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Development of a Guidance Model for the Selection of Organisational Improvement Initiatives

A thesis presented in partial fulfilment of the requirements for the degree of Doctor of Philosophy in Engineering and Industrial Management at Massey University, Palmerston North, New Zealand

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Abstract

This research aims to develop a guidance model for selecting organisational improvement initiatives. The final guidance model was developed using the acronym ‘GUIDE’ which represents the five key steps to select improvement initiatives: (1) Goal setting, (2) Understanding relevant improvement initiatives, (3) Identifying decision criteria, (4) Deciding on the appropriate initiative, and (5) Evaluating the decision. This research used mixed methods approach, whereby qualitative data was used more dominantly than quantitative data. Two research phases were involved: (1) Development, evaluation and refinement of a conceptual model; and (2) Development, evaluation and refinement of a guidance model. This research incorporated multiphase concurrent and sequential data collection, which comprises an extensive literature review, a document review, a global exploratory survey, an evaluation survey and seventeen semi-structured interviews conducted in New Zealand, Singapore and Malaysia. Semi-structured interviews and an evaluation survey were used as primary sources of data. The proposed multilayer guidance model is one of the first to focus on the holistic processes to be used in selecting improvement initiatives whereby its contents are explicitly aligned to the Business Excellence Models (BEMs), such as Baldrige Criteria for Performance Excellence and European Foundation for Quality Management (EFQM) Excellence Model. Systems and contingency approaches were incorporated in the development of this model so that multiple perspectives and contexts (e.g. current maturity level of an organisation, benefit of implementing the initiative, ability to gain top management commitment and support) are considered when selecting an initiative. Part of the guidance model also consists of a framework that shows the main improvement initiatives that can be adopted towards business excellence (BE), which can help organisations to choose appropriate improvement initiatives by narrowing down the options according to the areas of implementation and BE maturity. This framework also indicates that the BEM can be used as an overarching framework for selecting and managing multiple improvement initiatives. In addition, this research identified that there were 94 national Quality / BE Awards used in 83 countries in year 2010 and revealed one of the latest and comprehensive list of the Quality / BE Awards worldwide.
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# Abbreviations

<table>
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<tr>
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<th>Description</th>
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<tbody>
<tr>
<td>AHP</td>
<td>Analytic Hierarchy Process</td>
</tr>
<tr>
<td>AIRMIC</td>
<td>Association of Insurance and Risk Managers</td>
</tr>
<tr>
<td>ALARM</td>
<td>National Forum for Risk Management in the Public Sector</td>
</tr>
<tr>
<td>APO</td>
<td>Asian Productivity Organisation</td>
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<tr>
<td>BE</td>
<td>Business Excellence</td>
</tr>
<tr>
<td>BEM</td>
<td>Business Excellence Model</td>
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<tr>
<td>BCM</td>
<td>Business Continuity Management</td>
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<tr>
<td>BI</td>
<td>Business Improvement</td>
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<tr>
<td>BPIR</td>
<td>Business Performance Improvement Resource</td>
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<tr>
<td>BPR</td>
<td>Business Process Reengineering</td>
</tr>
<tr>
<td>CEHE</td>
<td>Consortium for Excellence in Higher Education</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>COER</td>
<td>Centre for Organisational Excellence Research</td>
</tr>
<tr>
<td>CPE</td>
<td>Criteria for Performance Excellence</td>
</tr>
<tr>
<td>EFQM</td>
<td>European Foundation for Quality Management</td>
</tr>
<tr>
<td>ERM</td>
<td>Enterprise Risk Management</td>
</tr>
<tr>
<td>FMEA</td>
<td>Failure Mode and Effect Analysis</td>
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<tr>
<td>GUIDE</td>
<td>Goal-Understand-Identify-Decide-Evaluate</td>
</tr>
<tr>
<td>IRM</td>
<td>Institute of Risk Management</td>
</tr>
<tr>
<td>ISO</td>
<td>International Organisation for Standardisation</td>
</tr>
<tr>
<td>KM</td>
<td>Knowledge Management</td>
</tr>
<tr>
<td>MADM</td>
<td>Multiple Attribute Decision Making</td>
</tr>
<tr>
<td>MCDM</td>
<td>Multiple Criteria Decision Making</td>
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<tr>
<td>NIST</td>
<td>National Institute of Standards and Technology</td>
</tr>
<tr>
<td>NZAS</td>
<td>New Zealand Aluminium Smelters</td>
</tr>
<tr>
<td>NZBEF</td>
<td>New Zealand Business Excellence Foundation</td>
</tr>
<tr>
<td>NZMED</td>
<td>New Zealand Ministry of Economic Development</td>
</tr>
<tr>
<td>NZOQ</td>
<td>New Zealand Organisation for Quality</td>
</tr>
<tr>
<td>PESTLE</td>
<td>Political-Economic-Social-Technological-Legal-Environmental</td>
</tr>
<tr>
<td>PDCA</td>
<td>Plan-Do-Check-Act</td>
</tr>
<tr>
<td>QC</td>
<td>Quality Control</td>
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<tr>
<td>Acronym</td>
<td>Acronym</td>
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<tr>
<td>QFD</td>
<td>Quality Function Deployment</td>
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<tr>
<td>ROI</td>
<td>Return of Investment</td>
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<tr>
<td>SAW</td>
<td>Simple Additive Weighting</td>
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<td>SME</td>
<td>Small and Medium Sized Enterprises</td>
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<tr>
<td>SPC</td>
<td>Statistical Process Control</td>
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<tr>
<td>SPRING</td>
<td>Standards, Productivity and Innovation Board Singapore</td>
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<tr>
<td>SQA</td>
<td>Singapore Quality Award</td>
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<tr>
<td>SWOT</td>
<td>Strengths-Weaknesses-Opportunities-Threats</td>
</tr>
<tr>
<td>TOPSIS</td>
<td>Technique for Order Preference by Similarity to Ideal Solution</td>
</tr>
<tr>
<td>TPM</td>
<td>Total Productive Maintenance</td>
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<tr>
<td>TQM</td>
<td>Total Quality Management</td>
</tr>
<tr>
<td>WSM</td>
<td>Weighted Sum Model</td>
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