

# Development of Spreadsheet Based Application for Hotel Accounting Practice Learning

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**Abstract**— A spreadsheet-based application for hotel accounting practices learning according to the uniform system of accounts for the lodging industry (USALI) needed by lecturers and students. The research objectives were: 1) to produce a spreadsheet-based application for learning hotel accounting practices according to USALI; 2) to analyze the results of expert tests and user assessments of the feasibility of a spreadsheet-based application for learning hotel accounting practices according to USALI. This type of research is research and development using descriptive methods. The research activities consist of analyzing the need for a spreadsheet-based application for hotel accounting practices learning according to USALI, developing a spreadsheet-based application for hotel accounting practices learning according to USALI, conducting expert tests, and assessing the appropriateness of a spreadsheet-based application for hotel accounting practices learning according to USALI. The type of data used is quantitative data obtained from primary and secondary sources. Quantitative data consists of test results and feasibility assessment of applications which include technical feasibility and operational feasibility. Data were collected using interview methods, questionnaires, and documentation. Quantitative data were analyzed using percentage analysis techniques. The results showed that the spreadsheet-based application for learning hotel accounting practices according to USALI consists of several parts, namely files, journals, ledgers, worksheets, and financial statements. The results of expert testing and user assessment indicate that the spreadsheet-based application for learning hotel accounting practices according to USALI has met technical feasibility and operational feasibility. A spreadsheet-based application for hotel accounting practices learning according to USALI in learning practices.

**Keywords**—*applications, spreadsheets, practices, accounting, hotels*

## I. INTRODUCTION

Vocational tertiary institutions are tertiary institutions that organize a vocational education system directed at mastering specific applied skills. Vocational tertiary institutions should be able to produce skilled workers needed by the industry. Therefore, in the vocational college study program curriculum, the semester credit unit load for practical courses can reach more than 50% of the total semester credit unit load.

The practice material is one of the components of the practical learning system. The practice material has an effect on the learning process and the achievement of learning outcomes [1]. Practice learning materials important for lecturers and students in learning. For lecturers, practice materials help lecturers in directing and evaluating practical activities. For students, practice materials guide students in carrying out practices to achieve the expected competencies.

Hotel accounting practice materials following USALI are one of the practice materials needed for hotel accounting practices. Hotel accounting practice materials according to USALI will make it easier to adapt to hotel accounting information systems which are generally also developed according to USALI. Besides being designed for manual learning, practice materials are also created for spreadsheet-based hotel accounting practices learning to increase learning effectiveness.

Based on preliminary surveys in libraries and bookstores, hotel accounting practice materials according to USALI are not yet supported by spreadsheet-based applications. Therefore, it is necessary to develop a spreadsheet application for hotel accounting practices learning according to

USALI. Spreadsheet-based applications that are developed must meet technical feasibility [2], [3] and operational feasibility [4], [5], [6]. The use of hotel accounting practice materials follow USALI makes it easy to adapt various accounting packages used by hotels. The use of spreadsheet applications in learning accounting practices can increase learning effectiveness[7].

Learning hotel accounting practices using spreadsheet-based applications are cheaper and environmentally friendly because it reduces paper usage for learning practice. The use of spreadsheet-based applications affects learning and can improve behavior and learning motivation [8], [9]. The use of spreadsheet-based applications is preferred over traditional methods and can improve learning performance [10], [11]. In addition, spreadsheet-based applications can improve skills and work productivity [12], [13], and it's widely used in processes of financial reporting and corporate operations [14].

This study will describe the development of a spreadsheet-based application for hotel accounting practices learning according to USALI. This study will also analyze the expert tests and user assessments feasibility results of the spreadsheet-based application used in hotel accounting practices learning.

## II. LITERATUR REVIEW

Financial accounting (financial accounting) is a part of accounting that aims to produce financial information of an entity, useful for stakeholders as users of financial reports in making decisions about investment and credit, understanding financial position, financial performance, and cash flow [15]. Hotel accounting practices Learning is learning using the accounting cycle application in the hotel industry according to USALI. USALI (Uniform System of Accounts for The Lodging Industry) is a uniform account system that establishes a standard account format and classification in preparing and presenting financial reports [16].

Teaching materials are materials that are used in the learning process by lecturers and students that are arranged systematically [17]. Teaching materials can be in the form of printed, audio-visual, audio, visual, and multi-media materials [18]. Spreadsheet-based teaching materials were computerized simulations of worksheets [19]. The spreadsheet application is widely used with other software in the accounting process [20] because the spreadsheet application is flexible and easy to use [21]. Spreadsheet-based applications used widely in accounting and finance learning can develop applied skills. [8], [22]. The use

of spreadsheets is also error-prone, so it is necessary to overcome this error-proneness by testing before the application is used.

## III. RESEARCH METHODS

This type of research is research and development using descriptive methods. The research activities consist of analyzing the need for a spreadsheet-based application for hotel accounting practices learning according to USALI, developing a spreadsheet-based application for hotel accounting practices learning according to USALI, conducting expert tests, and assessing the appropriateness of a spreadsheet-based application for hotel accounting practices learning according to USALI.

The object of this research is the development of a spreadsheet-based application for learning hotel accounting practices according to USALI. The research location is at the Bali State Polytechnic. The type of data used is quantitative data obtained from primary and secondary sources. Quantitative data consists of test results and feasibility assessment of applications which include technical feasibility and operational feasibility. The application testing by experts involved ten (10) computer and accounting experts, while the Assessment of applications involved 95 students who took part in accounting practice lectures. Data were collected using interview methods, questionnaires, and documentation. Quantitative data were analyzed using percentage analysis techniques. The conclusion was made by comparing the percentage with the assessment percentage scale shown in Table 1.

TABLE I. FEASIBILITY LEVELS AND REVISED CRITERIA

Value Range	Feasibility Level
81.26-100	Very feasible, no need to be revised
62.51-81.25	Feasible, it doesn't need to be revised
43.76-62.50	Less feasible, it needs to be revised
25.00-43.75	Very infeasible, it really needs to be revised

## IV. RESULTS AND DISCUSSIONS

The following will describe an overview of the development of a spreadsheet-based application for hotel accounting practices learning and expert testing and user assessment of the appropriateness of these applications for use in learning.

### 4.1 Overview of the Application

The spreadsheet-based application for hotel accounting practices learning is reflected in the application's main menu. The spreadsheet-based application consists of files, journals, general and

subsidiary ledger, worksheets, and financial reports shown in Fig. 1.

MAIN MENU				
FILE	JOURNAL	LEDGER	BALANCE-WORKSHEET	FINANCIAL STATEMENT
User	Room	General Ledger	Opening Balance	Department Reports
Company	F & B	Account Payable	Trial Balance	Income Statement
Account	Laundry	Account Receivable		Other Comprehensive
Vendor	SPA	Inventory	Adjustment Entry	Change of Equity
Customer	Sales & Marketing	Account Payable List	Worksheet	Financial Position
Inventory	Adm. & General	Account Receivable List		Cash Flow
	HRD	Inventory List	Closing Entry	Note of Financial Statement
	Maintenance		Closing Trial Balance	

Fig. 1. Main menu of the application

**1) File**

User contains user information such as identification number, name, department, and position. User information is displayed on each sheet to facilitate the assessment. It can reduce the possibility of application users exchanging files during practical learning.

PENGGUNA APLIKASI	
Informasi Pengguna	
No. Urut :	
No Induk :	
Nama :	
Departemen :	
Jabatan :	

Fig. 2. User of the application form

The general company information includes company identity, accounting information, and tax information. Relevant company information such as company name, accounting date, or period will be displayed automatically on the identity documents and financial reports.

INFORMASI UMUM			
Identitas Perusahaan		Informasi Pajak	
Nama Perusahaan :		NPWP/NPPKP :	
Alamat :		Tanggal Pengukuhan :	
Kota :		Nomor Seri Faktur :	
No. Telepon :		Kode Cabang :	
No. Fax :		Jenis Usaha :	
Email Address :		KLU SPT :	
Informasi Akuntansi		Pilihan	
Periode :		Mata Uang :	in rupiah
Per :		Bahasa :	Indonesia

Fig. 3. General information form

Account and opening balance consist of the account number, account name, classification, normal balance, and opening balance. The account name on the chart of account is available in three columns,

namely the account name in Indonesian, in English, and the account name selected. It intended to automate the accounts displayed following the choice of the desired language (Indonesian/English).

ACCOUNT	
NO AKUN:	<input type="text"/>
NAMA AKUN:	<input type="text"/>
ACCOUNT NAME:	<input type="text"/>
AKUN PILIHAN:	<input type="text"/>
KLASIFIKASI:	<input type="text"/>
D/K:	<input type="text"/>
H/D:	<input type="text"/>
SALDO AWAL:	<input type="text"/>

Fig. 4. Chart of Account

Vendor and customer information contains names, numbers, addresses, cities, telephone terminals, invoice numbers, invoice dates, and opening balances related to vendors/customers. Inventory information consists of inventory name, inventory number, size, quantity, price per unit, and total. It used to input vendor and customer data along with related payable and receivable balances.

VENDOR	
NO:	<input type="text"/>
NAMA VENDOR:	<input type="text"/>
NO VEN:	<input type="text"/>
ALAMAT:	<input type="text"/>
KOTA:	<input type="text"/>
TELEPON:	<input type="text"/>
TERMIN:	<input type="text"/>
NO. FAKTUR:	<input type="text"/>
TGL. FAKTUR:	<input type="text"/>
SALDO AWAL:	<input type="text"/>

  

CUSTOSMER	
NO:	<input type="text"/>
NAMA PELANGGAN:	<input type="text"/>
NO PEL:	<input type="text"/>
ALAMAT:	<input type="text"/>
KOTA:	<input type="text"/>
TELEPON:	<input type="text"/>
TERMIN:	<input type="text"/>
NO. FAKTUR:	<input type="text"/>
TGL. FAKTUR:	<input type="text"/>
SALDO AWAL:	<input type="text"/>

Fig. 5. Vendor and customer form

**2) Journal**

This spreadsheet-based application uses a general journal approach. All transactions that occur will be recorded in the general journal. The transactions are recorded according to the departments in the hotel, namely room, food & beverage (F&B), laundry, spa, sales & marketing, administration & general, human resources department (HRD), and utility/maintenance. The account name column is validated using list validation so that it is selected easily.



capable of producing financial reports, and the application has adequate application controls.

TABLE III. OPERATIONAL FEASIBILITY TEST RESULTS

Operational Aspects	Experts Score (%)	Users Score (%)
<b>The user's ability to use the application.</b>		
Users can quickly use the application.	87.5	85.0
Users can overcome the difficulties of application.	90.0	85.0
<b>Ability of application to produce information</b>		
The applications can produce financial reports	92.5	92.5
The application generates detailed information.	85.0	87.0
The application can generate information on the monitor.	87.5	90.0
The application can produce printed information.	90.0	90.0
<b>Application control</b>		
The application include the adequate password.	85,00	85,00
The application has input control.	75,00	75,00
The application has output control.	72,50	75,00

## V. CONCLUSION

The research objectives were: 1) to produce a spreadsheet-based application for learning hotel accounting practices according to USALI; 2) to analyze the results of expert tests and user assessments of the feasibility of a spreadsheet-based application for learning hotel accounting practices according to USALI. The results showed that the spreadsheet-based application for learning hotel accounting practices according to USALI consisted of several parts, namely files, journals, ledger worksheets, and financial reports. Spreadsheet-based application for learning hotel accounting practices according to USALI has met the technical and operational feasibility for use in learning.

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