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Impact of the Information Systems and Technology on Enterprises

Valma Prifti*, Dea Sinoimeri, Armira Lazaj, Joana Keçi

Department of Production and Management, Polytechnic University of Tirana, 1001 Tirana, Albania
***Corresponding Author**: vprifti@fim.edu.al

Abstract

The practice of information technology and strategy is crucial, and several lines of study that have been well-developed have helped us to comprehend it better. However, during the past ten years, the digitization of enterprises has profoundly changed it and called conventional knowledge on strategy into question. Developing and implementing a plan for computer-based information systems, is a crucial challenge in many enterprises. The expansion of this class of enterprises has been strongly affected by the advancement of technology and information systems and the widespread use of the Internet. In this paper, a comprehensive case of the process of developing and implementing a strategy, at Alpha Bank Albania is described and analysed. Banks and other financial businesses have undergone significant modifications due to the more widespread usage of computer data processing in conjunction with contemporary telecommunications technologies.

Keywords: Information technology; information system; model; FLEXCUBE.

1. Introduction

Information technology is evolving with time, and this evolution is affecting our personal, social, and public life. The decision-making process, which is very complex due to the competitive environment, scarce resources, and time pressures, becomes simpler through intelligent support. Information technology has affected almost all walks of life, including factories, railway stations, airports, banks, hotels, hospitals, transportation, and shopping. Each enterprise needs management information systems to streamline operations and boost effectiveness, productivity, and performance.

The advantages offered by management information systems, such as timely information delivery, time savings, accurate information delivery, and improved work management, highlight the significance of these systems. Thanks to web-based enterprise operations, enterprise administration and payment are made possible without being present at the office or place of business. Automation may enhance organizational processes and help save money and resources.

In this paper, a comprehensive case of the process of developing and implementing a strategy, at Alpha Bank Albania is described and analysed. Banks and other financial businesses have undergone significant modifications due to the more widespread usage

of computer data processing in conjunction with contemporary telecommunications technologies.

2. Material and Methods

One of the critical instruments in every enterprise is information system management, which strives to give system users accurate, comprehensive, accessible, and intelligible information at the appropriate moment. Traditionally, management information system techniques provided information for an enterprise manager or higher authorities. The computer has added one or more features: the accuracy, speed, reliability, and volume of data. In this case the decision-making process consider other alternatives.

2.1 The Purpose of the Information Strategy

An information strategy aims to highlight how much a complex modern business depends on the information in all its forms and consider how this strategic asset should be managed. Once an enterprise strategic information system has been identified and their requirements determined, the resources needed to build these systems will be allocated. The chosen way of building a particular information system requires an assessment of the quality of the enterprise existing information systems. The skills of the enterprise staff, also the capacity to engage in the construction of additional systems. Information systems include two very different activities: operating a computer device and developing information systems. Information systems are a valuable benefit to employees because workers do not have to collect data manually for presentation and analysis, and information can be quickly and easily entered a computer program. It takes less time to get the information needed. By giving managers the opportunity to use the information of the enterprise regular operations, management information systems are primarily intended to assist enterprises in achieving their objectives through more effective control, and planning. Additionally, the appropriate information is given to the relevant person, at the appropriate time and in the appropriate manner. The domestic, multinational, franchisor, and transnational exporters are the four primary worldwide strategies that provide the foundation for the organizational structure of global enterprises. The global approach decentralizes manufacturing, to units in other nations while focusing on financial management and controls from a single location. The franchisers are a fun blend of the old and the modern. The product is first developed, planned, funded, and produced internally for subsequent production, promotion, and human resources. A global strategy optimizes the resources. Almost all operations which add value, are handled globally.

2.2 The Impact of Information Strategy on Enterprises

Information technology plays a fundamental role in a business's success in uncertain and turbulent economic conditions. The introduction of technology into human life and the massive spread of the Internet has also significantly influenced how business is done. New technologies, the product of which are information systems, have inspired many people to look for new forms of doing business, moving from classic entrepreneurship to the one on the Internet. These initiatives, which constitute essential innovations that

facilitate human life and offer new services in completely innovative forms, bring another type of businessman to the stage: e-entrepreneurs. The term "entrepreneurship" describes establishing businesses in the Internet economy. The foundations of the Internet economy are built on four technological innovations: telecommunications, information technologies, media, and entertainment technologies. Very quickly, computers, from tools for professionals through the Internet, smartphones, and smart televisions, have already become part of the everyday life of the largest populations. To define this type of economy, the Internet economy, refers to the commercial use of electronic data networks, or a digital network economy, which enables achieving results from information, communication, and transactional processes through various electronic platforms. With the emergence of the Internet economy, a new space opens for entrepreneurs to create opportunities to earn. Thanks to this, the entrepreneur can create a value for the customer not only physically with activities but also in electronic environment.

2.3 Types of Electronic Business

There are many types of e-business, but we will present below three of the most important.

- *B2C (Business to Consumer)* - Includes retail sales of products and services, to individual buyers. A person buying a product from a seller can be considered a B2C transaction.
- *B2B (Business to Business)* – The products and services are sold from between businesses. The sale of products by a manufacturer to retailers can be considered a B2B transaction.
- *C2C (Consumer to Consumer)* - Customers are selling to other customers.

A typical example is an online forum or website such as in Kosovo Merrjep.com, where customers post a product that another customer can express interest in. In this case, the website is only an intermediary so that it can meet clients.

2.4 Advantages and Disadvantages of Electronic Business for Customers

E-business has brought with it more opportunities for customer relationship management and marketing. However, like every field, this has its advantages and disadvantages. Some advantages for consumers are better information, easy access to shopping, 24-hour availability, no traffic or need for parking space, and more competitive and often cheaper prices. There are also many disadvantages of online shopping such as regarding the technical knowledge, products that are complex to choose, legal problems, the support for maintenance, technology and security.

Businesses that have survived the challenges and adapted their business to an online-based model are now thriving. Based on it on of the successful largest example business in the world is Amazon which is entirely focused on e-business. Electronic business has grown exponentially, being stable even in the recession period also. More than 1 billion people have Internet all over the world, which gives even greater impetus to the growth of e-business. Although there is a steady increase in online shoppers, the e-business revolution is still in its early stages, and substantial growth is expected in the coming years.

2.5 Information System in E-Banking

The increasingly widespread use of computer data processing in combination with modern telecommunication systems causes drastic changes in the functioning of banks and other financial institutions. In this context, we can discuss the creation and development of electronic banks. This is about the modernization and future of banks dependent on electronic systems. This technological revolution of banks takes place within the framework of the fundamental evolution of processes. From this, it follows that the technological change is made for more than just a short term in the entire technological transformation of the banking base. Never in the history of the banking business have so many significant and radical changes been made as in these last thirty years. The appearance of plastic cards and digital money has turned towards the dematerialization and complete virtualization of money. The Internet, e-banking, and mobile banking have made the bank leave its premises. The customer has been forced to go to the bank`s premises. Today, the customer use bank applications and services from the home or their workplace. Mobile banking goes even further by bringing banking to the customer`s pocket, regardless of location.

Businesses want to become more efficient and competitive by enabling their key business activities in a digital way. With Internet is accelerated the globalization by sharply reducing the cost of manufacturing, acquiring, and reselling things internationally. Information systems are now the cornerstone of corporate growth for the survival, and the capacity to accomplish strategic business goals.

The establishment of a business in the Internet economy is, in most cases, unique in its kind and is not a continuation of an existing business or that copies an existing structure of a business. It is also noted that most of the businesses established in the Internet economy are innovative, that is, not imitators of existing businesses. New enterprises that have been established in the Internet economy are constantly founded based on new knowledge and creative conceptual factors, thus changing the way information is handled, because of the increase in the importance of “information” as an important factor in competitive advantage.

3. The Model

Software development methods are necessary so that the software development process is systematic, so it is not only developed within a certain time but also has good quality. These methods describe, design, build and maintain software programs while providing guidance on the tasks to be performed and the criteria for completing one task and moving on to the next. Some of the models that are mainly used nowadays are shown in the Figure 1.

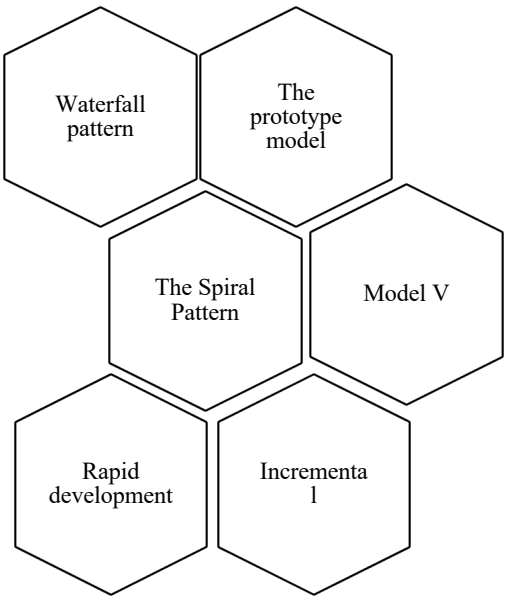

Figure 1. Several types of models

3.1 Waterfall Model

The waterfall model is the oldest and most well-known model, often called the classic software cycle model. This model works well for projects where quality control is essential due to intensive documentation and planning. Based on it, we have chosen this model for the construction of the prototype. Despite the disadvantages it has, the waterfall model has many positive aspects. Figure 2 depict the modelling stages.

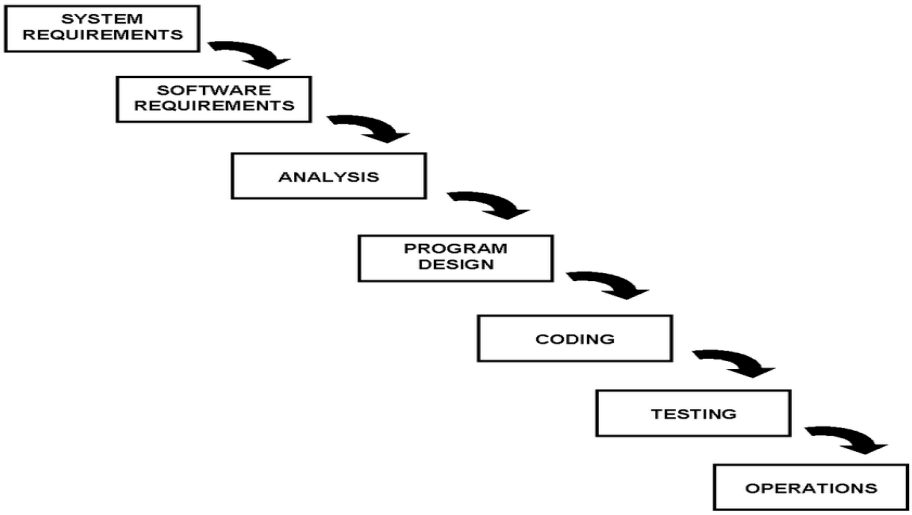

Figure 2. Modeling stages

Feasibility, Requirements Analysis (Analysis): During this phase, costs, resources, time, budget are analyzed to determine if the project is feasible. The design group together with the system user collects the needs and requirements from customers and analyzes the scope of the project implementation.

System and Software Design: In this phase, the system architect and programmers mainly create and deploy the final structure. The user interface, database and business

logic are designed. The main issues in this design phase are: developability, reusability, quality, bugs, security, maintainability, and compatibility.

Software Construction (Coding/Implementation): The software is produced based on the design and requirements analysis. System Integration and Testing: In this phase, the product that comes out of the development is connected to the testing environment. Verification is the process of testing and evaluating a system or part of it to verify or prove that it meets the needs and criteria received by the design team.

Operation and Maintenance (Release & Maintenance): This is the last stage of the model where the built system is delivered to the customer. If problems or changes occur, they are considered part of maintenance (Tutorials point SDLC).

4. Information System and Database Management System in Alpha Bank

4.1 Information system

Alpha Bank began operating in Albania in January 1998 as a branch of Alpha Bank A.E, one of the largest banks in Greece, founded in 1879 and with an important presence in Southeast Europe, the United Kingdom and Cyprus. Initially the name of the branch was Alpha Credit Bank-Tirana Branch and now it is Alpha Bank Albania SH.A. Alpha Bank is one of the largest banks in the country with a significant market share in wholesale and retail banking. Historically, Alpha Bank has been focused on financing commercial businesses, being ranked for many years as one of the leading actors in the Albanian economy. Today, Alpha Bank offers quality service to more than 314,000 customers through 53 branches nationwide and other alternative channels such as 68 ATMs, Web banking and 1,702 POS terminals. The bank is a leader in the card business, offering credit cards under the American Express and VISA brand names. Alpha Bank is the exclusive issuer and acceptor of American Express cards, offering cardholders who use this card anywhere in the world a long list of benefits and privileges.

4.2 E-Banking and Alpha Mobile

Alpha Web Banking is offered twenty-four hours a day, seven days a week, with a quality service for all of you who want to access your bank accounts and perform operations via the network safely and accurately. With Alpha Web Banking, you are "in control" of your bank accounts, having the opportunity to be informed about the status of your accounts, make money transfers, and make various payments.

The banking services of Alpha Bank Albania are now available to you anywhere and anytime on your smartphone or tablet via an Internet connection. With Alpha Bank's newest smartphone or tablet application, you control your accounts by making transactions whenever you want, 24/7. To become a member is very easy; go to an Alpha Bank branch and fill out the form for mobile banking so that you can benefit from the Alpha Bank AL mobile banking service.

4.3 FLEXCUBE

B-master was an unconvincing system that had not helped the bank to compete in the market, but it was time to switch to a better organized and modern system like FLEXCUBE, see Figure 3. Improvements and changes have always been made to keep the bank up to date with the market level to be able not only to compete locally, but also in the Balkans. FLEXCUBE is the next generation's universal banking solution, enabling banks to challenge intense competition and improve customer expectations. This solution provides a competitive advantage and leaves behind all previous customer service standards.

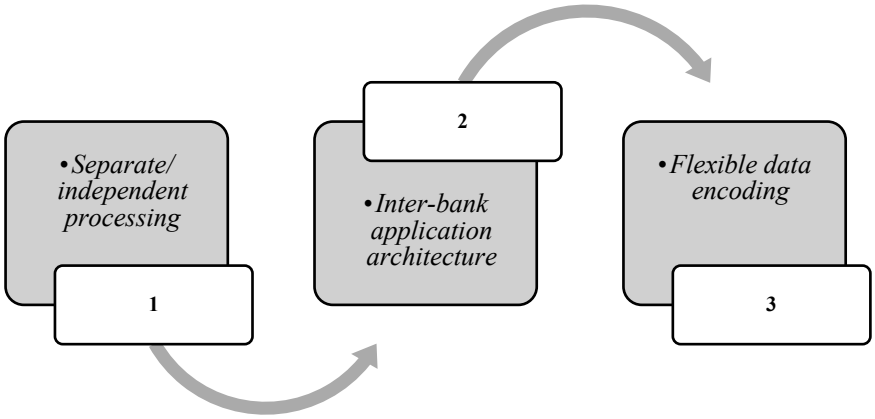

Figure 3. Features of FLEXCUBE

Alpha Bank`s advantages from FLEXCUBE Implementation:

- Online and real-time reporting, at an analytical level, for all levels of management to respond more quickly to market trends and customer needs,
- A variety of services, such as Internet banking.
- Facilitated the consolidation of Financial Statements due on the same basis.

4.4 Database management system

A database management system is a collection of software designed to provide a systematic and flexible approach to the organization and access to data that may exist as a separate file in database management. All information about Alpha Bank is in a central database on the parent bank's server in Greece. When a customer searches for information, all data, savings, and loan data are instantly available. Alfa Bank uses Oracle as a database. This database controls the storage, organization, and retrieval of data.

Alfa Bank enables high security through information encryption with 128-bit SSL protocols. Personal security codes such as user Id and Password are needed to use the services. Access is automatically blocked for security reasons if a wrong password is entered five times.

5. Conclusions

During this research, through browsing material, we reached several conclusions. Information systems are used in businesses in the various fields in which they operate. The focus has mainly been on the use of these systems in entrepreneurship. They have influenced the appearance of a new type of entrepreneurs and enterprises, which today

are known as e-entrepreneurs, entrepreneurs who have their activity focused on the economy of the Internet.

The development of technology and information systems, as well as the spread of the Internet, have significantly influenced the growth of this category of enterprises, which today in Europe constitute an essential voice in commercial transactions. Now a large part of the services can be obtained through the Internet, taking the place of the classic form of doing business, that of physical stores.

This process has existed in Albania for years, initially with the opening of information portals on the Internet, which offer consumers (readers) information in real-time, easily accessible from different platforms (computer, mobile, tablet, smart TV, etc.), enriched with photos and videos, and providing interactivity with the reader.

Conflict of Interests

The authors would like to confirm that there is no conflict of interests associated with this publication and there is no financial fund for this work that can affect the research outcomes.

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