

Exploring the Measurements of Organizational Performance: Small and Medium Enterprises (SMEs) Perspective

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Abstract

Measuring organizational performance is an important issue in today's research scenario. The researchers use different approaches and measures in evaluating organizational performance. Researchers do not have consensus on the measures to be used for measuring organizational performance. The literature shows that both subjective and objective measures can be used to evaluate the performance of organizations of small and medium enterprises (SMEs). This paper based on the measures used in previous researches have recommended measures for measuring the organizational performance.

Key words: Empirical Research, Measurement, Organizations, Performance, Subjective Measures, Small and Medium Enterprises (SME).

Introduction

In the field of business an important component of empirical research is organizational performance (Simpson, Padmore, & Newman, 2012). Firms' performance refers to the level of success of a firm (Sulaiman, Yusoff, & Chelliah, 2010). Researchers have difficulty in separating the concept of success with performance mainly because success are also

measures in terms of performance (Simpson et al., 2012). In the relationship of planning and performance, it is obviously a central construct of interest (Sulaiman, 2010).

Performance is a multidimensional concept (Morgan & Strong, 2003; Simpson et al., 2012). Measuring organization's performance is of interest to both academic scholars and

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practicing managers. Additionally strategic management, performance is a recurrent theme in most branches of management (Carton & Hofer, 2010; Simpson et al., 2012). Performance is a quality of any organization, achieved by valuable outcome such as higher returns (Memon & Tahir, 2012).

While determining a firm's performance, one cannot solely rely on quantifiable measures such as cost and schedule performance, and ignore qualitative measures such as customer satisfaction and innovation. Firm's performance measures are market share, profit, inventory turnover, productivity, also known as financial measures of performance. Performance of a firm is also based on non-financial measures including customer satisfaction, innovation, reliability, data storing capability, workflow improvement, and skill development etc (Hafeez, Malak, & Abdelme-guid, 2006). One of the most difficult issues confronting academic research setting is the measurement of performance. According to literature there are two main approaches to measure performance. The first is inclusion of subjective self assessment financial and non financial success factors. i.e.; Market share, customer satisfaction, sales volume, cash flow and new product development, etc. (Otley, 1999). Whereas the second approach is based on financial indicators including profitability or revenue growth, which measures narrower conception of performance (Ittner, Lanen, & Larcker, 2002). In case of non availability of accurate financial data, the researchers might consider using subjective measures such as sales growth and return on assets for measuring organizational performance.

Measurement of Performance

In strategic research subjective measures of performance are frequently used and have been found to be a reliable and valid measures. Hakimpoor, Tat and Arshad (2011) argued that performance measurement in small and medium enterprises (SMEs) are difficult and problematic. The reason being that most of the time the respondents are hesitant to respond on indicators such as profitability and ROI. Thus they do not disclose the information pertaining to such indicators of performance (e.g. profitability and ROI) (Tippins & Sohi, 2003). Subjective approach for measuring performance in SMEs therefore in generally proposed. The SMEs are often reluctant to provide their financial data (Esteve, Peinado, & Peinado, 2008). The self-assessment of performance by the respondents themselves is more relevant and accurate (Love, Priem, & Lumpkin, 2002). The perceived or subjective measures are found to be highly correlated with the objective measures in past studies (Love et al, 2002).

The subjective approach for measuring organizational performance has been widely used in empirical research (Glaister, Dincer, Tatoglu, Demirbag, & Zaim, 2008). The Owners and managers of SMEs evaluate their business performances by financial measures as well as non-financial measures and place equal attentions on both non-financial and financial measures. The non-financial measures include market share, customers' satisfaction and customers' referral rates, delivery time, waiting time and employees' turnover while financial measures include profit before tax and turnover (Chong, 2008). Even

when appropriate measures have been identified, there is still the difficulty of collecting the data in SME (Simpson et al., 2012).

In evaluating performance among privately held firms, the factors such as overall satisfaction and non financial goals of the owners need to be weighted more heavily. Researchers testing performance should include performance measures such as market share, sales growth, and profitability (Simpson et al., 2012). Usually in research a single convenient one-dimensional measure such as growth (e.g. in employee numbers), profit, turnover, profitability or return on capital employed (ROCE) or return on investment (ROI) are used as the dependent variable (Simpson et al., 2012). Sales growth is another performance indicator that is appreciated by previous research as performance indicator and is used by most of the researchers (Tippins & Sohi, 2003). The executive's perceptions of performance about their organizations are consistent to objective measures of performance (Glaister et al., 2008). It is difficult to obtain accurate financial data from small firms; because of confidential nature of the financial data the owners are sensitive about their financial matters of their businesses and thus do not provide exact financial data. That's why the financial data from small firms is not accurate (Tippins & Sohi, 2003). In the context of small enterprises the financial data are reported to be unreliable (Kraus, Harms, & Schwarz, 2006). It is impossible or impractical in many research situations to access objective measures of organizational performance. Even if such measures are available it does not guarantee the accuracy of the

performance measurement (Allen & Helms, 2006).

These new frameworks in research measuring performance of organization placed emphasis on non financial, external and future looking performance measures (Bourne et al., 2000). Market orientation research relies heavily on subjective or perceptual measures, including subjective performance measures (Haughland, Myrtveit, & Nygaard, 2007). Using both financial and non-financial measures a business organization could measure its performance (Chong, 2008).

There is a wide variety of approaches, techniques, and measures for measuring firm performance (Suklev & Debarliev, 2012). The researchers can measure performance by market share, sales growth, and profitability (Simpson et al., 2012). Firms' performance can also be measured through the sales growth of profit growth and turnover rate of its people (Sulaiman et al., 2010). In the previous research, performance as dependent variable have been measured in numerous ways as sales, profit, productivity, revenue, dividends, growth, stock price, capital, cash flow, return on equity, return on investment, return on assets, return on capital, earnings per share, as well as other financial ratios (Shrader, Taylor, & Dalton, 1984). Of all the performance indicators, sales growth is likely to be the most suitable, which is free of most potential bias (Sulaiman et al., 2010).

Market share, sales growth, customer satisfaction, return on investment, customer retention, and competitive position are the

suitable performance measures of the business firms (Morgan & Strong, 2003). The performance indicators of a firm include market share, growth total revenue growth, overall performance or success of the firm, total asset growth and net income growth (Allen & Helms, 2006). By market share, sales growth, profit growth, employee satisfaction and employee retention performance of a business can be well evaluated (Rudd, Greenley, Beatson, & Lings, 2008). The basic goal of any enterprise is its customer's satisfaction and customer satisfaction is the determinant of enterprise performance (Yang, 2006). Performance of a firm can be measured by the financial and non-financial on a "Likert scale" e.g. Sales volume achieved, market share, customer satisfaction, overall profit achieved, return on investment, customer loyalty achieved, levels of employee satisfaction with their jobs, ability of the organization to attract and employ qualified employees, levels of employee retention and shareholder satisfaction (Suklev & Debarliev, 2012).

Performance of firms can also be measured by the growth of employment in the firms which also indicates that firms' sales are increasing. (Bruton & Rubanik, 2002). Activities such as customer satisfaction, cost, flexibility, and quality, are the attributes of firm's performance. However these measures are separately most of the times. Separate performance measure includes how well a specific activity performs. Managers in a higher positions prefer to see the combined effect of these measures and how it complies with various activities are performed in the firm from

the integrated viewpoint in comparison with the competitors of their firms (Kim, Park, & Yoon, 1997). Organizational performance can also be traced by return on sales (ROS), return on investment (ROI) and return on assets (ROA) (Jusoh & Parnell, 2008). The firms' performance can also be measured, in terms of sales performance, profitability performance and export performance (Zhou, Wu, & Luo, 2007). The performance of organizations can be measured in terms of innovation (Winne & Sels, 2010; & Chen & Huang, 2009).

Performance Measurement Models

Organizational performance can be measured by using owners' satisfaction, customers' satisfaction and profitability compared to competitor's business growth. Organizational performance can also be measured by using Balanced Scorecard (Banker, Chang, & Pizzini, 2004; Kaplan & Norton, 1993; Lipe & Salterio, 2000; Martinsons et al., 1999; Olson & Slater, 2002; Zelman, Pink, & Matthias, 2003). In performance measurement research, Tat-icchi, Tonelli and Cagnazzo (2010) reported some other performance measurement models such as; The ROI, ROE, ROCE and derivatives by Simons (2000). The Economic Value Added Model (EVA) by Stewart (2007), The Activity Based Costing (ABC), - The Strategic Measurement Analysis and Reporting Technique (SMART) by Cross and Lynch (1988), The Supportive Performance Measures (SPA) by Keegan et al. (1989), The Customer Value Analysis (CVA) by Customer Value Inc. (2007), The Performance Measurement Questionnaire (PMQ) by Dixon et al. (1990), The Balanced Scorecard (BSC) by Kaplan and Norton (1992),

The Service-Profit Chain (SPC) by Heskett et al. (1994), The Return on Quality Approach (ROQ) by Rust et al. (1995), The Cambridge Performance Measurement Framework (CPMF) by Neely et al. (1996), The Consistent Performance Measurement System (CPMS) by Flapper et al. (1996), The Comparative Business Scorecard (CBS) Kanji by (1998), The Integrated Performance Measurement Framework (IPMF) by Medori and Steeple (2000), The Business Excellence Model (BEM) by EFQM (2007), The Dynamic Performance Measurement System (DPMS) by Bititci et al. (2000), The Action-Profit Linkage Model (APL) by Epstein and Westbrook (2001), The Manufacturing System Design Decomposition (MSDD) by Cochran et al. (2001), The Performance Prism (PP) by Neely et al. (2001), The Performance Planning Value Chain (PPVC) by Neely and Jarrar (2004), The Capability Economic Value of Intangible and Tangible Assets Model (CEVITA) by Ratnatunga et al. (2004) The Performance, Development, Growth Benchmarking System (PDGBS) by St-Pierre and Delisle (2006), The Unused Capacity Decomposition Framework (UCDF) by Balachandran et al. (2007).

Many companies are adopting the Balanced Scorecard (BSC) as the foundation for their strategic management system. Some managers have used it as they move away from cost reduction and towards growth opportunities, based on more customized, value adding services and products and align their businesses to new strategies (Martinsons, Davison, & Tse, 1999). The Balanced Scorecard (BSC) has emerged as a decision support tool at the strategic management level. Now

many business leaders evaluate organizational performance by supplementing financial accounting data with goal related measures from the following perspectives: customer, internal business process, and learning and growth (Lipe & Salterio, 2000; & Martinsons et al., 1999). David Norton and Robert Kaplan developed the Balanced Scorecard (BSC) model, with a set of performance indicators distributed among four perspectives; financial, customer, internal business processes, and learning and growth, which was first published in January-February 1992 in issue of Harvard Business Review (Kaplan & Norton, 1993).

As a means to evaluate firms' performance Robert Kaplan of Harvard University and an American management consultant; David Norton in 1990s has proposed a concept called the Balanced Scorecard (BSC) to measure organizational performance with four different perspectives, i.e., the financial perspective, the internal business process perspective, the customer perspective, and the learning and growth perspective. They compare their approach for managing an organization to that of pilots viewing assorted instrument panels as in the cockpit of an airplane; both have a need to monitor multiple aspects of their working environment (Lipe & Salterio, 2000; Martinsons et al., 1999; Zelman et al., 2003). The Balanced Scorecard has been called the most important management innovation in 20th century (Zelman et al., 2003).

Conclusion

Based on the above discussions, it is argued that in small and medium enterprises

(SMEs) the owners and managers often hesitate to provide the financial data and most of the time they hide the accurate information. Also it is argued based on the findings of previous researches' that subjective measures of performance are as correct, reliable and accurate as those of objective measures when provided by the owners and managers, while measuring organizational performance from SMEs perspective. So, in conducting empirical research in SMEs it should be emphasized to use subjective measures like (market share, sales growth, and customer satisfaction) through the "Likert Scale" from the owners and managers of SMEs to collect accurate and reliable data and increased response rate. From SMEs perspective the financial indicators represents narrower conception of performance. Most of the authors nowadays are using even Balanced Scorecard Method, for measuring performance in SMEs by tapping the answers on Likert Scales, such as done by Khalique, (2012).

Extending the debate, we can measure organizational performance by the following attributes such as

1) sales growth, 2) employee turnover rate, 3) market share, 4) customer satisfaction, 5) return on investment, 6) return on assets, 7) profitability, 8) owners' satisfaction, 9) customers' referral rates, 10) delivery time, 11) waiting time, 12) new product development, 13) return on investment (ROI), 14) customer retention, 15) competitive position, 16) innovation, 17) product reliability, 18) data storing capability, 19) workflow improvement, 20) skills development, 21) inventory turnover, 22) customer loyalty achieved, 23) levels of employee satisfaction with their jobs, 24) ability of the organization to attract and employ qualified employees, 25) levels of employee retention, 26) shareholder satisfaction and by any of the models reported by various researchers.

References

- Allen, R. S., & Helms, M. M. (2006). Linking strategic practices and organizational performance to Porter's generic strategies. *Business Process Management Journal*, 12(4), 433-454.
- Balachandran, K. R., Shu, H. L., & Suresh, R. (2007). A framework for unused capacity: theory and empirical analysis. *Journal of Applied Management Accounting Research*, Winter, 21-38.
- Banker, R. D., Chang, H., & Pizzini, M. J. (2004). The balanced scorecard: judgmental effects of performance measures linked to strategy. *The Accounting Review*, 79(1), 1-23.
- Bititci, U. S., Turner, T., & Begemann, C. (2000). Dynamics of performance measurement systems. *International Journal of Operations & Production Management*, 20, 692-704.
- Bourne, M., Mills, J., Wilcox, M., Neely, A., & Platts, K. (2000). Designing, implementing and updating performance measurement systems. *International Journal of Operations & Production Management*, 20(7), 754-771.
- Bruton, G. D., & Rubanik, Y. (2002). Resources of the firm, Russian high-technology startups, and firm growth. *Journal of Business Venturing*, 17, 553-576.
- Carton, R. B., & Hofer, C. W. (2010). Organizational financial performance: identifying and testing multiple dimensions. *Academy of Entrepreneurship Journal*, 5(16), 1-22.
- Chen, C. J., & Huang, J. W. (2009). Strategic human resource practices and innovation performance. The mediating role of knowledge management capacity. *Journal of Business Research*, 62, 104-114.

- Chong, H. G. (2008). *Measuring performance of small-and-medium sized enterprises: the grounded theory approach*. *Journal of Business and Public Affairs*, 2(1), 1-10.
- Cochran, D. S., Arinez, J. F., Duda, J. W., & Linck, J. (2001). *A decomposition approach for manufacturing system design*. *Journal of Manufacturing Systems*, 20(6), 371.
- Cross, K. F., & Lynch, R. L. (1988). *The SMART way to define and sustain success*. *National Productivity Review*, 8(1) p. 23.
- Customer Value Inc. (2007). *Customer Value Analysis*. Available at: www.cval.com/cva.htm (accessed 7 September 2009).
- Dixon, J. R., Nanni, A. J., & Vollman, T. E. (1990). *The New Performance Challenge Measuring Operations for World-class Competition*, Irwin, Homewood, IL.
- EFQM (2007). *Introducing Excellence*. Available at: www.efqm.org (accessed 7 September, 2009).
- Epstein, M. J., & Westbrook, R. A. (2001). *Linking action to profits in strategic decision making*. *MIT Sloan Management Review*, 42(3), 39-49.
- Esteve, A. E., Peinado, L. S., & Peinado, E. S. (2008). *Moderating Influences on the firms' strategic orientation-performance relationship*. *International Small Business Journal*, 26(4), 463-489.
- Fitzgerald, L., Johnson, R., Brignall, S., Silvestro, R., & Vos, C. (1991). *Performance Measurement in Service Businesses*, CIMA, London.
- Flapper, S. D. P., Fortuin, L., & Stoop, P. P. M. (1996). *Towards consistent performance management systems*. *International Journal of Operations & Production Management*, 16(7), 27-37.
- Glaister, K. W., Dincer, O., Tatoglu, E., Demirbag, M., & Zaim, S. (2008). *A causal analysis of formal strategic planning and firm performance: Evidence from an emerging country*. *Management Decision*, 46(3), 365-391.
- Hafeez, K., Malak, N., & Abdelmeguid, H. (2006). *A framework for TQM to achieve business excellence*. *Total Quality Management*, 17(9), 1213-1229.
- Hakimpoor, H., Tat, H. H., & Arshad, K. A. (2011). *Strategic marketing planning (SMP) and SMEs' performance: the moderating effects of structural dimensions of marketing networks*. *2nd International Conference on Business and Economic Research (2nd ICBER) Proceedings*, 1013-1025.
- Haugland, S. A., Myrtveit, I., & Nygaard, A. (2007). *Market orientation and performance in the service industry: a data envelopment analysis*. *Journal of Business Research*, 60, 1191-1197.
- Heskett, J. L., Jones, T. O., Loveman, G. W., Sasser, W. E., & Schlesinger, L. A. (1994). *Putting the service-profit chain to work*. *Harvard Business Review*, March-April.
- Ittner, C. D., Lanen, W. N., & Larcker, D. F. (2002). *The association between activity-based costing and manufacturing performance*. *Journal of Accounting Research*, 40(3), 711-726.
- Jusoh, R., & Parnell, J. A. (2008). *Competitive strategy and performance measurement in the Malaysian context: an exploratory study*. *Management Decision*, 46(1), 5-31.
- Kanji, G. K. (1998). *Measurement of business excellence*. *Total Quality Management*, 9(7), 633-643.
- Kaplan, R. S., & Norton, D. P. (1993). *Putting the balanced scorecard to work*. *Harvard Business Review*, 134-147.
- Keegan, D. P., Eiler, R. G., & Jones, C. R. (1989). *Are your performance measures obsolete?* *Management Accounting*, 70(12), 45-50.
- Khalique, M. (2012). *Impact of Intellectual Capital on the Organizational Performance of Selected Small and Medium Enterprises in Malaysia and Pakistan* PhD Thesis, Universiti Malaysia Sarawak.
- Kim, G. Park, C. S., & Yoon, K. P. (1997). *Identifying investment opportunities for advanced manufacturing systems with comparative integrated performance measurement*. *International Journal Production Economics*, 50, 23-33.
- Kraus, S., Harms, R., & Schwarz, E. J. (2006). *Strategic planning in smaller enterprises-new empirical findings*. *Management Research News*, 29(6), 334-344.
- Lipe, M. G., & Salterio, S. E. (2000). *The balanced scorecard: judgmental effects of common and unique performance measures*. *The Accounting Review*, 75(3), 283-298.
- Love, L. G., Priem, R. L., & Lumpkin, G. T. (2002). *Explicitly articulated strategy and firm performance under alternative levels of centralization*. *Journal of Management*, 28(5), 611-627.
- Martinsons, M. Davison, R., & Tse, D. (1999). *The balanced scorecard: a foundation for the strategic management of*

information systems. *Decision Support Systems*, 25, 71-88.

Medori, D., & Steeple, D. (2000). A framework for auditing and enhancing performance measurement systems. *International Journal of Operations & Production Management*, 20(5), 520-533.

Memon, M. A., & Tahir, I. M. (2012). Size and operational performance of manufacturing companies in Pakistan using data envelopment analysis. *Journal of Information Engineering and Applications*, 2(4), 39-49.

Morgan, R. E., & Strong, C. A. (2003). Business performance and dimensions of strategic orientation. *Journal of Business Research*, 56, 163-176.

Neely, A., & Jarrar, Y. (2004). Extracting value from data-the performance planning value chain. *Business Process Management Journal*, 10(5), 506-509.

Neely, A., Adams, C., & Crowe, P. (2001). The performance prism in practice. *Measuring Business Excellence*, 5(2), 6-13.

Neely, A., Mills, J., Gregory, M., Richards, H., Platts, K., & Bourne, M. (1996). *Getting the Measure of Your Business*, Findlay, London.

Olson, E. M., & Slater, S. F. (2002). The balanced scorecard, competitive strategy, and performance. *Business Horizons*, 11-16.

Otley, D. (1999). Performance management: a framework for management control systems research. *Management Accounting Research*, 10, 363-382.

Ratnatunga, J., Gray, N., & Balachandran, K. R. (2004). CEVITA: the valuation and reporting of strategic capabilities. *Management Accounting Research*, 15, 77-105.

Rudd, J. M., Greenley, G. E., Beatson, A. T., & Lings, I. N. (2008). Strategic planning and performance: extending the debate. *Journal of Business Research*, 61, 99-108.

Rust, R. T., Zahorik, A. J., & Keiningham, T. L. (1995). Return on quality (ROQ): making service quality financially accountable. *Journal of Marketing*, 59, 58-70.

Shrader, C. B., Taylor, L., & Dalton, D. R. (1984). Strategic planning and organizational performance: a critical appraisal. *Journal of Management*, 10(2) 149-171.

Simons, R. (2000). *Performance Management and Control Systems for Implementing Strategy*. Prentice Hall, Englewood Cliffs, NJ.

Simpson, M., Padmore, J., & Newman, N. (2012). Towards a new model of success and performance in SMEs. *International Journal of Entrepreneurial Behaviour & Research*, 18(3), 264-285.

Stewart, B. (2007). What is EVA. Available at: www.sternstewart.com/evaabout/whatis.php (accessed 7 September 2009).

St-Pierre, J., & Delisle, S. (2006). An expert diagnosis system for the benchmarking of SMEs' Performance. *Benchmarking: An International Journal*, 13(1/2), 106-119.

Suklev, B., & Debarliev, S. (2012). Strategic planning effectiveness comparative analysis of the Macedonian context. *Economic and Business Review*, 14(1), 63-93.

Sulaiman, E. D. M., Yusoff, Y. M., & Chelliah, S. (2010). Internationalization and performance: small and medium enterprises (SMEs) in Malaysia. *International Journal of Business and Management*, 5(6), 27-37.

Taticchi, P., Tonelli, F., & Cagnazzo, L. (2010). Performance measurement and management: a literature review and a research agenda. *Measuring Business Excellence*, 14(1), 4-18.

Tippins, M. J., & Sohi, R. S. (2003). It Competency and Firm Performance: is organizational learning a missing link? *Strategic Management Journal*, 24(8), 745-761.

Winne, S. D., & Sels, L. (2010). Interrelationships between human capital, HRM and innovation in Belgian start-ups aiming at an innovation strategy. *The International Journal of Human Resource Management*, 21(11), 1863-1883.

Yang, C. C. (2006). The impact of human resource management practices on the implementation of total quality management; an empirical study on high-tech firms. *TQM Magazine*, 18(2), 162-173.

Zelman, W. N., Pink, G. H., & Matthias, C. B. (2003). Use of the balanced scorecard in health care. *Journal of Health Care Finance*, 29(4), 1-16.

Zhou, L., Wu, W. P., & Luo, X. (2007). Internationalization and the performance of Born-Global SMEs: the mediating role of social networks. *Journal of International Business Studies, International Expansion of Emerging Market Businesses*, 38(4), 673-690.