

PERCEPTIONS AND PRACTICES OF CRITICAL SUCCESS FACTORS IN BENCHMARKING IMPLEMENTATION IN MALAYSIAN AUTOMOTIVE MANUFACTURING COMPANIES

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ABSTRACT

This paper presents the results from a survey conducted to measure the Malaysian automotive manufacturing companies' top management perceptions of importance and practices of critical success factors (CSFs) with respect to benchmarking implementation. The main objective of this paper is to provide empirical evidence on whether there were significant differences in terms of perceptions of importance and actual practices of CSFs in implementing benchmarking. First, between the perception of importance and extent of practice of the overall companies; and secondly between 100% local and joint venture companies. A questionnaire with 49 items was developed by the authors based on previous studies, checked for reliability and validity by experts and practitioners, and applied to create a self-assessment measure of benchmarking practices. Analysis of the survey results showed that there were significant differences between perception of importance and actual practice of CSFs for benchmarking implementation. The paper concludes with some suggestions on how to close the gap between perceptions of importance and practices of CSFs in implementing benchmarking.

Keywords: benchmarking; practices; performance; manufacturing; Malaysia

ABSTRAK

Makalah ini membentangkan keputusan satu kaji selidik yang telah dijalankan untuk mengukur tanggapan kepentingan dan amalan sebenar faktor kritikal kejayaan (CSFs) dalam pelaksanaan tanda aras. Kaji selidik ini telah dilakukan terhadap pihak pengurusan atasan di syarikat-syarikat pembuatan automotif di Malaysia. Objektif utama makalah ini ialah untuk memberikan bukti empirikal sama ada terdapat perbezaan ketara dari segi tanggapan kepentingan dan amalan sebenar CSFs ketika melaksanakan tanda aras. Pertama, di antara tanggapan kepentingan dan amalan untuk keseluruhan syarikat dan kedua, syarikat 100% milik tempatan dan syarikat usahasama. Berdasarkan kepada kajian lepas, penulis telah membangunkan satu borang kaji selidik yang mengandungi 49 perkara. Borang ini telah disemak dari aspek kebolehharapan dan kebolehpercayaan oleh pakar dan pengamal tanda aras agar ia boleh digunakan untuk mengukur penilaian sendiri terhadap amalan tanda aras. Analisis keputusan kaji selidik menunjukkan bahawa terdapat perbezaan ketara di antara tanggapan kepentingan dan amalan sebenar CSFs ketika melaksanakan tanda aras. Makalah ini diakhiri dengan memberikan beberapa cadangan untuk merapatkan jurang perbezaan di antara tanggapan kepentingan dan amalan sebenar CSFs dalam pelaksanaan tanda aras.

Kata kunci: tanda aras; amalan; prestasi; pembuatan; Malaysia

References

- APQC. 2001. Process Classification Framework. Developed by: APQC's International Benchmarking Clearinghouse In Partnership with Arthur Andersen & Co., SC.
- ASBA. 2001. Automotive Suppliers. Benchmarking Association (<http://asbabenchmarking.com>).
- Betzig R.J. & Fleming L.K. 1992. Laying the groundwork. *The TQM Magazine* 2(3) July/August: 152-154.
- Black S.A. & Porter L.J. 1996. Identification of critical factors of TQM. *Decision Sciences* 27(1): 1-21.
- Brah S.A., Ong A.L. & Rao B.M. 2000. Understanding the benchmarking process in Singapore. *International Journal of Quality & Reliability Management* 17(3): 259-275.
- Burpo R. 1998. Benchmarking start-up: Pitfalls and successes. *Quality Congress. ASQC Annual Quality Congress Proceedings* Milwaukee: 277-287.
- Cassell C., Nadin S. & Gray, M.O. 2001. The use and effectiveness of benchmarking in SMEs. *Benchmarking: An International Journal* 8(3): 212-222.
- Chin K.S., Pun K.F., Lau C.S. & Lau H. 2001. Performance improvement of international roaming service: A benchmarking study. *Benchmarking: An International Journal* 8(2): 120-131.
- Clark A. & Manton S. 1997. A benchmarking tool for change management. *Business Process Management Journal* 3(3): 248-255.
- Comm C.L. & Mathaisel D.F.X. 2000. A Paradigm for benchmarking lean initiatives for quality improvement. *Benchmarking: An International Journal* 7 (2): 118-127.
- Cooper R.G. & Kleinschmidt E.J. 1995. Benchmarking the critical success factors of firms. Management of Innovation and New Technology (MINT) Working Paper #39. MINT Research Centre. (<http://mint.mcmaster.ca/mint/papers/wp39.htm>)
- DeToro I. 1995. The 10 Pitfalls of Benchmarking. *Quality Progress* January: 61-63
- Drew S.A.W. 1997. From Knowledge to Action: The impact of benchmarking on organizational performance. *Long Range Planning* 30 (3): 427-441.
- Elmuti D. 1998. The perceived impact of benchmarking process on organisation effectiveness. *Production and Inventory Management Journal* 39(3): 6-11.
- Elnathan D. & Kim O. 1995. Partner selection and group formation in cooperative benchmarking. *Journal of Accounting & Economics* 19: 345-364.
- Fowler F. J. 1998. Design and evaluation of survey questions: 343-374, in *Handbook of Applied Research Methods* Bickman, L. & Rog, D.J. (Editors), Sage Publication, London.
- Garvin D.A. 1993. Building a learning organization. *Harvard Business Review* Boston, July/Aug 1993, 71(4): 78-82.
- Isa Z. 2003. Course Notes on Multivariate Analysis on Variance (MANOVA). *Workshop on Statistics and SPSS* 26 - 27 February 2003. Centre for Science and Mathematics, Faculty of Science and Technology, Universiti Kebangsaan Malaysia.
- Jeffcoate J., Chappell C. & Feindt S. 2002. Best practice in SME adoption of e-commerce. *Benchmarking An International Journal* 9(2): 122-132.
- Keck T. & Lollet K. 1995. CSFs in captive multi-line insurance agency sales. *Journal of Personal Selling & Sales Management* 15(1): 17-33.
- Kim J. & Mueller C. 1978. *Introduction to Factor Analysis*. Sage Publications Beverly Hills, CA.
- McAdam R. & Kelly M. 2002. A business excellence approach to generic benchmarking in SMEs. *Benchmarking: An International Journal* 9(1): 7-27.
- Motiواني J. 2001. Critical factors and performance measures of TQM. *The TQM Magazine* 13(4): 292-300.

Perceptions and practices of CSFs in benchmarking implementation in Malaysian manufacturing companies

- NPC. 2002. National Productivity Corporation, Malaysia. (URL-<http://www.npc.org.my>)
- Nunnally J. 1967. *Psychometric Theory*. McGraw-Hill, New York, NY.
- Parker O. & Kovacs N. 2001. The benchmarking advantage: A benefit management tool. *Canadian HR Reporter* Toronto, 14(12): 10-12.
- Rahman S. 2001. A comparative study of TQM practice and organisational performance of SMEs with and without ISO 9000 certification. *International Journal of Quality & Reliability Management* 18(1): 35-49.
- Rockart J.F. 1979. Chief executives defined their own data needs. *Harvard Business Review* March/April: 81-92.
- Samson D. & Terziovski M. 1999. The relationship between Total Quality Management practices and operational Performance. *Journal of Operations Management* 17: 393-409.
- Saraph J.V., Benson P.G. & Schroeder R.G. 1989. An instrument for measuring the critical factors of Quality Management. *Decision Sciences* 20(4): 810-829.
- Sarkis J. 2001. Benchmarking for Agility. *Benchmarking: An International Journal* 8(2): 88-107.
- The Benchmarking Portfolio. 1995. Volume One. Strategic Direction Publishers Ltd.
- Tölösi P. & Lajtha G. 2000. Towards improved benchmarking indicators. *Telecommunications Policy* 24: 347-357.
- Tutcher G. 1994. How successful companies improve through internal benchmarking. *Managing Service Quality* 4(2): 44-46.
- Voss C.A., Chiesa V. & Coughlan P. 1994. Developing and testing benchmarking and self-assessment frameworks in Manufacturing. *International Journal of Operations & Production Management* 14(3): 83-100.
- Voss C.A., Åhlström P. & Bläckmon K. 1997. Benchmarking and operational performance: some empirical results. *International Journal of Operations & Production Management* 17(10): 1046-1058.
- WAITRO. 1998. Best Practices for the Management of Research and Technology Organizations – Special Report. World Association of Industrial and Technological Research Organizations (http://waitro.dti.dk/Projects/Bestprac/special_report.htm)
- Woon K.C. 2000. Assessment of TQM implementation: Benchmarking Singapore's productivity leaders. *Business Process Management Journal* 6(4): 314-330.
- Zairi M. & Youssef M.A. 1995. Benchmarking critical factors for TQM Part I: theory and foundations. *Benchmarking for Quality Management & Technology* 2(1): 5-20.
- Yusof S.M. 2000. Development of A Framework for TQM Implementation in Small Businesses. PhD Thesis, Faculty of Engineering, University of Birmingham, November 2000.

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