COMPETITOR INTELLIGENCE: THE REAL VALUE FROM E.R.P. II?

Stuart Maguire  
Sheffield University, s.maguire@sheffield.ac.uk

Habibu Suluo  
Sheffield University

Udi Ojiako  
Southampton University

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COMPETITOR INTELLIGENCE: THE REAL VALUE FROM E.R.P. II?

Dr Stuart Maguire  
Strategy Division  
The Management School  
Sheffield University  
9, Mappin Street,  
Sheffield S1 4DT  
United Kingdom  
Telephone : 0114 2223440  
Fax : 0114 2223348  
s.maguire@sheffield.ac.uk

Habibu Suluo  
The Management School  
Sheffield University

Dr Udi Ojiako  
School of Management  
Southampton University

ABSTRACT

Many organisations have either purchased or are considering the purchase of E.R.P. However, these systems have historically looked inwards to help organisations with their internal systems. In reality the real benefit of these type of systems will be where they interface with the firms’ external business environment – in essence ERP II. To date, several organisations have paid hundreds of millions of pounds for their business intelligence systems. However, it is argued that it is only by taking advantage of modules such as competitor intelligence (CI) where they can in fact realise true benefits from their adoption. This paper focuses on the critical importance of CI for organisations as part of their overall business intelligence (BI) strategy. Purchasing BI software is only stage one. Even though to make better decisions faster, business executives and managers need relevant and useful facts at their ‘finger-tips’ there is often a large gap between the information that decision-makers require and the volumes of data that their businesses collect in their day-to-day business transactions. It will only be those firms that put in place effective and coherent systems, such as CI, that will prosper in today’s turbulent business environment.

1. Introduction

The main aim of this article is to identify the important role that business intelligence, and more specifically, competitor intelligence, can play in future dynamic business environments. It also aims to show how competitor intelligence should be a major component of any ERP II strategy that an organisation adopts. It is also important to find out organisations’ understanding of competitor intelligence and how they plan to use it for gaining competitive advantage. Two case companies were used to underpin this study and both companies have implemented enterprise resource planning (ERP) and use business intelligence in their daily operations. They would appear to be in a good position to go ahead and implement a form of ERP II. A fairly recent definition of ERP II identifies it as, an, “enterprise-wide computing application and deployment
strategy that expands out from ERP functions and achieves integration of an enterprise’s key domain-specific, internal and external collaborative, operational, and financial processes” (Ndede-Amadi 2004).

However, should ERP II be adding extra modules to an existing ERP or is it a totally different way of viewing organisational systems. It is important to try and identify a concise meaning of ERP II for organisations so that they are able to make a decision as to whether it will be an important addition to their business armoury. Historically, the key cornerstones of what is referred to as ERP II have been customer relationship management, supply chain management, and supplier relationship management. The authors would like to add competitor intelligence to this list. Obviously in highly competitive global environments organisations do not operate in a vacuum. The authors strongly believe that by taking advantage of all the facets of competitor intelligence organisations will be able to compete more effectively in the 21st century.

In many instances business is unclear about the potential uses and scope of ERP II. In this context ERP II has the potential to provide a clear flow of consistent, real-time information about their business, markets and competitors within and between disparate systems (Koh and Maguire 2009). Stating that ERP II gathers relevant external information with the goal of delivering the right information to the right people at the right time and in the right format to support a given decision-making process will also not provide the value-added power that many organisations desire (Lea 2007). If it is solely to improve efficiency in the electronic business (e-business) area then it may be missing opportunities (Ndede-Amadi 2004). Even extracting tangible business benefits from ERP software may not be enough for some companies (Fornandel 2005). However, changing internal and external business processes to take advantage of the creation of business networks may promote ERP II as a real business-winning opportunity (Ndede-Amadi 2004, Muller and Seuring 2007). This would be especially true if organisations were able to obtain enough intelligence to add some certainty to their planning procedures. This is where competitor intelligence comes to the forefront of the overall business planning operation.

Enterprise resource planning (ERP) has been adopted by increasing numbers of organisations globally but there has been no certainty that firms have gained real business value from its adoption. Information system implementations that attempt to link up with other organisations and stakeholders may require to be taken more seriously. There appears to be a latent demand for ERP II-type structures and recently writers have identified ERP II as a key driver for organisations in the 21st Century (Xu and Walton 2005). Ideally, intelligence research should be driven by business needs. However, only sparse information on how intelligence, and specifically competitor intelligence, is used in business is currently available to the research community. This article aims to highlight the importance of gleaning competitor intelligence for the purposes of gaining a competitive advantage for your organisation.

2. Background

This is generally regarded as the information age and it could be argued that business intelligence is taking an increasingly important role in business development. It is not the aim of this article to isolate the differences between data, information, knowledge and intelligence although it is useful to debate some of their qualities. Succeeding in
business depends on how well you know your customers, how well you know your competitors, how well you understand your business processes, and how effectively you manage your supply chain and allied operations. Increasingly, success is dependent on how well you know your competitors and this is differentiating world-class organisations from the also-rans (Maguire et al. 2009). The improved provision of competitor intelligence will facilitate these processes.

The need for up-to-date, accurate information is crucial for an organisation’s decision making. It could be argued that the decision making process depends on several key areas including the nature of the organisation and how progressive it is in grasping new opportunities. However, the effective accumulation, analysis, and use of competitive intelligence may provide the 21st Century enterprise with a crucial critical success factor (Calof and Wright 2008). Knowing where to find information is often the key to success and it is argued that increasing economic pressure pushes companies towards the need to continually gain the competitive edge over similar organisations (Burke 1995). Thus, the search for current, valid, competitor intelligence is a vital ingredient towards the success of a company (Trim and Lee 2008, Liu and Wang 2008).

In a fairly recent study, the Economist Intelligence Unit (EIU 2005) conducted an online survey of 122 senior executives in Western Europe, 68 of whom were based in the UK. Two-thirds of the companies in the survey complained that while their information systems generated huge volumes of data, executives could not act on much of it. It was generally felt that too much information could be impeding decision-making. Over half of the executives said that information technology’s (IT) failure to prioritise information was the main barrier to effective decision-making (EIU, 2005). This is one significant finding as far as this study is concerned. Simply providing access to an ocean of information, assisted by IT, is not enough. Executives need knowledge delivered in a form they can quickly interpret and act on (Fleisher 2008).

The volatile increases in competitive pressures have forced businesses throughout the world to face unprecedented challenges to remain viable and strive to achieve sustainable growth. Consequently the importance of business intelligence, and especially competitor intelligence, to their potential survival should not be underestimated. With business intelligence, companies can quickly identify market opportunities and take advantage of them in a fast and effective manner. However, according to some writers (Vitt et al. 2002), more and more organisations are realising that becoming increasingly ‘rich’ in data does not necessarily result in a better understanding of their business and markets or even provide improvements in operational performance. It is argued that the most successful companies are those that can respond quickly and flexibly to market changes and opportunities with an effective and efficient use of data and information. (Turban et al. 2004). Accordingly, quality, flexibility and responsiveness are strategic issues for organisations to assimilate; otherwise more flexible organisations may take over their position by offering better perceived value (Wilson, 1994). Organisations must collect business intelligence that really adds value to their business. Generally speaking authors have spent more time researching information and knowledge than intelligence. At this stage it is worth trying to isolate the constituent parts of intelligence.
3. Intelligence

The previous section has shown how firms increasingly require accurate information and intelligence to survive in today’s turbulent business environment. This section shows that intelligence is a complex commodity and needs to be procured and handled in particular ways to suit context and organisational requirements. Intelligence is a term bearing important meanings in competitive business environments. Survival of businesses can often be reliant on a good source of business intelligence, which can range from data about their existing customers to intelligence about their competitors (Maguire and Robson 2005, Maguire et al. 2009). Nevertheless, sometimes information is collected without any clear purpose in mind but merely to build up a background understanding of the environment (Curtis and Cobham 2005). In a wider sense intelligence is a general mental capability that involves the ability to reason, plan, solve problems, think abstractly, comprehend ideas and learn.

The Society of Competitive Intelligence Professionals (www.scip.org) defines intelligence as a process of ethically collecting, analysing and disseminating precise pertinent, specific, opportunistic, predictable and actionable information about the business environment, competitors and the organisation itself (Cavalcanti 2005). Thus, organisations must adapt to their environments in order to survive and prosper (Koh and Maguire 2009). Intelligence is creative and human reasoning enables recognition of relationships between things, the ability to sense qualities and spot patterns that explain how various items interrelate (Turban et al. 2004). If these qualities are not incorporated into the ERP II ‘package’ then organisations may not be attaining the full potential from these systems. Moreover, intelligence consists of identifying the problems occurring in the organisation, and it includes several activities aimed at identifying problem situations or opportunities (Laudon and Laudon 2008). It also includes the collection and analysis of data related to the identified problems (Alter 2002). In addition, it is argued that intelligence is related to the ability to create information rather than merely to locate it or uncover it from a mass of data. Others argue that intelligence is about information gathering and analysis; and the foundations of intelligence are discipline and honesty (Friedman et al. 1997).

It can be argued, in a business sense, that the essence of intelligence begins with environmental scanning activities (Cavalcanti, 2005, Calof and Wright 2008). In fact, theory in the intelligence process has its heritage in environmental scanning. However, the topic has more recently been examined under the labels of business intelligence and market[ing] intelligence (Nitse et al. 2003). According to Yasin and Yavas (2003), inadequate environmental scanning may cause a business to miss the trend in shopper preferences hence cause, for example, shopper migration from town stores to suburb malls. Shell conducted a study of thirty businesses that had survived for more than seventy-five years. Its findings suggested that the capacity to absorb and understand the environment more rapidly than competitors was critical for survival (Cavalcanti 2005). It is becoming more apparent that organisations will have to become smarter in their collection and utilisation of business intelligence. More specifically, they require intelligence about their rivals that can make their strategic planning procedures more effective. This competitor intelligence could provide firms with the strategic edge in an increasingly competitive global business environment.
4. Business & Competitor Intelligence

It is difficult to imagine how successful organisations can make valid decisions without a rigorous knowledge of their business environments. Business intelligence is similar to military intelligence in that it focuses largely on the environment (Cavalcanti 2005). According to ESRI (2005) military intelligence is a process of gathering and analysing data that allows understanding of the weaknesses of the enemy and being able to take advantage of those weaknesses when planning an attack. Hence, the better you know your enemy the more successful will be your military campaign. At one level it could be argued that business intelligence (ESRI 2005) is about understanding the needs of the business and its customers such that the business can take advantage of that knowledge to serve its customers better than one of its competitors.

The term business intelligence, also known as BI, is a multi-faceted concept defined and described differently by various scholars. Vittel et al. (2002) describe BI based on three different perspectives; converting data into information, making better decisions faster and using a rational approach to management. They identified that in the past decade, many authors have treated BI primarily as a technical topic, without paying much attention to the business-winning potential of enhanced BI, such as securing competitive advantage, improving operational efficiency and maximising profit. BI, in theory, is the opportunity to bring together information, people, and technology to successfully manage an organisation. This broad set of information gathering activities and storing in companies’ databases, while observing the UK Data Protection Act 1998, is required to inform managers how well the organisation is performing and to let them know where a problem exists (Laudon and Laudon 2008). There is a greater scope for sharing intelligence, especially for small and medium-sized enterprises (SMEs), following the growth of extranets, inter-agency cooperation, strategic alliances, and virtual organisations (Tanev and Bailetti 2008, Maguire et al. 2009).

It is difficult to imagine how any organisation can take part in business planning without knowledge of its competitors’ intentions. Many businesses use intelligence to keep tabs on their competitors, gleaning data about new product developments, new plant investments, promotional activities, managerial changes, sales force activity, pricing information and the like (Qiu 2008). Competitor Intelligence (CI), even more than BI, is like military intelligence as it focuses predominantly on the environment and also on our ‘competitors’ (Cavalcanti 2005, Maguire et al. 2009). The better you know your competitors, your customers, and your own business, the better you will be able to compete in the marketplace. Gaining an advantage from intelligence can only be achieved through understanding all the different facets of data.

According to Jelecos (2005), BI refers to the product and process of combining and analysing significant amounts of data from multiple disparate sources and extracting meaningful and actionable insights such as trends, probabilities and forecasts (see Figure 1). This is putting a lot of pressure on the effective and efficient design of the data warehouse.
BI can mean different things to different people; two imperatives tend to drive all BI initiatives: for some, BI means finding information currently “locked” or hidden away in multiple systems, divisions or operations. For others, it means planning for the future and evaluating different alternatives (Menninger 2005). Moreover, BI has traditionally been used for supporting long-term strategic planning and short-term tactical tasks such as campaign management and if the company has a good idea of where it currently stands in terms of BI capacity, and what its future targets are, the path to its targets should be relatively clear (Lewis 2001). According to Vitt et al. (2002), BI is in fact performance management, an on-going cycle by which companies set their objectives and goals, analyse their progress, gain insight, take action, measure their success, and start all over again (see Figure 2).
The intent of BI is to help decision makers make well-informed choices and an ideal outcome of BI would be a situation where better decisions are made in all areas of the firm. BI is the process for increasing the competitive advantage of a business by intelligently using available data for effective decision-making (Koh and Maguire 2009). In BI, decision support is about using information wisely and it aims to provide a warning about important events like takeovers, market changes, and staff performance, so that preventative steps are taken (Ananthanarayan 2002). Furthermore, BI may improve analysis and better decision-making to improve sales, customer satisfaction or staff morale. Staff at all levels of an organisation: managers, sales representatives, order-entry or point-of-sale clerks, and supply-chain workers all work with information. BI allows an organisation to empower people to make decisions at their point of maximum impact, accelerating the speed of effective decision-making. Turban et al. (2004), argue that ‘placing strategic information in the hands of decision makers aids productivity, empowers users to make better decisions, and improves customer service, leading to greater competitive advantage.’ With regard to competitor intelligence more competence may be required in providing a clear insight (see Figure 2) for the organisation as data may be collected that is unstructured and informal.

5. Applications and Organisational Structure

According to Gartner Research (2002), a BI study in which 60 percent of respondents were from Europe and 30 percent of respondents were from the United States, BI applications in the United States are used for profitability analysis, corporate performance management (CPM), supply chain management (SCM) and ERP, activity-based costing (ABC), customer relationship management (CRM) analytics, and supplier analytics. In Europe, however, BI applications are not vastly different; they are used in profitability analysis, CRM analytics, SCM and ERP, CPM, ABC and supplier analytics. There is no specific category for competitor analysis. In addition, the speed at which decisions are made in more open organisations is likely to be faster than in traditional structures. Therefore, there is greater opportunity to surprise
competitors with new products and/or services. This is also important information for the vendors and developers of ERP II. It will certainly not suffice to produce generic software with a philosophy of ‘one size fits all’.

Ostensibly, with business intelligence the better you know your customers, your competitors, and your own business, the better you will be able to compete in the marketplace. However, the authors argue that gleaning and storing business intelligence about competitors is an art rather than a science and it does not fit into the normal data processing model. According to Sood (2002), this is a clear migration from what ERP stood for: automating functions within an enterprise. Gartner (2002 cited by Sood (2002)) defines ERP II as a business strategy and set of industry-domain-specific applications that build customer and shareholder communities’ value network system by enabling and optimising enterprise and inter-enterprise collaborative operational and financial processes (see Figure 3).

Companies are constantly looking for ways to take costs out of business operations while simultaneously building capabilities that support business growth. There is a persistent need for comprehensive information and analysis capabilities to support the business objectives. The requirement for accurate analysis is highlighted by increased environmental pressures such as increased competition. The environment produces forces of great impact that can define an organisation’s success or failure. The increase in environmental turbulence, competition or hyper competition and business uncertainty is a key ingredient for the appearance of BI (Cavalcanti 2005). BI is the ongoing process of monitoring the competitive environment in order to identify opportunities to act on or threats to be avoided. Thus, intelligence is used in analysis and interpretation of data from within and outside the companies in order to make

![Figure 3: Getting to ERP II](Source: Adapted from Gartner (2002, cited by Sood (2002))

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sound decisions (see Figure 4). Once again, there is pressure on the companies’ data warehouses to be flexible enough to respond to the increased demands of decision-makers in these organisations.

This is more than business reporting as the requirement grows to use BI and business analytics to reduce the uncertainty involved in managing a large enterprise. According to Alter (2002), the focus of research has been on intelligent agents – autonomous, goal-directed computerised processes that can be launched into a computer system or network to perform background work while other foreground processes are continuing. These agents include e-mail, data-mining and news. However, to be effective at extracting intelligence from the business environment it may be necessary for a group of staff to have a well-defined set of key competencies (Maguire et al. 2009). Organisations are willing to purchase BI software for billions of pounds with no guarantee it will provide the full range of intelligence that they will need to make effective business decisions in the short and long-term. The following section gives an insight into how two organisations are trying to make sense of quite a complex area.

6. Case Companies

It is interesting to analyse how organisations view business intelligence in today’s highly competitive business environment. It is also interesting to compare the companies’ use of CI and BI in relation to current conventional wisdom in this area. The authors decided to interview senior management at two large organisations in the United Kingdom. The interview schedule was developed over several weeks as it was clear that this would not be a stereotypical interviewer-interviewee situation. The respondents were loathe to talk about certain issues and that was understandable.
Even though data protection legislation appears to be concise the collection and storing of information concerning competitors seems to be a grey area that is worthy of further research. However, in certain areas the respondents were extremely forthcoming and the authors were pleased with the issues explored. It is important to treat this research area delicately until there is a general consensus about the validity of storing competitor intelligence. This will have major repercussions for those organisations that may view the analysis of competitor intelligence as a major reason for investing in ERP II. The two organisations will be referred to simply as ORG1 and ORG2.

It was identified in both ORG1 and ORG2 that to make better decisions faster, business executives and managers need relevant and useful facts at their ‘finger-tips’. But there is often a large gap between the information that decision makers require and the volumes of data that a business collects in its day-to-day business transactions. This is often referred to as the ‘analysis gap’ (Vitt et al. 2002). To bridge this gap, organisations make significant investments in the development of information systems to convert raw data into useful information. The most effective information systems access huge volumes of data and deliver relevant subsets instantly to decision makers in a form to which these people can easily relate.

Information management is at the heart of intelligence and means knowing what to do with collected information, knowing what is important and what is not, what can be discarded and what must be preserved, and how to make certain that valuable information is accessible and not lost in the detail (Friedman et al. 1997). To achieve this, both ORG1 and ORG2 have established their intelligence teams at their head offices to analyse the huge amounts of collected and stored data. Furthermore, it is also argued that intelligence analysis has a much clearer purpose, focus and method. It was confirmed in ORG2 that their foremost purpose is to translate data into information, and information into a particular type of knowledge called situational awareness. Managers and executives need information delivered to them as knowledge in a pre-digested form so that they can, with minimal effort absorb it and turn it into situational awareness. Situational awareness, then, is the knowledge of the whole situation (the ‘big picture’), constructed out of the pieces of information that are surging towards managers and executives, that can provide them with the knowledge needed to make decisions for competitive advantage. However, organisations must be clear as to whether they have staff with the required competencies to fulfil such demanding roles. It is interesting to isolate some of the key issues in the debate that link improved information/intelligence to improved decision-making.

Generally, decisions are made based on the information available. Informed decisions are derived from well structured, internal and external information. This seems to be similar to the strategies put in place by ORG1 and ORG2. BI helps managers make better decisions faster at both strategic and operating levels. The primary goal of BI is to help people make decisions that improve a company’s performance and promote its competitive advantage in the market place. In short, BI encompassing CI, empowers organisations to make decisions faster (Vitt et al. 2002).

The BI Cycles for ORG1 and ORG2 are quite similar to those proposed by Vitt et al. (2002). Data from many sources are typically analysed and this can lead to insights –
many small ones, and, sometimes, significant ones. These insights suggest ways to improve their business processes and when acted on can then be measured to see what is working. The measurements also provide more data for analysis, and the cycle starts afresh (Figure 2). Making better decisions means improving parts of the process, resulting in fewer poor decisions and more superior ones. Better decisions result in a better achievement of the company’s objectives like maximisation of profits. BI helps better decision making by analysing whether actions are in fact resulting in progress toward company’s objectives. However, according to Cooke and Slack (1991), a company’s objectives are unlikely to remain constant in the long term. Even if the prime objective –‘to survive’ - remains unaltered, the means of achieving this, and therefore the other lower level objectives of the organisation, will change over a period of time. Cooke and Slack (1991) argue that changes occurring in the organisation’s environment, and changes occurring in the organisation itself, are the two major reasons for companies changing their objectives. With BI, changes are identified and informed decisions are made.

As for the BI role, deciding what is a better decision for ORG1 or ORG2 is best accomplished with a clearly stated set of objectives and a plan to achieve them. This relationship between a company’s overall plan and BI is not a ‘one-way street’ simply receiving the plan and using it as the scale for measuring the quality of decisions. CI has a major role to play in creating those strategies and plans. It is about making better decisions faster, and the strategic decisions are the ones where CI is the most indispensable in providing a potentially sustainable competitive advantage (Maguire et al. 2009). The retail (clothing and food) sector where ORG1 operates is highly competitive and business opportunities are extremely time sensitive as compared to the construction industry where ORG2 operates. Businesses that identify opportunities but decide too slowly how to take advantage of those opportunities will lose out to their more agile competitors.

It is not always possible to view the provision of CI as crucial in all areas of the business. The study evidenced that competitive advantage is concerned with creating and sustaining superior performance and is determined out of the value package a firm is able to create for its customers. Two types of competitive advantage were identified in ORG2:

1. where low cost methods of production and operation allow a firm to pass to customers lower prices for equivalent benefits, and,

2. where the provision of unique or differentiated benefits outweigh the need for a lower price.

These were in agreement with Porter’s (1985) competitive advantage arguments, except that sustaining profits above the industry standard was not confirmed for ORG2 due to limited access.

The two companies, ORG1 and ORG2, consider reliable information as an important driver for all decisions they make; thus they search also for competitors’ information. The role of information in creating competitive advantage for an organisations’ business strategy is crucial. The presence of quality is necessary for information to be useful in the creation of competitive advantage. ORG2 argued that quality is its
priority. The quality, in this sense, means quality of information, as measured by its timeliness, accuracy, and its accessibility to all those who need it. It also means quality of service, measured by a focus on customer needs and a faster and more accurate response to inquiries and problems (Alshawi et al. 2003). The external information search and collection for ORG1 and ORG2 were in line with the companies’ business objectives and strategies, satisfying customers for profit.

The benefit that can be obtained from the field of marketing information or marketing intelligence, for example, is to know the reactions of potential purchasers both to their products and/or services to those of their competitors, and to those still to be developed. Xu and Kaye (1995) argue that external information, such as marketing information, is of strategic importance, since strategic decisions are primarily long term with a balance towards an external focus, whereas operational decisions are primarily short term and have an internal focus. The two companies, despite the fact that they apply BI differently, consider CI as important in getting reliable competitor information and for making informed decisions, hence gaining a lead over their competitors.

It is argued that if a firm is to succeed in its business objectives, it will need to access information which adds value to decision making, and which, when analysed, enhances competitive advantage (Maguire and Suluo 2008). These companies’ competitive capabilities depended firstly on their ability to identify and take account of competitive forces and how they change, and, secondly, their competence in mobilising and managing the resources necessary for a chosen competitive response over time (Turner 1991).

ORG1, however, had more competitive advantages than ORG2, with the use of a data warehouse, which offers the significant potential of a repository of text-based or qualitative data providing a 360° view of customers by collecting profile information from a range of sources. Once again, the data warehouse can only provide the potential for success and it is up to the organisation to put procedures in place to take advantage of this data store. The following sections will provide a discussion of the material covered in the paper as well as a series of conclusions and some ideas for future research.

7. Conclusions

This paper has put forward business intelligence (BI), and specifically competitor intelligence (CI) as a potential driver for gaining success from the implementation of ERP II. The authors can see a potential danger from viewing ERP II as an ‘add-on’ to enterprise resource planning (ERP). The argument is put forward that the addition of ERP II to a firm’s armoury is dissimilar to adding several modules to an existing software suite but is actually a paradigm shift in relation to managing systems, relationships and expectations. CI is not only a business-winning necessity for the organisation but potentially a critical success factor for ERP II. BI and CI have been defined differently by the authors and applied differently to organisations.

However, CI is understood and applied differently by ORG1 and ORG2. The differences are caused by situational awareness created from not only data and information analysis but also environmental analysis. It can be argued that there are
four main stages in relation to both CI & BI in general: collecting data and/or information, converting data to information, decision-making, and a rational approach to management. It is specifically decision-making of a strategic nature that has the closest links to competitor intelligence. It is difficult to imagine how organisations can constructively formulate business plans without a clear insight into the corresponding strategy of their competitors. In theory, an ERP system has the potential to integrate, through software, the various departments within an organisation. ERP II expands out from ERP functions by linking an organisation’s processes and connecting them directly with the systems of suppliers and customers. With competitor intelligence the stages of data collection and analysis must be undertaken without any direct links to external systems.

It can be argued that the importance of CI grows when companies extend their business processes out through ERP II. However, the two companies that participated in this study were not able to confirm the importance of CI after the implementation of ERP II. The findings of the research showed that ORG1 and ORG2 use both active and passive intelligence to collect competitors’ business data and information while observing confidentiality, ethical issues, and the Data Protection Act. External data sources are becoming increasingly important in the information equation and this can be structured or unstructured. This can include customer taste/fashions, brand perceptions, market trends, price trends, competitors’ brands, product quality, and competitors’ promotion strategy. In addition, third party information, that is publicly available, is also collected by companies. Thereafter, the intelligence is analysed to give situational awareness.

Data and information collection procedures can also contribute to the differences in companies’ understanding of CI (Maguire and Suluo 2008). The differences result from the difficulty of having a formal procedure for competitively collecting and using intelligence information; and the fact that formal systems play a limited role in providing intelligence information as compared to external sources of information. As far back as 1974, Henry Mintzberg, argued that managers find formal systems of almost any type too limited for their purposes hence they spend a great deal of their time in collecting grapevine information – gossip, hearsay, speculation – which they consider likely to be useful and timely. This may be very difficult to collate in a meaningful and effective way. It has also been argued that the world of CI and BI does not have a body of rules like those that support lawyers and accountants (Vitt et al. 2002). This is a very important point as databases and data warehouses require formal rules and procedures to run efficiently.

In essence, the collection of data and information is driven by the necessity of getting an insight from its analysis. The results of analysis are useful in making informed decisions for the purpose of delivering superior products and services, satisfying and locking-in existing customers, and attracting potential ones; thus, maximising companies’ profits. Based on the Vitt et al. (2002) argument, therefore, the purpose of analysis in CI is to present the decision maker with a full and comprehensive awareness of what is going on around him/her in such a way that he/she can make a decision or request and receive additional, detailed information quickly and efficiently. The company with the best employees, who make correct and timely decisions, wins. But how do you ensure that employees, at every level of an organisation, make the best decision they can? The answer to this could be identified
as the crucial role of CI. Managers and executives make decisions based on their specific situational awareness. To succeed in the era of global competition, they need relevant, timely and accurate information concerning their business rivals.

To achieve a competitive advantage requires companies to quickly identify market opportunities and to take advantage of them in a fast and effective manner. However, it would be difficult to have any certainty in business planning without a modicum of knowledge about our competitors’ situation. CI can make this a reality. The primary goal of CI is to help in making decisions that improve a company’s performance and promote its competitive advantage – making consistently better decisions sooner will provide a competitive advantage (Maguire et al. 2009). It supports a given decision making process placing strategic information in the hands of decision makers empowering them to make better decisions leading to greater competitive advantage (Turban et al. 2004), and the outcome of CI is better decisions that improve and optimise business processes (Maguire et al 2009).

8. Future Issues and Research

Moreover, in an attempt to build CI theory the authors found that there is no one best way of using CI and if firms were successful in their application of CI for competitive advantage it depended mostly on the capability of their users, managers and executives rather than the software. Its successful application in one organisation may not lead to success in others. This is certainly an issue worthy of further research. It also should put extra pressure on the designers of CI systems to make them flexible enough for individual organisations to take advantage of their key benefits. It would certainly be wrong for ERP II vendors to make extravagant claims about the potential benefits of their products if these benefits cannot be realised in a real world situation.

It would certainly be helpful to potential purchasers of ERP II, incorporating a CI module, to know exactly what they are buying. It is important that they know the potential as well as the limitations of any proposed system. However, the difficulty may be in the potential – ERP II may only give the organisations the basic raw materials. They may not have the human resources to take advantage of the product. This will certainly be true with regard to competitor intelligence. The onus will be on the organisations to identify what extra resources they require to ensure not only a successful implementation but also sustainable benefits from ERP II. This could be a risky and potentially expensive process. In essence, can ERP II provide real ‘business-winning’ opportunities for organisations? The authors believe that intelligence, and specifically competitor intelligence, should be a major cornerstone of any ERP II system. Organisations must be able to adapt to their current and future business environments in order to survive. Without CI their chances may be greatly reduced. It is important that business researchers are aware of the utilisation of this intelligence in decision-making activities. Armed with this information it should be easier to design effective systems in the future.

Small and medium-sized enterprises may be the big winners in the future. They may be agile and flexible enough to take advantage of even smaller quantities of BI and CI. They may not be saddled with existing legacy systems that formalise the decision-making process in a time-consuming way. Most large organisations will be
laying ERP II on top of their existing ERP modules. This may not be the most advantageous strategy for a dynamic global business environment. As already mentioned, Sood (2002), put forward a very strong argument to view ERP II completely differently from ERP. This may become more problematical when it is realised that it is usually the same people involved in the implementations of the two systems. Some extra ground rules may be required by organisations. The Data Protection Act and its underlying principles form a reasonable framework for most firms. However, many organisations will not have experience of combining informal and formal information into systems. It would be interesting to identify how organisations cope with this ‘mix’ of data, information, knowledge, and intelligence. What strategies might organisations employ to store and analyse informal CI? Are there any lessons to be learned from the research that has been undertaken in the area of knowledge management?

Will the implementation of increasing numbers of CI systems provide any long-term insights into the effective design of data warehouses? There will be an inordinate amount of pressure on system designers to provide organisations with tailored, rather than generic, formats so that they can realise the potential from the business intelligence they have been gathering. Will organisations be able to find the data, information, or intelligence that may be ‘locked away’ in their current systems and configurations? There is a need to conduct longitudinal research in a series of organisations that are implementing ERP II. It would be interesting to gain long-term access to staff who are given the responsibility to deal with the CI used by the firm. It would also be important to make the link with the decision-making process. Ideally, it might be possible to make a direct link between better intelligence, better decision-making, and increased profitability. Similarly, it would be interesting to analyse the potential sustainability of these systems.

Finally, the link between competitor intelligence and ERP II should be researched in more detail. However, researchers may find similar problems as the authors in terms of restricted access to information. It would be interesting to observe whether the vendors change their perspective on this issue in the ensuing years. In terms of computing theory it could be argued that the vendors may be getting ‘prematurely physical’ in relation to the design of ERP II!

9. References


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