FACTORS RELATED TO THE INTENDED USE OF ERP SYSTEMS

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ERP systems have a strong effect on the business operation of large multinational corporations as well as on small and medium enterprises. When implementing these systems, it is very important how the users in the organization will accept them and what attitude they will take towards them. This paper integrates some of the propositions of the Expectation Confirmation Theory (ECT) and Technology Acceptance Model (TAM) to research the factors related to the intended use of the ERP system by students of Business Studies. It investigates the correlation of the perceived usefulness of the ERP system, perceived ease of using it, and computer anxiety in users to their satisfaction with the used ERP system. Additionally, the assumed positive correlation between students' satisfaction with the ERP system and their intention to use such systems in the future is justified and proved according to the EC theory. The research involved 180 third year students of the vocational program at the Faculty of Economics in Split, who may be potential users of the ERP system. During the winter semester of 2010/11, the respondents were using a concrete ERP system in the course called Information Systems. While attending the course, they got to know the basic functions of eight ERP modules. Although the research used an occasional pattern of respondents, it can be stated that the statistical significance of the obtained results points to the main factors related to the intended usage of ERP systems by business studies students as their prospective users.

1. INTRODUCTION

The term ERP (Enterprise Resource Planning) was first employed in 1990 to denote a special market segment of business software referring to integral, integrated, modular packages of application software intended to support On-

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Line Transaction Processing (OLTP) of business information systems. The two main aims of ERP are (Garača, 2009):

- supporting business processes to achieve higher efficiency and effectiveness both in single activities and the business process as a whole and
- ensuring the information bases necessary to manage complex business systems.

There are many aspects of the effect of information-communication technology (ICT) on the operation of enterprises of all sizes. The speed and effectiveness of new technologies implementation becomes vital in the achievement of competitive advantage. It is a generally accepted attitude that the competitive advantage of an enterprise may be achieved by the creative use of information technology. Although this seems quite simple, it is much harder to realize, which in itself leads to differences in competitiveness and in the ability to realize the strategic advantages of an enterprise. This attitude has to be particularly reviewed regarding the implementation of the ERP systems. Modern enterprises are assumed to be innovative and their employees able to adapt to changes and to acquire new skills and knowledge. The success of any change eventually depends on people and their ability to perform the necessary activities.

Although a large number of enterprises have recently implemented standardized information systems, Gumussoy et al. (2007) find that many of the intended end users do not use them at all. Furthermore, despite the great expectations from the implementation of the ERP system, it has to be noted that it does not automatically result in a significant organizational improvement (Soh et al., 2000), and one of the reasons for failure is surely the low level of acceptance by the end users (Amoako-Gyampah and Salam, 2004).

In the application of new technology, the acceptance and attitude of its users is of vital importance. Consequently, first it has to be accepted in attitude, and then in practice it has to be accepted in behaviour. In terms of possible user attitudes to new technology, we can distinguish four types: convinced user, forced user, frustrated user, and unconvinced user (Garača, 2008).

While the first type is ideal and makes no problem in the acceptance of new technology, the fourth one completely rejects it. In the second and third type, the situation is more complex. If the user accepts technology on the level of attitude and rejects it on the behaviour level, then he/she cannot use what is offered and is therefore called the frustrated user. In the opposite case, we deal with the forced user, who has a negative attitude but nevertheless performs the

assigned activities. The latter two cases are particularly interesting because it is possible to turn them into convinced users. There are a number of methods for that. Some authors (Wu, 2003; Kohl, 2010) talk about the marketing of process reengineering and automation in order to make the users with negative attitudes change their mind by familiarizing them with the technology, while those with a positive attitude, who do not accept technology at the behaviour level, have to be introduced into the practical world of business informatics.

ERP system implementation is another example that even the best technological solutions are useless without people who can use them. Therefore, training or education related to ERP systems is very important. However, while admitting the importance of training, users are often insufficiently motivated and therefore have to be additionally motivated or even forced, which frequently happens in practice. Training for ERP systems has to provide balanced knowledge in two areas.

The first one is theoretical knowledge of information technologies, business processes and business issues, which serves as the context for the other type of knowledge referring to the concrete use of the ERP system. For these two types of knowledge, there are two kinds of educational material: universal educational materials dealing with the mentioned topics without any elements on the concrete ERP system and materials that look like ERP system documentation without providing the necessary context. The shortcomings of such materials can be avoided by preparing special materials that combine good features, the optimal solution being a clearly presented context with concrete instructions on the use of the ERP system.

Research project presented in this paper was preceded by the training that included both types of materials – ones dealing with business information systems in general and ones that were adapted to the concrete ERP system.

The second section outlines the theoretical background of the research through two acceptance and attitude theories: the Technology Acceptance Model and Expectation Confirmation Theory, followed by the presentation of the research model. Methodological propositions of the research, i.e. the characteristics of the respondents, research instruments and the specific ERP system are presented in the third section. Research results are presented through the analysis of convergent and discriminant validity of measurement scales and the internal consistency of measuring scales, followed by model testing in the fourth section. The fifth section discusses the results and concludes the paper.

2. THEORETICAL FRAMEWORK AND HYPOTHETICAL RESEARCH MODEL

This research integrates some of the assumptions of the Technology Acceptance Model (TAM) and Expectation Confirmation Theory (ECT) to investigate the factors related to the intended use of the ERP system. Therefore, these theories will be explained in brief.

2.1. Technology Acceptance Model (TAM)

Acceptance of information technology and especially complex technology such as ERP systems is an important research area for Venkatesh & Davis (2000). The Technology Acceptance Model (TAM), which is frequently used in research on information systems, is here used as the basis for the hypothetical model.

It should be noted that numerous empirical studies have already confirmed the links between the TAM constructs (Venkatesh & Davis, 2000; Venkatesh et al., 2003). Basically, the purpose of TAM is to provide the foundation for following the effects of external factors on intrinsic beliefs, attitudes, and intentions of individuals (Amoako-Gyampah, 2007).

An important research on factors affecting user behaviour stems from social psychology: Theory of Reasoned Action (TRA). TRA states three constructs: behavioural intention, attitude, and subjective norm (Fishbein and Ajzen, 1975). The authors point out that these constructs do not affect user behaviour in the same way. Miller (2005) holds that, depending on an individual or situation, these constructs can have very different effects on behavioural intention.

Expanding this model, Davis (1986) designed the Technology Acceptance Model (TAM), a theoretical model of factors that affect technology acceptance and usage intention primarily through perceived usefulness and perceived ease of use (Davis et al., 1989; Bagozzi, et al., 1992). Davis tested the original model in the educational environment with MBA students as respondents (Davis et al., 1989), aiming to recognize the external factors affecting the beliefs, attitudes and intentions (Amoako-Gyampah, 2007).

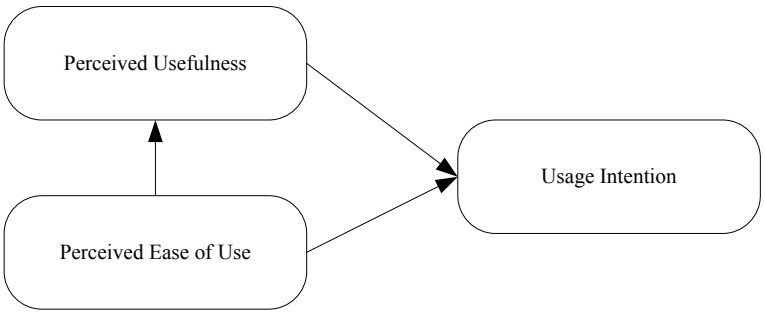

Figure 1. Simplified Technology Acceptance Model (TAM)

Furthermore, based on Davis's original research, a few authors provided empirical evidence of the relationships between usefulness, ease of use and system use being focused on testing the validity and reliability of the questionnaire instrument used by Davis. Hendrickson et al. (1993) confirmed the high reliability of the test. Szajna (1994) validated the instrument as highly predictable as far as constructs usage intention, self-reported usage, and attitude to usage are considered.

The results of numerous studies starting from TAM, i.e. usage intention and the corresponding user behaviour, since the early '90s have justified the model independently of respondents or the information system observed.

On the other hand, Segars and Grover (1993) criticised Davis's measurement model as they used the confirmatory factor analysis to design a somewhat different model containing: usefulness, effectiveness, and ease of use. Additionally, Chuttur (2009) criticised the original TAM for its limited possibility of explanation and prediction, triviality and lack of practical value.

Nevertheless, for the last 20 years, numerous authors have dealt with the expansion of the TAM theoretical basis in order to overcome some of the mentioned limitations. The expanded model proposed by Venkatesh and Davis (2000) is often referred to as TAM2, and its aim is to explain perceived usefulness and usage intentions in terms of social influence and cognitive instrumental processes. The findings provided by testing the TAM2 model strongly supported the model formulation. The aim of this paper is to continue this line of research and to contribute to the understanding of ERP acceptance by combining TAM with another theoretical model – Expectation Confirmation Theory.

2.2. Expectation Confirmation Theory (ECT)

In marketing research, Oliver (1980) proposes the Expectation Confirmation Theory (ECT) to explain customer satisfaction/dissatisfaction determinants (Figure 2). ECT implies that the initial tendency to purchase a commodity will affect the consumer's behaviour to purchase it the next time. If the level of satisfaction with a commodity or a service is high, it will increase the buyer's willingness to purchase it again and vice versa. Bhattacherjee (2001) and Premkumar and Bhattacherjee (2007) proposed an information system continuance model that relates satisfaction and perceived usefulness to the degree to which the user's expectations about an information system are confirmed. Such studies show that it is possible to use ECT to understand and research factors affecting the continued use of information technology. ECT has been recently dealt with in studies on information systems. A number of them present either the application of the ECT model or its combination with TAM to form a more comprehensive framework for specialized areas such as e-learning, mobile services, etc. (see Bhattacherjee, 2001; Roca et al., 2006; Hong et al., 2006). The importance of ECT is growing and several authors propose it as a prominent candidate theory to be considered together with TAM in their directions for future research (Tao et al., 2009; Davis, 2007).

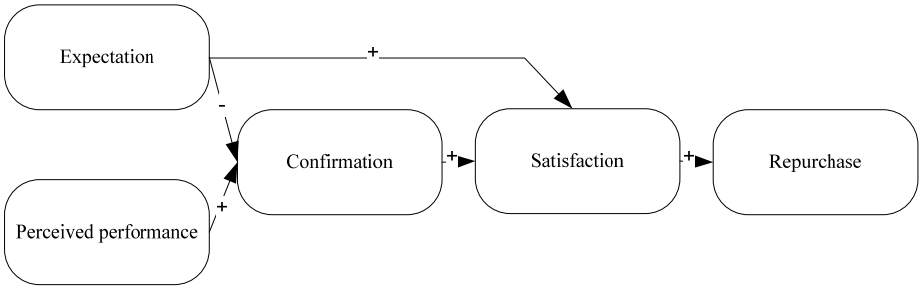

Figure 2. Expectation Confirmation Theory (ECT) model

2.3. Hypothetical research model

The hypotheses on the relation of tested variables are based on the Technology Acceptance Model, Expectation Confirmation Theory and the results of research on information systems conducted by other authors. The effect of the perceived usefulness and perceived ease of use on students' satisfaction was studied by Tao et al. (2009) in their work on the acceptance of business simulation games. Nugroho (2010) researched the effect of computer anxiety on user satisfaction with the electronic library catalogue, while Shaft et

al. (2004) concluded that measurement and quantification of attitude to computers was a key component for understanding acceptance and satisfaction in users of computer supported information systems. The assumed relations are shown in Figure 3, while the short descriptions of variables and the set hypotheses follow.

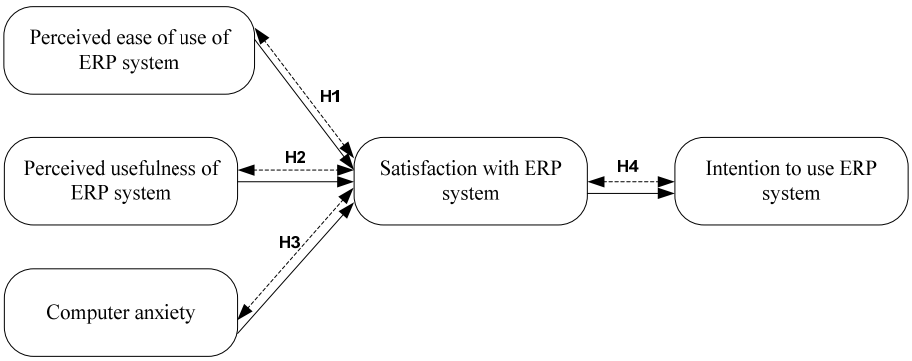

Figure 3. Hypothetical research model

It is important to note that solid lines represent the hypothesized relations based on the aforementioned discussed theoretical background, whereas dashed lines represent the relations inspected hereinafter. The two-way arrows illustrate correlations between the variables and as such, partly represent the limitations of the research methodology.

2.3.1. Perceived ease of use of the ERP system

Perceived ease of use is a construct expressing to what extent the respondent believes that the use of the concrete system is simple for him/her, or to what extent this person believes that the use of the concrete system will not be hard (Davis, 1986). The hypothesis directly related to this is:

H1. The perceived ease of use of the ERP system is positively correlated to the students' satisfaction with the ERP system.

2.3.2. Perceived usefulness of the ERP system

Davis (1986) defines perceived usefulness as the extent to which a person believes that the use of a particular system will improve his/her work performance. The directly related hypothesis is:

H2. The perceived usefulness of the ERP system is positively correlated to the students' satisfaction with the ERP system.

2.3.3. Computer anxiety

Numerous studies have revealed that the respondent's attitude to computers is a significant factor affecting satisfaction with the system. Negative attitude means negative beliefs and feelings towards computers (Sun et al., 2008). Although some authors identify the negative attitude with computer anxiety, these two constructs have to be distinguished – computer anxiety entails feelings and emotional reactions to computer usage, rather than attitudes. The directly related hypothesis is:

H3. Computer anxiety occurring while using the ERP system is negatively correlated to the students' satisfaction with the ERP system.

2.3.4. Satisfaction with the ERP system

Premkumar and Bhattacherjee (2008) state that satisfaction represents an individual's emotive state following first-hand experience with the target object or behaviour. As a psychological construct, satisfaction is analysed in various contexts such as: job satisfaction, satisfaction with product or service, and satisfaction of end-users with information technology used. The directly related hypothesis is:

H4. Students' satisfaction with the ERP system is positively correlated to their intention of its future usage.

3. RESEARCH METHODOLOGY

3.1. Basic characteristics of respondents

The respondents in this research were third year students of the vocational program at the Faculty of Economics in Split who had been using an ERP system for small and medium enterprises within the course Information Systems. While attending the course, they had 15 hours of practical work to get to know the basic functions and modules of a concrete ERP system, and at the end of the semester, they were tested and surveyed online. The survey was conducted at the end of January 2011. Of 180 respondents, 72% were female and 28% male, while their average age was 22. In terms of study programs,

59% of the respondents were taking finance, 33% management, and 9% marketing.

3.2. Research instruments

The main instrument for collecting the primary data was the questionnaire comprising the following measuring scales: perceived ease of use of the ERP system, perceived usefulness of the ERP system, intention to use the ERP system, computer anxiety in the use of the ERP system, and satisfaction with the ERP system.

Some of the measurement scales in the questionnaire were completely created by the author while others were adapted measurement scales that had been created by other authors. The students did a self-evaluation in terms of factors referring to the acceptance of the ERP system on the Likert scale. The possible responses ranged from 5 (absolutely agree) to 1 (absolutely disagree).

3.3. The AVE_ERP system

The AVE_ERP system, that was made available to the respondents in the winter semester of 2010/11, is designed for small and medium sized enterprises, accounting services and sole traders, needing more complex integrated solutions for their information systems. The AVE_ERP application solution meets the needs of all business activities, from retailing to manufacturing, non-profit activities, and government-financed activities, which is important because the respondents in this research are the future potential users of ERP systems.

Furthermore, AVE_ERP has a modular structure in terms of particular accounting applications, but within one executable file, which allows simple installment, upbuilding and maintenance, while the program can be used without any alterations either on a single computer or in a network. Network operation allows students' role-playing in a virtual enterprise, where each student has an insight into its basic data, processing them together with his/her colleagues. The program also allows parallel bookkeeping for a number of business entities and years-long operations without any special intervention with automatic annual transition, unlimited number of stores and automatic financial entries. The authority control system ensures protection against unauthorized usage and control of the users' authority level in particular program functions. The main directory of the AVE_ERP system is presented by Figure 4.

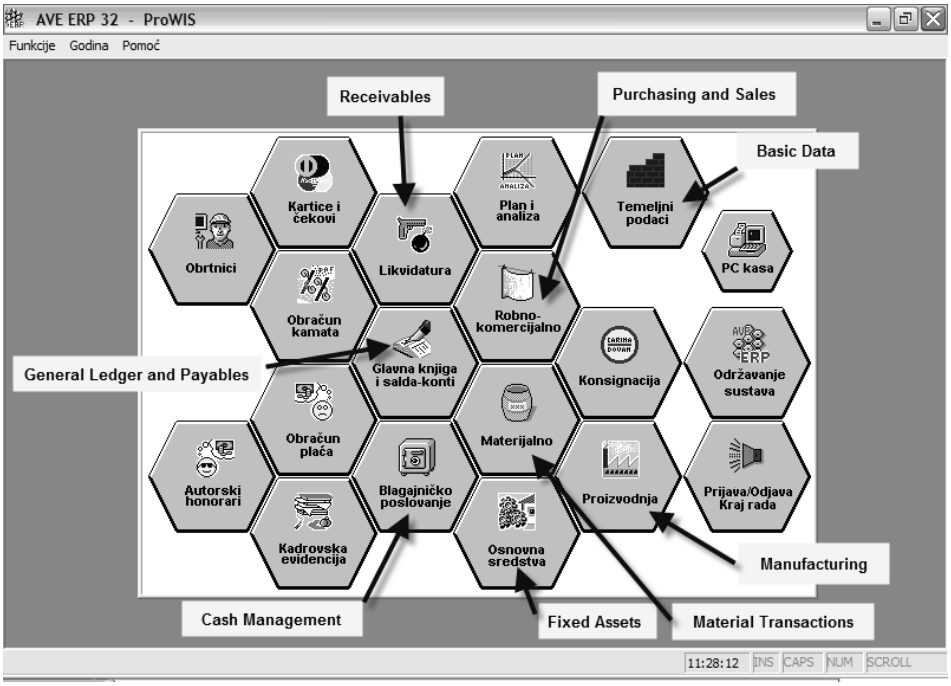

Figure 4. Main directory of AVE_ERP system

The AVE_ERP system has a modular structure which allows users to select the modules that best meet their needs while also allowing future extension by new modules by minimum intervention without disturbing the operation of the existing applications. The program is organised in 17 main modules and one auxiliary module for system maintenance. During the course of their 15-hour tuition, the students accessed the following modules: General Ledger and Payables, Receivables, Cash Management, Fixed Assets, Purchasing and Sales, Material Transactions, Manufacturing, and Basic Data.

The system is characterized by both modularity and integration. Horizontal integration is provided by the use of common data by individual application modules as well as by a number of automated procedures for intermodular data recording.

4. RESEARCH RESULTS

The survey that was carried out among the students at the end of the semester collected subjective data on the usage of the described ERP system

and attitudes to it. The collected data were processed by descriptive statistics, factor analysis, internal consistence analysis and regression analysis.

4.1. Analysis of convergent and discriminant validity of measurement scales

Exploratory factor analysis was used to check the convergent and discriminant analysis of measurement scales. The analysis was carried out on 28 variables with N=180, which met the relation criterion of respondents and variables of 5 to 1 (Hair et al., 2010). The extraction method was the principal component analysis and Varimax rotation resulting in five factors of eigenvalue 1 or more. The obtained factors meet the Kaiser-Guttman rule according to which the number of factors is determined by the size of the eigenvalue, i.e. the factors retained for further analysis were all those with the eigenvalue exceeding 1. The factors obtained in this way explained 78% of the variance. Kaiser-Meyer-Olkin statistics (0.947) state that the factor analysis is appropriate, i.e. that the data fit well with factors, while the Bartlett's test of sphericity is statistically significant. Table 1 shows how the obtained five factors in total explain 78.04% of the variance (cumulative variance percentage). The first factor explains 17.66% of the variance, the second 17.53%, the third 16.99%, the fourth 13.16%, and the fifth 12.70%.

Table 1. Variance percentage explained by obtained factors on measurement scale items after rotation

Factor	Characteristic root (eigenvalue)	Variance percentage	Cumulative variance percentage
F1	4.946	17.66	17.66
F2	4.908	17.53	35.19
F3	4.758	16.99	52.18
F4	3.684	13.16	65.34
F5	3.554	12.70	78.04

Table 2 shows the rotated component matrix with manifest variables which have the greatest variance projection on a single factor. The presented rotated component matrix points that the measurement scales Perceived ease of use, Perceived usefulness, and Computer anxiety have the characteristics of convergent (the associated statements have a factor loading on respondent

factors higher than 0.6) and discriminant validity (the associated statements have a factor loading on remaining factors lower than 0.4).

Table 2. Factor structure after Varimax rotation

	F1	F2	F3	F4	F5
B1. I think that this ERP system is easy to use.	**0.784**	0.247	0.292	-0.172	0.101
B3. Recording business transactions in the ERP system is simple.	**0.773**	0.300	0.309	-0.200	0.198
B2. Interaction with ERP system modules is comprehensible and unambiguous.	**0.771**	0.322	0.212	-0.206	0.128
B5. Most students could learn to use this ERP system very quickly.	**0.711**	0.220	0.224	-0.193	0.339
B4. I think that I can use this ERP system with full confidence.	**0.700**	0.329	0.236	-0.075	0.332
B6. I think that not much previous knowledge is needed to use this ERP system.	**0.609**	0.260	0.074	-0.182	0.289
A2. The ERP system that I use contributes to development of skills needed for the labour market.	0.278	**0.775**	0.281	0.021	0.184
A1. I think that working in the ERP system is useful for me.	0.285	**0.735**	0.359	-0.116	0.148
A3. I think that in the future I will be able to use the knowledge acquired by using the ERP system.	0.289	**0.734**	0.279	-0.053	0.200
A4. I believe that the ERP system operation is completely adapted to my needs.	0.329	**0.721**	0.294	-0.101	0.228
A5. Mastering the ERP system operation will enable me to do various jobs more efficiently.	0.279	**0.710**	0.284	-0.051	0.365
A6. I will be able to use the knowledge acquired by operating the ERP system in my further education.	0.271	**0.657**	0.227	-0.107	0.414
H6. I will state the ability to use the ERP system in my CV.	0.289	0.473	0.445	-0.022	0.273

H4. In my future job, I would like to work in an ERP system.	0.196	0.257	**0.806**	-0.114	0.236
H2. I think that the issue of the ERP system is interesting and I would like to deal with it in other courses.	0.295	0.228	**0.794**	-0.071	0.176
H1. After completing my studies, I intend to use ERP systems.	0.201	0.309	**0.785**	-0.073	0.170
H5. During my studies, I intend to extend my knowledge on ERP systems.	0.203	0.267	**0.749**	-0.062	0.364
H3. I would like to learn to operate another ERP system.	0.171	0.267	**0.748**	-0.099	0.112
C2. I feel anxiety when using the computer to record transactions in the ERP system.	-0.111	-0.060	-0.055	**0.924**	-0.065
C3. I feel confused when using the computer to operate the ERP system.	-0.174	-0.099	-0.063	**0.906**	-0.152
C4. Using the computer to record business transactions in the ERP system sometimes makes me panic.	-0.151	-0.087	-0.063	**0.905**	-0.064
C1. Using the computer to operate the ERP system makes me extremely nervous.	-0.158	0.031	-0.122	**0.891**	-0.072
G4. The quality of this ERP system is equal to other information systems that I had a chance to familiarize with.	0.286	0.222	0.231	-0.067	**0.747**
G5. I am satisfied with the operating speed of this ERP system.	0.188	0.280	0.221	-0.194	**0.734**
G6. I think that using the ERP system is the most convenient way for recording business transactions.	0.298	0.405	0.337	-0.068	**0.641**
G1. I am very satisfied with this ERP system.	0.502	0.328	0.359	-0.183	0.563
G3. I am satisfied with the level of skills acquired in the usage of the ERP system.	0.447	0.375	0.375	-0.167	0.559
G2. I would recommend other students to use this ERP system.	0.449	0.390	0.438	-0.153	0.470

As for the measuring scale *Intention to use the ERP system*, the statement H6 does not show characteristics of convergent and discriminant validity and it is eliminated from the measuring scale in further analysis. Also, for the measuring scale *Satisfaction with the ERP system,* only the statements G4, G5 and G6 show characteristics of convergent and discriminant validity, therefore the remaining variables (G1, G2 and G3) are eliminated in further analysis.

4.2. Internal consistency of measuring scales

To determine the internal consistency of measurement scales, calculation of the Cronbach alpha coefficient was used. Investigating internal consistency of measurement scales allows the comparison of results between the instrument statements based on data collected in a single survey.

The Cronbach alpha coefficient ranges from 0 to 1, and there are different attitudes on the acceptability of constructs based on the alpha coefficient. Felder and Spurlin (2005) take the alpha value of 0.5 as the lower acceptability level, whereas e.g. Kline (1998) proposes the following limits for the reliability coefficient: 0.90/excellent, 0.80/very good, and 0.70/satisfactory. The analysis of internal consistency was carried out for the obtained factor structure (Table 3). The Cronbach alpha coefficient for *Perceived ease of use of the ERP system* (F1) is 0.930; for *Perceived usefulness of the ERP system* (F2), it is 0.937; for *Intention to use the ERP system* (F3), it is 0.927; for *Computer anxiety in use of the ERP system* (F4), it is 0.945; and for *Satisfaction with the ERP system* (F5), it is 0.847. The measurement scale F5 has a very good reliability level, while the other four scales have an excellent reliability level and therefore they do not need any additional corrections.

Table 3. Internal consistency of measurement scales

Measuring scales	**Number of items**	**Cronbach Alpha Coefficients**
Perceived ease of use of ERP system (F1)	6	0.930
Perceived usefulness of ERP system (F2)	6	0.937
Intention to use ERP system (F3)	5	0.927
Computer anxiety in use of ERP system (F4)	4	0.945
Satisfaction with ERP system (F5)	3	0.847

Table 4 shows the mean values of separated factors for three study programs. Mean values for all the factors range from 2.84 to 3.27 on a scale from 1 to 5. For the study programs Finance and Management, the factor *Perceived usefulness of the ERP system* has the highest mean value, whereas for the program Marketing, the factor *Satisfaction with the ERP system* has the highest mean value.

Table 4. Differences of measurement scales mean values in three study prorams

Study program	**N**	**Mean (F1)**	**Mean (F2)**	**Mean (F3)**	**Mean (F4)**	**Mean (F5)**
Finance	105	3.11	3.35	2.89	2.99	3.18
Management	59	2.92	3.09	2.75	3.11	2.98
Marketing	16	3.22	3.40	2.84	3.16	3.46
Total	**180**	**3.06**	**3.27**	**2.84**	**3.04**	**3.14**

4.3. Model testing

Regression analysis was used to test the hypotheses H1, H2 and H3 on the correlation of the perceived usefulness of the ERP system, the perceived ease of using it, and computer anxiety, to satisfaction with the ERP, as well as the hypothesis H4 on the positive correlation of students' satisfaction with the ERP system to their intention to use such systems in the future. Regression analysis was carried out on the gross results of measurement scales, and the results that involve the level of statistical significance, standardized Beta coefficient and R-square are shown in Figure 5.

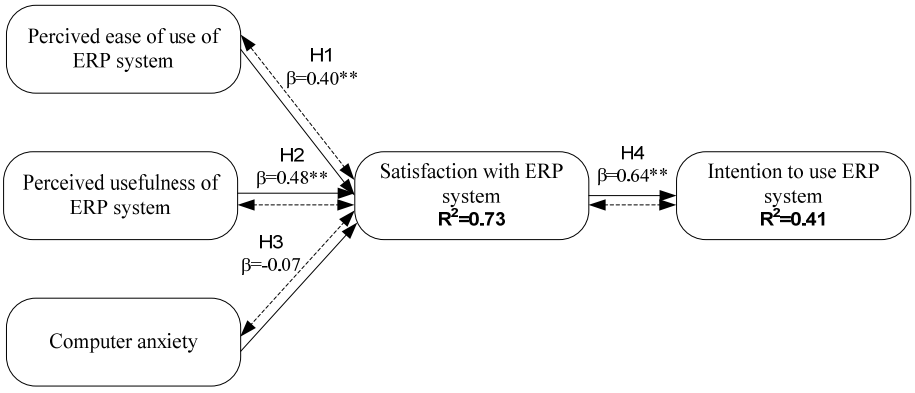

Figure 5. Research model with regression analysis results (p<0.01)

R-square or the coefficient of multiple determination represents the dependent variable variance share explained by the model while β denotes the regression coefficient showing the average change in the dependent variable when the correspondent independent variable is increased by 1.

Regression analysis was conducted by the Enter method in which all the variables were introduced at once. Considering the values of the Beta coefficient, it can be concluded that the hypotheses H1 and H2 were confirmed, as it was found that the variables Perceived usefulness of the ERP system and Perceived ease of use of the ERP system were statistically significantly positively correlated to Satisfaction with the ERP system.

The hypothesis H3 on the negative correlation between Computer anxiety and Users' satisfaction with the ERP system was not confirmed because the correlation was not statistically significant. Furthermore, the three predictor variables in the model explain 73% of the dependent variable Satisfaction with the ERP system variance (R=0.852). A group test of the regression model significance (p-value of the empiric F-ratio in the ANOVA table) was 0.000, which means that the regression model is statistically significant. The multiple regression model was used to determine the relative contribution (independent correlation) of each predictor variable controlling the effect of other predictor variables in the prediction equation.

The hypothesis H4 on the positive correlation of Satisfaction with the ERP system to Intention to use the ERP system was confirmed in the second step considering the statistical significance of this correlation with the Beta coefficient (0.64). The predictor variable Satisfaction with the ERP system explained 41% of the variable Intention to use the ERP system variance (R=0,640).

5. CONCLUSION

The implementation of an ERP system requires financial resources, time and commitment of an organization. Given the limited time and budget, it is important for the managers to recognize strategies that can lead to a greater advantage. Furthermore, ERP system implementations are frequently characterised by big problems, which leads to the need for researches like this one to ensure more information on achieving implementation success. The hypotheses posed and tested to find the correlation between some external variables and their effect on the use of the ERP system can help all those involved in the process to better comprehend the correlated problems. The

research presented here focuses on the effect of factors such as perceived ease of use and usefulness of the ERP system, computer anxiety in the use of the ERP system, and satisfaction with the ERP system on the intention to use them.

To explain the intention to use information technology by end users, Premkumara and Bhattacherjee (2008) propose an integrated model based on the propositions of the Technology Acceptance Model and Expectation Disconfirmation Theory model, while pointing to the statistically significant correlation of users' satisfaction to their intention to use the system for e-learning. In a similar way, a predictive conceptual model based on the TAM and ECT model is created and tested in this study.

The results confirm a number of conclusions made in the available research studies – the perceived usefulness of the ERP system has a significant effect on satisfaction with the used ERP system. The users of information systems, who nowadays see technology as omnipresent and unavoidable, pay increasing attention to usefulness, especially in the long run. Consequently, system developers have to continuously enhance systems in order to make them meet the real business needs. To improve users' satisfaction, they have to implement strategies that involve training and involvement in system development processes. In this way, users will have realistic expectations of the system that can be met, which will in turn increase their satisfaction.

The main conclusion of the research is that both perceived ease of use and usefulness of the ERP system significantly contribute to the satisfaction with it and indirectly affect the intention to use it, which is similar to the study of Amoako-Gyampah (2007) on the variables affecting the intention to use a complex ERP system in a corporate environment.

Considering the limitations of this research, it has to be noted that there are also other variables related to the ERP environment that should be taken into account when dealing with usage intention which were not part of this study. Such variables are, for instance, user's characteristics, previous knowledge or the influence of a particular ERP system. Extending the model with these variables in a longitudinal research could be conducted to confirm the correlation between the observed variables. Nevertheless, the study results presented here should contribute to the development of theories related to technology implementation and to the understanding of factors that affect implementation success.

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FAKTORI POVEZANI S NAMJEROM KORIŠTENJA ERP SUSTAVA

Sažetak

ERP sustavi snažno utječu na poslovanje, kako velikih multinacionalnih kompanija, tako i niza srednjih i malih poduzeća. Pri implementiranju ovakvih sustava iznimno je bitno kako će ih krajnji korisnici u organizaciji prihvatiti i kakav će stav spram njih zauzeti. U ovom radu integrirane su neke od postavki teorije potvrđivanja očekivanja i modela prihvaćanja kako bi se istražili faktori povezani s namjerom korištenja ERP sustava od strane studenata ekonomskog usmjerenja. Istražena je povezanost percipirane korisnosti ERP sustava, percipirane jednostavnosti korištenja ERP sustava te računalne anksioznosti korisnika sa zadovoljstvom prema korištenom ERP sustavu. Dodatno, pretpostavka o pozitivnoj povezanosti zadovoljstva studenata ERP sustavom s njihovom namjerom budućeg korištenja ovakvih sustava utemeljena je i dokazana prema EC teoriji. Istraživanjem je obuhvaćeno 180 studenata treće godine stručnog studija Ekonomskog fakulteta u Splitu koji će, prema svojoj struci, predstavljajti potencijalne korisnike ERP sustava. Navedeni ispitanici su tokom zimskog semestra 2010/2011, u okviru kolegija Informacijski sustavi, upoznali i koristili konkretni ERP sustav pri čemu su se temeljem praktičnog rada na računalima upoznali s osnovnim funkcionalnostima osam odabranih modula. Iako se u istraživanju koristio prigodni uzorak ispitanika može se tvrditi da da statistička značajnost dobivenih rezultata ukazuje na bitne faktore povezane s namjerom korištenja ERP sustava od strane studenata ekonomskih usmjerenja odnosno budućih korisnika ERP sustava.