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PROCESS ANALYSIS OF INCORPORATION OF INFORMATION SYSTEM IN A MODEL COMPANY

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Introduction (Abstract)
The present economics is mainly characterized by globalization and accelerating dynamics of market and production cycles. The terms of deliveries are getting shorter, competition is increasing, the complexity of services is getting broader and control of relations with customers. The importance of information systems is increasing and they are becoming the key factor of success on the market.
The proposed article contains analysis of incorporation of information system in a model company, evaluation of needs of the company, evaluation of its situation before incorporation of ERP system, its implementation and evaluation of its advantages.
Keywords
ERP, model company, process analysis

1. INTRODUCTION

The present economics is mainly characterized by globalization and accelerating dynamics of market and production cycles. The terms of deliveries are getting shorter, competition is increasing, the complexity of services is getting broader and control of relations with customers. The importance of information systems is increasing and they are becoming the key factor of success on the market.

The proposed article contains analysis of incorporation of information system in a model company, evaluation of needs of the company, evaluation of its situation before incorporation of ERP system, its implementation and evaluation of its advantages.

2. FOUNDATIONS OF ERP SYSTEM

Enterprise Resource Planning (ERP) is designation for a software system that is set to support and automate processes in an organization. It is usually a broad package that covers areas of production, distribution, human resources management, project control, salaries and accounting. Companies usually do not use all the modules, just the part they need. ERPS promises to integrate all sections and operations of a company into a unified software package. In the last years, the definition of ERP is getting broader with new terms and areas. Modules like Customer Relationship Management or Supply Chain Management or business intelligence are becoming a part of ERP system.

3. CHARACTERISTICS OF THE MODEL COMPANY

The model company is acting in the area of production of plastic components. Its subject is design and production of forms, thermoplastic injection and assembly of plastic parts that are destined mainly for automobile industry but also for other companies. It has been operating in Slovakia since 2005 and it is a production factory of a foreign company.

4. SITUATION IN THE COMPANY BEFORE INCORPORATION OF INFORMATION SYSTEM

The company used extensive excel spreadsheets for control of main production processes after startup of its factory. Accounting and invoices were secured by an external organization, which supplied the company with a simple accounting system. Its functionality was however limited and it

wasn't possible to expand it. The system also served for evidence of stock supplies and entering of sales and purchase orders.

This solution didn't fulfill criteria for control of the quickly expanding company. By expansion of production, its deficiencies became even more pronounced, and the management of the concern decided to equip the Slovak factory with a complex information system. The needs of the company exceeded the possibilities of the software it was using.

The company evaluated different competitive ERP systems and the best one with complexity, broad functions and user friendly interface was selected. Decision was made also based upon name of the given ERP system, which is also used by many suppliers and customers of the model company. This reality can be used by better communication of companies and online connection of different activities.

This solution was also inevitable because of reason that the previous information system has become brake of further development of the company with increasing demands on production of control and other processes. The company needed to incorporate ERP that will further be able to accommodate new modules as the company grows. The ERP system selected by the company fulfills all the demands as it is a complex information system that covers all basic processes in the company:

- finances,
- accounting,
- sales,
- distribution,
- supplies.

The solution consisting of separate of several systems woudn't be an acceptable alternative. The suitable solution of having one system for all economic, production and planning processes with no need of complicated interconnection was found.

The parent company is also going to incporporate this ERP system. Incorporation of the information system in Slovakia was pilot project that was to evaluate its abilities in practice. The decision to employ the system in all its factories is self explanatory. It should happen in near future.

5. EVALUATION OF COMPANY NEEDS

In case the production factory would have only one customer, the planning of production would become simple. However, when the portfolio is broad with manufacturers of interior plastics used in automobiles, situation is radically changing. Most of the suppliers of automobile industry work with just in time system, which is very demanding on organization and production planning. The factory has nearly hundred codes of items and every is in many color versions. With such quantity of products, it is not possible to use manufacturing control with excel spreadsheets. It was expected by the new ERP system that it will help to fulfill strict criteria for supplies for automotive industry.

The same counts for stock management. The company cannot work without readers of bar codes planned to be integrated into ERP system to simplify the management of stock supplies. The previous system didn't allow this.

In close future, the company is planning is to interconnect certain modules with information system of its customers, what will increase efficiency of production planning even further. This reality was decisive for selection of the mentioned ERP system. It is the most common ERP system in the world that is used by companies in automotive industry across the world and its strategic partners. Mutual interconnection of processes will be simpler and more efficient.

Because it is integrated ERP system, it is needed to supply data only once and it is immediately visible in all modules. Management of the company expected to decrease human errors. Sharp and timely information will allow increase in controlling and will allow more efficient production planning with elimination of stock supplies, bound with efficient use of human resources, thus decreasing operational costs.

6. THE COURSE OF IMPLEMENTATION OF ERP SYSTEM

In the first phase, the company has decided to implement five basic modules – financial accounting, controlling, properties management, sales, distribution and material management. The system was expanded by stock control module in its implementation. Expansion by further modules of manufacturing, quality control and CRM is planned. The course of the implementation was very fast and it lasted only 11 weeks. It was one of the fastest implementations of selected ERP system in Slovakia.

The implementation of the information system brought better survey of manufacturing processes and information flows in the company. Data have to be input only once and can be shared very simply, because all modules are automatically interconnected. The management has better oversight of processes on individual processes and sections.

Implementation of ERP system means decreasing of operational costs in the company by 20%. Information that was previously gathered interpersonally can be today obtained directly in information system. The purchasing section knows precisely what to buy and what to export.

At present the company is working on a solution that will allow interconnecting its system with systems of its customers on the basis of functionalities of its information system. The system will deal with direct placement of orders and on-line interconnection between accounting and invoicing.

The automotive company will place an order directly into the system, for example that it plans to manufacture 300 silver and 800 red cars with precise specification of interior. In this way the company will be immediately informed about needs of its customer and when and in what quantity to supply the components. In this way, the company will have online oversight about needs of its clients. Automobile manufacturers will have information about security stocks at their disposal and they can apply for their increasing or decreasing.

7. CONCLUSIONS

A qualitative information system is inevitable in present economics. Time plays ever more important role. Today, not the bigger ones over stronger win, but faster over slower ones win. Managers have to flexibly react on needs of the market and take fast and correct decisions. They need a simple access to actual, precise and complex information, which only a reliable information system based on modern technologies can supply. The qualitative information system is mean that allows better orientation in market environment and to simplify the process of decision making.

Implementation of an information system was inevitable for the model company as it wants to increase the count of its employees, expand manufacture and inner processes. The ERP system has simplified situation of management, because it allowed beginning with basic modules with further modules to be added as the company grows.

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