THE RELATIONSHIP BETWEEN INSTRUCTIONAL SUPPORT, PEER SUPPORT AND STUDENT SATISFACTION ON ENTERPRISE RESOURCE PLANNING

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ABSTRACT

Business needs enterprise resource planning (ERP). SAP is the market leader of ERP. Due to the importance of ERP in business, higher education is implemented in curriculum. that require internal cross-disciplinary coordination. Students must acquire and understand cross functional business processes while implementing the SAP software. It is challenging for students to be successful in this class. Based on the conditions, the purpose of study is finding the effect of instructor support and peer support toward student satisfaction. This is quantitative research. The research design is collecting primary data using online surveys for students. There were 104 students as respondents. The students conduct ERP class by hybrid, online and offline methods. SPSS was used to analyse data using multiple regression. Data was running for validity and reliability test. The result is data could analyse further for the model. Based on F test, the model fits. Regression analysis indicated that instructor support and peer support are positively related to student satisfaction. This study demonstrated the importance of building support for student satisfaction. The result aligned with prior studies.

Keywords: enteprise resource planning, SAP, instructor support, peer support, student satisfaction.

ABSTRAK

Dunia bisnis membutuhkan Enterprise Resource Planning (ERP). Software SAP adalah penguasa pasar dari ERP. Perguruan tinggi mengaplikasikan ERP ke dalam kurikulum. ERP membutuhkan multi disiplin ilmu dan kordinasi. Mahasiswa harus memahami proses bisnis yang melewati batas antar unit fungsional dengan mengimplementasikan SAP. Kondisi ini cukup menantang bagi mahasiswa yang ingin sukses saat menempuh ERP. Oleh karena itu penelitian ini ingin melihat keterkaitan antara dukungan instruktur, dukungan teman sejawat dan kepuasan mahasiswa untuk mata kuliah ERP. Metode penelitian kuantitatif diterapkan dengan metode survey untuk mendapatkan data primer. Ada 104 mahasiswa sebagai responden yang mengambil mata kuliah ERP yang diselenggarakan secara hybrid, daring, maupun luring. Data dianalisis menggunakan regresi berganda yang diolah menggunakan SPSS. Data yang diperoleh telah lulus uji reliabilitas dan validasi. Berdasarkan uji F, diketahui bahwa model sesuai. Analisis regresi menghasilkan temuan bahwa dukungan instruktur dan dukungan teman sejawat memiliki pengaruh secara positif terhadap kepuasan mahasiswa. Penelitian ini menunjukkan pentingnya membangun dukungan untuk membentuk

kepuasan mahasiswa. Hasil penelitian ini sejalan dengan penelitian penelitian terdahulu,

Kata kunci: *enteprise resource planning*, SAP, dukungan instruktur, dukungan sejawat, kepuasan mahasiswa.

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1. INTRODUCTION

In the modern era, business is borderless. To be powerful to keep up with many forms transactions, business needs enterprise resource planning (ERP). The new rule in business is efficiency goes along with the company's goal. ERP is application that provide accounting, controlling, production an material management, quality management, plant management, sales and distribution, human resource management, and project management. It is an integration of primary business applications. ERP is believed to have advantages such as lowering operating costs, reducing cycle times and increasing customer satisfaction (Gupta, 2011).

There are so many ERP tools in the world that serve the needs of businesses, such as Oracle, Odoo, SAP, ERPNext, Microsoft Dynamics 365, Acumatica Cloud ERP, Katana, Sage Intacct, etc (Emley, 2023). SAP is the prominent software in the world (Chien & Tsaur, 2007). SAP is the market leader in enterprise application software – enterprise resource planning software, data analytics, cloud based solutions, database integration, and mobility management. SAP software supports organizations of all sizes and industries by developing innovations that help customers run at their best. The Important of SAP are:

• SAP is used by over 290,000 customers in 190 countries - Companies That Use SAP®
• SAP customers include 80% of the Fortune 500 companies, 87% of the Forbes Global 2000 companies, and 98% of the 100 most valued brands
• SAP's customers produce 78% of the world's food and 82% of the world's medical devices
• 74% of the world's transaction revenue touches an SAP system
• 40,000 jobs referencing SAP listed on Indeed.com, (Salisbury University, 2024)

The design of the curriculum should include some practical knowledge of an enterprise system. SAP is an appropriate choice because SAP is one of the two dominant ERP vendors (the other vendor is Oracle (Huang & Handfield, 2015). Giving SAP into curriculum will give hands-on experience with a live ERP system (Kirkham & Seymour, 2005). It is important because accounting education is perceived by lecturers as a mere technique rather than as an integral part of the management and business decision-making process (Calabor, Mora, & Moya, 2018). SAP includes the multidisciplinary scope of enterprise system concepts that require internal cross-disciplinary coordination.

Students must acquire and understand cross functional business processes while implementing the SAP software (Wang, Integrating SAP to Information Systems

Curriculum: Design and Delivery, 2011). SAP is software for ERP system in curriculum. It is technical skill to mastering the ERP. To be successful for this class, student need support from instructor and peers. The purpose of study is find the effect of instructor support and peer support toward student satisfaction.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Some scholars have found that integrating accounting software provides students with a more accurate reflection of what occurs in organisations where they will eventually work and better prepares students for the business world and accounting profession (Blount, Abedin, Vatanasakdakul, & Erfani, 2016). The previous research for implementing SAP as an ERP software in the university has positive learning outcomes. The course approach is reading, discussion, and case study to learn ERP (SAP Fundamental). There is significant difference in learning outcome between graduate and undergraduate students. Graduate students achieved higher performance and benefited more from the course. This was because the two groups had different pre-existing knowledge in ERP and academic backgrounds (Wang, El-Masry, & Zhang, Assessments and Outcomes of an ERP/SAP Fundamental Course, 2009)

Support for student learning is a key element in optimizing student learning experiences in any learning environment and its importance has been widely discussed. It is assumed that student perception of support influences the learning experience. Students' perceptions of support are positively related to perceived learning, which include student learning outcomes. Students' achievement and course satisfaction (Mullen & Tallent-Runnels, 2006). Two categories of support were identified and used for the purpose of the study: instructional and peer support. Instructional support is recognized academic and affective support were positively related to course satisfaction and perceived learning outcomes in online courses (Mullen & Tallent-Runnels, 2006). Peer support refers to peer-to-peer learning which involves students supporting each other on academic or non-academic issues (Lee, Srinivasan, Trail, Levis, & Lopez, 2011). Peer learning strategy was correlated to students' academic performance (Ashwin, 2003). Based on the premise, this study proposed

Hypothesis 1 = Instructional support is positively related to students' satisfaction

Hypothesis 2 = Peer support is positively related to students' satisfaction

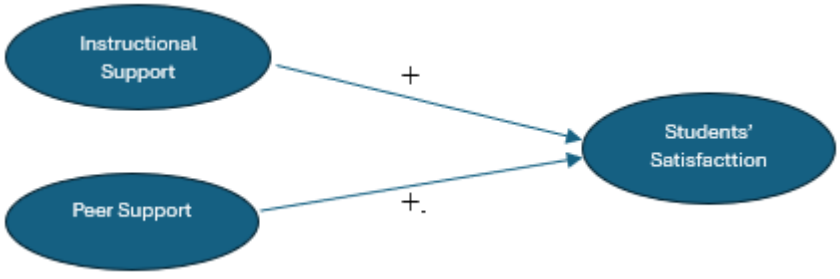

Figure 1. The Hypothesis Model

3. RESEARCH DESIGN

The ERP/SAP Accounting was taught to senior undergraduate after they completed ERP/SAP Fundamental course in the Accounting Department in STIE YKPN Business

School during the 2022-2023 academic year. The goal is to teach students to understand business information system and be able to implement ERP/SAP software. SAP consists of application modules and business process procedures. The major SAP accounting modules are as follows:

1. Navigation,
2. General Ledger Accounting,
3. Account Payable,
4. Account Receivable,
5. Asset Accounting,
6. Bank Accounting,
7. Financial Statements.

Students exercise simulation game provided the SAP environment to experience an integrated enterprise system. Every student handles his/her own case of business process using IDES as sample company. SAP R/3 is used to simulate an integrated set of modules, designed in theory to support all aspects of business.

3.1. Data Collection

The data collected via web-based survey. The survey based on Likert scale on 5-point (from 1 – strongly disagree to 5-strongly agree). The survey was conduct in YKPN Business School Yogyakarta, Indonesia. It was available for students two weeks before the final exam. The students were taking the ERP Accounting class. They were asked to participate in the survey on their perception of instructional and peer support toward student satisfaction.

There are 104 students who submitted responses on an online survey. The majority of the participants are female (n = 73) and the others are male (n = 31). The methods of taking class are hybrid (n = 91), online (n = 3), and offline (n = 73).

3.2. Data Analysis

Descriptive statistics for each support category were summarized for the Likert-style format items. Analysis of student survey data was completed by SPSS.

4. RESULT AND DISCUSSION

Cronbach's alpha was calculated to assess the internal consistency of student perception of support variables used in the study. The Cronbach's alpha for the scale was 0.87, indicating high reliability. This value suggests that the items on the scale have good internal consistency and measure the same underlying construct, which is consistent with the commonly accepted threshold of 0.70 for acceptable reliability." "Typically, a Cronbach's alpha value above 0.70 is considered acceptable, and a value above 0.80 indicates high reliability.

Table 1. Reliability Test

No.	Variables	Cronbach’s Alpha	Number of Items
1	Instructional	0.915	5
2	Peer to Peer	0.764	2
3	Student Satisfaction	0.879	5

The Pearson correlation test was conducted to evaluate the validity of student perception of support variables. The analysis revealed a strong positive correlation between the instructional support, peer to peer, and student satisfaction (r counted > r table; $p < 0.001$). This high correlation indicates a strong positive relationship, suggesting that as scores on instructional variables increase, scores on the student satisfaction measure also increase. The same criteria on peer to peer support toward student satisfaction are highly correlated.

Table 2. Validity Test

Item	rxy	rtable	remark
D1	0.865	0.195	valid
D2	0.850	0.195	valid
D3	0.893	0.195	valid
D4	0.867	0.195	valid
D5	0.846	0.195	valid
S1	0.902	0.195	valid
S2	0.897	0.195	valid
R1	0.781	0.195	valid
R2	0.790	0.195	valid
R3	0.818	0.195	valid
R4	0.859	0.195	valid
R5	0.857	0.195	valid

An F-test was used to determine the overall significance of a multiple regression model predicting student satisfaction based on instructional support and peer to peer support. The F-test for the regression model was significant, $p < 0.001$, suggesting that the model as a whole significantly predicts student satisfaction. The significant F-test indicates that instructional support and peer to peer support collectively have a substantial impact on job satisfaction.

Table 3. F Test

Model	Sum of Squares	df	Mean Square	F	Sig
Regression	373.518	2	186.759	28.434	0.000
Residual	663.398	101	6.568		
Total	1036.913	103			

Multiple regression analysis show that interaction with instructor and interaction with peer student are positively related to student satisfaction. As a result, the hypothesis of H1 and H2 are supported because the value of significant is lower than 0.05. The result is consistent with prior study (Goh & Leong, 2017).

Table 4. T Test

Variable	B	Std Error	Standardized	t	Sig
Constant	5.785	1.741		3.323	0.001
Ins	0.441	0.101	0.436	4.386	0.000
Peer	0.480	0.210	0.227	2.285	0.024

Instruction dimensions explain that students could study better because of the learning experience from listening and practicing. Lectures will give students examples of ERP cases that students had to solve. Students experience by themselves and have confidence mastering SAP. Peer support from other students also play important roles on studying. Both dimensions lead to students'satisfaction.

Based on R square, the instruction dimensions and peer to peer dimensions contribute 36% as variables in explaining students' satisfaction. Any other variables that may contribute to student satisfaction is technical and environmental dimensions.

Table 5. R Square

Model	R	R Square	Adj, R Square	Std. Error
	0.60	0.360	0.348	2.562

For further research, the method of taking class (hybrid, online, and offline) could explore further to determine whether there is different result for the each class. It could see the effect on gender while taking the class. Any other dimensions could add to find out the more support toward student satisfaction or even student learning outcomes. It is important for building support toward students. The positive support will encourage students for study better and lead to best outcome. Interaction of students and instructors is important construct toward student satisfaction. This study provides empirical evidence for ERP class.

5. CONCLUSION

The success of school is based on curriculum. It should include practical knowledge. In Business Higher Education this is important. Knowing and understanding business is a must. Enterprise Resource Planning is taught with SAP for practicing software. Mastering ERP needs support. Instruction dimensions from lecturer and peer dimensions from other students, empirically positively contributed to student satisfaction on SAP class in higher education school. Supporting environment needs to be created for students to excel in the classroom.

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