

RESEARCH ARTICLE

(Open Access)**The Impact of Computer Science in Albanian Agribusiness Sector**AMELINA AHMETI¹, IRIDA GJERMENI¹¹Department of Computer Science, Agriculture University of Tirana, Tirana-Albania**Abstract**

Recently, there is an adoption of computer science at Agribusiness sector. This adoption is increased daily and rapidly.

There are many reasons for which computer science elements are used. Referring to this topic research study, a survey is delivered to different albanian agribusiness enterprises in order to study the objectives of this research. The enterprises were located in different cities of Albania like: Tirana, Durrës, Lushnjë etc. It has been a careful selection of them in order to have an equal ration between small and big enterprises. After the surveys were completed by one employee for each enterprise, all data is analysed. The data was analysed by statistical program SPSS. Referring to the analysis by SPSS, the impact of computer science is essential in Albanian Agribusiness as it helps on: high speed data process; decision-making information, monitoring work employees etc.

Regarding to this research study, the impact of computer science is very important in Albanian Agribusiness. It helps the managers to have a better maintenance of all data and organization of work enterprise.

Keywords: enterprise, agribusiness, statistical program SPSS.

1. Introduction

Recently, computer science is developed all over the world. Computer science includes many elements like : hardware, software, network equipments etc. Its elements are adopted also on different agribusiness enterprises. Different software is used by different departments of enterprises. Financial department uses it in order to help during their daily work. Security department uses software which monitors the movements, entries and exits of employees and other persons in an enterprise. Marketing department uses the elements of computer science in order to help them by making good advertisements. Marketing employees uses especially internet in order to create a better marketing for the enterprise. By internet usage, they have the opportunity to publish different articles, advertise their products and spread information about them. Also, internet is used for rapid communication which is very important for the enterprise. Mapping (GIS/GPS) is another element of computer science

which helps the managers to identify the location of their employees. It also gives the possibility to the managers to monitor the employees.

Referring to the above functionalities, which are very important they have a great impact on:

communication, better management, location identification, data process etc.

2. Material and Methods

Regarding to the topic of this research study, a survey was spread to different enterprises which addresses the objectives of this study. The interviews were done face to face with the employees of the enterprises. The activities of these enterprises were different like:

- Meat products
- Milk products
- Fruit processment
- Oil process
- Wine production etc.

There were interviewed 80 agribusiness enterprises. The survey had four section:

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1. Personal information about the employee who works at agribusiness enterprise.
2. The elements of computer science that exist in the actual enterprise.
3. The reasons of using computer science in their agribusiness enterprise.
4. The impact that is observed from the employees in their daily work.

The questions about the elements of a computer system had into consideration that it is made of four components:

1. Hardware;
2. Software;
3. Data;
4. People ware who is everyone who uses a computer.

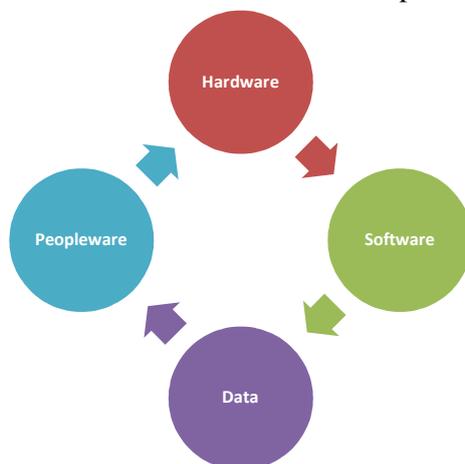


Figure 1. Computer System

By using all elements of computer system, there is an innovation at agribusiness enterprises. E-Agribusiness (electronic agribusiness) is developed. E-Agribusiness is defined as application of e-commerce in agribusiness. It has special features like: organized and centralized trading; widely dispersed buyers and sellers with remote access; merchandising

based on product description; high trading volume and use of reliable grades and standards.

E-agribusiness helps the managers and other employees to speed up their daily work. E-agribusiness is developed also on mobile which is also widely used.



Figure 2. E-Agribusiness

3. Results and Discussion

After collecting all data from surveys, it was processed by statistical program SPSS. According to the data it is observed that:

Software are very important in agribusiness enterprises;

Financial program are widely used in them especially Finance 5.

The reasons for using software are different like: raport processment, activity control, time save, better management etc.

Depending on the above statements, a graphical presentation is built as follows in the picture. This graph presents the fact that software are very

important for the enterprise. As the graph shows 12.5% of the enterprises have declared at figure 1 that software usage is not important while 87.5 % have

declared that software usage is very important on their enterprise.

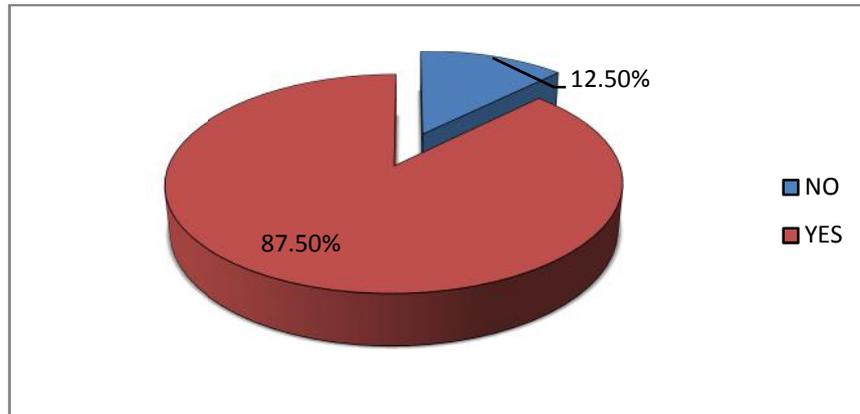


Figure 3. Software usage

Another graphical presentation is built to show which financial program is used most. According to figure 2, it shows the fact that finance 5, which is a financial program used most by economists. 87.5% of the economists of the Albanian agribusiness

enterprises use Finance 5 and 12.5% use Alfa. The interviewers were asked on the survey also for the impacts that computer science has on their activity.

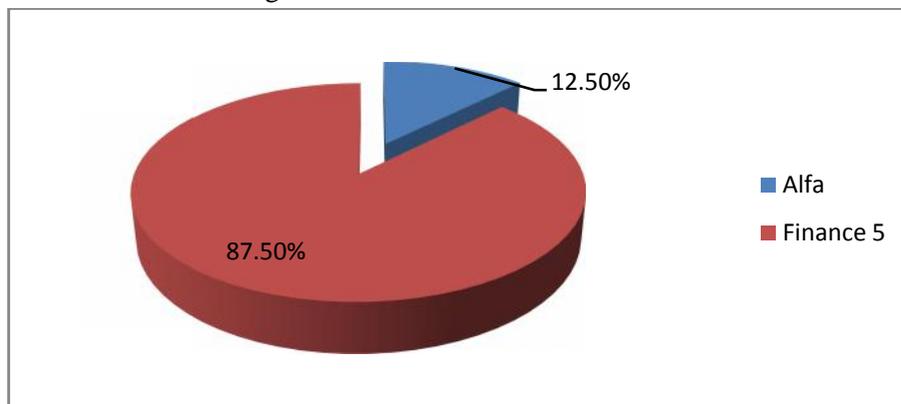


Figure 4. Financial programs

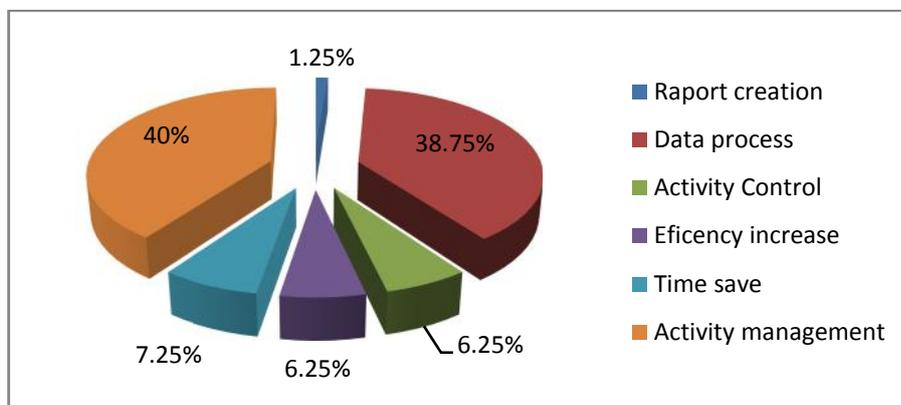


Figure 5. Impacts of using software

Referring to the graphical presentation, figure 3 shows that:

- 1.25% of the interviewers use software as it helps on raports creation
- 38.75% of the interviewers use software as it processes the data
- 6.25% of the interviewers use software as it helps on activity control

- 6.25% of the interviewers use software as it increases efficiency of the work
- 7.25% of the interviewers use software as it saves time during daily work
- 40% of the interviewers use software as it helps managers to manage the activity

Also, the employees were interviewed to gain information about the fact on which time computer science is adopted at their enterprises.

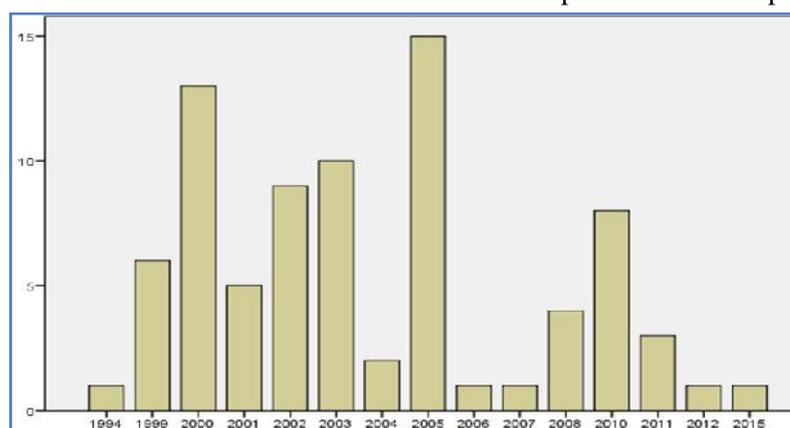


Figure 6. Historical adoption of computer science elements

Referring to Figure 4, it shows that computer science elements are adopted from 1994 till nowadays. It has achieved the peak on 2005.

Another objective of this research study were the reasons of computer science elements adoption that have occurred on albanian agribusiness enterprises. According to the questions addressed by the survey, the reasons that agribusiness use these elements and their opinion are as follows:

- 100% of the interviewers agree that security of information is an important reason.
- 98.8% of the interviewers agree that internet helps them to publish information about their product.
- 91.3% of the interviewers agree that computer science help to automatize the work at their enterprises.
- 95% of the interviewers agree that software helps on direct bill creation.
- 90% of the interviewers agree that software helps on direct profit calculation.
- 86.3% of the interviewers agree that software helps on direct expenses calculation.
- 100% of the interviewers agree that software fasts data process.

- 96.3% of the interviewers agree that computer science elements help on fast response to different clients.
- 93.8% of the interviewers agree that GPS usage is important.

Referring to Table 1, the impact that computer science elements play an important role in every business sector including agribusiness one. There are many reasons which are mentioned above, based on which they give a huge help to different employees and agribusiness employees.

Table 1. Reasons of using computer science

Reasons	Yes	No
Security of saved information	100%	0%
Possibility to publish at internet world	98.8%	1.3%
Possibility to automatize work	91.3%	8.8%
Direct bill creation	95%	5%
Direct profit calculation	90%	10%
Direct expenses calculation	86.3%	13.8%
Direct data process speed	100%	0%
Fast response to different clients	96.3%	3.8%
GPS usage	93.8%	6.3%

4. Conclusions

Computer science plays an important role in every aspect of life. The important role has been observed also in agribusiness sector based on this research study. It has its limits as it includes just the Albanian agribusiness enterprises. According to the data process results, it is obvious that computer science elements are very important for employees of enterprises. Financial department of these enterprises use mostly the software like: Finance 5. The impact of computer science elements is in different activities of daily work of the enterprise. It helps on: report creation, data process, activity control, efficiency increase, time saving, activity management. The reasons that agribusiness enterprises use computer science elements are: security of information, publish information through internet, automatize the work, directly bill creation, direct profit calculation, direct expenses calculation, software fasts data process, fast response to different clients, GPS usage.

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