scales. Wherever possible, questions were adopted from prior survey instruments and modified for use within the current study. Respondents were asked to indicate the extent to which the two anchored statements best described the type of MCS emphasized in their organizations by on a Likert-type scale ranging from one to seven.

Data from the questionnaire were factor analysed to test for unidimensionality (de Vaus, 1995; Hair et al., 1995). Principal components analysis (PCA) was selected as the extraction method. The Bartlett test and the KMO measure of sampling adequacy indicate suitability for factor analysis. All items load well in excess of 0.32 (as recommended by Tabachnick & Fidell, 2001) and therefore were retained in the analysis. The reliability of the scale was .62, just above the lower limits of acceptability for exploratory research, generally considered to be around 0.50 to 0.60 (Nunnally, 1978). The variance explained by the scale was 40.39 per cent. Table 1 summarizes the results of the analysis.

PLACE TABLE 1 HERE

Organizational life cycle. In spite of the number of stage-based models of organization growth, which have been proposed over the years, there has been remarkably little attention paid to the basic construct of a life cycle stage (Hanks, Watson, Jansen, & Chandler, 1994).

Kazanjian & Drazin (1990) developed a self-categorization questionnaire, where items correspond to the theory of life cycle stages. The items were unlabelled and CEOs were asked to choose the one most closely describing their venture. Their model relied on defining stages in terms of a sequence of underlying problems that technologically-based new ventures must face and resolve. The variable was compared with the dominant problem variable to ascertain reliability. These results indicated a strong relationship between stage and the problems expected to be dominant at each stage.

Kazanjian & Drazin's approach was seen as the most appropriate since the current study is adopting a contingency perspective, and the life cycle stages would be utilized as a contingent variable. However, some modifications had to be made as the instrument was developed for technology-based new ventures. The description offered at each stage of the life cycle by Kazanjian & Drazin was compared with the Quinn & Cameron (1983) summary of nine life cycle stage models. Quinn & Cameron's summary offers an extensive review of life cycle stages as it integrates nine life cycle models from various areas. The description is also more comprehensive. Consequently, three stages of organizational life cycle were measured, namely the formation, growth and mature stage. This study excluded the decline stage although with this exclusion, the organizational life cycle would be incomplete. This notion is undertaken for two reasons; first, the stages from birth to maturity may be the only predictable ones (Quinn & Cameron, 1983), and second, the decline stage would not fit into the overall research purpose to predict organizational variables that could enhance organizational effectiveness. The resulting descriptions of the stages that were used as items in the questionnaire are summarized in Figure 2.

PLACE FIGURE 2 HERE

Stage 1 indicates formation, stage 2 is growth, and stage 3 is maturity. Respondents were asked to choose one box only that described their stage of development.

A low number of firms self-classified as stage 1 (5 firms) led to the combining of stage 1 and stage 2 firms into the one category, grouped under the growth stage. Thus, only two stages were analysed in the subsequent analysis, the growth and mature stages. The two stages now resemble the dichotomous distinction previously used by Dodge, Fullerton & Robbins (1994). An ANOVA was conducted for two contextual variables namely, organization age and size (number of equivalent employee) to provide some reliability for this measure. Prior studies of life cycle stages have used age and size as common life cycle stage measures (Kazanjian, 1988; Hanks et al., 1994; Moores & Yuen, 2001). As evidenced in those studies, it was also expected that the age and size of the growth firms in this study would be lower than the mature firms. The result indicates significant differences between the size ($F=2.074$, $p<.10$, one-tailed) and the age ($F=2.603$, $p<.05$, one-tailed) with the mean age and size of growth firms being lower than the mature firms (see Table 2). As the results support the expectations, this

provides some confidence for using the developed self-categorization measure.

PLACE TABLE 2 HERE

Service Process Type. As firms from diverse service industries were included in this study, a means to group these firms was adopted. According to Unvala & Donaldson (1988), approaches to the nature of services can be divided into two types: a) classification by industry and b) classification by characteristics of the process. The classification by industry offers diversity and a wide spread of service activities, and in certain cases, may appear identical to other sectors or overlap. Therefore, the classification by process characteristics was used in this study to group the service organizations.

Items to measure the service process type variable were developed based on the typology suggested by Silvestro et al. (1992). Respondents were asked to indicate statements that best described their organization on a 'semantic' differential scale, ranging from 1 to 7.

To test for unidimensionality, the items were factor analysed. Items retained for further analysis load above 0.32 (as suggested by Tabachnick & Fidell, 2001). The analysis indicates that the variance explained was 44.21 per cent and Cronbach's Alpha was estimated at 0.57. Items retained for further analysis load above 0.32. These four items namely, short/long customer contact time, low/high service customisation, low/high discretion given to customer-contact staff and product/process focus of service delivery, were summated into a composite variable.

6. Findings

Table 3 presents the descriptive statistics and correlation matrix for all variables. The correlation matrix indicates no correlations greater than 0.70 between the variables. Thus, multicollinearity is unlikely to be a problem.

PLACE TABLE 3 HERE

Multiple regression analysis was used to test the hypothesis. The hypothesis proposed that mass and mature service organizations will be more likely to adopt a more bureaucratic form of MCS as compared to professional and growing service organizations. The format of the equation to test this hypothesis is estimated as:

$$Y = a_1 + b_1X_1 + b_2X_2 + e_1$$

Where,

Y = MCS

X₁ = Service process type

X₂ = Organizational life cycle (Growth stage=0, Mature stage =1)

A significant positive coefficient for b₁ and a significant negative coefficient for b₂ would indicate support for the hypothesis. The results of the regression is presented in Table 4.

PLACE TABLE 4 HERE

As shown in Table 4, the standardized coefficient b₁ (service process type) is positive and significant (p≤0.01) while the standardized coefficient b₂ (organizational life cycle) is negative and significant (p≤0.05). The regression model explains only 12.9 percent (adjusted R²) of the variance in the contingent variables. However, the F statistics for the whole model is highly significant, with a probability level of ≤.000. Hence the data support the hypothesis. It appears that mass service firms such as transportation in their mature stage tend to control their employees actions through formal, tight, restricted and more impersonal controls. In contrast, professional service firms such as consultancy firms in their growth stage will be more result oriented, focusing more on less formal, loose, flexible and more interpersonal style of controls.

7. Discussion and Conclusion

The aim of this study is to gain an understanding of the management control systems practice in mature and growing service firms. The study was motivated by the lack of research undertaken in the area although evidence suggests the importance of the organizational life cycle stage and service process type variables to the design of MCS (e.g., Brignall, 1997; Moores & Yuen, 2001). As the issue has never been addressed in a manner proposed by this study, all the variables tested in the analysis had to be developed. Statistical tests undertaken nevertheless indicate suitability for further tests.

The results obtained from testing the relationship between MCS and organizational life cycle stage and service process type generally support the proposed hypotheses. It confirms earlier studies which suggest that firms in different stages of life cycle and service process types emphasize different MCS design (Miller & Friesen, 1984; Silvestro et al., 1992). Organizational life cycle stage and service process type were found to influence MCS

individually and in combination in the same direction. In summary, the results suggested that mass service firms in the mature stage of their life cycle place a greater emphasis on a more bureaucratic MCS than professional service firms in the growth stage of their life cycle stage. The findings extend earlier studies to support the idea for the need to consider organizational life cycle stage in designing control systems in both mass and professional service organizations. This further demonstrates the ability to extend generalization to service organizations from diverse industries based on similar characteristics of their service processes. Previously, service organizations have been viewed as unique and prior studies have attempted to study them in isolation from other service industries.

Despite that the findings support the hypothesis proposed, certain limitations must be acknowledged in interpreting them. This study assumes that firms can be classified into discrete stages of life cycle and service process types. The cross-sectional nature of the data has prevented any tests for causality. Therefore, an in-depth qualitative study might supplement this type of research. The trade-off offered by the broad framework adopted in this study, is less depth compared to a study focusing on specific MCS dimensions or single service industry. As this study includes variables that have not been considered in such a manner by prior studies, it remains exploratory and ideas presented do warrant further investigation. Future research may modify or extend this study by refining the measurements for MCS, service process type and organizational life cycle stage. Including an outcome variable may provide enrichment to the framework suggested in this study. There is concern that more complex relationships are unable to be captured in the proposed direct relationships.

Acknowledgement

The author would like to acknowledge Professor Kim Langfield-Smith, La Trobe University, Australia and Universiti Kebangsaan Malaysia, Malaysia for various assistance during the duration of this research study.

References

- Abernethy, M. A., & Stoelwinder, J. U. (1991). Budget use, task uncertainty, system goal orientation and subunit performance: a test of the 'fit' hypothesis in not-for-profit hospitals. *Accounting, Organizations and Society*, 16, 105-102.
- Abernethy, M. A., & Stoelwinder, J. U. (1995). The role of professionals in the management of complex organizations. *Accounting, Organizations and Society*, 20, 1-17.
- Amigoni, F. (1978). Planning management control systems. *Journal of Business Finance and Accounting*, 5, 279-292.
- Anthony, R., & Govindarajan, V. (2001). *Management control systems*. Burr Ridge, Ill: Irwin McGraw Hill.
- Auzair, S.M., & Langfield-Smith, K. (2005). The effect of service process type, business strategy and life cycle stage on bureaucratic MCS in service organizations. *Management Accounting Research*, 20, 1-17.
- Belak, J., & Mulej, M. (2009). Enterprise ethical climate changes over life cycle stages. *Kybernetes*, 38, 1377-1398.
- Brignall, S. (1997). A contingent rationale for cost system design in services. *Management Accounting Research*, 8, 325-346.
- Brignall, T. J., Fitzgerald, L., Johnston, R., & Silvestro, R. (1991). Product costing in service organisation. *Management Accounting Research*, 2, 249-261.
- Chenhall, R. H. (2003). Management control systems design within its organizational context: findings from contingency-based research and directions for the future. *Accounting, Organizations and Society*, 28, 127-168.
- Covaleski, M. A., Dirsmith, M., and Samuel, S. (1996). Managerial accounting research: the contributions of organizational and sociological theories. *Journal of Management Accounting Research*, 8, 1-35.
- Cronbach, L. J. (1951). Coefficient alpha and internal structure of tests. *Psychometrika*, 16, 297-334.
- Czyzewski, A. B., & Hull, R. P. (1991). Improving profitability with life cycle costing. *Journal of Cost Management*, 5, 20-27.
- De Vaus, D. A. (1995). *Surveys in social research*. North Sydney: Allen and Unwin.
- Dillman, D. A. (1978). *Mail and telephone surveys: the total design method*. New York: John Wiley and Sons.
- Dodge, R. H., Fullerton, S., & Robbins, J. E. (1994). Stage of the organisational life cycle & competition as mediators of problem perception for small businesses. *Strategic Management Journal*, 15, 21-134.
- Eisenhardt, K. M. (1985). Control: organizational & economic approaches. *Management Science*, 3, 134-149.

- Fisher, J. G. (1998). Contingency theory, management control systems and firms outcome: past results and future directions. *Behavioral Research in Accounting*, 10, 47-64.
- Fitzgerald, L., & Moon, P. (1996). *Performance measurement in service industries: making it work*. London: CIMA Publishing.
- Fitzgerald, L., Johnston, R., Brignall, T. J., Silvestro, R., & Voss, C. (1991). *Performance measurement in service industries*. London: CIMA Publishing.
- Flamholtz, E. G. (1983). Accounting, budgeting and control systems in their organizational context; theoretical and empirical perspectives. *Accounting, Organizations and Society*, 8, 153-174.
- Greiner, L. (1972). Evolution and revolution as organizations grow. *Harvard Business Review*, 50(4), 37-46
- Gresov, C. (1989). Exploring fit and misfit with multiple contingencies. *Administrative Science Quarterly*, 34, 431-453.
- Hanks, S. H., Watson, C. J., Jansen, E., & Chandler, G. N. (1994). Tightening the life-cycle construct: a taxonomic study of growth stage configurations in high-technology organizations. *Entrepreneurship Theory and Practice*, winter, 5-29.
- Homburg, C., & Stebel, P. (2009). Determinants of contracts for professional services. *Management Accounting Research*, 20, 129-145.
- Kallunki, J., & Silvola, H. (2008). The effect of organizational life cycle stage on the use of activity-based costing. *Management Accounting Research*, 19, 62-79.
- Kazanjian, R. K. (1988). Relation of dominant problem to stages of growth in technology-based new ventures. *Academy of Management Journal*, 30, 257-279.
- Kazanjian, R. K., & Drazin, R. (1990). A stage-contingent model of design and growth for technology-based new ventures. *Journal of Business Venturing*, 5, 137-150.
- Kimberly, J. R., & Miles, R. H. (1980). *The organizational life cycle: issues in the creation, transformation, and decline of organizations*. San Francisco: Jossey-Bass Publishers.
- Lovelock, C. H. (1983). Classifying services to gain strategic marketing insights. *Journal of Marketing*, 47, Summer, 9-20.
- Lowe, E. A. (1971). On the idea of a management control system: integrating accounting and management control. *Journal of Management Studies*, 8, 1-12.
- Lowry, J. F. (1990). Management accounting and service industries: an exploratory account of historical and current economic contexts. *Abacus*, 26, 159-184.
- Malmi, T., & Brown, D.A. (2008). Management control systems as a package – Opportunities, challenges and research directions. *Management Accounting Research*, 19, 287-300.
- Marginson, D. E. W. (1999). Beyond the budgetary control system: towards a two-tiered process of management control. *Management Accounting Research*, 10(3), 203-230.
- McCull, R., Callaghan, B., & Palmer, A. (1998). *Services marketing: a managerial perspective*. Sydney: McGraw Hill.
- Merchant, K. A. (1998). *Modern management control systems: text and cases*. Upper Saddle River, NJ: Prentice Hall.
- Miles, R. W., & Snow, C. C. (1978). *Organizational strategy, structure, and process*. New York: McGraw Hill.
- Miller, A., & Dess, G. G. (1993). Assessing Porter's (1980) model in terms of its generalizability, accuracy and simplicity. *Journal of Management Studies*, 30, 553-585.
- Miller, C. C., Glick, W. H., Wang, Y. D., & Huber, G. P. (1991). Understanding technology-structure relationships: theory development and meta-analytic theory testing. *Academy of Management Journal*, 34, 370-399.
- Miller, D. (1988). Relating Porter's business strategies to environment and structure: analysis and performance implication. *Academy of Management Journal*, 31, 280-308.
- Miller, D., & Friesen, P. H. (1980a). Archetypes of organizational transition. *Administrative Science Quarterly*, 25, 268-299.

- Miller, D., & Friesen, P. H. (1980b). Momentum and revolution in organisational adaptation. *Academy of Management Journal*, 23, 591-614.
- Miller, D., & Friesen, P. H. (1984). A longitudinal study of the corporate life cycle. *Management Science*, 30, 1161-1183.
- Mintzberg, H. (1987). Crafting strategy. *Harvard Business Review*, Jul-Aug, 66-75.
- Modell, S. (1995). A three dimensional approach to management control systems. *Journal of Business and Management*, 2, 35-74.
- Modell, S. (1996). Management accounting and control in services: structural and behavioural perspectives. *International Journal of Service Industry Management*, 7, 57-80.
- Modell, S. (1998). *Management control systems in services: a contingency study of responsibility accounting in highly interactive services*. Unpublished doctoral thesis (University of Karlstad).
- Moon, P., & Fitzgerald, L. (1996). Delivering the goods at TNT: the role of the performance measurement system. *Management Accounting Research*, 7, 431-457.
- Moore, K. (1990). Control culture and cycles: changing role of accounting controls in successfully growing businesses. *Bond Management Review*, 1, 63-74.
- Moore, K., & Yuen, S. (2001). Management accounting systems and organizational configuration: a life-cycle perspective. *Accounting, Organizations and Society*, 26, 351-389.
- Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw Hill.
- Otley, D. T. (1978). Budget use and managerial performance. *Journal of Accounting Research*, 16, 122-149.
- Otley, D. T. (1980). The contingency theory of management accounting: achievement and prognosis. *Accounting, Organizations and Society*, 4, 413-428.
- Otley, D. T. (1994). Management control in contemporary organizations: towards a wider framework. *Management Accounting Research*, 5, 289-299.
- Otley, D. T. (1995). The control problem in public accounting firms: an empirical study of the impact of leadership style. *Accounting, Organizations and Society*, 20, 405-420.
- Otley, D. T., & Pierce, B. J. (1995). The control problem in public accounting firms: an empirical study of the impact of leadership style. *Accounting, Organizations and Society*, 20(5), 405-420.
- Ouchi, W. (1977). The relationship between organisational structure and organisational control. *Administrative Science Quarterly*, 22, 95-113.
- Ouchi, W. (1979). A conceptual framework for the design of organizational control mechanisms. *Management Science*, 25, 833-848.
- Perrow, C. (1967). A framework for the comparative analysis of organizations. *American Sociological Review*, 32, 194-208.
- Perrow, C. (1970). *Organizational analysis: a sociological view*. California: Wadsworth Publishing Company.
- Perrow, C. (1979). *Complex organizations: a critical essay*. Glenview, Ill: Scott, Foresman.
- Quinn, R. E., & Cameron, K. (1983). Organisational life cycles and shifting criteria of effectiveness: some preliminary evidence. *Management Science*, 29, 33-55.
- Reid, G. C., & Smith, J. B. (2000). The impact of contingencies on managerial accounting systems development. *Management Accounting Research*, 11, 427-450.
- Robbins, S. P., & Barnwell, N. S. (1989). *Organisation theory in Australia*. Sydney: Prentice Hall.
- Shields, J. F., & Shields, M. D. (1998). Antecedents of participative budgeting. *Accounting, Organizations and Society*, 23(1), 49-76.
- Shields, M. (1997). Research in management accounting by North Americans in the 1990s. *Journal of Management Accounting Research*, 9, 3-61.
- Silvestro, R., Fitzgerald, L., Johnston, R., & Voss, C. (1992). Towards a classification of service processes. *International Journal of Service Industry Management*, 3, 62-75.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics*. Boston: Allyn and Bacon.

Unvala, C., and Donaldson, J. (1988). The service sector: some unresolved issues. *The Service Industries Journal*, 8(2), 459-469.

Van der Stede, W. A. (2001). Measuring 'tight budgetary control'. *Management Accounting Research*, 12(1), 119-137.

Waterhouse, J. H., & Tiessen, P. (1978). A contingency framework for management accounting system research. *Accounting, Organizations and Society*, 3, 65-76.

Whitley, R. (1999). Firms, institutions and management control: the comparative analysis of coordination and control systems. *Accounting, Organizations and Society*, 24, 507-524.

Table 1. Summary Results - MCS

Items	Loadings
Action/results	.601
Formal/informal	.778
Tight/loose	.706
Restricted/flexible	.442
Impersonal/interpersonal	.599
Variance explained	<i>40.39 per cent</i>
Cronbach's Alpha	.62

Table 2. Means For Age and Size in Growth and Mature Stages

LIFE CYCLE STAGE	MEAN FOR AGE	MEAN FOR SIZE
Growth (N=32)	3.47	1.81
Mature (N=83)	3.81	2.36

Table 3. Descriptive Statistics and Correlation Matrixa

Variables	Mean	Median	S.D.	1	2
1. MCS	4.08	4.00	0.92		
2. Service process type	4.57	4.75	1.20	.299**	
3. Organization life cycle stage#	0.72	1.00	0.45	-.232*	-.114

^aN = 118

*p<.05 (2-tailed)

**p<.01 (2-tailed)

#Organization life cycle is a categorical variable

Table 4. Result for Multiple Regression Analysis with MCS as Dependent Variable

Contingent Variables	Standardized Coefficients	t value
Service process type (b ₁)	.276**	3.155
Organizational life cycle (b ₂)	-.201*	-2.291
F	8.537***	
Adj R ²	12.9	

* p≤.05 (one-tailed)

**p≤.01(one-tailed)

*** p≤.000

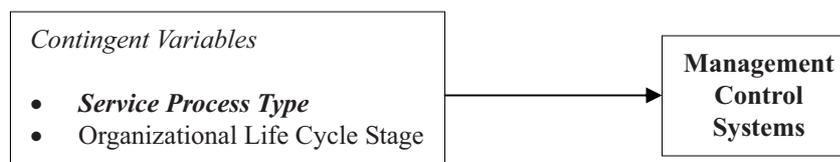


Figure 1. Theoretical Framework

<input type="checkbox"/> Stage 1	Within this company, the primary focus is on developing a range of services, securing adequate financial resources and developing a market. A 'niche' is being formed. Formal systems and procedures are almost non-existent in this firm, but the CEO/chairman is central to all functions and communications.
<input type="checkbox"/> Stage 2	Services offered perform well and meet the needs in the market place. The company is characterized by high growth rates (in sales and number of employees). Internal structure and communication is becoming more formal, and increasingly individuals are assuming specialist roles.
<input type="checkbox"/> Stage 3	The firm has a formal organization structure, rules and procedures. A top management group composed of individuals with broad industry experience is in place, or is being built. The emphasis is on efficiency and monitoring growth and profits.

Figure 2. Descriptions used to Measure Organizational Life Cycle