

Helpful Business Value of Advance Bal Information System

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Abstract

It has become progressively more complicated to pay more attention to the significance of business value of information system in early days. Above the past few days researchers have high bleached the need of information system in business field. Almost every organization like electronics, textile, computer, etc is investing significantly in information system. It is generally observed that IS savings facilitate firms to achieve competitive benefit and enhance central part competencies to improve their performance and increase further earnings.

As a result Helpful Business Value of Advance BAL Information System (HBVABIS) is at the heart of our thoughtfulness in this research paper. This paper seeks to address the following questions. What is meant by business value of information system? How can we calculate business value of information system? What is the importance of information system in new e-commerce era? It has been generally observed that with the passage of time as the quick changes are taking place in information system the above questions are gaining importance in the field of business. The consideration in proper selection of technology and its proper exploitation to improve the performance of a business in education sector help to attain the business value. We also covered some aspects of educational sector using statistical analysis.

Keywords: -Helpful Business Value of Advance BAL Information System (HBVABIS), Performance, e-commerce, statistical analysis etc.

1. Introduction

Basically IS (Information System) is any combination of information technology and people's actions using that technology to support operations, administration. It is also called application landscape. Simply information system is commonly used to refer the interaction among people, algorithmic processes, data and technology.^[1]

An information system can also be considered a semi-formal language which supports human decision making and action. An information system (IS) is a work system whose actions are dedicated to processing (capturing, transmitting, storing, retrieving, manipulating and displaying) information.^[1]

1.1 Business Value

What is Business Value? Business value is used as middleware in Business Goals and Information Technology. Basically Business value is of vital importance among these parameters. The given Fig.1 shows actual structure.

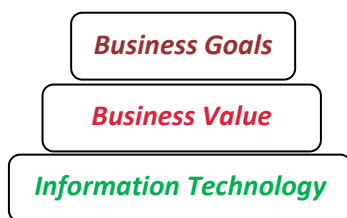


Fig. 1 [3]

1.2 Information System Types

Information System is generally classified into five categories:-

- Office Information System (OIS)
- Transaction Processing System (TPS)
- Management Information System (MIS)
- Decision Support System (DSS)
- Executive System (ES)

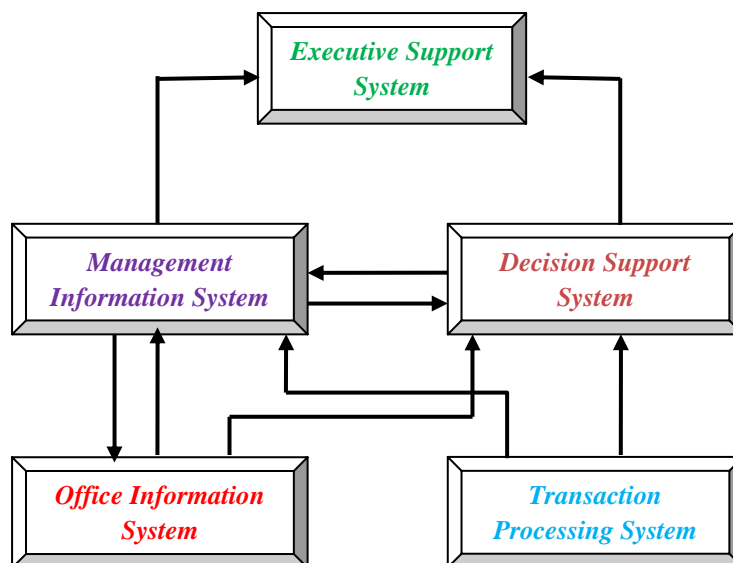


Fig. 2

Office Information System

Office Information System (OIS) is an information system that uses hardware, software and networks to enhance work flow and make easy communication among employees. With an office information system, also described as office automation; employees execute tasks electronically using computers and other electronic devices, instead of manually. With an office information system, for example, a registration department might post the class schedule on the Internet and e-mail students when the schedule is well-run. In a manual system, the registration department would photocopy the schedule and mail it to each student's house.^[2]

Transaction Processing System

A Transaction Processing System (TPS) is an information system that captures and processes data generated during an organization's everyday transactions. A transaction is a business activity such as a deposit, payment, order or reservation. For example clerical staff typically performs this activity.^[4]

Management Information System

A Management Information System (MIS) is an information system that generates accurate, timely and organized information so managers and other users can make decisions, solve troubles, administer activities, and track progress. Because it generates reports on regular basis, a management information system sometimes is called a management reporting system (MRS). MIS generates three basic types of information: detailed, summary and exception. Example of a detail report is Detailed Order Report. Example of a summary report is Inventory Summary Report. Example of an exception report is an Inventory Exception Report.^[2]

Decision Support System

A Decision Support System (DSS) is an information system designed to help users attain a decision when a decision-making situation arises. A variety of DSS's exist to help with a range of decisions. A decision support system uses data from internal and/or external sources. Internal sources of data might include sales, manufacturing, inventory, or financial data from an organization's database. Data from external sources could include interest rates, population trends, and costs of new house construction or raw material pricing.^[2]

Expert System

An Expert System (ES) is an information system that captures and stores the knowledge of human experts and then imitates human reasoning and decision-making processes for those who have less expertise. Expert Systems are composed of two components.

- knowledge base
- Inference rules

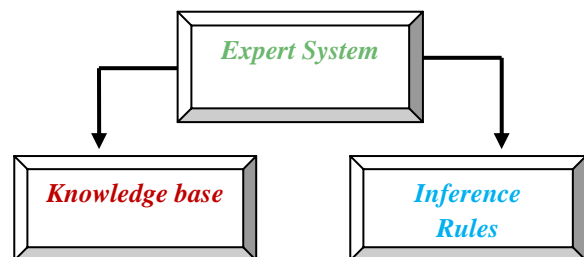


Fig. 3

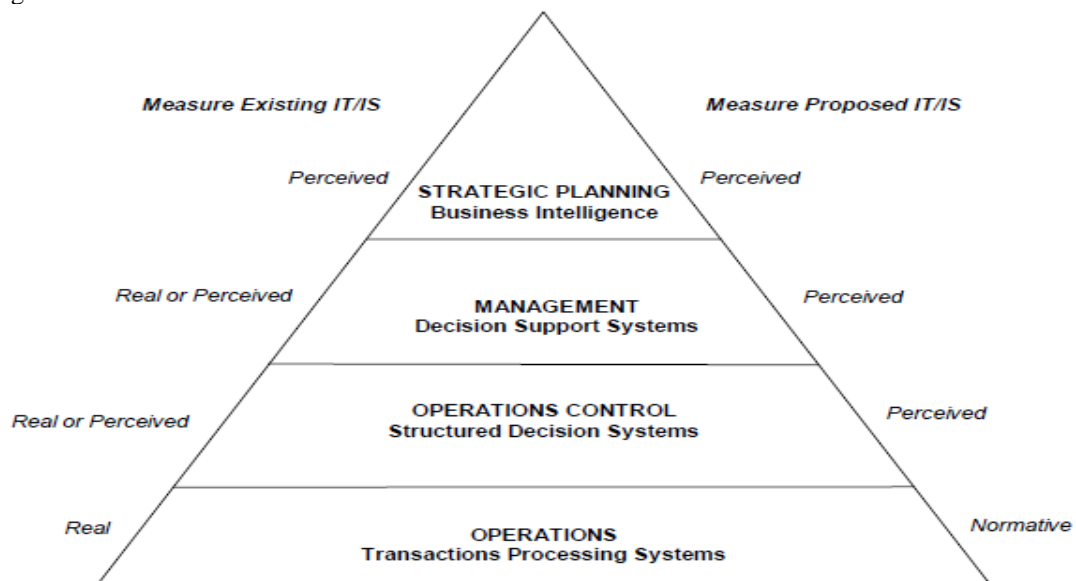
2. Available Solution

In this available solution the **Perceived Value Approach** is compared with Normative Value approach and Real Value Approach.

The Perceived Approach is based on subjective evaluations performed by users of an information system. Similar to the Real Approach, empirical research methods are used to monitor and control implemented or prototyped systems to review their potential impacts (usually via some type of survey tool). This approach is well-suited for examination of information security value issues where risks are uncertain

The Perceived Approach is not without its weaknesses in applicability. According to Ahituv (1989), the Perceived measure has several problems for quantifying information value:

- ✚ Point of measurement. The Perceived Approaches examine the outcomes generated by the decision maker rather than the outcome generated by the system. While this does separate Real from Perceived, a user might believe a system to be good, whereas in a Real sense another system might be better (i.e. an insecure system may be easier to log into, therefore perceived superior to a more secure system).
- ✚ Voluntary system. One must have subjects to survey who are qualified to make these judgments.



Application of Value Measurements (adapted from Ahituv 1989).

Fig. 4^[3]

The Perceived Value Approach is better than others two Approaches as comparing in Fig. 4. But in Perceived Value Approach risk factor is occurred. And Perceived Value Approach is only applicable within the organization.

3. Methodologies

There are some problems that exist in available solutions. Helpful Business Value of Advance BAL Information System (HBVABIS) will solve these problems.

In Helpful Business Value of Advance BAL Information System (HBVABIS), we analyzed that University System is better than College System in education sector. We proved it with a solid reason and through proper statistical analysis. Because our aim is to achieve the effective business value (business value lie in between business goals and information technology) in information system where Information Technology is used as business partner. In HBVABIS, We focused on the following information system categories:

- ✚ Management Information System (MIS)
- ✚ Decision Support System (DSS)
- ✚ Transaction Processing System (TPS)
- ✚ Expert System (ES)

3.1 Comparative Analysis & Discussion

We compared the previous available solutions with Helpful Business Value of Advance BAL Information System (HBVABIS).

In the Previous **Perceived Value Approach** solution implemented only within the organization. In other word, simply this previous solution is applicable to centralized structure, and few information system types are used.

Helpful Business Value of Advance BAL Information System (**HBVABIS**) is comparatively better than the existing available solution. We focused the College System and University system in three information categories. We explained with the structural diagram. We highlighted the advantages of University System as compare to College System in this diagram. We used four mention information system categories like MIS, DSS, TPS and ES in University System. The above mentioned four system categories are lacking in College System.

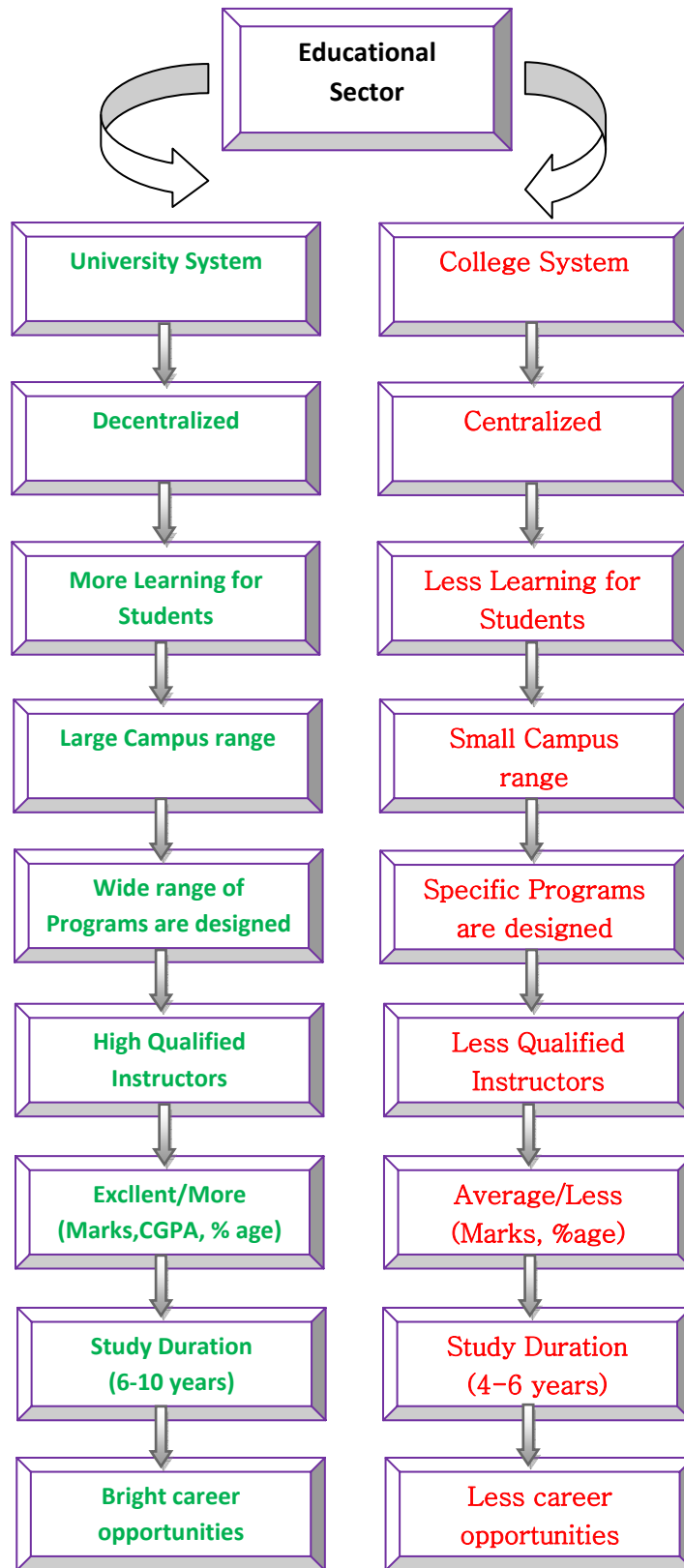


Fig. 5

In the given Fig. 5, we explained that University system is better than College system. Because, University System consists of long time duration for students study (Maximum Ph.D level) but College System has short time duration for students study.

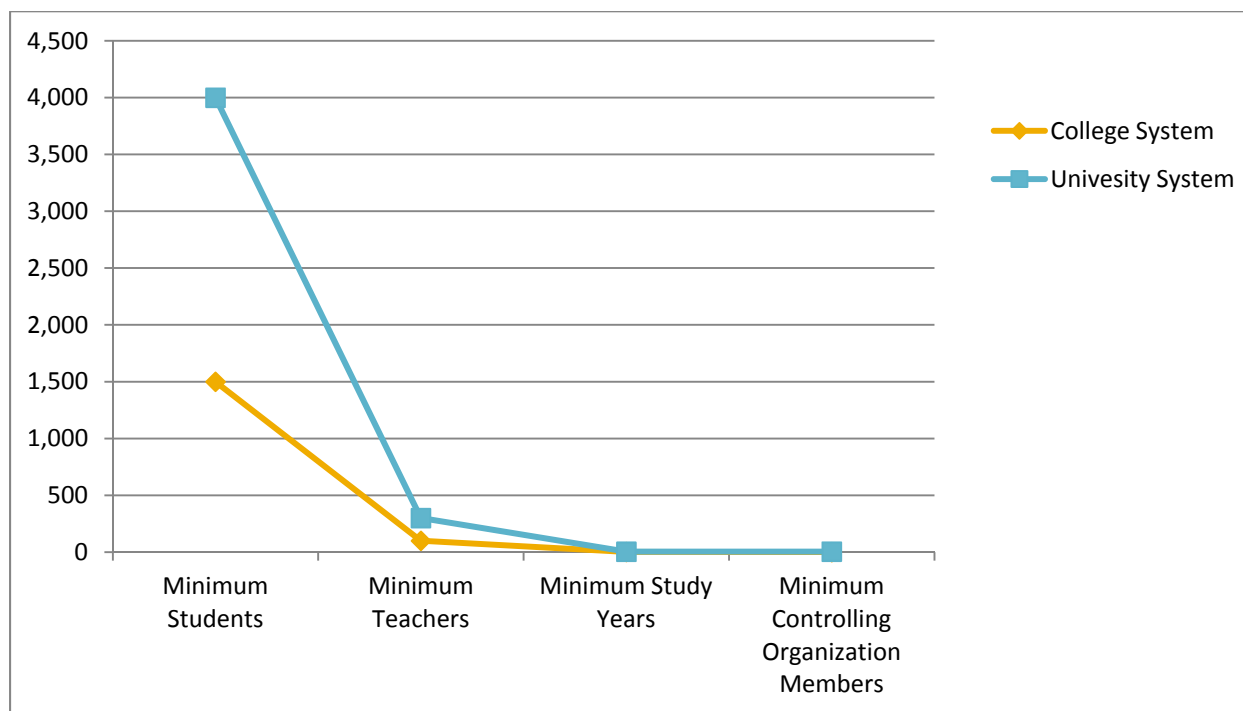
IT is used as business partner in University System. Basically, we analyzed University secure the student future more as compare to College system. Investor of the University will get more benefits as compare to College System. So success rate in University system is more than College system. Better decision makes the system successful. Our main purpose is to achieve the business value successfully, so we did through proper analysis of both systems (College and University) in education sector.

3.2 Graphically

We statistically analyzed the College and University differences. We analyzed generally between College and University System through numerical data.

We focused on four components such as:

- ◆ Minimum Students
- ◆ Minimum Teachers
- ◆ Minimum Study Years
- ◆ Minimum Controlling Organization Members



Graph 1

Therefore, University System is better than College System.

4. Conclusion

Information Systems are being progressively more used to value businesses. Developed nations are facing greater competitive stress because of well-organized and effective production which is at present standard in many sectors. We concluded that business value play most important role in Information Systems, so IS (Information System) can be applied in any area of business.

Well, Helpful Business Value of Advance BAL Information System (HBVABIS) is enhanced solution for business value of information system.

References

[1]

http://en.wikipedia.org/wiki/Information_system

[2]

<http://bisom.uncc.edu/courses/info2130/Topics/istypes.htm>

[3]

The Price of Security: The Challenge of Measuring Business Value Investments in Securing Information Systems by: *Tony Coulson, Jake Zhu, Shan Miyuan, C.E. Tapie Rohm*

www.iima.org/CIIMA/8%205.4_Coulson_19_24.pdf

[4]

Awais, M; Samin T; and Bilal, M.(2011).Effective Business Value of Bal Information System. IJCSI 8(6).Page(366-370)