



UNIVERSITY
OF WOLLONGONG
AUSTRALIA

University of Wollongong
Research Online

Faculty of Commerce - Papers (Archive)

Faculty of Business

2005

The design of a performance measurement model for small firms within the service sector

Vicki Baard

Australian Catholic University

Edmund W. Watts

University of Wollongong, tedw@uow.edu.au

Publication Details

Watts, T. & Baard, V. (2005). The design of a performance measurement model for small firms within the service sector. Small Business Development Conference (pp. 1-14).

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library:
research-pubs@uow.edu.au

The design of a performance measurement model for small firms within the service sector

Abstract

The role of small business, as part of the value adding chain in any economy, should never be understated. In Australia small business represents 96% of all private sector business, accounts for 47% of all private sector employment and the majority fail within three to five years of establishment. Despite this contribution the small business sector, and in particular the service sector component, appear to be underrepresented in the development of specific performance measurement models, which, within the academic and professional literature appear to focus on their larger firm counterparts. Given the unique position of small business service organisations the above suggests a critical need for the design and development of an industry specific performance model suitable for this sector. This paper represents the conceptual issues and preliminary literature review of a major project to develop such a model.

Keywords

Design, Performance, Measurement, Model, for, Small, Firms, within, Service, Sector

Disciplines

Business | Social and Behavioral Sciences

Publication Details

Watts, T. & Baard, V. (2005). The design of a performance measurement model for small firms within the service sector. Small Business Development Conference (pp. 1-14).

The Design of a Performance Measurement Model for Small Firms within the Service Sector

Vicki Beard
Discipline of Accounting
School of Business and Informatics (NSW)
Australian Catholic University

Ted Watts
Discipline of Accounting
School of Accounting and Finance
University of Wollongong

Corresponding Author

Name: Dr. Vicki Beard
Address: School of Business & Informatics (NSW)
Australian Catholic University
P.O. Box 968, North Sydney, NSW, 2039

Telephone: (61 2) 9739 2868
E-mail: v.baard@mackillop.acu.edu.au

The Design of a Performance Measurement Model for Small Firms within the Service Sector

Abstract

The role of small business, as part of the value adding chain in any economy, should never be understated. In Australia small business represents 96% of all private sector business, accounts for 47% of all private sector employment and the majority fail within three to five years of establishment. Despite this contribution the small business sector, and in particular the service sector component, appear to be underrepresented in the development of specific performance measurement models, which, within the academic and professional literature appear to focus on their larger firm counterparts. Given the unique position of small business service organisations the above suggests a critical need for the design and development of an industry specific performance model suitable for this sector. This paper represents the conceptual issues and preliminary literature review of a major project to develop such a model.

The Design of a Performance Measurement Model for Small Firms within the Service Sector

Preamble

This study is part of an ongoing research project funded in part by a research grant from the Australian Catholic University and, as such, is a work-in-progress document. This component represents the conceptual issues and a preliminary literature review. The authors would welcome any comments.

1 Introduction

Small business (SB) plays a critical role in global economic wellbeing when compared to their large firm counterparts because of their substantial contribution to economies globally. They are important for the dynamics and stability of the economy, the size, composition and quality of employment and the socio-political structure. While research provides many global examples to illustrate and support this, this study will focus on the SB status in Australia.

Research conducted by the Australian Bureau of Statistics (ABS) and reflected in its most recent report, Small Business in Australia (2001), indicates that during 2000-01, there were 1,122,000 private sector small businesses representing 96% of all private sector business, see Table 1. These small firms employ almost 3.3 million people, representing 47% of all private sector employment.

Table 1: Critical Australian Small Business Statistics

Private Sector Small Businesses (PSSB) in Australia (2000-01)			
	Agriculture	Non-Agricultural	Total
No. of PSSB Businesses	111,200	1,122,000	1,233,200
% Indicators (PSSB)	9%	91%	100%
Total Private Sector Businesses	112,100	1,164,100	1,276,200
% Indicators	99%	96%	
Persons Employed in PSSB	304,000	3,259,100	3,563,100
% Indicators (PSSB)	8.5%	91.5%	100%
Total Private Sector Employment	355,000	6,901,900	7,256,900
% Indicators	85.6%	47%	

Source: Adapted from 2001 ABS Small Business in Australia Report

Further, the report also indicates that over the 17-year period 1983-84 to 2000-01, the number of small businesses increased from 620,600 to 1,122,000 which represented an average

growth rate of 3.5%; growth of their large firm counterparts was 3.3%. In terms of employment for the same period, the small business sector showed an increase of 66% at an average annual rate of 3.0%; employment growth for non-small businesses was 2.5%.

These statistics demonstrate that the vitality of the Australian economy and the economy of each state and territory is heavily dependent on the health and vitality of the small firm. It is therefore critical to measure small firm performance; as measuring SB performance is critical to the management success.

2 Background

In order to fully appreciate and comprehend the problems that require solutions through this research, there are three main areas requiring identification and discussion. They are the nature of the service industry, the nature of the small business, and current performance measurement practices.

2.1 The nature of the small business

Small businesses exhibit distinct characteristics that differentiate them from the majority of their larger counterparts; they are not little big businesses. Small businesses are unique entities with unique needs that require unique solutions. For the purposes of this proposal it is important to identify some of these characteristics which include the following:

- The SB elegantly caters to the niche markets. They experience closer contact with their customers and attract the customer with a speciality product, quality and personal service, thus providing the more individualised approach to the customer. However, they also have a reliance on a small number of customers.
- They are a source of innovation since they are able to provide new processes, ideas and services as a result of their flexibility, that larger firms may be reluctant to provide. In this regard, they contribute to the increase in competition, which is not generally price-based but rather in design and efficiency.
- They lack financial stability and costly mistakes cannot be afforded. Assistance to prevent these mistakes is not always available or affordable. It must however also be said that this assistance, such as the employment of an accountant, is seen to be a cost rather an investment.

- A large proportion of small firms fail within the first three to five years of existence and this is a global situation. The reasons resulting in failure are generally as a result of managerial incompetence, a lack of management experience, inadequate planning and poor financial control and recording keeping.
- Strategic planning does not occur or if it does only to a small degree. This primarily due to an immersion of the owner-manager in daily operations and routines thus leaving no time for strategic issues which is exacerbated by a lack of expertise in this area. As a result operational planning occurs with more regularity than strategic.

These are significant characteristics of the structure and philosophy of SB's that support the need for a critical evaluation of the current performance measurement models as well as the design and development of a unique performance measurement model suitable for this sector.

2.2 The nature of the service sector

Pivotal to the success of private sector small business is the contribution provided by the service sector (SS). Organisations operating in this sub-set of SB embrace wholesale and retail trade, transport and storage, communication and information services, finance and insurance, property and business services, and education and health. They are also organisations where the majority of the value is intangible rather than residing in a physical product. The service sector is also the largest component of the Australian economy in terms of the number of business, employment, and gross value added. Research presented by the ABS in Service Industries Overview (2004) indicates the following:

- Of the estimated 1,164,100 private sector businesses in Australia in 2000-01, some 833,100 (72%) were in the industries service sector.
- In terms of employment the sector remained dominant accounting for 72.9% of total employment for all industries in 2002-03.
- Service industries accounted for 68% of the gross value added for all industries in 2000-01. It also showed the greatest increase in output in chain volume terms with an increase of 24% over the period 1996-97 to 2001-02; the goods producing industries recorded an increase of 15% over the same period.

These statistics demonstrate that the service sector is an important and growing component of the Australian economy. Therefore, it would be thought that performance measurement (PM)

has been extensively researched in this area. However, research indicates that PM has been more extensively investigated in the manufacturing sector than in service sector (Fitzgerald *et al*, 1991).

A variety of measurement techniques have been examined as performance models adaptable to the service sector including the Results and Determinants Concept (Fitzgerald and Moon, 1996) and Total Quality Management, Activity Based Management, Value Based Management, and the Balanced Scorecard (Preda and Watts, 2004), however, the results were inconclusive.

Table 2 provides an historical perspective to small firm growth within the service industry. Small firms engaged in service industries therefore require a balanced range of performance measures appropriate for nature of the service industry and the types of service they are delivering. This is a logical statement but fundamental to this is that the performance measures and the system that houses the measures must be suitable to the nature of the small business.

Table 2

Industry	Number of Businesses			Persons Employed		
	No. of SB	% of SB	All Businesses	Employed in SB	% employed in SB	All Businesses
	1983-84			1983-84		
	(' 000)	%	(' 000)	(' 000)	%	(' 000)
Goods Producing	161.4	95.3	169.3	465.7	32.4	1439.2
Service Providing	459.3	96.6	475.7	1498	51.4	2916.3
	1998-99			1998-99		
Goods Producing	278.8	97	287.5	729.6	45.3	1610.4
Service Providing	769.2	96.2	799.2	2390	47.3	5049.1
	2000-01			2000-01		
Goods Producing	322.3	97.4	331	789.2	48.9	1613.1
Service Providing	799.7	96	833.1	2470	46.7	5288.9

Source: Adapted from 2001 ABS Small Business in Australia Report

There is no specific performance measurement model for the service industry, with the exception of Fitzgerald & Moon (1996) who have developed the results and determinants concept. The literature therefore appears to be found wanting in this regard.

2.3 Performance measurement practices in small business

Contemporary performance measurement systems provide measures of performance across a range of critical success factors, factors that are derived from the competitive strategy and are critical to the survival of the business. However, it is the unique characteristics of the small service business that provides the challenge for the development of an appropriate measurement model.

A number of approaches and frameworks for performance measurement models have emerged over the past decade. The most topical of these frameworks is that of the balanced scorecard designed by Kaplan and Norton (1992, 1993 and 1996). This approach includes financial and non-financial measures, more specifically four perspectives that comprise financial, customer, business process, and learning and growth. The Balanced Scorecard has resulted in further research into the characteristics of, and approaches for developing strategic performance management systems. A few examples of this research include:

- The Performance Pyramid (Lynch and Cross, 1991)
- The Results and Determinants Matrix (Fitzgerald *et al.*, 1991; Fitzgerald and Moon, 1996)
- Integrated Performance Systems (Bititci, 1994, 1995; Bititci, Carrie and McDevitt, 1997)
- Consistent Performance Measurement Systems (Flapper, Fortuin and Stoop, 1996)

However, these approaches have been designed primarily for use in a medium to large company context, they assume a general set of factors common to most firms; the reality is that each industry does have somewhat different performance drivers. To this end, only the Results and Determinants Matrix has been specifically designed for the service industry.

The review of the literature did reveal some studies concerning PM in the small business service sector. A list of the studies including some criticisms thereof, are as follows:

- Hudson, Smart & Bourne (2001) investigated theory and practice in SB performance measurement systems. This study only evaluated the appropriateness of strategic PM system development processes for small and medium sized firms, rather than a design of a PM model for the small service firm. It does however;

provide an evaluation of some PM systems for large and medium-size firms that may be useful for the purposes of this research.

- The Missouri Small Business Development Centres in the United States offers a nine-step process to create a small firms' Balanced Scorecard but does not appear to be based on any theoretical platform, nor does it cater for the SB in the service industry.
- Chow, Haddad & Williamson (1997) conducted research concerning the application of the Balanced Scorecard to small companies. They acknowledged that small firms have different needs to the larger firms and suggested that the Balanced Scorecard is not so structured as to serve all businesses uniformly. Their study does not however suggest a balanced scorecard approach for small service firms.
- Davig, Elbert & Brown (2004) adapted the balanced scorecard for the small firm, however it was for the manufacturing sector. The problem of transposing these findings to that of a service business have been previously mentioned.

What is clear from the discussion is that performance measurement in SB organisations within the service sector is vitally important. The approach of Kaplan and Norton has been adapted for the small manufacturing firm. The studies containing the adaptations of the balanced scorecard for small manufacturing firms also revealed concerns regarding the "fit" of the balanced scorecard. There does not appear to be a PM system specifically designed and or adapted for the small service firm: SB performance measures must reflect the fact that greater numbers of Australian small firms are in the service section. Much of the information on performance measurement is available in books, journals and manuals. Taking into account the nature of the SB, owner-managers simply would not find the time to research PM information or with the volume know what is relevant or where to begin.

Finally, the literature suggests that future research on the use of the balanced scorecard by small businesses should explicitly consider size differences as well as variations across industries. However despite these suggestions there does not appear to be an adaptation of the balanced scorecard to small business in the service industry. In fact there does not appear to be evidence as to whether the balanced scorecard would even be successfully adapted to this environment.

3 The Purpose of this Research

From the discussion two main research questions emerge:

- Are the approaches of Kaplan and Norton, Fitzgerald & Moon and those of the afore-mentioned authors appropriate for small service businesses?
- Can these approaches be adapted to result in the design of a performance measurement system for small service businesses?

Therefore the purpose of this research is to evaluate current PM practices and to utilise this evaluation to design a PM system specifically for the small firm in the service industry.

4 The Research Objectives

The research objectives are:

- a) A review of the literature relevant to the nature of the service industry, the nature of small business and current performance measurement approaches.
- b) To evaluate the current PM approaches in terms of their appropriateness for the small service business.
- c) To survey small businesses to establish current performance measurement practices.
- d) To utilise the data from the evaluation and the survey to design a model that caters for the uniqueness of the small firm and the diversity of service organisations.

5 Contribution of the Research

The contribution of this study is that it develops a performance measurement model specifically designed to service organisations operating within the small business sector. In this way the research assists (i) the small service business directly, and (ii) the accountants in public practice who provide professional accounting services to this organisational sector.

5.1 The small service business

To the small service business the research will provide the following:

- Information regarding current PM practices for the SB within the service industry.
- A PM system/model built on powerful performance measurement systems such as the balanced scorecard, and is respectful of the unique nature of the small firm.

- This model will ultimately be developed into a practical hands-on tool that while based on formal literature will embrace a practical methodology that fits within the demands of a small service firm environment.
- Measuring SB performance should ultimately facilitate successful management practices that lead to improved performance with the small service firm and thus enhance the significance of their contribution to the Australian economy.
- Redress the apparent lack of research conducted in this area and create an awareness of the importance of research regarding this issue.

5.2 The accounting profession

The provision of accounting services to the small service business has traditionally been the role of small to medium Public Accounting firms. The development of this model means that accountants will be able to reinforce their current strength in management and financial accounting information systems and expand their roll to that of strategic planner, able to guide the business in reflecting on how it can develop its business.

6 Research Methodology

The research methodology for this study is based on a combination of qualitative and quantitative methods such as the archival or historical review, the survey and the interview methods will be used since these approaches are not exclusive but mutually complementary. The decision to combine these two approaches will enable generalisation through triangulation of the results as well as accuracy. It will ensure as high a level as possible of completeness of research information and promote an acceptable level of validity.

6.1 The research design

For the purposes of this study, the researchers have selected the qualitative research design. Of the qualitative research designs, the descriptive research design was deemed more appropriate since the goal of the research is to obtain a profile or description of the phenomena that is performance measurement from both other researchers and the small service firm perspective. This design also allows for the inclusion of quantitative data in terms of frequencies, or means or standard deviations that are necessary for the descriptive studies. The information obtained from the descriptive design will be vital in formulating corrective action for the current situation such as the design and ultimate development of a small service firm performance model / system.

6.2 Survey methodology

This methodology will be used in the study since it can yield a substantial volume of descriptive data on the variables and so enhance the holism of the outcome of the research. The data can and will be converted into numerical indices and statistical analysis techniques will be employed to generalise findings from a sample of respondents to a population and assist to a great extent in PM model design.

The research instrument to be used in this methodology is a questionnaire, which is an original instrument to be developed from the literature review. A fully structured technique will be employed in the design of the questionnaire to not only complement the nature of the small service business environment, but also to facilitate data analysis to promote objective and efficient scoring. Certain adaptations will however be applied to the format of the questionnaire to accommodate the employment of both a quantitative and qualitative approach as previously indicated. The questionnaire will be distributed via mail.

6.3 Sample and sampling technique

While no official definition of a small business exists within the Australian business environment, the small businesses to be surveyed will exhibit the following characteristics:

- Non-employing businesses that is sole proprietorships and partnerships without employees.
- Micro businesses that employ one to five persons.
- Very Small businesses six to 10 persons.
- Small businesses that employ more than 11 persons but less than 20 persons.

This follows a similar categorisation of small firms as used by the ABS in the 2001 Small Business in Australia Review. Many small firm definitions that are utilised in SB studies are too broad and lack detail. Since, the model developed within the scope of this research will be specifically designed for the small firm and ultimately be utilised to measure SB performance, a well-defined and standard definition must be utilised to achieve these objectives. Therefore, in addition to the above, the definition criteria for the SB will be those firms that exhibit small firm characteristics which will be developed through the literature review.

The population will constitute the small business service businesses in the state of New South Wales since this is where the highest density of small businesses are concentrated, specifically 33%.

The sampling technique utilised will be simple random sampling that will be applied to obtain a sample of 500 small enterprises. The small firms will be obtained through various SB networks and associations, both professional and non-professional and by advertisements in the main daily newspapers in New South Wales. The networks and associations include the Australian Small Business Association, the Australian Association of Independent Business, the Australian Chamber of Commerce Small Business Association and the Small Business Combined Association of New South Wales to mention but a few.

It is expected that the empirical work will be undertaken in mid 2005.

References

- Australia. Bureau of Statistics. (2001) *Small Business in Australia*. Canberra: AGPS.
- Australia. Bureau of Statistics. (2002) *Recent growth in small business sector*. Canberra: AGPS.
- Australia. Bureau of Statistics. (2004) *Yearbook Australia: Service Industries Overview*. Canberra: AGPS..
- Bititci, U. (1994) Measuring your way to profit, *Management Decision*, 32 (6):16-25.
- Bititci, U. (1995) Measuring the integrity of your business, *Management Decision*, 33 (7):10-19.
- Bititci, U. Carrie, A. & McDevitt, L. (1997) Measuring the integrity of you business, *International Journal of Operations & Production Management*, 17(5): 522-560.
- Chow, C, W. Haddad, K.M. & Williamson, J.E. (1997) Applying the balanced scorecard to small companies, *Management Accounting*, 79(2):21-28.
- Davig, W. Elbert, N. & Brown, S. (2004) Implementing a Strategic Planning Model for Small Manufacturing Firms: An Adaptation of the Balanced Scorecard, *S.A.M Advanced Management Journal*, 69(1): 18-25.
- Fitzgerald, L. Johnson, R., Brignall, S., et al. (1991) *Performance Measurement in Service Businesses*. London: CIMA.
- Fitzgerald, L. & Moon, P. (1996) *Performance Measurement in the Service Industries: Making it Work*. London: CIMA.
- Flapper, S. Fortuin, L. & Stoop, P. (1996) Towards consistent performance management systems, *International Journal of Operations & Production Management*, 16(7): 27-37.
- Hudson, M. Smart, A. & Bourne, M. (2001) Theory and practice in SME performance measurement systems. *International Journal of Operations & Production Management*, 21(8):1096-1115.
- Kaplan, R.S. & Norton, D.P. (1992) The balanced scorecard; the measures that drive performance. *Harvard Business Review*, January-February, pp71-9.
- Kaplan, R.S. & Norton, D.P. (1993) Putting the balanced scorecard to work. *Harvard Business Review*, September-October, pp34-147.
- Kaplan, R.S. & Norton, D.P. (1996) *The Balanced Scorecard: Translating Strategy into Action*. Boston: Harvard Business School Press.
- Lynch, R & Cross, K. (1991) *Measure UP! Yardsticks for Continuous Improvement*. Oxford: Blackwell Publishing.

Preda, P. & Watts, E. W. (2004) Contemporary Accounting Innovations in Australia: Manufacturing versus Service Organisations, *Journal of Applied Management Accounting Research* 2(2).