Bringing ERP to Small Medium Enterprises in Honduras

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Abstract– SMEs are the 70% of the economical base of Honduras. SMEs faces great problems managing their accounting, sales and manufacturing control, SME owners need a way to see accurate information of their companies to make decisions. When running a business using 'pencil and paper' they can not see accurate and current information. Implementing an ERP can help gain control, simplify processes and integrate departments.

Keywords—SME ERP Implementation Honduras Training

I. INTRODUCTION

Small and medium enterprises (SMEs) are what make the economy of most of the countries in the world. They employ a large amount of people, inspire innovation, and boost the economy of those countries as well. In Honduras, SMEs compose 70% of the economy, making them the backbone of it. Unfortunately, most of these SMEs don't have a proper use of information systems, therefore failing to manage their operations in a proper way. This may affect an SME in its finances, for example, if an owner manages them in an improper manner using personal money instead of business money, causing mismatches in the accounting module. Having problems like this may not let the SME grow at a steady rate, and cause unnecessary delays. Thankfully, ERPs exist. Enterprise Resource Planning is software for business whose function is to collect, store, manage, and interpret the data of a company, in this case the SME. An ERP will aid the enterprise augment its economy at an effective haste regardless of size. While expanding the frugality of the SMEs in Honduras, consequently ERPs will aid in the advancement of the economy in Honduras.

II. BACKGROUND

Small and medium enterprises (SMEs) are considered the backbone of the economy of many countries around the world (Goodwin, 1986). It is imperative to promote innovation in SMEs to drive the agenda for change in Latin America, since they are the main source of production and job creation, "innovation" is becoming increasingly more frequent word in the lexicon of leaders political and business (Banco Central de Honduras, 2010). SMEs face considerable challenges in implementing ERP systems due to lack of modern information technology (IT) setup, experienced IT staff, perceived usefulness towards new technology and most important, limited resources. In a study of more than 2600 SMEs (Everdingen, Hilligersberg, & Waarts, 2000) found that these firms seek above all an ERP system that can be aligned with their business model and processes. Two of the most important criticisms made by organizations that have implemented ERP systems are their lack of flexibility and their structural – rather than process – orientation (Davenport & Prusak, 2000).

Another study (Panorama Consulting Solutions, 2014) reveals that 12% of the reasons for implementing ERP were to improve business performance; control over a business is crucial to SMEs. ERP gives you complete, precise and updated information of the current state of the company; another 12% was to integrate systems across locations. It's important to integrate all the divisions of a company, this helps the organization to work as one unified entity and 11% said that it was to position the company for growth, the best systems are those that are highly flexible and can quickly scale to meet new demands and unexpected growth curves without disruptions.
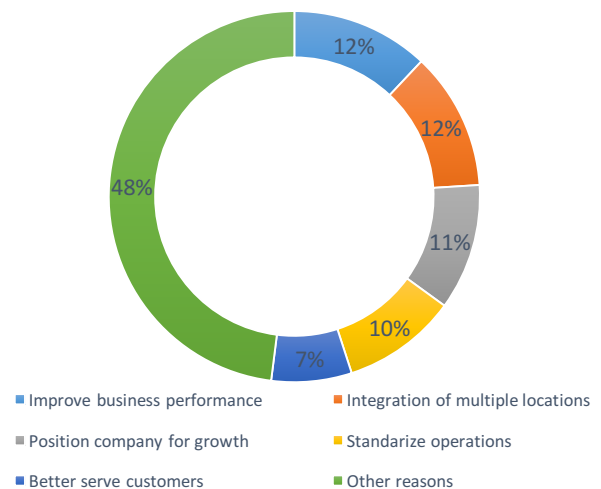

Figure 1 Reasons for Implementing ERP (Panorama Consulting Solutions, 2014)

It's important to take into account the implementation outcome, since SMEs don't have the financial stability to withhold wasting thousands of dollars in a failed implementation. In the global market 63% of ERP implementation are successful and 16% of the time are failed implementations, leaving 21% neutral or too soon to decide. Failed implementations are caused by various reasons; two of the most important in SMEs are the lack of commitment and denial of change by the client's employees.

Deployment method is also important for SMEs, as they don't have servers or physical infrastructure to support on-site premise. Honduras' electrical grid is unreliable, and dedicated Internet via fiber is overpriced, making it impossible to host the server on premise. The most reliable method for SMEs is VPS or Cloud Hosting. This method gives the company full control of the server and for a low monthly or annual fee the server is hosted on a server farm in the United States. This method has its consequences, Internet disruptions by the ISP is a common problem in Honduras; most of the

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SMEs in this study most of the SMEs were running their businesses from their homes, Honduras does not have a fiber optic network for home, due to this, internet is overpriced, slow and unreliable.

Another new issue in Honduras is the new law enforcing all business to sign up for the new invoicing regime. The Revenue Office known as the "Dirección Ejecutiva de Ingresos (DEI)" managed by the "Secretaría de Finanzas (SEFIN)" issued on the agreement number 189-2014 the February 14, 2014 (Secretaría de Finanzas, 2014) a set of new laws and policies every business should follow by the end of 2015, stating new ways business can print, issue and write invoices. The objective of this new law was to enforce every formal business to issue their respective invoices and requesting invoices to their providers. This new requisite affects mostly small businesses, formal and informal, because to buy or sell they have to be registered into the system, especially if they provide services or products to larger companies. Large companies are already adhered to the system as a logical step, and they require small businesses to issue invoices adhered to this new regime. Another way this affects small businesses is the technology required, for small companies that might not even have computers or some kind of internet availability, making it difficult to access ERPs and to print their own invoices.

III. METHODOLOGY

For the study of the training process, use and results of the implementation of the system, the project was divided into four stages:

Figure 2 Methodology's stages flow chart

In the first stage, recruitment, SMEs for from different areas of business were searched, in order to evaluate every aspect and to make use of all basic modules of an ERP (Warehouse management, Accounting, MRP, CRM, Sales) since not all of the SMEs need the whole package that an ERP brings. A requirement when finding the SMEs was to be sure they had never implemented an ERP, but had had the intentions of doing so. The project begun with 6 companies, a construction company (C1), a producer of ice cream (C2), a distributor of products for hospitals (C3), a 30-rooms hotel (C4), a consulting firm of energy projects (C5) and a software development company (C6). The needs of each company were different; the only company needing MRP was C2. C1, C2, C3 and C4 needed the warehouse management module to manage their stocks and multiple locations. All of the companies needed the accounting and sales module to manage client leads, phone calls, opportunities, generate quotations and sales orders, create invoices and track all the accounting movements in the company.

For the training of the companies, there were general sessions for the three basic modules given to the entire group, this consisted in showing them the basics of the primary modules, invoicing, expenses, managing clients, creating opportunities, imputing data and getting data of the system. There was also specific training for all the details and different needs of each company such as the hotel management module for C4 that included reservation management, room service control, and restaurant control. In this process the implementation and specific configuration of the platform for each SME was done.

After the companies where trained and their instance of ERP where configured, the SMEs used it for 4 weeks, after the forth week feedback was asked from the companies.

The companies were asked questions and fill a survey for the gathering of results. There were also meetings scheduled to talk with the companies' representative and the staff that have been using the ERP.

The ERP solution that was implemented was Odoo, an open source web-based system. Odoo is a suite of business apps designed to manage companies of all different sizes. Odoo's community offers more than 4,000 modules and more than 200 official core modules. Odoo changed its name in 2014 from OpenERP after the release of the version 8, in this version front-end and BI apps where introduced that included web-site builder, company blog, point of sale and e-commerce connected to the warehouse and accounting module, making it easy to sell online.

IV. CURRENT RESULTS

After 4 sessions of training and implementation, and then 4 weeks of use of Odoo, the companies reported back an increase in performance and decrease in response time to clients.

C1 reports that their warehouse is more organized, and there is more rigorous control of inventory movements that prevent loss material, their costumers reported back that their sales pipeline was more understandable and the quotation forms where more organized. The ERP was mostly used by the manager and the accountant. The accountant reported that they were now generating fiscal reports easier and with less likelihood of error.

C2 reported back that leads in sales where followed until completion of the sale, and clients where not being left behind or forgotten. Their raw material is not being wasted and because of this, their expenses have decreased, increasing their profits. This ERP implementation was only used by the manager of the business, she is also the accountant and was happy to see the ease that gives the system when creating invoices with the new invoicing regime, she also liked the way she could know and control the entire manufacturing process.

C3 reported back reported that the management of its three warehouses has improved, they can know immediately stocks and thus be able promise their customer's accurate delivery dates. Centralized accounting has greatly helped make investment decisions before the end of a period, custom reports and advanced analytics creates understandable and accurate graphs and data visualization that is easy to understand and process. This ERP implementation was used three salesmen, two warehouse managers and their managers. Sellers noted an increase in their productivity, they could meet their sales targets more easily and in a much more orderly way. Thus increased the number of customers that they could treat the same time, resulting in increased sales. Warehouse managers reported the ease of finding products on the shelves, easy to forecast inventory and automatic generation of purchase orders have helped the company to keep its customers happy with minimum delivery time, they have also noticed a decrease in loss of material as it previously did not have strict control.

C4 reported that the Hotel Management (HM) module helped the staff schedule check-ins and check-outs, be prepared for costumers and easily generating invoices with the accounting module. They also reported back that the HM module helped the

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housecleaning department take control of the stocks, rooms attended and rooms that needs attention. This hotel's implementation was used by the front desk staff, the duty manager, the housekeeping manager and the sales team that keeps in touch with all their actual and potential clients. Front desk staff before the implementation used spreadsheets to control the checking. checkouts, their rooms assignations and the fee, they now report that booking, invoicing and checking availability is now easy and immediate, handling rates and promotions are now ordered. Duty managers can now plan ahead for special events, help customers better and control all the transactions that needed to run the hotel. The housekeeping manager can now print work sheets that states which rooms are in use, will be in use and will leave soon, making the housekeeping crew work in an orderly manner. Finally, the sales team together with the CRM and Social Media could find and follow up potential clients, recording phone calls and bookings with ease, this led to an increase in reservations.

C5 reported that the sales module helped them achieve an optimum control of quotations and follow-ups with their clients, they also used the Project Management (PM) module that helped with projects, tasks, due dates and general project management. The main users in this ERP implementation where the project managers and sales team. The project management module is a very important tool when managing multiple projects at the same time, the project managers in C5 reported that they could easily create tasks, assign tasks, create milestones and goals for all their projects. Team meetings are now shorter due to the organization brought by the project management module. As the other companies reported, the sales team are having a better time managing clients in the sales pipeline.

C6 reported that creating quotations was a difficult process before the ERP, and because of the sales module, quotations can be modified easily to meet the requirements of each customer. This last implementation was mainly used by the sales representative and accounting team, because software requirements can change rapidly, a tool that can make these changes quickly and efficiently in quotations was needed, sales representative reported back thanks to CRM and sales module has been able to keep up with needed all quotations you need. This company is managed by software engineers, whose financial training is not optimal, the accounting module has helped the accountants to keep the bookkeeping in order and without difficulties.

V. Future Steps

It is important to continue the study of the effects of the implementation of ERP in a SME. It is also advisable to get financial aid to give trainings to help SMEs understand the benefits that ERP gives. Extending this investigation will lead to gather more financial information to understand better the financial impact of the ERP in the SME.

ERP implementations will not become cheaper, but SMEs will feel more confident about investing in a ERP if advantages are explained, lack of knowledge can make a SME to ignore or decline an ERP implementation.

VI. Conclusion

After evaluating all the aspects of the project, the needs and reactions of the SMEs, the use of ERP helps the company gain greater control, simplifies processes, empowers employees, creates integrations between departments, and prepares the company for growth.

Throughout all companies that were studied, we can also note that a common factor is the good that the CRM generated for all companies. It is important to emphasize that the success of SMEs is in the treatment and follow up with potential and new customers. It is advisable to have a CRM indifferent to the size of the company so as a company is nothing without customers happy.

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