

CERTIFICATION OF APPROVAL


UTP Online Book Catalog

by

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Approved by,


A handwritten signature in black ink, appearing to read 'Amelia Akashah Patah Akhir', is written over a horizontal line.

(Ms Amelia Akashah Patah Akhir)

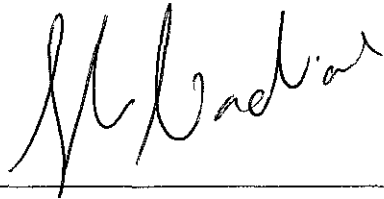
UNIVERSITI TEKNOLOGI PETRONAS

TRONOH, PERAK

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CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.



SHARIFAH NADIAH SYED ABDULLAH

7922

Business Information System

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND STUDY

Existence of online platforms to facilitate on campus book selling have increased throughout the years as the rise of agile information sharing and retrieval become critical factor in processes that occurs within campus proxy. Information dissemination which occurs traditionally have result in knowledge obsolesce as in today's world knowledge is rapidly changing as new innovation comes in. UTP is well known for its affiliation as a subsidiary of PETRONAS, Malaysia's only Oil & Gas Company, thus they must live up with the nation's expectation to be the leader in technology education. In order to successfully nurture creativity and innovativeness among its students, it must strive to focus on every aspect which relates to providing quality academic learning, which starts from dissemination and utilization of literature.

UTP Bookstore have used their own internal system on conducting sales and updating inventories which covers only the staff of the bookstore as the users. According to a survey conducted, lecturers review the textbooks for adoption purposes mostly from visits of the bookstore owner and students need to personally go to the bookstore to review textbooks.

1.2 OBJECTIVE

The primary objective of this thesis is to develop an online platform which acts as an online textbook catalog which can be accessed by students and lecturers anytime. This platform will assist the UTP bookstore to disseminate information about their textbooks online.

1.3 SCOPE OF STUDY

The research has been carried out according to the boundaries set, which accounts to 2 main groups:

- i) Current process of book purchasing in UTP.
- ii) Current process the lecturers go through for reviewing textbooks, which normally takes place at the beginning of each semester.

1.3.1 Time & Duration of Project

The development of this project will take approximately 1 year (2 semesters) to complete. In the first semester, concentration will be given more to the Research, Analysis and Requirements gathering process from UTP Bookstore current system. The web prototyping phase will also take place towards the completion of Progress Report onwards and at this stage; more time will be allocated in analyzing the information obtained from target users in enhancing the web interface.

Part 2 of the project which is the Implementation stage and System/Integration stage will be carried out in this semester. At this stage, attention is given more on integrating web pages designed in the prototyping phase.

(Refer to Appendix 1)

1.3.2 Functionalities of Portal

The functionalities of this portal will have to meet expectations of end users, which are students and lecturers, at the same time must be well integrated with the UTP Bookstore system. The portal's main function should include the elements that will be beneficiary and improve current system of the bookstore. The main proposed functionalities are; textbook search engine and textbook catalog.

1.4 PROBLEM STATEMENT

1.4.1 Problem Identification

The problem arises as students have limited time to visit the bookstore when they have to attend classes as the bookstore is only open during office hours. Their visit to the bookstore sometime only targets to get information on how much the needed books cost, and to review the contents of the textbook. This could be a burden for some students with no transportation, as they have to walk in a long distance just to get some information.

On lecturer's behalf, the main problem identified is the traditional way of book reviewing which always requires the bookstore owner to do personal visits to lecturers which requested for textbooks for adoption. Lecturers need to personally obtain information on textbooks from owner himself as they could not find any other sources on available textbooks for their respective courses.

1.4.2 Significance of the Project

This part of the project utilizes all of the information gathered on the previous part of the project to come up with a suitable online book catalog for The UTP Bookstore. Those data will assist in designing suitable interface as well as integrating the web pages to meet primary objectives. The outcome is targeted to comply with the users' expectation of proposed online bookstore by identifying the criteria of an excellent online bookstore which is already in place currently.

CHAPTER 2

LITERATURE REVIEW

“UTP is an institute of higher learning. We provide opportunities for the pursuit of knowledge and expertise for the advancement of engineering, science and technology to enhance the nation’s competitiveness. Our vision is to become ‘A Leader in Technology Education and Centre for Creativity and Innovation’” – UTP’s Vision and Mission Statement.

2.1 E-CATALOGUE

What is an Online E-Catalogue?

According to Binarysoft Technologies, a software developer company states that an e-catalogue provides valuable information to the prospective customers about product specifications. It facilitates the potential customers in locating the products they want and in a way they want it. It is an ideal and perfect product catalogue as it has having no printing cost, no quantity or color restriction and no distribution cost. Astralys Solutions describes that being self-updateable in a few simple clicks, the information is always accurate and best of all it needs no reprinting. What's more, e-catalogue promotes your products by itself with enhanced interactivities, customer personalization and even enquiry shopping cart.

Benefits of an Online E-Catalog to Business

- Reaches out to regional customer markets without distribution costs.
- Improves customer service level with instant catalogue availability and updated info.
- Reduces time and cost in maintaining an updated and accurate product catalog.

- No need for multiple catalogs or dedicated catalog storage area in office.
- Allows rapid searching of your catalog to locate specific product information.

Features of an Online E-Catalog

The screenshot shows the Amazon.com interface for searching 'New & Used Textbooks' in the 'Computer Science' department. The search results are sorted by 'Bestselling' and show three books:

- Mac OS X Leopard: The Missing Manual by D. [Illustrated]** (2007) - Buy new: \$34.99 \$23.09 53 Used & new from [price]. Get it by Friday, Oct 31 if you order in the next 7 hours. Eligible for FREE Super Saver Shipping. *Reviews*: (134)
- Don't Make Me Think! A Common Sense Approach to Web Usability (Circle.Com Library)** by Steve Krug and Roger Black (Paperback - Oct 23, 2000) - 39 Used & new from \$14.34. *Reviews*: (442). Other Editions: Hardcover, Paperback
- Office 2007 All-in-One Desk Reference For Dummies (For Dummies (Computer/Tech))** Peter Weverka (Paperback - Jan 3, 2007) - Buy new: \$29.99 \$19.79 51 Used & new from \$16.57. Get it by Friday, Oct 31 if you order in the next 7 hours and choose one-day shipping. Eligible for FREE Super Saver Shipping.

The left sidebar shows the 'Department' filter for 'New & Used Textbooks' with 'Computer Science' selected, listing various sub-categories like Algorithms, Artificial Intelligence, Database Storage & Design, etc. The 'Format' filter is set to 'Any Format' and 'Binding' is set to 'Any Binding'.

Figure 2.0: Sample of an E-Catalog from Amazon.Com

Amazon.com is one of the most successful online shopping website and its features the use of e-catalog to feature its products. From Figure 2.0 above, the different types of books available is catalogued including the book cover at the left side of the main frame, plus the book description which includes information like book title, book author, book price, and number of books left to be sold and rating from customers.

Why Bookstores go Online?

- Number of students each year that buy from online bookstores has gone up drastically
- Adapting to the current culture of rapid information transfer.
- Competitive current bookstore market.

- Online method has found to be less costly & time consuming rather than carrying out a process manually.
- Survey found that students in this era spend more time surfing the internet, and building an online bookstore will easily capture their attention.

2.2 WEB TECHNOLOGY DIMENSIONS OF A WEBSITE

2.2.1 Communication

- Engage target users by offering content areas which attracts & relates to their daily life.

2.2.2 Self- Service

- Enables user to seek for any information within a domain by just visiting a web page, instead of the need to engage with other persons to obtain information.
- Web technology allows automation of some manually done processes, thus reduce the energy consumption & wage cost of reaching a certain goal.

2.2.3 Knowledge Management

- Application of the idea of knowledge marketplace, whereby users will enter query on specific product and seller can recognize the surfing pattern of consumers, in terms of their products preference.
- Users expect answers from someone who holds a knowledge subject matter when a question is posted.

2.2.4 Business Process

- Providing a user-friendly interface is vital in aiding usage and efficiency of these robust systems.

Chevalier and Goolsbee mentioned in National Bureau of Economic Research 2004 on how user's expectation of a website changes as they evolve into a more sophisticated and gain experience of surfing websites of their interest. The key ways on how a user expectation change is described by Steve Smith Website Criteria Journal as follows:

- i. Increasing use of search engines, which will increasingly force website owners to present content in a manner friendly to search engines.
- ii. Experienced web users are less tolerant of poor design, content and navigation than novice users.
- iii. For certain websites, audiences will expect and want to interact more and more with the content.
- iv. Many users will expect a certain range of websites to know/remember who they are and to be able to personalize their online experience
- v. Improvements in access speed to the Internet and means of access, and the rapidly increasing number of web pages available through search engines, give the user two incredibly powerful weapons: information and choice.

2.3 ONLINE SHOPPING STATISTICS

Global Statistics

Nielsen, an international consultation company has published new statistics as of January 28, 2008 on the overall online shopping trend. The outcome was over 875 Million consumers have shopped online, a significant rise in the number of internet shoppers to 40% in two (2) years. The most popular and purchased items are:

- Books (41% purchased in the past three months)
- Clothing/Accessories/Shoes (36%)
- Videos / DVDs / Games (24%)
- Airline Tickets (24%)

Malaysia Statistics

Descriptions	Frequency	Percentage
Gender:		
Male	138	46
Female	162	54
Race:		
Malay	137	45.7
Chinese	72	24
Indian	73	24.3
Other	18	6
Age:		
20 and below	6	2
21-25	134	44.7
26-30	84	28
31-35	32	10.6
36-40	21	7
41 and above	23	7.7
Level of Education:		
Primary School	1	0.3
Secondary School	84	28
Diploma	94	31.3
Undergraduate	91	30.3
Postgraduate	30	10

Table 2.0: Demographic Profile of Malaysian Online Shopper

Ahsanul Haque and Ali Khatibi from Multimedia University have conducted a survey on the demographic of Malaysian Online shopper in 2006. The result of the survey conducted to 300 respondents is tabulated in Table 2.0 above. It shows the most number of online shoppers come from 21-25 years old age group, which are the average age of university students. When the result is categorized into level of education, Diploma and Undergraduate are two groups in which the most online shopper is found.

2.4 CONSUMER BEHAVIOUR ON ONLINE SHOPPING

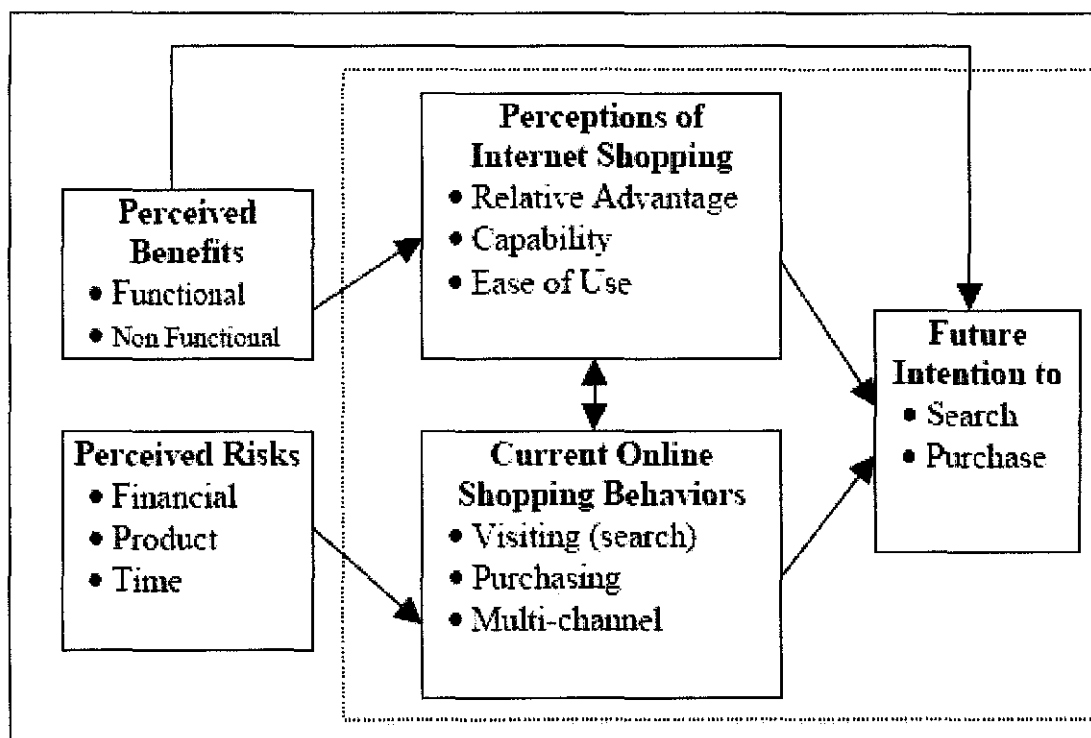


Figure 2.1: Online Shopping Perception and Behavior from Journal of Retailing 2007

Childers and Peck states in Journal of Retailing 2007, that success of internet technology in marketing consumer products depends on aggregate adoption and continued usage of the internet as a medium for product search and purchase. Consumer adoption of the internet is examined as a shopping medium from two integrated conceptual perspectives (utility maximization and innovation adoption theory) to provide a comprehensive framework for predicting adoption of the Internet for shopping. Figure 2.1 is a model to explain and predict adoption of online consumer search and purchase behaviors based on a synthesis of utility maximization theory and consumer adoption theory. The resulting framework is intended to enhance the understanding of consumers' adoption of the internet for shopping.

2.5 ONLINE BOOKSTORE VS. PHYSICAL BOOKSTORE

Online Bookstore	Physical Bookstore
Ease in searching for specific books with search engine feature	physical ease and comfort of book browsing
Save time & energy	Consumers need to physically present at the bookstore location, can be inconvenient for busy consumers.
Reaches customers efficiently and to variety of groups & a lot of potential in market growth	Customer reach & market growth potential is limited
One-to-one approach: targeted user is typically browsing the Internet alone, so the marketing messages can reach them personally	One-to-many approach: one bookstore needs to attract and satisfy customer need at the same time.
Appeal to Specific Interests	Customers need to find their interest located somewhere in the bookstore.

Table 2.1: Comparison of Traits between Online Bookstore and Physical Bookstore

2.6 STUDENTS' USE OF E-COMMERCE

Huang Lixin explains in Journal of Guilin Institute of Electronic Technology 2001, that university students have many interests in common with similar adult consumer behaviors. The mobility of thousands of students each year provides the inflow of revenue to some of the well known E-Commerce sites. The consumer groups in campus are of high potency and are open to new things. They are usually 18 to 25 years old with strong desire for knowledge and interested in E-Commerce. The network environment and potential consumers have paved the way for the success of campus e-commerce.

Physical Distribution of Campus Provides Advantage for Campus E-Commerce

Judy Strauss and El-Ansary mentioned in E-Marketing Journal 2004 that as students live within the campus of several square kilometers gives advantage to physical distribution of goods which can be on time and the cost can be greatly reduced. With support and help from the university, the problem can be solved for the physical distribution in the traditional E-Commerce which promotes the development of the campus E-Commerce.

Network Environment for Campus E-Commerce

Judy Strauss also mentioned that universities are not only the knowledge-based institutions, but also the most popular places for computer application. Most universities or institutions of higher education have built intranets, which facilitate students with their studies and their lives. The campus websites runs 24 hours a day with very low expenses. Most departments, divisions, and dormitories on the campus are connected with LAN so that information can be shared, and efficiency and optimization can be achieved. In addition, universities have advanced laboratories, which facilitate students to practice e-commerce.

Textbook purchasing behavior

As textbooks are a significant cost for university students, students can defray some of these costs by purchasing used textbooks and/or by selling back their textbooks at the end of each semester. Some industries estimates suggest that the majority of students attempt to sell back most of their books every semester. Students buying a textbook should consider the by likelihood that a new edition will come out while the student is trying to sell the book. They are less likely to purchase a textbook when the probability of a new edition arriving before the end of the semester is at its peak.

2.7 CAMPUS E-COMMERCE MODEL

Seller-Based C2C Model

Seller-based consumer-to-consumer E-commerce model is the one by which a person who wants to sell offers online, many buyers bid or negotiates with the seller and then finalizes the transaction. This is the most popular business model for the campus E-commerce. Hining describes in a pioneer of Campus E-Commerce 2008 that there are two types of students who offer to sell: students who offer new products and students who offer used goods. The former offer their new products for sale over the flea market of the campus networks, and e-mail, and the latter offers their used books or electrical products for auction with the same channels. This model is welcome especially by graduating students, for they have a lot of used stuff to deal away with.

Buyer-based C2C Model

Buyer-based consumer-to-consumer E-commerce model is the one by which a person who wants to buy demands online, many seller offers or negotiates with the buyer and then finalizes the transaction. In the campus E-commerce, any student who wants to buy can demand in the online flea market on the campus and can have a good bargain for quality products at lower price.

Amazon.Com Bookstore

Amazon.com is an online bookstore which started off in 1995 and currently sold 3.1 million kinds of books and serves 5 million customers. They have create an evolution where changes the customers shopping habits and at the same time brings value to them. It has deeply changed the nature of bookstore and retail industries. Amazon.com has demonstrated the B2C e-commerce which has provided a wealth of opportunity. Business will have the opportunity to sell their products and services 24 hours a day, to eliminate payments for retail space and staff, and to increase market share. According to Korper and Ellis (2000), the most significant advantage has been “higher visibility,

branding opportunities, direct revenue generation, attraction of new customers and world-wide exposure of the business.”

Success Factors of an Online Bookstore

- Select special interest books that have only a limited market within target community.
- Monitor book selling websites to learn more about selling unusual materials and to get an understanding of the market and prices.
- Determine best site for listing the book - eBay for potentially popular or very unusual items, Amazon.Com for recent scholarly books and textbooks, librarybooksales.org (a site that provides a sales venue for libraries and library support groups only) for older titles that may be of more narrow interest.
- Monitor email daily to answer queries about items listed and to respond promptly to sales.

2.8 CASE STUDY ON EXISTING CAMPUS ONLINE BOOKSTORE



UNIVERSITY
OF OREGON

University of Oregon

Store: University of Oregon Bookstore--www.bookstore.com

Serving: 20,000 students (plus faculty, staff, and alumni)

Web Launch: 1998

Store Type: Independent, nonprofit

Hottest Seller: Apparel

Partnerships: Dell Apple, Booksense

Sales Stats: Online sales increase 10-12% annually

Competitive Features:

- Home page links directly to bookstore site, providing easy access/convenience for viewers.
- Weekly Featured Items section
- Staff Favorites section
- Textbook reservations
- Textbook requisitions for faculty
- Bestseller List of fiction and nonfiction

As the bookstore is owned not by the university, the students, faculty, and staff have more autonomy. The online store is not only profitable; it has the single most potential to grow their bookstore sales.



University of Vermont

Store: UVM Bookstore--uvm.store.uvm.edu

Serving: 9,000 students (plus faculty, staff, and alumni)

Web Launch: 1998

Store Type: University owned, for-profit

Sale Items: Textbooks, general books, apparel, dorm supplies

Hottest Seller: Textbooks

Partnerships: Nebraska Book Company (providing management software, outsourced services and staff, and products for college bookstores), Boise Cascade

Total online sales: grown from \$25,000 in 2000, to \$548,000 in 2003

Competitive Features:

- Offers online-only apparel promotions

- Textbook reservations
- Textbook requisitions for faculty
- Promotes bookstore site in-store by passing out free Web site [awards, coffee cups, and pins
- Textbook sales increased dramatically after they added online textbook reservation feature

Sales Stats: Non-book online sales have increased 20-25% annually

Bottom Line: Profitable

CHAPTER 3

METHODOLOGY

3.1 SYSTEM DEVELOPMENT METHODOLOGY

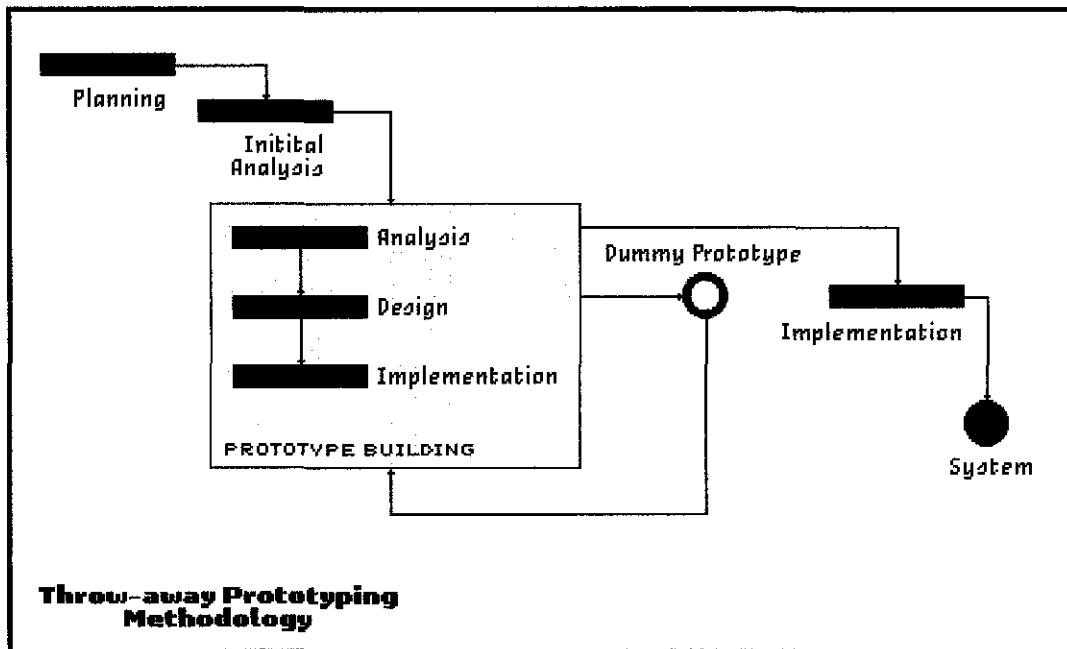


Figure 3.0: Throw-away Prototyping Methodology

Application of the Throw-away Prototyping Methodology (Figure 3.0) as the means of the online book catalog development is found to be the most suitable. In this model, a prototype (an early approximation of the final system) is built, tested, and then reworked as necessary until an acceptable prototype is finally achieved from which the complete system or product can now be developed.

3.1.1 Analysis and Requirements Gathering

Initiation of this project starts of with gathering all of the necessary requirements from lecturers, students, and bookstore owner in order to produce a website which is feasible to be maintained, meet user requirements in addition to enhance the current book reviewing process. Primarily, focus is put more on research on various campus online bookstores which is already up and running, on top of a research on UTP's bookstore system and current process which assist in book information dissemination within UTP proxy. In line with that, questionnaires and interviews with target end users are found most effective method to gather precise information from end users.

Elements below represent as a guideline in developing the questions for the questionnaire to students and lecturers:

- Usefulness
- Ease of Use
- Attitude towards Use
- Behavioral/ Intention to use

3.1.2 Design

Design paradigm begins with prototype design of the graphical user interface (GUI) layer and consequently outlines the back end (database and system architecture) system of the website which is only visible to the bookstore staffs which are the administrators of this portal. Construction of prototype is always refurbished to produce an online book catalog which adheres to the required elements at the end of this project.

3.1.3 Implimentation

The prototype which results from the design phase is then evaluated by the students and lecturers as end user's group and used to refine the requirements for the software to be developed. Iteration occurs as the prototype is tuned to satisfy the user requirements, while at the same time enabling the developer to better understand what needs to be done.

3.1.3.1 Development of the Portal

After designing the GUI design prototype, the website is then deployed on a web hosting in order to make it accessible via the net. The processes through the development are as follows :

- Configuration – The website is configured using a hierarchical configuration system. ASP.net uses a file-based configuration system. The configuration information is stored in XML format. During configuration stage, declaration, settings storing and retrieving the settings from the configuration files will be done.

- Localizing portal (using ASP.net application)

Localization is the process of using global application in a particular locale. This is achieved by supplying the culture information to the website.

- Connect portal to the database - The fresh installation of the portal was connected to the database by allowing the manipulation of a relational database which is a part of Relational Database Management System (RDBMS) by using Microsoft Jet 4.0. Jet allows multiple users to access the database concurrently.

3.1.4 System Testing

After all functions are developed, each work unit has to undergo a system testing where each unit has to be integrated to ensure its compatibility. The portal deployed will need to undergo the relevant user acceptance testing before the live run takes on. This is to assess system effectiveness and if it meets the requirements identified.

The user acceptance survey takes place as soon as the portal is running. In doing this, the portal will be running for a period of time and the usage will be monitored. Based on the results from users, the finding will be analyzed and results on the user acceptance test will be discussed.

3.2 TOOLS

Development of the website requires few selected software to assist in integrating the web pages also codifying the sites so that it will perform its function accordingly. Tools utilized up to current phase of the web application development are:

- a. Microsoft Publisher – Designing GUI prototype in early stage of design phase.
- b. Adobe Dreamweaver CS4 – Enhancing GUI and placing functions within different pages.
- c. Active Script Page (ASP) 3.0 – Programming language used throughout the web design.
- d. Microsoft Access – creating and storing database.
- e. Adobe Photoshop CS - in designing pictures, texts, and banners for the interface of the portal.

The hardware for the system development is personal computer with Internet Information Service (IIS) with the specification of:

- a. Intel Pentium M Processor 740
- b. 1.73 GHz
- c. 512MB of RAM
- d. 60GB of hard disk

CHAPTER 4

RESULTS AND DISCUSSION

4.1 INTERVIEW SESSION WITH UTP BOOKSTORE STAFF

4.1.1 Objectives

The objective of the interview session is to gather requirements and information from the UTP bookstore. This session also allows UTP bookstore owner and its staff to understand and approve the implementation of the UTP Online Bookstore Catalogue in UTP.

4.1.2 Method

The interview session was done with the Manager and also one of the staff who is in charge of the bookstore. The Manager is in charge of the bookstore's overall operation while staff are in charge of assisting and conducting daily operations in the bookstore.

4.1.3 Discussion

Information gathered from the interview with a staff of the UTP Bookstore is as tabulated in table 4.1 below:

Table 4.0: Information on UTP Bookstore

Aspect	Information
Establishment of UTP Bookstore	UTP Bookstore exists in UTP since January 2007, but operations have occurred previously for more than 10 years within UTP compound.
Amount of people to handle bookstore at one time	2 person except at the beginning of the semesters, whereby 2- 5 person is needed.
Category of products sold at the bookstore	1. Textbooks and Reference Textbooks 2. Dictionaries

	3. Other Reading Materials (Novels, Comics, Magazines) 4. Stationeries 5. Handbooks
Product type which is focused more	Textbooks requested by the lecturer
Period in which sales occurs the most	1. Beginning of the semester 2. During examination and test
Current system Used	Electronic Management Accounting System (EMAS) – assist in all transactions, records of stock purchase (item received is recorded automatically)

At the end of the interview session, I managed to understand the process needed to be done to implement the portal which involves the bookstore. There are two ways to promote the portal which are:

- Through the UTP website
- Through Students' Village Portal

Through these ways, the portal will be accessible to UTP students since these medium are accessed by most of the students.

4.2 DEVELOPMENT OF QUESTIONNAIRE

4.2.1 Objective

The objective of this questionnaire is to collect and gather information from the students, lecturers and also the postgraduate about the current book purchasing process they went through and at the same time acquire expectations on the Online Bookstore portal. This is a pre-implementation questionnaire. This questionnaire is supposed to be answered **before** users are exposed to the real portal.

This questionnaire tests the preferences and their opinion on the current process of book purchasing among UTP students and lecturers. The questionnaire is also aimed to get the functionalities of the system and also how important it is to the target users.

4.2.2 Method

There are two different sets of questionnaires, one aimed for the students group and the other one for the lecturers. The student's questionnaire consists of 14 simple questions. The questionnaire is divided into 2 sections, which consists of a Yes and No questions and also ranking questions. The questions types are open and close ended, where respondent may give any comments. Refer to Appendix 1.0 for a sample of questionnaire for students and Appendix 2.0 for questionnaire for lecturers.

The total feedback gathered was from 40 UTP students and 4 lecturers.

After all the questionnaires are answered and filled accordingly, the data are entered and tabulated into a spreadsheet using Microsoft Excel to calculate the results.

(Refer to Appendix 2)

4.3 STUDENT'S QUESTIONNAIRE

4.3.1 Results – Preference on the Textbook Source

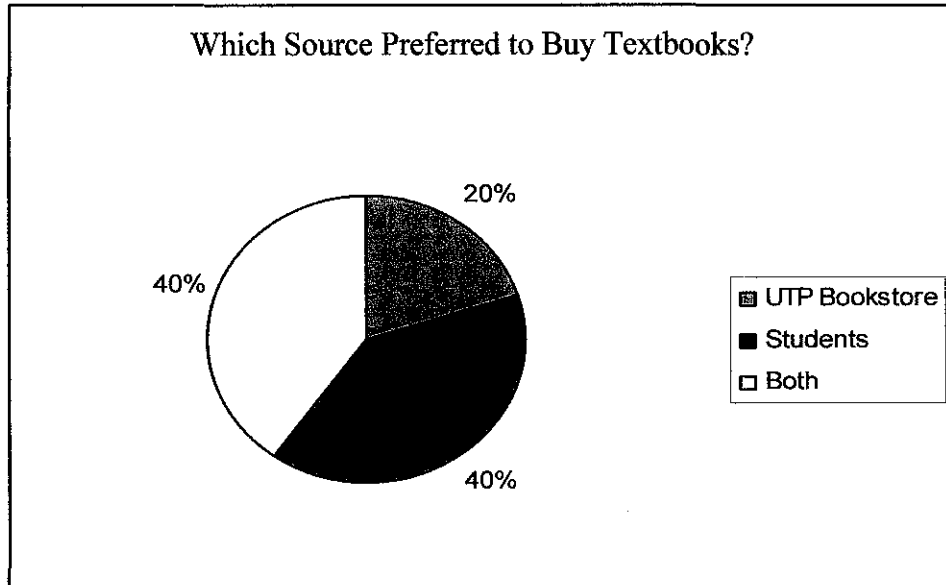


Figure 4.1: Preference of textbook source

Figure 4.1 shows the result of question number 3 in the student's questionnaire. The question asked students from which source they prefer to buy the textbooks. 40% of the students responded they prefer buying second hand books from students, 20% claimed that they prefer to get it from the bookstore, and 40 % says they prefer both ways.

In this question, we can see that students buy books from both the UTP Bookstore, as well as from students. Therefore, there is no problem in implementing the portal integrating the UTP Bookstore catalogue as well as post classifieds for used books.

4.3.2 Results – Textbook Comparison Activity

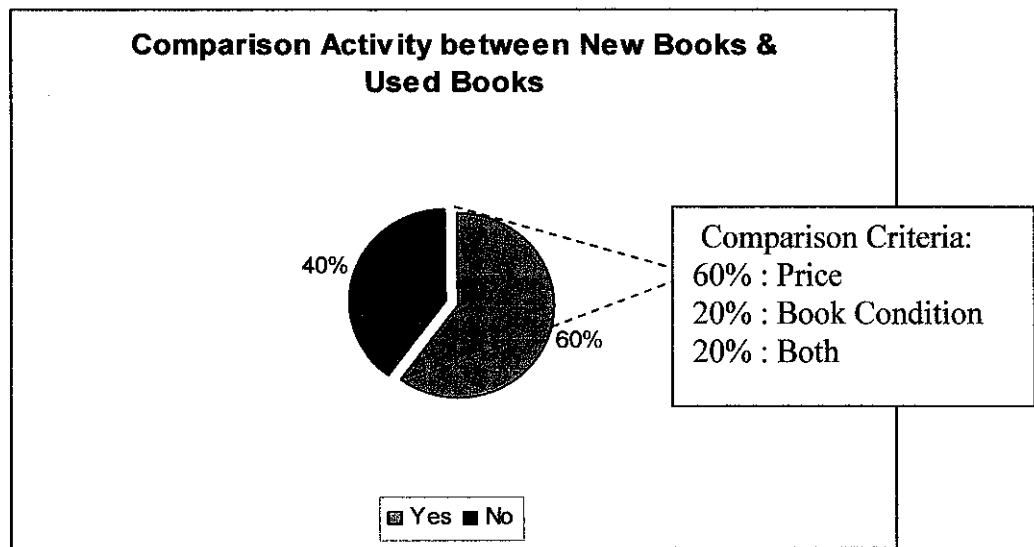


Figure 4.2: Willingness to compare between books being sold at the bookstore and used books available

Figure 4.2 shows the result of Question 5. The question asked user if they compare the books being sold at the UTP Bookstore with the books which is available in the used books market. 60% responded Yes while 40% responded to No.

For the students who responded yes, they were asked to state the comparison criteria they usually take into account. 60% of them responds they compare the price of the books, 20% says they only compare the book condition, and another 20% responded they consider both price and book condition factors before in comparing the books.

Therefore, we can conclude that a majority of students compare the price and the condition of the similar textbooks which is available at the bookstore as well as in the used books market.

4.3.3 Results – Expected Features of Online Bookstore

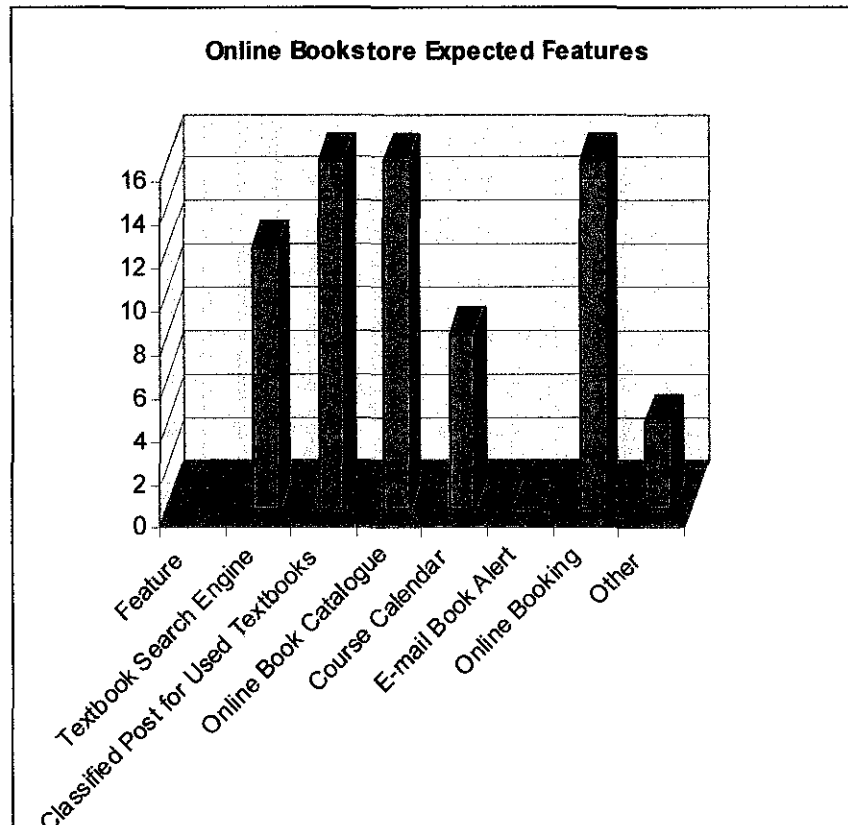


Figure 4.3: Online Bookstore Features Expectation

Figure 4.3 shows the result of question 8 of the student's questionnaire. These questions are of type 'check all that apply' questions that the students have to answer questions by checking all selected features according to their opinions. In this section, opinions on the features they expect with the presence of an online bookstore are gathered. This is important in order to study and collect data on the users' expectation of the web features as the project outcome. This data can be used in developing and implementing the portal later.

From the figure 4.3, 16 users states the web portal is necessary to have Classified Post of Used Textbooks feature, Online Book Catalogue Feature, as well as Online Booking feature. 14 users believe that Textbook Search Engine feature is necessary, while 8 users think that Course Calendar feature must be included in the web portal. 4 users proposed

to include a Lecturer's Recommended Books feature, while most of the students feel it is not important to include the E-mail Book Alert feature.

By this question, it will help the design and features enhancement of the web portal, by identifying respective features which they feel the most necessary. Some unimportant features also may be excluded as the student's opinion signifies which feature they will be utilizing when the online bookstore is implemented.

4.3.4 Overall Conclusion on Student's Questionnaire

The student's questionnaire as a whole have enabled gathering of valuable data and information. From the tabulated data, it can be concluded that:

1. Only half of the respondents went to the bookstore in the beginning of each semester, and less than 5 visits per semester. With the presence of an online book catalogue, it will encourage more students to review textbooks online.
2. The survey also indicates 32% of the students purchase less than 3 books per semester, while only a minority of respondent actually purchases more than 3 books.
3. Most respondents are interested to purchase study related materials from the online bookstore, such as textbooks, reference books, and stationary. 24% of respondents are actually interested to purchase general books, computer gadgets as well as UTP Merchandise from this proposed website.
4. Focusing on used books market, more than half of respondents find information on the availability on a specific textbook via their friends, posters and through words of mouth. While a small group of respondents find that information through mIRC, which is a nag ware Internet Relay Chat (IRC) client for Microsoft Windows and DC++, which is a free and open-source peer-to-peer file-sharing client.
5. Most students are found to be accessing the UTP internal websites mostly within UTP compound. This information enables the final decision of managing the website as an intranet rather than internet during the implementation phase.

4.4 LECTURER'S QUESTIONNAIRE

4.4.1 Result – Information Retrieval for Textbook Adoption

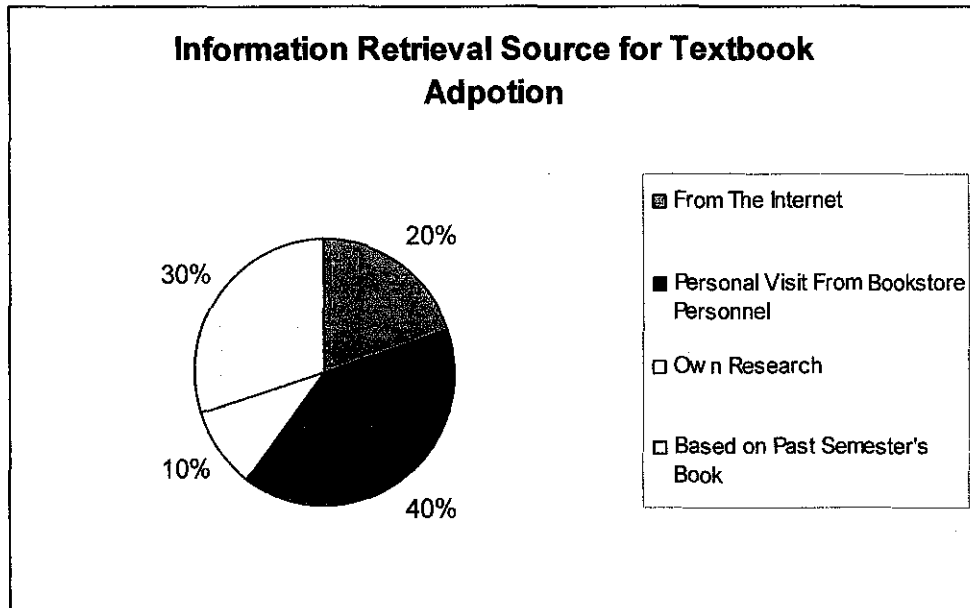


Figure 4.4: Information Retrieval Source for Textbook Adoption

Figure 4.4 shows the result of Question number 2 in the lecturer's questionnaire. The question asked lecturers how they obtain information on textbooks before they adopt it as their course text/reference book. 40% of the lecturers responded they usually receive a personal visit from the bookstore personnel, while 30 % of the lecturers only based their choice by the textbook being used previous semesters.20% of the lecturers obtain the information from the internet, while only 10% of them do their own research on textbooks.

In this question, we can conclude that most lecturers receive visits from bookstore personnel, and by implementing the web portal, personal visits can be cut down. As lecturers choose textbooks based on past semester's book, we may stress on including popular books from past semesters in the textbook database. The web portal also may include links to popular textbook websites for lecturers to conduct their own research on books.

4.4.2 Result – Criteria on Reviewing Textbooks

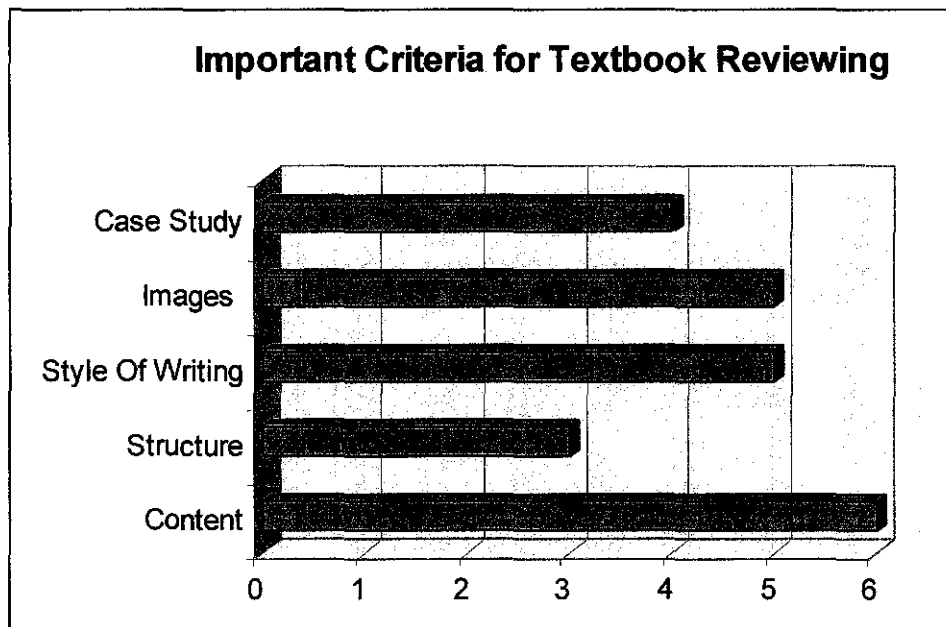


Figure 4.5: Criteria for Textbook Reviewing

Figure 4.5 shows the tabulated result of Question number 6 in the lecturer's questionnaire. The question tackles the lecturer's opinion on their perceived important criteria for textbook reviewing process. Most of the respondents agree that the content is an important criterion to be measured, while style of writing and images that contain in a book follows as the second most important criteria. 4 Lecturers out of 10 respondents states that case study that is available in the book is one of the criteria they take into account when reviewing a book, while structure criteria is considered important to only 3 of the respondents.

Through this question, I have gathered important elements that I should include for the textbook description feature during design phase.

4.4.3 Result – Expected Feature of Online Bookstore

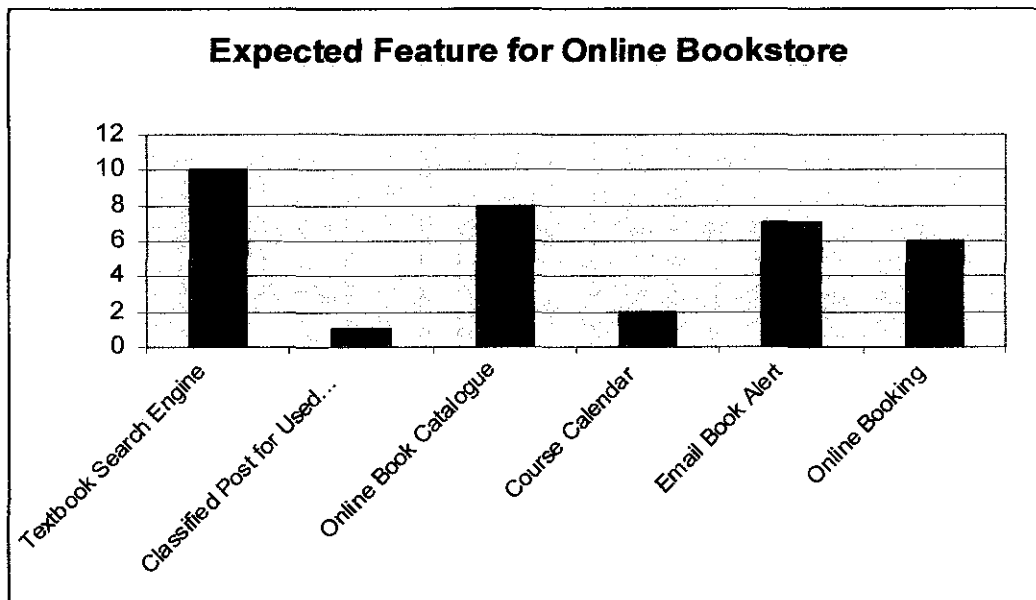


Figure 4.6: Expected Feature for Online Bookstore

Figure 4.6 shows the result of question 10 of the lecturer's questionnaire. These questions are of type 'check all that apply' questions that the lecturers have to answer questions by checking all selected features according to their opinions. In this section, opinions on the features they expect with the presence of an online bookstore are gathered. This is important in order to study and collect data on the users' expectation of the web features as the project outcome. This data can be used in developing and implementing the portal later.

From the figure 4.6, all 10 lecturer respondents state the web portal is necessary to have Textbook Search Engine feature. At the same time, 8 of them also think Online Book Catalogue feature must be available, and 7 of them states E-Mail book Alert feature will be useful. 6 out of 10 lecturers says that Online Booking is necessary, while only 2 states they would benefit from Course Calendar feature, and 1 feels Classified Post for Used Books is necessary

By this question, it will help the design and features enhancement of the web portal, by identifying respective features which they feel the most necessary. Some unimportant

features also may be excluded as the lecturer's opinion signifies which feature they will be utilizing when the online bookstore is implemented.

4.4.4 Overall Conclusion on Lecturer's Questionnaire

The lecturer's questionnaire as a whole have enabled gathering of valuable data and information. From the tabulated data, it can be concluded that:

1. Most lecturers stated that they encourage their students to purchase the latest version of a textbook, rather than used books which versions are outdated.
2. Almost all respondents' states that they prefer to review the actual textbook personally before adopting it as a course text/reference books.
3. Most respondents are interested to purchase study related materials from the online bookstore, such as textbooks, reference books, and stationary. Half of respondents are actually interested to purchase computer gadgets and UTP Merchandise from this proposed website.
4. In their opinion, the current process of reviewing textbooks is considered average. That signifies that there are rooms for improvement for the process they went through.
5. Most lecturers are found to be accessing the UTP internal websites mostly within UTP compound. This information enables the final decision of managing the website as an intranet rather than internet during the implementation phase.

4.5 ANALYSIS ON STUDENTS' AND LECTURERS' SURVEY

4.5.1 Web Feature Expectations

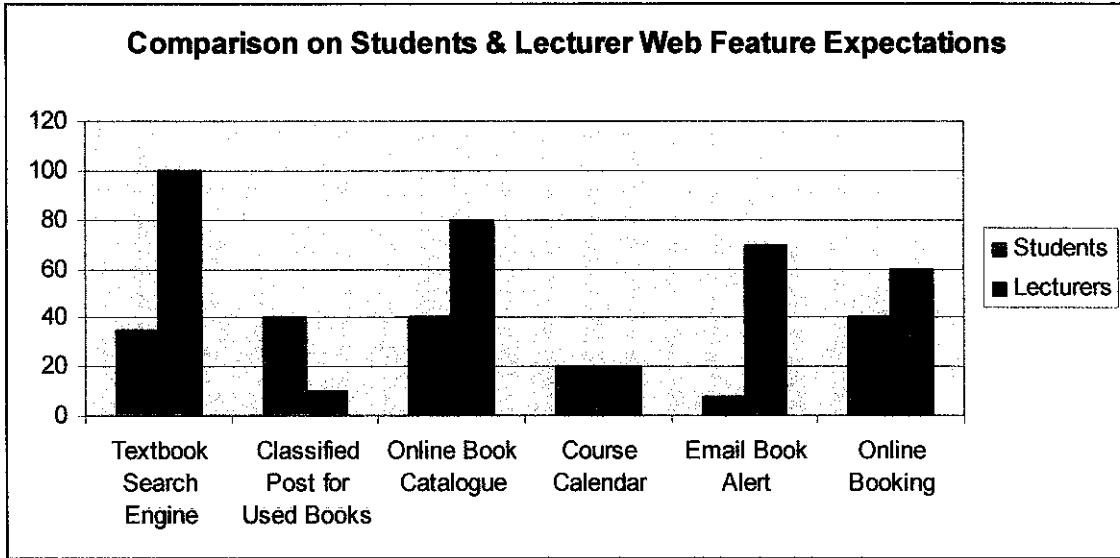


Figure 4.7: Lecturers' and Students' Preference on Web Feature Compared

Figure 4.7 shows the result of two questionnaires outcome combined together for the same question to students and lecturers respondent. As demonstrated above, both students and lecturers group agree that 'online booking' is a necessary feature for the website, as well as course calendar which accounts for 20% of both groups of respondents. As for the 'textbook search engine' feature, 100% lecturers think that it is critical to include that feature; meanwhile only 35% of students think so. The 'Online Book Catalogue' feature accounts to 80% of the lecturers group who agreed and only 40% for the students' group.

4.5.2 Overall Conclusion on Both Questionnaires

Both students' and lecturers' questionnaires have enabled gathering of valuable data and information. The result from both groups obtained can be compared in order to find hidden patterns on opinion and preferences of both parties, to enable the creation of a useful website that will benefit both. From the tabulated data, it can be concluded that:

- i. Both groups of respondents are interested to purchase more than only textbooks for academic purposes. They are both keen on finding any other things on the website, such as stationeries, UTP Merchandise and computer gadgets.
- ii. Both students and lecturers are found to be accessing the UTP internal websites mostly within UTP compound. This information enables the final decision of managing the website as an intranet rather than internet during the implementation phase.

Analysis on both groups' data has enabled the identification of critical factors that effect the user perception of the website once it is implemented. It is important to recognize main behaviors and interpretation of both groups, as the website need to cater to two different groups which objective and use of the proposed website will be dissimilar.

4.6 WEBSITE FLOW DIAGRAM

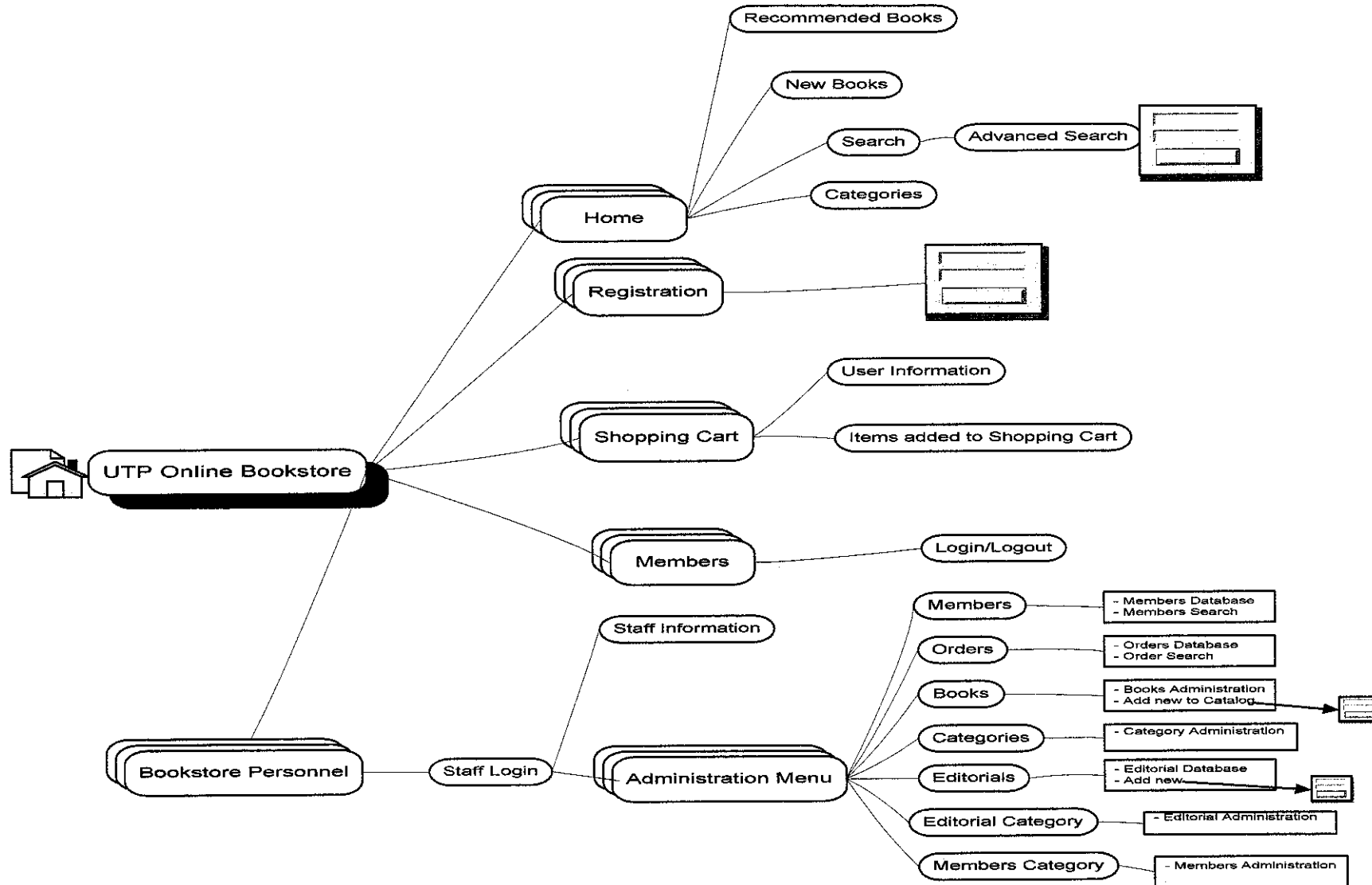


Figure 4.8: UTP Online Book Catalog Flow Diagram

Figure 4.8 provides the full view on how the online books catalog works and flows from a page to another. As demonstrated, users are exposed to five (5) different links which are the main functions of this website through the home page. To be an authorized user, users may register their selves through the registration link provided by filling up a form. When any registered user clicks on the 'Shopping Cart' link, they are able to view the items that they have added on to their personal shopping cart.

Registered users may log in directly by clicking on to the 'Members' link and enter their user name and password to access the portal. Once they successfully logged in, they can view the items they previously add to the shopping cart in which they have not collected from the bookstore.

Second part of this website, which is the crucial part, is the back end system for administrations. Once a certified staff is registered, they will view a list of administration menu which are members, orders, books, categories, editorials, editorials category and members category to enable them to administer different sections of the website.

4.7 CLASS DIAGRAM

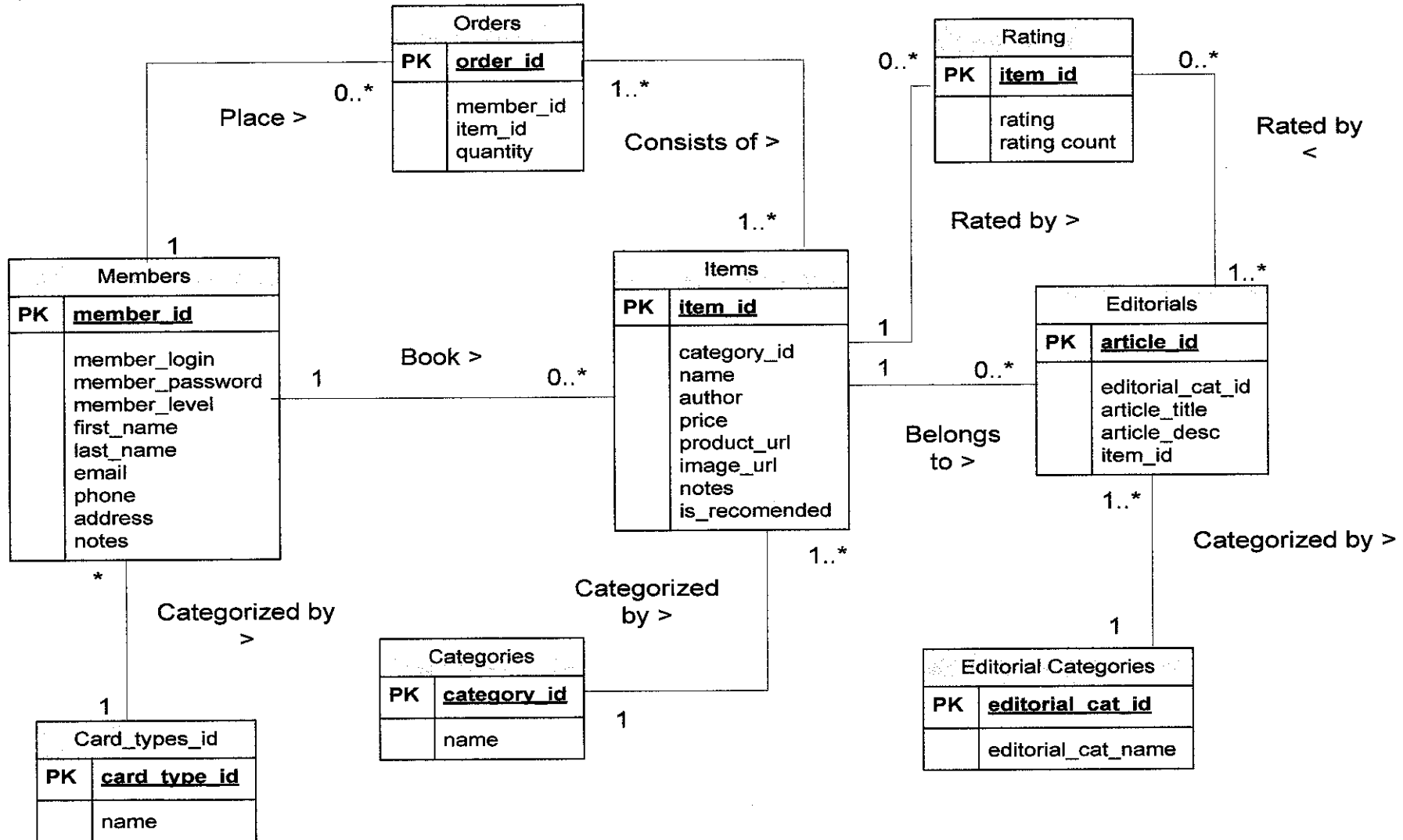


Figure 4.9: Class Diagram for Online Book Catalog

Figure 4.9 illustrates the back end view on the database connections of the online book catalog. As shown on the previous page, the database includes 8 different classes which are Members, Orders, Items, Rating, Editorials, Editorial_Categories, Categories and Card_type_id. These classes are related which each other in a way as shown in the diagram.

Members class consists of data relating to personal information of all registered members and member_id acts as the primary key form this class. Order class has order_id as its primary key, and it describes data on orders which have been placed by users through adding books to their shopping cart. Items class collects the data which are related to the books information which have been uploaded to the website, and item_id acts as its primary key.

Other classes remain smaller than the ones previously mentioned, one of them which is editorials which acts as pointer for books which are recommended and featured on the home page of the website. Editorial_categories, categories, and card_type basically administer the categories of their respective parent class.

4.8 ONLINE BOOKSTORE FUNCTIONALITIES

Bringing the Books to You

UTP Online Bookstore

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Home
Registration
Shopping Cart
Members
Bookstore Personnel

Registration

Login*
Password*
Confirm Password*
First Name*
Last Name*
Email*
Address
Phone
Members Category
Staff / Student ID

Lecturer
Staff
Student

* Indicate required fields

Register Cancel

3 Types of User

Home Registration Shopping Cart Members Bookstore Personnel

Figure 4.10: Registration Page

Figure 4.10 shows the Registration Page, whereby it requires all users to register by filling up the form in order to fully utilize this portal. The three categories of users who may register here are Lecturers, Students as well as Bookstore Staff.

Bringing the Books to You

UTP Online Bookstore

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Home
Registration
Shopping Cart
Members
Bookstore Personnel

Enter login and password

Login
Password
Login

guest/guest
admin/admin


Home Registration Shopping Cart Members Bookstore Personnel

Figure 4.11: Login Page


Users which have registered previously may access the portal by logging in (enter their username and password as specified on registration form). Users with username and/or password which does not exist in the system will be notified that their details are wrong.

Bringing the Books to You

UTP Online Bookstore



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PETRONAS



Home
Registration
Shopping Cart
Members
Bookstore Personal

User Information		Items					
Login	guest	Details	Order #	Item	Price	Quantity	Total
First Name	Guest	Details	4	MySQL & PHP From Scratch	RM 23.99	1	RM 23.99
Last Name	Account	Details	7	Web Database Development : Step by Step	RM 39.99	1	RM 39.99
Staff / Member ID	3	Total					
Email	guest@localhost	63.98					
Phone							


Home Registration Shopping Cart Members Bookstore Personal

Figure 4.12: Member's Personal Page


Once users successfully logged in, the member's personal page will appear as shown in Figure 4.12. Members may click on direct links placed on the left frame of the webpage, can view their details and also view the books they have requested through their personal shopping cart.

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Home
Registration
Shopping Cart
Members
Bookstore Personal

Advanced Search

Title

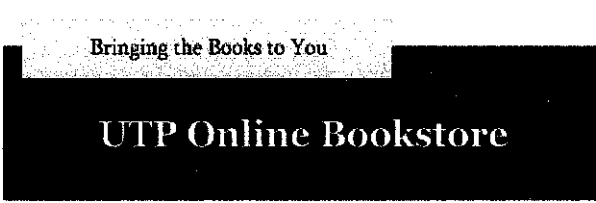
Author

Category v

Home Registration Shopping Cart Members Bookstore Personal


Figure 4.13: Textbook Search Engine

This page has the basic functionalities of the textbook search engine. Users may enter the title, author and category of the book to find the specific book they need.




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Enter full or partial login, first or last name

Name

Members

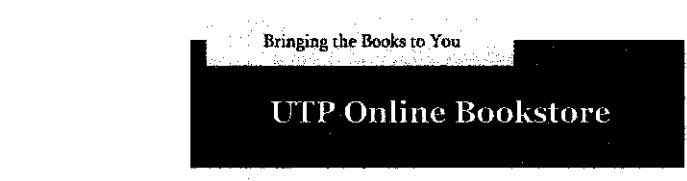
<u>Login</u>	<u>First Name</u>	<u>Staff / Member ID</u>	<u>Members Category</u>
admin	Administrator	5655	Lecturer
quest	Guest		Staff
insert			

[Home](#)
[Registration](#)
[Shopping Cart](#)
[Members](#)
[Bookstore Personnel](#)

Home Registration Shopping Cart Members Bookstore Personnel


Figure 4.14: Bookstore Personnel: Members Information Page

Figure 4.14 shows Member's Information page in the view of bookstore personnel. This page enables the bookstore staff to find out how many people registered to the portal, who are they and at the same time search for a particular member.




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Item: Member:

Orders

<u>Edit</u>	<u>Item</u>	<u>Member</u>	<u>Quantity</u>
Edit	1001 Web Site Construction Tips and Tricks	admin	1
Edit	1001 Web Site Construction Tips and Tricks	admin	1
insert			

[Home](#)
[Registration](#)
[Shopping Cart](#)
[Members](#)
[Bookstore Personnel](#)


Home Registration Shopping Cart Members Bookstore Personnel

Figure 4.15: Bookstore Personnel : Order Page


Order page allow bookstore staff to view any orders being made by members. Personalize item search can be done through scrolling the drop down column.

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- [Home](#)
- [Registration](#)
- [Shopping Cart](#)
- [Members](#)
- [Bookstore Personnel](#)

Book

Title

Author

Category

Price

Product URL

Image URL

Notes


Recommended

Figure 4.16: Bookstore Personnel : Book Upload Page


Book upload page permits the bookstore staff to upload information and picture of the cover of any new books they wish to add to their book product line. The books can also be classified according to its category.

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- [Home](#)
- [Registration](#)
- [Shopping Cart](#)
- [Members](#)
- [Bookstore Personnel](#)

Category
Recommended All

Books					
	Edit Title	Author	Price	Category	Recommended
Edit	Web Database Development : Step by Step	Jim Buyens	RM 39.99	Databases	Yes
Edit	Programming Perl (3rd Edition)	Larry Wall, Tom Christiansen, Jon Orwant	RM 39.96	Programming	No
Edit	Perl and CGI for the World Wide Web: Visual QuickStart Guide	Elizabeth Castro	RM 15.19	Programming	No
Edit	MySQL (OTHER NEW RIDERS)	Paul DuBois	RM 39.99	Databases	No
Edit	PHP and MySQL Web Development	Luke Welling, Laura Thomson	RM 39.99	Programming	No
Edit	MySQL & PHP From Scratch	Wade Maxfield	RM 23.99	Programming	Yes
Edit	MySQL and mSQL	Randy Jay Yarger, George Reese, Tim King	RM 27.96	Databases	Yes
Edit	Flash 4 Magic (WITH CD-ROM)	David J. Emberton, J. Scott Hamlin, David Emberton	RM 36	HTML & Web design	No

Figure 4.17: Bookstore Personnel : Book Administration Page

All books entered through the Book Upload Page will appear in this webpage. Here the staff may edit the details of the book, as well as segregate it according to its category.

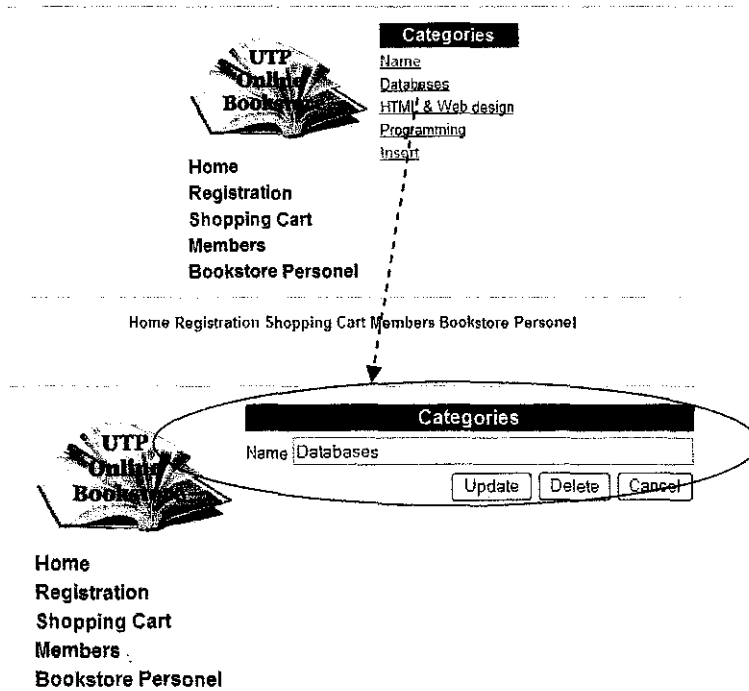


Figure 4.18: Bookstore Personnel : Book Category Page

Categories page facilitate bookstore staff to add new category of books or edit details on existing categories. A click on selected category leads to a form to edit it.

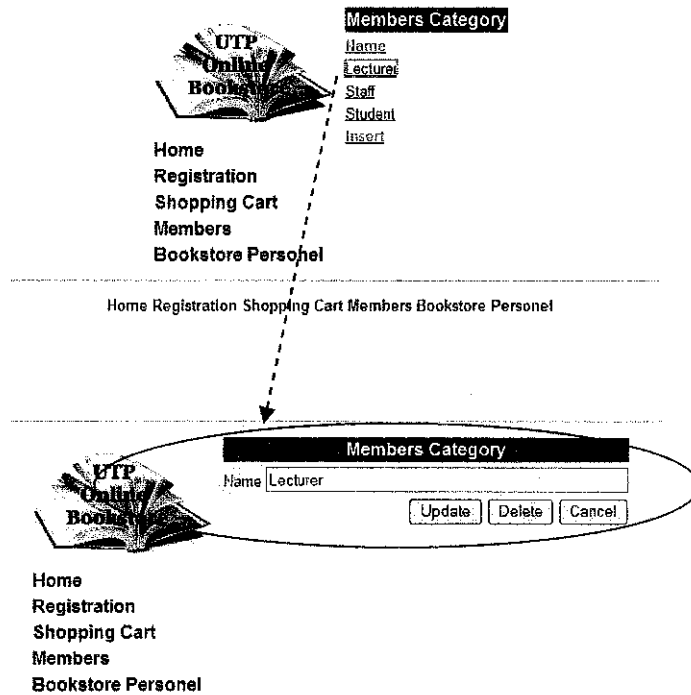


Figure 4.19: Bookstore Personnel : Member's Category Page

The function for this section of the website works about the same as the book category page, the difference is only that this page represents member's category and enable bookstore staff to edit existing ones or add new categories.

4.9 USER ACCEPTANCE SURVEY RESULT

User Acceptance Survey on The UTP Online Book Catalog is developed when the portal is 100% done and ready for use (Refer to Appendix 3). The portal is exposed to a group of 30 target users and the result of the survey is as tabulated below:

4.9.1 Perceived Usefulness

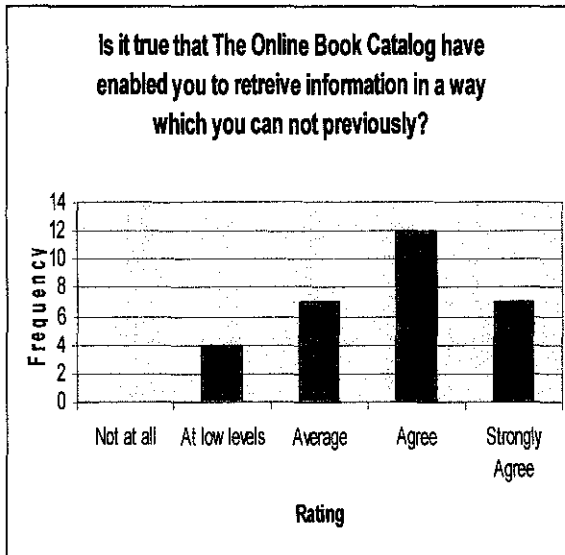


Figure 4.20: Usefulness in Improving Manual Process

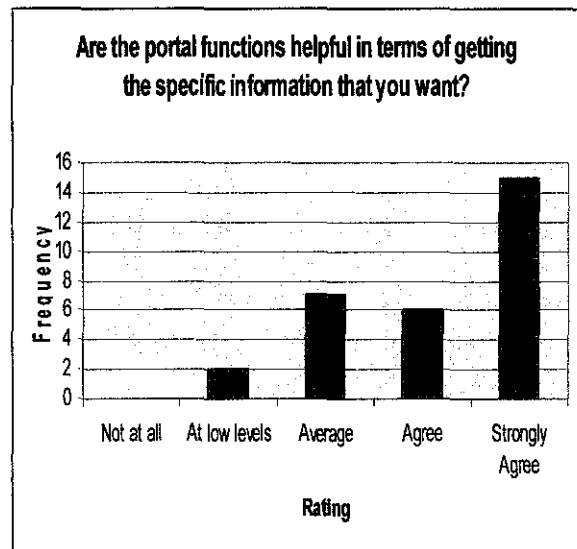


Figure 4.21: Function Usefulness to find Information

Figure 4.20 denotes results from the question which ask users on whether The Online Book Catalog enabled them to obtain information on books more effectively than how they have done it before. 40% of the respondents respond that this portal is good, 23% responded it as Very Good, and another 23% responds it as Average and only 13% perceived it as effective at low levels. This shows that the portal has improved the current process in obtaining information on books, booking of books and reviewing books.

While **Figure 4.21** denotes results from the question which ask users if they find the portal's functions helpful in terms of getting information that they need. A majority of 50% users responded Very Useful, while 20% of them think that the functions are Useful. This shows that the functions developed is straight forward and captured the user's expectation and understanding, thus enables them to utilize it to find information.

4.9.2 Perceived Ease of use

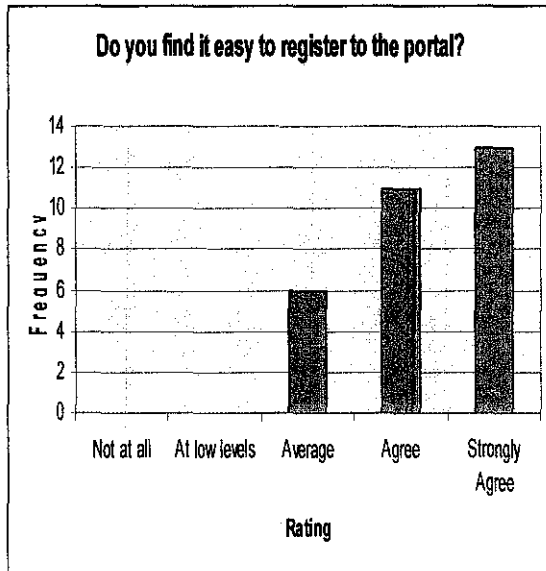


Figure 4.22: Easy to register features

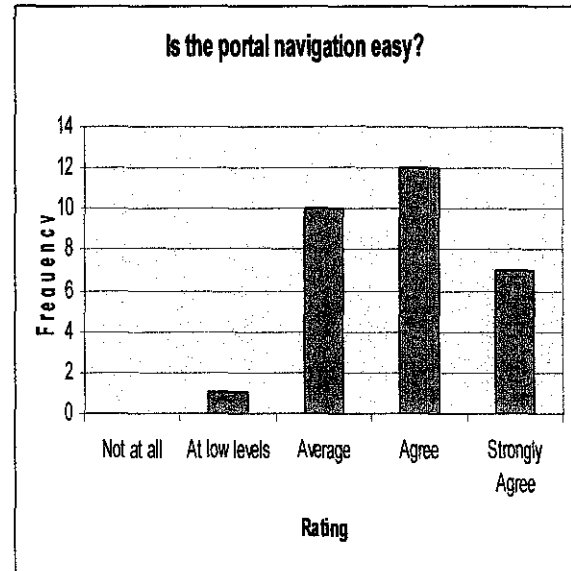


Figure 4.23: Easy navigation features

Figure 4.22 shows the results from the question which request users to rate the level of ease of use to register into the portal. A majority of 43.3% users rated it as Very Easy while 36.6% more rated it as Easy.

While **Figure 4.23** denotes 40% of users find the navigation of the portal as easy while 23.3% of users find it very easy. From these two results, it is proven that the portal and its features are easy to use.

4.9.3 Visual Attractiveness

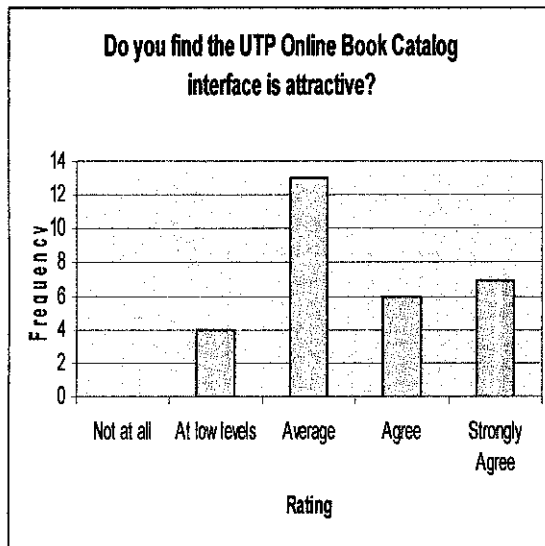


Figure 4.24: Attractive Interface

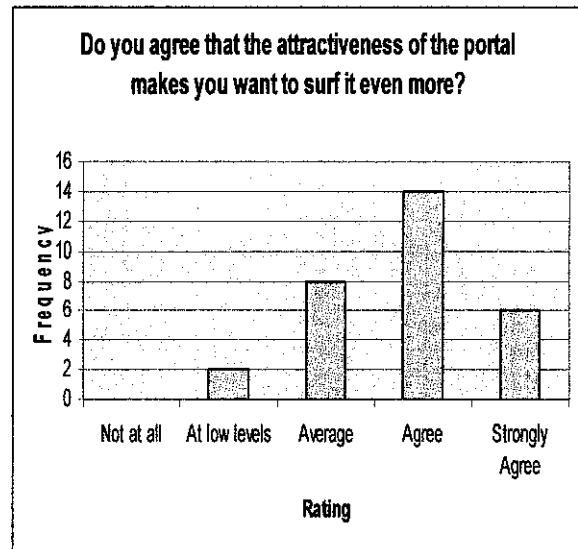


Figure 4.25: Attractiveness of portal leads to increase frequency in utilizing

Figure 4.24 shows the results from the question about the attractiveness level of the portal interface. A majority of 43.3% users think that the portal is averagely attractive, while 23.3% think that it is very attractive. The attractiveness of the portal includes the use of colors, the interactive features, layout and interface, etc.

Figure 4.25 denotes 35% of respondents agreed and 20% of respondents strongly agreed that the attractiveness of the portal makes them willing to surf it more in the future. This shows that this portal is able to capture users attention to surf it more often in future through its attractiveness.

From this survey results, it can be concluded that:

1. Respondents have tested the portal and they found that this portal is feasible to be implemented in UTP.

2.This portal can significantly increase the sales of books as the respondents agreed that this online book catalog enabled them to obtain information in a way they can not before and the attractiveness attracted them to use this portal again and again.

3.Respondents also agreed this portal establish a closer connection between students, lecturers and The UTP Bookstore, and this way this portal have upgraded the system of information sharing and retrieving amongst these three groups.

Therefore, the TAM extended for web portal hypothesizes by N. Tractinsky, A.S. Katz and D. Ikar, 2000, which are; Perceived visual attractiveness positively influences perceived usefulness and, Perceived visual attractiveness positively influences perceived ease-of-use are proven.

CHAPTER 5

CONCLUSION AND RECOMMENDATION

Information sharing is vital within the campus area, as well as for businesses which cares about reaching their consumers effectively. The same thing applies for UTP, as to be in line with the other successful campuses around the globe; they must acquire latest technologies available.

Online bookstores has existed and being utilized around the globe by campuses since 1994. In line with UTP's mission to be the leader in technology education, new technologies and ways of doing things which are found efficient needs to be developed. In this case, this project permits the enhancement of information sharing by The UTP Bookstore to all UTP citizens.

Web prototype gives a basic idea of how the outcome design of UTP Online Bookstore will look like, based on the research being done. It acts as a guide for developers to create an integrated web platform suited to user's requirement, user-friendly and most important, its functionality. These user requirements can be gathered through various research methodologies, namely survey questionnaire and interviews.

Basic functionalities of this website are login page, registration page, book search engine, shopping cart and bookstore personnel administration area which includes book category a administration, books administration, member's administration and member's personal page.

Adhering to the objectives, this portal is dedicated to assist and improve the current process students and lecturers went through in finding information about books available at the physical UTP Bookstore located at Pocket C. Simple language and interface is being used to ensure quick and easy understanding by users to enable them to get the information they need immediately.

5.1 Future Work and Recommendation

- a.** Online Bookstore Simulation
- b.** E-commerce Online Bookstore (with online payment & delivery service)
- c.** Integrate the website with IRC UTP website, to assist students to find textbooks that might be available in the IRC collection.
- d.** Include classifieds for used books section, where it allows students to sell and/or buy second hand books via this portal.

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Appendix II

Interview Questions

Target Group : Bookstore Owner (Name :)
Bookstore Staff (Name :)

Date/Time :

- 1 – How many years have you established/ worked the UTP Bookstore business?
 - 2- How many people need to handle the bookstore at one time?
 - 3- How many type of books do you sell in the bookstore? The Categories?
 - 4- What other books do you sell other than textbooks?
 - 5 – Acceptance of the books among students / lecturers
 - 6 – Revenue. It is consistent every year?
 - 7 – Which period students purchase the most?
 - 8 – Which period do lecturers request for books?
 - 9 – Current system being used.
 - 10 – Will an online catalogue help?
 - 11 – Criteria of an online book catalogue.
-
-



UTP Online Bookstore Survey: Student

Instructions

Please complete the form in full

You can either cross 'X', rate or state your opinions in the provided box

If you indicate Others, please indicate your answer in the column that appears

If you have received this questionnaire by random, please mail the completed form to ifah.nadiyah@gmail.com. Thank you for your cooperation!

Level of Studies Foundation 1st Year 2nd Year 3rd Year Others _____

Programme Mechanical Engineering Civil Engineering Chemical Engineering
 Electrical & Electronics Engineering Petroleum Engineering
 Information & Communication Technology Business Information System

Residential Village Village 1 Village 2 Village 3 Village 4 Village 5 Village 6

How frequent do you go to the UTP Bookstore to purchase books?

5 times per semester > 5 times per semester When I feel necessary

Never If your answer is 'Never', why? _____

How many books do you purchase from student's used books ?

3 books per semester > 3 books per semester When I feel necessary

Never If your answer is 'Never', why? _____

Do you prefer to buy books from UTP Bookstore or from students?

UTP Bookstore Students Both (Neutral)

Do you find information on available second-hand books?

iRC DC++ Poster Friends Words of Mouth

Do you always compare books being sold at UTP Bookstore & second-hand books available?

Yes No If your answer is 'Yes', state the comparison criteria: _____

How often do you surf UTP internal websites (UTP Website & E Learning)?

Often Regularly Sometimes Rarely

Where do you usually access the websites mentioned above from?

Mostly within UTP Compound Mostly outside UTP Campus Both within & outside UTP

If an online UTP Bookstore is to be established, which web feature do you feel is necessary?(check all that apply)

Textbook Search Engine Classified Post for Used Books Online Book Catalogue

Course Calendar Rain Check (E-mail book alert) Online Booking for books

Others (Please state suggestions: _____)

In the presence of the Online Bookstore, will it most likely to improve the current process you went through buying / selling textbooks? Yes No Maybe

What is your most important consideration when shopping online?

Product Selection Competitive Price Convenience Promotions Others _____

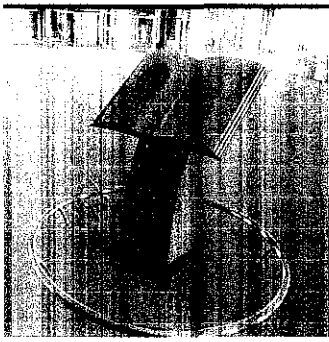
Which of the following items are you interested in purchasing from UTP Online Bookstore? (check all that apply)

Academic Textbooks Academic Reference Books General Books

Stationary Computer Gadgets UTP Merchandise

Others (Please state suggestions: _____)

End



UTP Online Bookstore Survey: Lecturer

tel:ans

ase complete the form in full

u can either cross 'X', rate or state your opinions in the provided box

you indicate Others, please indicate your answer in the column that appears

you have received this questionnaire by random, please mail the completed form to sharifah.nadiyah@gmail.com. Thank
or your cooperation!

- artment Mechanical Engineering Civil Engineering Chemical Engineering
 Electrical & Electronics Engineering Geoscience & Petroleum Engineering
 Management & Humanities Computer & Information Science
 Post Graduate

urse/s Taught 1 : _____ 2 : _____
 3 : _____ 4 : _____

many type of textbook do you normally require students to purchase for each of your course?

- More than 1 Not compulsory (Only Reference Books)

do you obtain information on the textbooks before you adopt it as your course text/reference book?

- rom the internet personal visit from bookstore owner my own research

based on past semester's book

ur opinion, is it necessary for students to get the latest version of textbooks from the bookstore, rather than
ie outdated versions from their seniors?

- ecessary Not Necessary Depends (State Reason: _____)

do you think of the current process of textbook reviewing?

- really Good Good Average Bad Poor

detail of the book information do you feel necessary in the review process to convince you to adopt it for course?

detail Just Enough Information a brief book review is sufficient

the needed criteria you need in the process of reviewing textbooks:

Content

Structure

Style of Writing

Others (Please state suggestions: _____)

you always need to review the actual textbook personally before adopting it?

Yes No Sometimes

often do you surf UTP internal websites (UTP Website & E Learning)?

Often Regularly Sometimes Rarely

where do you usually access the websites mentioned above from?

Mostly within UTP Compound Mostly outside UTP Campus both within & outside UTP

if an online UTP Bookstore is to be established, which web feature do you feel is necessary?(check all that apply)

Textbook Search Engine Classified Post for Used Books Online Book Catalogue

Course Calendar Rain Check (E-mail book alert) Online Booking for books

Others (Please state suggestions: _____)

with the presence of the Online Bookstore, will it most likely to improve the current process you went through reviewing textbooks? Yes No Maybe

what is your most important consideration when shopping online?

Product Selection Competitive Price Convenience Promotions Others _____

Which of the following items are you interested in purchasing from UTP Online Bookstore? (check all that apply)

Academic Textbooks

Academic Reference Books

General Books

Stationery

Computer Gadgets

UTP Merchandise

Others (Please state suggestions: _____)

Other comments or suggestions please state here:

End

Appendix III

Tiger SURVEY

Universiti Teknologi PETRONAS Online Book Catalog Survey

1. Do you think that The Online Book Catalog enabled you to retrieve information on books in a way which is more effective than what you have done previously?
 Not at all
 At Low Levels
 Average
 Good
 Very Good
2. After surfing this portal, are you able to find new information that you may not find previously?
 Not at all
 At Low Levels
 Average
 Good
 Very Good
3. Are the portal functions helpful for you in terms of getting the information on specific books that you want?
 Not at All
 At Low Levels
 Average
 Good
 Very Good
4. Do you think that the functions provided by this portal are helpful for UTP Students and Lecturers?
 Not at All
 At Low Levels
 Average
 Good
 Very Good
5. Do you think that this portal establish a better connection between The UTP Bookstore, UTP students, and lecturers?
 Yes
 No
6. Overall, do you think The UTP Online Book Catalog gives you perceived benefit and increased you productivity?
 Not at All
 At Low Levels
 Average
 Good
 Very Good
7. Do you prefer other non-digital or digital ways to obtain information and book books besides through this portal? (going to the bookstore, Online Bookstore with Smart Card system, etc)
 Not at all
 At Low Levels
 Average
 Much
 Very Much
8. Did you find it easy to register to the portal?
 Not at all
 At Low Levels
 Average
 Easy
 Very Easy
9. Is the portal navigation easy?
 Not at all
 At Low Levels
 Average
 Easy
 Very Easy
10. Do you intent to surf this portal again in future?
 Not at all
 Rarely
 Sometimes
 Always
11. Do you intend to rate on books you have read at this portal?
 No
 Maybe
 Yes
12. In your opinion, do you think that this website provide you with benefits that make it compulsory for you to surf it again and again?
 Not at all
 At Low Levels
 Average
 Good
 Very Good
13. Do you find that The UTP Online Bookstore Catalog interface is attractive?
 Not at all
 At Low Levels
 Average
 Attractive
 Very Attractive
14. Do you think that the colors are pleasing to the eyes?
 Not at all
 At Low Levels
 Average
 Good
 Very Good
15. Do you agree that the attractiveness of the portal makes you want to surf it even more?
 Not at all
 At Low Levels
 Average
 Agree
 Strongly Agree

Submit