

# The Changing Role of Management Accountants; Evidence From the Implementation of ERP Systems in Large Organisations

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## **Abstract**

Enterprise Resource Planning (ERP) Systems are among the most topical subjects in the current business environment. Organisations implement these systems to become more efficient as well as integrate and modernise the whole business. This study examines the impact of ERP systems on the changing role of the management accountant. The main objective of this research is to investigate the role of ERP in an organisation and examine the impact that ERP has on the role of the management accountant as it evolves from a traditional role to a more dynamic involvement in the business.

**Keywords:** Enterprise resource planning systems, Organisations, Change management, Management accountant

## **1. Introduction**

It is clear in today's competitive business environment that advances in technology are having a significant effect on how business is operated. Businesses are benefiting from the automation of many processes. The emergence of ERP systems offer businesses a set of integrated application modules which span most business functions (Scapens and Jazayeri, 2003).

The objective of this study was to assess the effect of ERP systems on the management accountant in a number of departments in a particular organization (Company X). The study reviews the current relevant management accounting and ERP literature. A number of semi-structured interviews were also conducted with five management accountants each working in a different department in Company X.

Company X Profile: The organisation is a multinational subsidiary with a large workforce and a significant role for accountants. Company X has invested heavily in Information Systems.

Interviewees - average of five years experience with Company X

- (1) Senior Budget Analyst
- (2) Senior Financial Analyst
- (3) Senior Manufacturing Analyst
- (4) Budget Analyst
- (5) Accounting Analyst

## **2. ERP Systems and the effect of ERP on the Management Accountant**

ERP is a broad term for any software application that integrates all business processes and data into a single system (Waxer, 2006). ERP systems can be described as integrated software packages that control all personnel, material, monetary and information flows of a company. They are composed of several modules, such as human resources, sales, finance and production which provide cross-organization integration of data through embedded business processes. As these ERP systems are integrated, all data are available to all personnel throughout the organisation at any time. These software packages can be customised to cater for the specific needs of an organisation (Esteves and Pastor, 2001; Granlund and Malmi, 2002).

ERP systems have become the system of choice for the majority of companies. These systems have changed the way accounting information is processed, evaluated and reported throughout the business. ERP systems are comprehensive systems as they operate throughout the entire company maintaining large amounts of data. They are also modular systems which are based on a client/server technology. Data are stored in a single database, which

eliminates the need to update data in several different subsystems (Davenport, 1998; Rosemann, 1999). ERP can help companies to arrange data flows and provides management with direct access to a wealth of real-time operating information. This can help companies to achieve productivity gains and time savings. By providing universal, real-time access to operating and financial data, the systems allow companies to streamline their management structures, creating flatter, more flexible, and more democratic organisations (Davenport, 1998; Ross, 2000; Jackling and Spraakman, 2006). The ability of ERP systems to simplify business processing and provide time savings for the company while simultaneously improving customer service are among the main reasons for the success of these systems.

The Institute of Certified Management Accountants (ICMA, Australia) describes the management accountant as someone who applies his or her professional knowledge and skill in the preparation and presentation of financial and other decision oriented information in such a way as to assist management in the formulation of policies and in the planning and control of the operation. The changes which are affecting the core role of the management accountant are in large part due to the popularity of ERP systems such as SAP and Baan, particularly in large companies (Foote, 2006; Jackling and Spraakman, 2006; Bae et al. 2004; Booth et al. 2000; Burns et al., 1999; Davenport 1998).

In this new environment the management accountant must acquire a broad knowledge of the business, and add value to the organisation by bringing financial expertise to the management process and participating as team players. The management accountant must now move into the spotlight and become an integral part of the management team by using a broader range of skills, utilising both financial and non-financial indicators; taking decision-making roles in cross functional teams; and integrating operational and strategic control. The management accountant must broaden the nature of their role and become a strategic manager (Collins, 2000; Murphy, 2004; Parker, 2002; Pierce, 2001).

In a survey conducted by Doran and Walsh (2004) on the effects of ERP implementation on accounting techniques and practices in Ireland, 73% of respondents believed that the implementation of ERP systems had an impact on accounting techniques and practices within their organisations. The survey also concluded that more than 75% of respondents believed that the implementation of ERP systems had an effect on the role of the management accountant (p.11-12). This was reflected in Company X where a senior manufacturing analyst stated;

*“Our core activities now involve monthly close and pre-close reporting. During this time we are looking at the overall figures but during the month we are looking at strategic ways to cut back costs. We are now meeting with and partnering with operations on a regular basis rather than giving them month end results. As a result we are getting to know the business better and understand their processes. We have also seen a change in the way that operations work. In the past they have wanted to spend as much as possible but they now have factory targets and have become more responsible in their spending. We are both working together.”*

### 3. Findings

Previously Company X operated on a less integrated system which involved a number of inter-related subsystems developed internally. The company now uses ERP applications to manage and control many of its core business processes including production and materials management, sales and distribution, and a variety of financial and accounting functions. Under ERP the flow of information from one area to another is seamless. Interviewees commented;

*“Suppliers can see through ERP when they needs parts, materials etc. Data on all goods in/out are accessible via the ERP system so the whole transaction from start to finish is completed via ERP”. (Senior Accounting Analyst)*

*“Our ERP system is understandably complex considering there are thousands of suppliers worldwide both direct and indirect. The traditional ERP system was essentially a manual process. It involved a number of different systems where each process linked with a different system which achieved the same results...eventually”. (Budget Analyst)*

Interviewees estimated that management accountants were spending up to 30% of their time using ERP.

*“ERP has integrated the whole business. It does not just look at finance/purchasing. The whole business is operating on one tool. Everything is done online. We can see where a payment is, how long it will take and where the payment is at a certain time. Our finance department is heavily reliant on the ERP system”. (Senior Manufacturing Analyst)*

New techniques have integrated new roles and responsibilities into the management accountant role. Management accountants have had to move into the spotlight and become recognised as agents of change in the organisation.

*“The days of the management accountant being a number-cruncher is over....The accountant now looks at the way we do business and looks for process/productivity improvements. In the past we may have spent 50% of our time number-crunching but now with the help of ERP we can do the same quality of work in 25% of the time. This time*

*saving allows us to spend more time on value-added projects.” (Budget Analyst)*

#### **4. Benefits of ERP**

The main benefits of using ERP systems identified could be summarised as follows.

##### *4.1 Improved Efficiency*

The introduction of ERP has seen the reduction in the amount of communication between operation partners and finance personnel. This is important to both parties as most queries can now be answered with the use of ERP. This allows time for staff to work on more beneficial/value-add tasks.

*“Meetings with operation partners have decreased with the introduction of ERP. Meetings now involve initiatives to cut back spending. We are now partnering with operations rather than dealing with their queries and giving them month-end figures. We have learned to understand their processes.” (Senior Manufacturing Analyst)*

##### *4.2 Real Time Advantage*

The facility that ERP offers for “Real-Time” processing is crucial at month end considering the tight time lines available.

*“At month end ERP is essential as you are working with time lines and within tight deadlines.” (Budget Analyst)*

*“We can see the use of the real-time advantage when we are booking accruals. We cannot release an accrual until the invoice hits the spending report. Our ERP system enables us to see exactly when the invoice is going to hit the spending report.” (Senior Budget Analyst)*

##### *4.3 World-wide Integrated System*

The fact that ERP is a world-wide system allows both budget owners and the finance function to see any world-wide transaction at any time. Therefore the information on purchase orders, invoices and payments is available perpetually.

*“The integrated corporate wide system is crucial in the day to day running of the business. It is important because we work in sync. With Malaysia. As a result we could not survive in the current environment with the current structure if we were relying on Excel calculations, etc. We simply couldn't function.” (Senior Financial Analyst)*

Scapens and Jazayeri (2003) reinforce this statement by claiming that one of the major attractions of ERP systems is that they are ‘enterprise-wide’ and consequently offer corporate management the opportunity of managing their business through a single integrated information system.

##### *4.4 Speed / Time Saving*

All interviewees outlined the importance of the speed and time saving element that ERP brings to the organisation.

*“Our ERP system allows us to be quicker. All the information is now at our finger-tips. Before we were chasing numbers but ERP allows us to look at the information we want within one user-friendly report.” (Senior Manufacturing Analyst)*

*“The time element means we do not spend our time calculating figures. The information is now at hand so we interpret the information and work with it.” (Budget Analyst)*

##### *4.5 Functionality*

Functionality is possibly the most appealing benefit for the finance users of the application. ERP allows management accountants to book journals, reverse journals, run reports and review in multiple currencies. Conducting month close using the traditional system was a slow and prolonged process. Each aspect of month close involved a different system and the traditional processes ensured that all elements could not be executed and amended simultaneously.

*“The added functionality that ERP allows us is an advantage. We can view documents, book and reverse journals, generate reports and review currencies in just one application.” (Senior Financial Analyst)*

#### **5. Limitations**

##### *5.1 Customisation*

One of the main drawbacks identified with the current ERP system implementation was the amount of customization that was applied. Most ERP packages are bought “off the shelf” and implemented into a business. The business is then shaped around the ERP application. This was not the case in Company X.

*“We have a major problem. We have not bought our ERP system off the shelf. We have bought and customised to such an extent that our ERP vendor will not support us. As a result the experts in our vendor will not support us.”*

*(Accounting Analyst)*

*“We have tailored the ERP application towards our business. It hasn't worked. For an ERP system to be successful you must tailor your business to the needs of the ERP system, not tailor your ERP system around the needs of your business.” (Senior Budget Analyst)*

*“The tailor made ERP application, made towards the business has not worked. All the initial customisation we made is currently being taken out.” (Senior Financial Analyst)*

The experience of Company X reflects prior experience in the literature. Agyemang Dual et al. (2006) report difficulties including enormous cost overruns, inadequate experts and customisation problems contributing to a high failure rate in implementing ERP systems. Koch (2002) argues that the customisation of the core ERP software is very costly and should be avoided if at all possible.

### 5.2 Utilising the Full Capability of ERP?

A recent PMP (Project Management Professional) survey found that just 5% of those polled showed that they were using ERP to its full extent (Note 1) the survey also found that most companies were not getting ERP systems to perform as expected. A number of personnel acknowledged that Company X had not utilised its system to its full capability.

*“As a whole the ERP system was an extensive system to implement. It is virtually impossible to get the whole understanding and the full capability out of ERP.” (Senior Financial Analyst)*

*“You are never going to get the best use of ERP as it is so vast. It is difficult to get the full capability due to world-wide issues, legal issues and fraud issues. Although it would be beneficial to know how other departments utilise ERP, it is still difficult due to access problems, fraud problems and segregation of duties.” (Senior Budget Analyst)*

### 5.3 Manipulation of Information

Despite the user-friendliness and flexibility of ERP it cannot provide a completed set of final accounts from the system.

*“Once a number of reports are run the data must be exported to Excel and the information must be manipulated into the different categories for both the income statement and the balance sheet. A global template is used where the data is inputted but the ERP system does not provide you with a completed set of accounts.” (Accounting Analyst)*

Despite these limitations it was noted that all interviewees believed that the advantages of ERP systems outweighed its limitations

## 6. Change in the Role of the Management Accountant

The suggestions in the literature that the role of the management accountant has changed and that one of the main reasons is the implementation of ERP systems is supported by the interviewees. In particular interviewees emphasised a shift from processing information to analysis.

*“The role is certainly different with ERP. We now have more time as ERP is so efficient for us. We spend more time analysing the information now rather than just getting the bottom final figures.” (Budget Analyst)*

*“As part of our expanding scope, our responsibilities have now changed. We are no longer allowed to get away with generating month end results. We now have to look into operations and influence them. Our communication with operations helps and we have to be engaged with them on a constant basis.” (Senior Budget Accountant)*

*“If you implement a whole new ERP system, it can fundamentally change your job. With the help of ERP there is less focus on generating information. The emphasis is now to analyse the information and use this information to make decisions for the business.” (Senior Financial Analyst)*

*“There is now more time to analyse the information in our ERP system. Before, it could have taken a week to complete close but with the new systems now in place the information is available straight away and it allows us to complete our core activities quickly. We can now spend better time on the higher level activities such as variance analysis, cost savings and productivity improvements. Close must still be completed, ERP just makes it easier.” (Senior Manufacturing Analyst)*

*This gives the management accountant the opportunity to influence the business as there is the opportunity to identify the main drivers of spending. As a result the accountant can attempt to influence the business and delve deeper into the main drivers of spending. However the expectation of customers for information within the organisation may not have shifted as quickly. Core accounting responsibilities still remain.*

*“Although we link in with operations on a more regular basis, ERP has not changed the main responsibilities of an accounting analyst. ERP has made it quicker and more efficient but it has not changed the core responsibilities. There is more scope to get involved now but the ultimate responsibility is the financial numbers.” (Accounting Analyst)*

*“Although ERP does help during month close, our activities have not changed. Our main aim is still to provide the correct financials at month end. ERP is beneficial to us in this respect but our responsibilities remain the same.” (Senior Budget Analyst)*

This is in line with similar literature where research shows that ERP systems have only a limited impact on management accounting practices (Fahy and Lynch, 1999; Granlund and Malmi, 2002; Scapens and Jazayeri, 2003). However there are conflicting views as some literature state that the adoption of an ERP system can bring around a redefinition in the tasks and responsibilities of the management accountant (Brazil and Li, 2005; Carruth, 2004; Gabriels, 2002). It is clear that ERP is influencing the management accountant and is a valuable tool which assists the management accountant in fulfilling their core activities. However the core responsibilities remain and there is still a high priority to provide the financials on a monthly basis.

### **7. Has the Implementation of ERP systems made it easier for non-accountants to take an accounting role?**

A question that arises is whether ERP systems can help to make management accountants redundant? It is well publicised that although ERP systems are highly complex systems, personnel from varied backgrounds can be trained on the main functions of ERP.

*“The system is set up in such a way that you don’t have to be an accountant to run a report. The theory behind it is that it gives accountants more time as operations can run reports themselves.” (Senior Financial Analyst)*

*“Non-finance personnel can come in and perform accounting activities. People from operations have rotated into finance and have used ERP and have booked journals. You do not have to be qualified to do this. Management accounting involves more with the business than dealing with the figures. The figures are there to support decisions and help to make better decisions. The days of the number cruncher are over; you are now part of a team whose aim is to improve business productivity.” (Senior Budget Analyst)*

These systems are easy to use and easy to understand and this facilitates running reports or booking journals. However the role of the management accountant is not just as “book-keeper”. Interviewees felt that the management accountant has enough training and background knowledge to make important business decisions, plan strategies and analyse the market.

*“Management accountants are fully trained and have a high level of understanding. Operations understand the specific accounts at month end. Management accountants understand how things fit into the overall picture i.e. the Profit and Loss Account and the Balance Sheet. Operations are only looking at the cost centre level but don’t have the overall picture. Management accountants are still the experts.” (Budget Analyst)*

*“Yes this is possible once the correct training is provided. The system is there to enable you to conduct the core activities such as reporting and journal bookings. However you do need accounting knowledge to understand the accounting terminology. The correct training can help but you need to understand accounting.” (Accounting Analyst)*

### **8. Conclusion**

In conclusion the findings suggest that the ERP system has had a positive effect on the role of the management accountant, however the rise of these ERP systems has not changed the ultimate responsibility of accountants which is the end of month figures. The findings suggest found that ERP will not be responsible for the redundancy of management accountants. In the view of interviewees who were predominantly accountants, management accountants are still essential to the organisation. Views of non-accounting partners in operations are not considered in this paper.

The interviewees viewed ERP as vital for the future of their businesses. They recognise its importance to such an extent that it was currently transforming all of its business processes to accommodate ERP in the business. What is perhaps most interesting is the specific type of ERP system being implemented.

There were also a number of limitations of the ERP systems currently used. These include not getting the full capability of the ERP system and the manipulation of information that is needed to generate a final set of accounts. One of the most interesting findings highlighted in the study relates to the problems that can arise where an ERP system becomes too customised towards a company’s needs. This is partly due to the fact that an ERP vendor may not support an over-customised system.

It is well documented that there has been a shift in the role of the management accountant. ERP is one of the major contributors to the change in the role of the management accountant. Accounting personnel feel that ERP allows them to expand their roles and instead of producing figures allows time for further analysis and value adding activities in areas such as cost control.

An interesting finding in this study is in relation to the idea of non-management accountants becoming accountants. Prior to the introduction of ERP systems accounting was exclusively completed by personnel in the finance area. The introduction of ERP systems has allowed tasks such as reporting and journal bookings to be completed by non management accountants. But despite this, core accounting activities related to finalising accountants are still completed by the finance personnel.

From these findings the authors would argue that ERP is having a positive effect on management accountants. Although there are negatives the overall view is that the positives of ERP far outweigh the negatives.

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**Notes**

Note1.<http://www.logisticsit.com/absolutenm/templates/articlemanufacturing.aspx?articleid=2092&zoneid=2>