A benefits realisation road-map framework for ERP usage in small and medium-sized enterprises

José Esteves
Instituto de Empresa Business School, Madrid, Spain

Abstract

Purpose – The purpose of this paper is to develop a benefits realisation road-map for ERP usage in the context of small and medium-sized enterprises (SMEs).

Design/methodology/approach – Direct interviews were used to collect data from a random sample of 48 MBA students and 87 business managers (CIO/IT directors and CFO roles).

Findings – The ERP benefits road-map suggests that a long-term vision is required in order to obtain a successful realisation of the potential benefits that ERP could bring. Thus, this analysis suggests that ERP benefits realisation dimensions are interconnected, and that managers should perceive ERP benefits realisation as a continuum cycle along the ERP post-implementation. Furthermore, new ERP updates and maintenance projects must take into account the results of ERP benefits realisation auditing to review ERP configuration, correct possible mistakes, and improve the efficiency of some expected ERP benefits.

Research limitations/implications – Although the study focuses on the factors that influence ERP benefits realisation, it fails to differentiate between some factors that may influence the realisation of these benefits, such as size and type of company, ERP system implemented, and organisational context.

Practical implications – The results may help to improve the understanding of ERP success and satisfaction levels, both expected and perceived, from ERP stakeholders. The findings also suggest that auditing the realisation of ERP benefits is a crucial stage in ERP usage phase.

Originality/value – The paper contributes to the current literature in the benefits of ERP systems by defining a benefits realisation road-map to achieve the ERP benefits identified in the literature.

Keywords Manufacturing resource planning, Small to medium-sized enterprises, Company performance

Paper type Research paper

Introduction

An increasing number of small and medium-sized enterprises (SMEs) are upgrading their legacy systems to enterprise resource planning (ERP) systems. According to market research analysts META Group, ERP vendors are working harder to attract SME clients throughout and after 2004/2005. Over the past couple of years, the option for the SME to integrate ERP software into its business has become a more realistic possibility in financial terms. As the business environment gets more challenging, SMEs are now implementing ERP packages to be more competitive, efficient and customer-friendly. However, the SME market poses some unique problems to ERP vendors and implementers.

One of the most important problems is the low level of awareness of the benefits of an end-to-end system. Awareness of the benefits an enterprise business solution could provide – irrespective of the scale of the business – is the critical bridge that was missing between IT and SMEs. Some previous ERP studies have analysed the financial (e.g. Poston and Grabski, 2001, Nicolaou et al. 2003) and economic (e.g. Matolcsy et al. 2005) benefits of
ERP systems. A recent survey performed by Federici (2007) on 50 SMEs shows that 30 per cent of these SMEs declare to have reached an efficiency increase of greater than 20 per cent. However, the existent ERP literature and research (Esteves and Bohorquez, 2007) has not attempted to establish the link between the benefits of and reasons for ERP implementation, or attempted to determine at what point in time the various benefits are expected to materialise. For this reason, this study addresses the need to understand the business benefits that SMEs can obtain through ERP system implementation.

Some analysts and studies have shown that the main reason why organisations are investing in ERP solutions lies in the overriding benefit derived from ERP investment being the integration of diverse business processes to simplify operations for faster decision-making. Analysts at IDC recently pointed out four key drivers, irrespective of company size:

1. corporate growth;
2. improved customer service;
3. efficient distribution system; and
4. reduced operational expenses.

Of these, corporate growth is the most compelling driver. The study concluded that CEOs and other top management personnel have realised that if the organisation is to survive and grow, then ERP is an effective tool that can provide better and faster information and cut costs to increase efficiency. However, SMEs’ perspective on ERP is somewhat different. Among the main benefits pointed out in the business literature that SMEs are beginning to see are significant improvements in financial processes and management, enabling a more effective management of operations and the optimal management of resources. However, Shin (2006) has identified that the adoption rate and the real benefits of enterprise application software are not closely related domestically. Second, in SMEs, enterprise application software facilitating inter-firm relationships is more effective than enterprise application software focusing on internal efficiency. Third, easy-to-understand and relatively long-experienced enterprise applications are more effective than hard-to-understand and brand-new applications. A study of the Spanish ERP market conducted by Grupo Penteo (2002) shows that most of the medium-sized and large Spanish enterprises surveyed do not use the whole functionality of their ERP systems. This aspect may affect the achievement of the expected ERP business benefits. Most of the documentation about ERP benefits has been in the form of individual case studies (e.g. Dolmetsch et al., 1998; McAfee, 1999; Gibson et al., 1999; Buonanno et al., 2005; Schubert, 2007), while experiences on the field show that for the segment of SME, these often fail in recognising the economic and organisational impacts related to the use of their implemented ES. Thus, the question about the realisation of the business value of ERP implementations still remains unanswered.

This study attempts to elucidate ERP benefits realisation along the ERP usage stages in SMEs; thus, it tries to define an ERP benefits realisation road-map for SMEs. Roadmaps are defined as views of a group of stakeholders as to how to get where they want to go to achieve desired objectives (Probert and Radner, 2003). A road-map is an extended look at the future of a chosen field of inquiry composed of the collective knowledge and imagination of the brightest drivers of change in that field (Kostoff and Schaller, 2001; Galvin, 1998). The general road-map is a multi-layered and time-based
chart (European Industrial Research Management Association, 1997), but various types of road-maps have been used, especially technology road-maps, and the existing literature has attempted to classify them into several categories (e.g. Sandia National Laboratories classification).

This article is structured as follows. First, we describe the theoretical background on ERP benefits and ERP usage lifecycle. Next, we present the research methodology used. Then, we present the findings, including the proposed ERP benefits road-map. Finally, we present some conclusions and further work.

**Theoretical background**

Benefits realisation management is an important approach to ensure that projects and programs deliver what they promise: it provides focus, demonstrates value for money, reduces the risk of failure and maximises benefits achieved. However, in IS research, little attention has been paid to this important step. To start, the initial step to define the benefits of ERP.

**An ERP benefits model**

Matolcsy et al. (2000) note that the commonly used analytic frameworks are not appropriate to examine the potential benefits emerging from the use of ERP systems. Thus, although the benefits claimed from ERP system adoption have been identified (see, for example, Shang and Seddon, 2000; Davenport, 1998, 2000) we believe that they still lack an appropriate context. Two factors identified in the literature that seem relevant for establishing an ERP benefits assessment framework are the motivation for implementing the system and the point in time at which benefits are assessed. Markus and Tanis (2000) note that the benefits of ERP system implementation should be assessed in relation to the organisation’s unique goals for the system. Davenport (2000) states that there are different types of benefits and that some types are likely to arise before others do. For instance, benefits from improved transactional processes and common data appear to precede benefits associated with improvements in management and decision making. Previous research (Deloitte, 1999) indicated that there is a discrepancy between companies’ expectations and actual achievements in their ERP implementations.

The first starting point is the identification of the ERP business benefits. Shang and Seddon (2000) created an ERP benefit list from a review of 233 ERP-vendor success stories published on the worldwide web with 34 follow-up interviews to confirm the content of their analysis. The ERP benefits found were classified into five benefit categories:

1. operational;
2. managerial;
3. strategic;
4. IT infrastructure; and
5. organisational (see Table I).

<table>
<thead>
<tr>
<th></th>
<th>Stabilise</th>
<th>Synthesise</th>
<th>Synergise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go live</td>
<td>3–9 months</td>
<td>6–18 months</td>
<td>12–24 months</td>
</tr>
</tbody>
</table>

**Table I.** Deloitte second wave ERP lifecycle
Shang and Seddon (2000) did not attempt to establish the link between the benefits of and the reasons for ERP implementation, or to determine at what point in time the various benefits are expected to materialise. We will use this ERP benefit list as the theoretical foundation for our study.

**ERP usage stages**

The process of achieving additional benefits from an ERP implementation is referred to as “second wave” implementation (Deloitte, 1999). Deloitte (1999) believed that there are a number of phases that occur post-implementation (Table I). In the “stabilise” phase, companies familiarise themselves with the implementation and master the changes which have occurred. The “synthesise” phase is where companies seek improvements by implementing improved business processes, adding complimentary solutions, and motivating people to support the changes. The final stage, “synergise”, is where process optimisation is achieved, resulting in business transformation.

The notion of different stages of ERP implementation is reinforced by Nolan and Norton Institute (2000), who grouped implementations into levels of maturity. They argued that when evaluating costs of an ERP implementation, the company’s previous experience with ERP systems should be considered. Their maturity classifications were:

- **beginning** – had implemented SAP in the past 12 months;
- **consolidating** – had implemented SAP for between one and three years; and
- **mature** – had implemented SAP for more than three years.

It seems reasonable to expect that companies involved in these “second wave” implementations would be either in the “consolidating” or “mature” stages.

**Research methodology**

Initially, we developed an exploratory survey for the data collection. Our initial sample was a group of MBA students. The main reasons for using this initial sample were the easy access to MBA students and their business experience. After the random selection of 48 MBA students from a total of 220 MBA students that had attended an ERP elective, we provided them with a table like the one shown in Table II, and we asked them to define for each ERP usage stage the level of benefits realisation in each stage (as a percentage).

The average age of the MBA students was 28 years old. All the students had more than 3.5 years of previous business experience and they had worked in SMEs. Seventy-seven per cent of the MBA students had a management or related career. As Shang and Seddon (2000) mentioned, middle business managers are the most adequate sample to analyse ERP benefits since they use it more regularly on a daily basis and also because ERP has a stronger impact on their roles than others. Because the users attending these ERP elective sessions were targeted as respondents to the questionnaire survey, the sampling method may be described as judgment sampling or purposive sampling (Churchill, 1991). In this sampling plan, sample elements are selected because they are believed to be representatives of the population of interest and are expected to serve the research purpose of this study.

The second phase of the data collection consisted of a confirmatory survey of 168 managers (this sample included mainly CIO/IT directors and CFO roles) of Spanish SMEs that we had previously identified as having implemented an ERP in previous
<table>
<thead>
<tr>
<th>Dimensions</th>
<th>ERP benefits</th>
<th>Stabilise MBA Managers</th>
<th>Synthesise MBA Managers</th>
<th>Synergise MBA Managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational</td>
<td>Cost reduction</td>
<td>29&lt;sup&gt;a&lt;/sup&gt; 27</td>
<td>39 41&lt;sup&gt;a&lt;/sup&gt;</td>
<td>32 32</td>
</tr>
<tr>
<td>Cycle time reduction</td>
<td>38.5 41&lt;sup&gt;a&lt;/sup&gt; 40</td>
<td>42&lt;sup&gt;a&lt;/sup&gt;</td>
<td>21.5&lt;sup&gt;a&lt;/sup&gt; 17</td>
<td></td>
</tr>
<tr>
<td>Productivity improvement</td>
<td>29.5 30&lt;sup&gt;a&lt;/sup&gt; 46.5&lt;sup&gt;a&lt;/sup&gt;</td>
<td>43</td>
<td>24 27&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Quality improvement</td>
<td>31&lt;sup&gt;a&lt;/sup&gt; 28.5</td>
<td>42 44&lt;sup&gt;a&lt;/sup&gt;</td>
<td>27 27.5&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Customer services improvement</td>
<td>31 31</td>
<td>40 42</td>
<td>29&lt;sup&gt;a&lt;/sup&gt; 27</td>
<td></td>
</tr>
<tr>
<td>Managerial</td>
<td>Better resource management</td>
<td>31&lt;sup&gt;a&lt;/sup&gt; 29</td>
<td>43&lt;sup&gt;a&lt;/sup&gt; 42.5</td>
<td>26 28.5&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Improved decision making and planning</td>
<td>27 28&lt;sup&gt;a&lt;/sup&gt;</td>
<td>45.5 47&lt;sup&gt;a&lt;/sup&gt;</td>
<td>27.5&lt;sup&gt;a&lt;/sup&gt; 25</td>
<td></td>
</tr>
<tr>
<td>Performance improvement</td>
<td>32.5&lt;sup&gt;a&lt;/sup&gt; 31</td>
<td>42</td>
<td>44.5 25.5&lt;sup&gt;a&lt;/sup&gt; 24.5</td>
<td></td>
</tr>
<tr>
<td>Strategic</td>
<td>Support business growth</td>
<td>22&lt;sup&gt;a&lt;/sup&gt; 20</td>
<td>43.5 44&lt;sup&gt;a&lt;/sup&gt;</td>
<td>35 36&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Support business alliance</td>
<td>22&lt;sup&gt;a&lt;/sup&gt; 19</td>
<td>34 34.5&lt;sup&gt;a&lt;/sup&gt;</td>
<td>44 46.5&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Build business innovations</td>
<td>16 16</td>
<td>34.5&lt;sup&gt;a&lt;/sup&gt; 32</td>
<td>49.5 52&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Build cost leadership</td>
<td>17&lt;sup&gt;a&lt;/sup&gt; 16</td>
<td>34 36&lt;sup&gt;a&lt;/sup&gt;</td>
<td>49&lt;sup&gt;a&lt;/sup&gt; 48</td>
<td></td>
</tr>
<tr>
<td>Generate product differentiation</td>
<td>14.5&lt;sup&gt;a&lt;/sup&gt; 13</td>
<td>32&lt;sup&gt;a&lt;/sup&gt; 30.5</td>
<td>53.5 56.5&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Build external linkages</td>
<td>20.5&lt;sup&gt;a&lt;/sup&gt; 18</td>
<td>39.5 40&lt;sup&gt;a&lt;/sup&gt;</td>
<td>40 42&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>IT infrastructure</td>
<td>Build business flexibility for current and future changes</td>
<td>27.5 29&lt;sup&gt;a&lt;/sup&gt; 39</td>
<td>41&lt;sup&gt;a&lt;/sup&gt;</td>
<td>33.5&lt;sup&gt;a&lt;/sup&gt; 30</td>
</tr>
<tr>
<td>IT costs reduction</td>
<td>23.5&lt;sup&gt;a&lt;/sup&gt; 22</td>
<td>40.5 43&lt;sup&gt;a&lt;/sup&gt;</td>
<td>36&lt;sup&gt;a&lt;/sup&gt; 35</td>
<td></td>
</tr>
<tr>
<td>Increased IT infrastructure capability</td>
<td>41.5 43&lt;sup&gt;a&lt;/sup&gt; 32</td>
<td>34&lt;sup&gt;a&lt;/sup&gt;</td>
<td>26.5&lt;sup&gt;a&lt;/sup&gt; 23</td>
<td></td>
</tr>
<tr>
<td>Organizational</td>
<td>Support organizational changes</td>
<td>38&lt;sup&gt;a&lt;/sup&gt; 36</td>
<td>33.5 34&lt;sup&gt;a&lt;/sup&gt;</td>
<td>28.5 30&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Facilitate business learning</td>
<td>26.5 28&lt;sup&gt;a&lt;/sup&gt; 42.5</td>
<td>44&lt;sup&gt;a&lt;/sup&gt; 44&lt;sup&gt;a&lt;/sup&gt;</td>
<td>31&lt;sup&gt;a&lt;/sup&gt; 28</td>
<td></td>
</tr>
<tr>
<td>Empowerment</td>
<td>22.5&lt;sup&gt;a&lt;/sup&gt; 20</td>
<td>43.5&lt;sup&gt;a&lt;/sup&gt; 42</td>
<td>34 38&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Built common visions</td>
<td>30.5&lt;sup&gt;a&lt;/sup&gt; 28.5</td>
<td>32 34.5&lt;sup&gt;a&lt;/sup&gt;</td>
<td>37.5&lt;sup&gt;a&lt;/sup&gt; 37</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Values marked with a superscript are the highest value for each benefit category
years in their enterprises. Initially, each manager was contacted by e-mail and he/she was required to answer a web survey. There were 65 participants. The rest of the managers were contacted by telephone. In total, 22 of these managers answered the survey by telephone. Thus, the final sample was of 87 participants. The average age of business managers was 35 years old. All managers had more than seven years of previous business experience.

For both samples (MBA students and business managers), we added all the results and defined an average ERP benefits realisation percentage for each benefit in each ERP usage stage (see Table II). Next, we discuss the results.

Findings
Table II displays the results of our survey, presenting the each ERP benefit realisation percentage in each stage, and Table III shows the ERP benefits dimension average realisation along each ERP usage stage.

Overall, the findings suggest that all the ERP benefits dimensions are realised in the second ERP stage (“synthesise”), with the exception of the strategic dimension, located in the last stage (“synergise”). Next, we discuss each of these ERP benefits dimensions in more detail:

- **Operational** – The findings suggest that in this dimension, almost all the ERP benefits are reaped in the two initial ERP usage stages (more than 70 per cent in most of the benefits), but mainly in the second stage. The main difference between MBA students and business managers is found in “cycle time reduction” benefit, which has a benefit realisation of 83 per cent compared to the 78.5 per cent of MBA students.

- **Managerial** – The findings suggest that in this dimension, for both MBA students and business managers, all the managerial benefits are realised in stages one and two (more than 73 per cent in these two stages). However, the second stage displays a significantly higher realisation level.

- **Strategic** – The findings suggest that strategic benefits are realised in the second and third ERP usage stages. Almost all the benefits highest realisation level is in the third stage, except for “business growth”, which is in the second stage. Although both MBA students and business managers evidence these trends, business managers perceive strategic benefits as being realised more in the third stage.

- **IT infrastructure** – The findings suggest that IT infrastructure benefits are realised in the first and second ERP usage stages. Business flexibility and IT cost

<table>
<thead>
<tr>
<th>Benefits dimension</th>
<th>Stabilise</th>
<th>Synthesise</th>
<th>Synergise</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBA Managers</td>
<td>MBA Managers</td>
<td>MBA Managers</td>
<td>MBA Managers</td>
</tr>
<tr>
<td>Operational</td>
<td>31.8&lt;sup&gt;a&lt;/sup&gt;</td>
<td>31.5</td>
<td>41.5</td>
</tr>
<tr>
<td>Managerial</td>
<td>30.2&lt;sup&gt;a&lt;/sup&gt;</td>
<td>29.3</td>
<td>43.5</td>
</tr>
<tr>
<td>Strategic</td>
<td>18.7&lt;sup&gt;a&lt;/sup&gt;</td>
<td>17</td>
<td>36.3&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>IT infrastructure</td>
<td>31.3</td>
<td>31.3</td>
<td>37.2</td>
</tr>
<tr>
<td>Organizational</td>
<td>29.4&lt;sup&gt;a&lt;/sup&gt;</td>
<td>28.1</td>
<td>37.9</td>
</tr>
</tbody>
</table>

**Note:** Values marked with a superscript are the highest value for each benefit category.
reduction realisation is done on the second and third ERP usages stages, but mainly in the second stage. The main discrepancy between MBA students and business managers is in the IT infrastructure capability realisation level, which accounts for 73.5 per cent and 77 per cent realisation levels, respectively.

- **Organisational** – The findings suggest that organisational benefits are realised in the second and third stages (71 per cent), with the second stage being the most important (38 per cent). The only exception is “support organisational changes”, which has a higher benefits realisation level in the first stage. Compared to MBA students, business managers think that the “empowerment” benefit has a stronger realisation in the third stage.

Overall, the comparison of results between MBA students and business managers suggests that business managers perceive ERP benefits realisation more in the second (“synthesise”) and third (“synergise”) stages rather than in the first (“stabilise”) stage. This difference is emphasised more in the managerial, strategic and IT infrastructure dimensions. Also, we would like to stress that the difference between the two data samples is not very significant in any ERP benefits dimension.

**An ERP benefits road-map framework**

Using the same analogy of a risk management classification matrix, we coded the dimensions with their realisation level importance: i.e. 1 = most realised, 2 = realised, 3 = less realised. Table IV shows the results. We present a matrix because the only difference between MBA students and business managers is in IT infrastructure dimension, where the less realised stage is the “stabilise” stage for MBA students and the “synergise” stage for business managers.

Clearly, the matrix shows that ERP usage stages two and three are the most influential in terms of benefits realisation. However, stage one appears to be a preparatory stage to realising benefits in the next two stages. This means that managers should expect to realise most of those benefits in these last stages, but they will satisfy need to first the benefits of stage one. Thus, this analysis suggests that ERP benefits realisation dimensions are interconnected, and managers should perceive ERP benefits realisation as a continuum cycle along the ERP post-implementation. This study evidences the importance of generating realistic expectations in a timely manner. A benefits management strategy will enable SMEs to get a real feel for the day-to-day and long-term return on investment (ROI) of ERP.

Based on these findings, we suggest an ERP benefits realisation road-map (see Figure 1).

<table>
<thead>
<tr>
<th>Benefits dimension</th>
<th>Stabilise</th>
<th>Synthesise</th>
<th>Synergise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Managerial</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Strategic</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>IT infrastructure</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Organizational</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**Notes:** 1 = most realised, 2 = realised, 3 = least realised
ERP benefits realisation road-map
The process of achieving additional benefits from an ERP implementation and motivating people to support the changes is referred to as “second wave” implementation solutions. According to Kimberling (2006), benefits realisation is a comprehensive project approach that focuses on identifying, measuring and ensuring the business benefits that are achievable through technology. The ERP benefits realisation road-map includes four main stages (see Figure 1):

(1) Prepare.
(2) Realise.
(3) Achieve.
(4) Auditing.

**Prepare stage.** The first stage of our road-map concerns the activities to prepare the realisation and achievement of ERP benefits. Managers should concentrate in the initiation and development of activities that will influence the next two stages. In this stage is also important to work out users expectations.

**Realise stage.** The second stage concerns the realisation of most of the ERP benefits, especially the ones related with operational, organisational and managerial dimensions. With realisation of benefits on these dimensions, managers can start showing the rest of the organisation the potential of the ERP system and its impact and influence across the organisation.

**Achieve stage.** This final stage concerns the full achievement of ERP benefits, especially the ones with a long-term vision like strategic benefits.

**ERP auditing stage.** This stage concerns a continuous auditing analysis of the ERP benefits realisation in each stage and an estimation of ERP benefits for next stages. In our vision of ERP benefits realisation, we believe is extremely important to emphasise the need to perceive ERP benefits realisation as a continuum, across which managers need to constantly prepare, realise and achieve ERP benefits for the next stages. Thus, after the “achieve” stage, managers should go back to the beginning of the road-map once again in order to monitor the benefits already achieved, but also to improve such benefits. Auditors also need to understand the new environment created with the ERP system. The new system environment requires information systems and integrated

![Figure 1. An ERP benefits realisation road-map](image-url)
auditors. Some studies (e.g. Eckert, 2005) suggest involving internal auditors early in the implementation process to ensure controls are built into the system. Furthermore, during the ERP post-implementation phase, SMEs update their ERP systems. These ERP update projects must take into account the results of the ERP benefits realisation auditing stage in order to review the ERP configuration, correct possible mistakes, or improve the efficiency of expected ERP benefits that have not been achieved.

We agree with Kimberling (2006) that “since a benefits realisation approach measures results, identifies benefits gaps, and implements corrective action to address the gaps, it serves as a wealth of knowledge for future IT projects in terms of what the project struggled with, what went well, and what can be improved in the future”. Also, it is far more reasonable to gain funding for future IT projects when IT managers can point to previous successes in terms of actual business results.

Finally, an ERP benefits realisation road-map should be treated as a “living approach” that continually captures experiences and lessons learned. As the road-map matures, the ERP benefits realisation initiative will reach higher levels of sophistication in a controlled manner.

Conclusions
This research study develops a benefits realisation road-map for ERP implementations in SME. The results of this study could be taken into account in order to define the marketing strategies of ERP vendors and consultants, but also in the understanding of business benefits of ERP systems and their perception from ERP stakeholder viewpoints. Overall, we think that this road-map will help managers to improve forecasting, planning and administration of ERP benefits. The results may help to improve the understanding of ERP success and satisfaction levels, both expected and perceived from the ERP stakeholders. The findings also suggest that auditing ERP benefits realisation is a crucial stage in the ERP usage phase. The next step is the validation of this road-map through case studies in a selected sample of Spanish SMEs. This study also contributes to the existent theory and practice on IS evaluation by taking into account a time perspective on benefits realisation. Most IS benefits models are based on a static view of benefits realisation. This analysis suggests that ERP benefits realisation dimensions are interconnected, and business managers should perceive ERP benefits realisation as a continuum cycle along the ERP post-implementation. We plan to conduct more confirmatory studies in order to validate the model. In future work, we will analyse the possible impact of some variables, such as type of ERP implemented, ERP modules implemented, type and size of company, and organisational context. Furthermore, we will attempt to incorporate existing knowledge about benefits realisation management in the accounting and finance fields.

References


**Further reading**


**Corresponding author**

José Esteves can be contacted at: jose.esteves@ie.edu

---

To purchase reprints of this article please e-mail: reprints@emeraldinsight.com
Or visit our web site for further details: www.emeraldinsight.com/reprints