PACKAGING PRODUCT MODEL BASED ON INFORMATION TECHNOLOGY AT UNIVERSITAS RIAU LIBRARY

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ABSTRACT

This study aimed to obtain a packaging product model based on information technology at Universitas Riau library. The author then choose n the right analytical tool to formulate real actions in solving the problem, used the SWOT analysis approach. Strengths and weaknesses must be realized, then thought  and planned what must be done for further improvement. From the detailed analysis findings it was found that the packaging that has been presented at UR still need to be handled in accordance with the packaging which was more efficient and effective, regarding the digitization format that has used pdf format and given the character of the university but in its handling it can refer to what is done by UIN SUSKA (Universitas Islam Negeri Sultan SyarifKasim)where the students uploaded the final project to be digitized, then the officer only checked and controlled it.

Keywords: Packaging model, Product, Information Technology, Universitas Riau Library

I. INTRODUCTION

For the purpose of higher education to be achieved, the existence of a university must be supported by the existence of a library. The position of the library was important as a gateway for information to support the teaching and learning process, research, and community service (Three points of Lecturer Obligation inUniversity). According to Lasa Hs, a library was an information system in which there were activities of gathering, processing, preserving, presentation and presentation, as well as information dissemination. Information included human intellectual and artistic products. This time, the development of science, including library and information science, gradually required a change in library management. The library was not only an institution that collected, managed, stored, and preserved library materials, but also prioritizes the dissemination of information.

Recognized the importance of the information and communication technology development which change the library world, so that the library required cooperation with several stakeholders.

Universitas Riau Library has been using library automation in recent years with the integrated Slims program. This meant that the processing, service, and traceability can be used simultaneously and interrelated. However, there were still obstacles encountered, namely the absence of networking with faculty libraries within Universitas Riau. Observed the importance of libraries in providing services quickly and appropriately, it should be developed and developed through various programs and activities that were realistic so that they can achieved the desired goals. For this reason, Universitas Riau Library in collaboration with Universitas Riau Computer Center Unit built a new web-based database. With the hope that in the future all types of collections in the of Universitas Riau Library and faculties in the Universitas Riau can be accessed via the internet with realtime information (at that time), so users would get a variety of relevant, accurate, and diverse service satisfaction fast. The types of information services aimed at the public are products that are produced and processed by Universitas Riau Library, both products in printed and electronic forms. For printed information products, one of the sources was obtained through exhibitions or book fairs. Then the product will be processed and served online by catalog through intranet media and the internet. This online catalog media was developed in collaboration with Universitas Riau Computer Center Unit. While electronic products such as e-journals, Riau University Library collaborated with other parties. Collaboration between the library and stakeholders included the rector as the policy holder, the academic community as the user, Universitas Riau Computer Center Unit as a
partner in the development of information technology-based services, and several publishers/distributors as partners in the procurement and development of collections. From the picture above shows that the existence of information products in electronic form on information services in the library was very necessary.

One of the efforts made by the Universitas Riau Library was to pack information technology-based products. But as well as any library products and services, it would not do much good if not many people known and used it. Because it needed a process called marketing. In marketing library products and services, it was necessary to have a marketing communication strategy, namely the marketing mix consisting of product, price, place, and promotion. Or it could be said that promotion was an important element of the marketing mix. In general, promotion is carried out through several elements (promotion mix), one of which was through product packaging.

Library promotion need to be done so that all activities related to library services can be known and understood by users. Promotion was one component of marketing, by promoting institutions, collections, systems, and types of services, the process of information approach to the user happens.

For effective promotion, a good planning, organization and implementation is needed, then an evaluation is carried out at a certain time period. So that the goals to be achieved can be implemented on time, in the right way, and right on target. Based on the study of the information technology-based product packaging model, strength, understanding, opportunities, and threats will be known. Here the researcher is interested in conducting an information technology-based product packaging study conducted by Universitas Riau Library due to seeing the phenomenon of the shift in the orientation of users' needs for information technology-based information along with the rapid development of technology and science. For this reason, it was necessary to innovate based on user needs.

II. LITERATURE REVIEW

1. Marketing

Marketing deals with identify and fulfill human and society needs. One of the shortest definitions of marketing is "fulfill needs profitably”. A social and managerial process that made individuals and groups get what they need and want, through the creation and exchange of things of value with other people or groups.

The American Marketing Association (AMA) released the latest definition of marketing in 2004 which stated:

Marketing is the function of the organization and a series of processes creating, communicating, and conveying value to customers in such a way that benefits the organization and its stakeholders.

In addition, it needed a communication with customers. This was what lied behind the need for a communication application in marketing. Marketing communication played a very important role for marketers. Without communication, consumers and society as a whole would not know the existence of products in the market. In carrying out marketing communication programs, careful planning was needed.

In marketing sources meant those who sent marketing messages to consumers. The next process was the marketer determined how the message is arranged so that it can be understood and responded positively by the recipient in this case the consumer. In the process also determined what type of communication will be used. Will the message be conveyed through advertisements, personal selling, promotions, public relations or with direct marketing. The whole process from message design to determining the type of promotion is called the encoding process.

The next process was conveying messages through the media (print/electronic). The process of delivering messages through this media is called the transmission process. Messages delivered through the media will be captured by the recipient with a positive or negative response. A positive response was identical with the occurrence of harmony between the expectations of the sender of the message with the recipient's response. The process of responding and interpreting the message received is called the decoding process.

The final process was feedback on the message conveyed. Marketers evaluate whether the message is delivered according to expectations, or the message did not arrive effectively. Measuring the effectiveness of the message, of course, must go through the research process. The indicator used to measure the effectiveness of the message.
is the level of product sales offered to the market. The stages of the marketing communication process were described as follows:

![Marketing Communication Model](source:Sutisna,2001:270)

Radio, TV, magazine, brochure

Response and recipient interpretation

Customer Behaviour

Marketing consisted of a series of activities that began with activities that identified the needs of the community and groups and ended with communication back to the community regarding the provision of those community needs. Between the beginning and end there would be a planning process and marketing efforts going forward.

According to Tjiptono, the main purpose of promotion was to inform, influence and persuade, and remind target customers about the company and its marketing mix. Briefly the promotion is related to efforts to direct someone to get to know the company's products, then understand them, change their attitude, like, believe, then finally buy and always remember the product. Promotions are primarily directed at prospective buyers who are already known or known personally.

### 2. Marketing Strategy

The various of marketing strategies can be implemented to market an organization's products or services. The strategy designed may be different from other organizations, even though the ingredients and ingredients are the same. In the concept of dynamic marketing, according to Regis Mckena, there were three main strategies that must be carried out, namely:

1. **Productpositioning**
2. **Marketpositioning**
3. **Corporatepositioning**

In the first stage which was to reach the position of the product, the library must determined the product, namely information such as what is needed or desired by the market. Was it just lending documents, does the market want information in the form of, indexes, master catalogs, abstracts, selected information, tracking domestic and foreign
sources, or types of internet-based information. Librarians must be sensitive to market needs (users) regarding the information products (services) they need.

Whereas in the second stage, gaining a position was gaining recognition from the market place. In other words this effort aimed to achieve the credibility of products and services in the eyes of users. Credibility was the key to the whole process of achieving market position. This credibility is obtained when the product is thrown into the market and is considered by users to be able to overcome the problems or difficulties they face. In other words the product gave satisfaction to the user, this would have an automatic impact with the existence of word of mouth communication.

In the third stage which was to reach the organizational position, it is very much determined by the success of management in managing the library. Good management was holding on to the correct management theories and colored with the right management style.

3. Library Promotion

Library promotion was an attempt to introduce all activities in the library so that it is known by the general public.

One important factor in the success of marketing library services was promotion. As a rationale for conducting promotional activities was communication, because with the communication is expected to occur interaction between producers and consumers. Communication would work well if the message received was the same as the message sent. Therefore, the manufacturer of a product or service must crossed the path to communicate the product to users or potential customers.

In the process of selecting promotional tools used, it depended on who will be reached, what will be offered, what will be communicated, and how the audience responded to the message. It also depended on the strengths and weaknesses of the organization's internal as well as opportunities and threats external to the organization. Actually consciously or not the librarian has done a lot of promotion, but the activity is not / has not been planned so that it does not / has not yet reached the goals and objectives of the library. According to the author's observations there were several promotional tools used by Universitas Riau Library, namely: brochures, exhibitions, orientation of new students, library seminars, library automation training, packaging (interactive CDs, digital libraries, e-journals, catalogs on line). But in this study the researchers limited the study through promotional media in the form of packaging (digital libraries, e-journals, and online catalogs).

4. Library Products Packaging

Packaging information was an activity that started from selected various information from different sources, collected relevant information, analyzed, synthesized, and presented information that suited the needs of users. Repackaged information made it easy to disseminate information and information retrieval.

So packaging was an attempt to repack in a better and more attractive form. However complete a collection of information is, it would not provide benefits if it is not repackaged and communicated to actual and potential users. It must be recognized that the quality of goods or services was a great influence on the smooth sales, in this case the packaging problem should not be forgotten. Thus attractive packaging would accelerate the smooth sale of goods. Charles A. Bresin, officer of the American Packaging magazine said "That packaging was not only a service but also a salesman and a bearer of trust."

4.1 Digital Library

Based on Wikipedia Indonesia, the free Indonesian encyclopedia, stated:

libraries which had a large collection of books in digital format and which can be accessed by computer. This type of library was different from conventional library types in the form of a collection of printed books, micro films (microform and microfiche), or a collection of audio cassettes, videos, etc. The contents of the digital
library were in a server computer that can be placed locally, or in a remote location, but can be accessed quickly and easily through a computer network.

Digital libraries, electronic library, or virtual library are libraries that had a large collection of books in digital format and which can be accessed by computer. This type of library was different from conventional library types in the form of a collection of printed books, micro films (microform and microfiche), or a collection of audio cassettes, videos, etc. The contents of the digital library were in a server computer that can be placed locally, or in a remote location, but can be accessed quickly and easily through a computer network.

In short, digital libraries can actually be understood as collections of information in electronic or digital form which may also be contained in print collections, which can be accessed widely using computer media and the like. Digital libraries here can vary, can be in the form of electronic books, electronic journals, online databases, electronic statistics, and so on.

4.2 E-Journal

According to the Glossary issued by the African Digital Library, what is meant by e-journal was:

An article or complete journal available fully electronically via a web-site on the Internet. It could be available free or as part of a paid for service. This trend is older and more established than the trend of providing book content via the Internet.

Articles for scientific journals were primary knowledge, in contrast to textbooks which were secondary knowledge. Primary knowledge would only be there if there was new research, so a publisher cannot simply publish a scientific journal and search for articles for his journal. If no one examines then there was no journal that needs to be published.

This time many university libraries are subscribed to online databases containing various electronic journals and electronic articles. Through this online database the library was able to provide digital collections that can be accessed by library users in certain areas. Ebscohost and Proquest were two database examples.

To build a digital library system, there were many applications that can be used, both commercial and Open Source.

4.3 Catalog Online

The main purpose of a computerized catalog was to create a cataloging system that was suitable for its use. Sources for making an online (computerized) catalog were obtained from:

Local catalog in the form of printed sheets or cards. Files that have been created by the cataloger, whether they had or not the MARC format.

Integration of catalog database files between libraries;

Bought a commercial catalog in MARC format.

III. RESEARCH METHOD

1. Location and Time of Research

This research was conducted for 8 (eight) months, started in March to September 2018 which included preparatory activities, field research, data processing and report preparation. The location of the research was conducted at the University of Riau, Jl. HR Subrantas Panam.
2. Research Flow Chart

Researchers wanted to illustrate a reality in this study, by looking at environmental problems that exist through analysis of the situation that occurred at Universitas Riau Library in the packaging of information technology-based products. Then choose the appropriate and appropriate analysis tool to formulate concrete actions in solving the problem, using the SWOT analysis approach. This type of research was a descriptive evaluative type, which was an information technology-based product promotion program (Ex Post Program Evaluation) to find out whether the information technology-based product that has been served by Universitas Riau Library was in accordance with the user's wishes. Then the researchers looked for respondents in accordance with the purpose of the study, then the data is processed to determine whether the service has touched the hearts of users. From the findings of the detailed analysis, it can be understood and formulated both strengths and weaknesses, and further this research proposes operational recommendations in the form of measures to improve and develop information technology-based product development models that should be carried out by Universitas Riau Library in improving the quality of its services. no matter how good the library's products and services were, it won't do you much good if not many people know and use them. Because it needed a process called marketing. In marketing library products and services, it was necessary to have a marketing communication strategy, namely the marketing mix consisted of product, price, place and promotion. Or it could be said that promotion was an important element of the marketing mix. In general, promotion is carried out through several elements (promotion mix), one of which is through product packaging.

Promotion was one component of marketing, by promoting institutions, collections, systems and types of services, the process of information approach to the user happens. Users became aware of what collections there are, what services are available, while those who did not know or known but have never used the services would get to know and then be interested in coming or utilizing, so that visitors increase, the use of library materials or library services was increasingly high. It was such a hope which desired by Universitas Riau Library.

For effective promotion, a good planning, organization and implementation is needed, then an evaluation is carried out at a certain time period. Here the writer conducted a study started from the planning process to the evaluation. Based on the study of information technology-based product packaging models, strengths, understandability, opportunities, and threats will be identified and models will be found in the future so that information technology-based products met the desires of users and right on target. Evaluation activities are carried out in a participatory manner, involving stakeholders and users, because this process was learning to reflect on what has been done, strengths and weaknesses must be realized, which then thought and planned what needs to be done for further improvement.

3. Data Collection

The data used in this research were primary data and secondary data. To collect primary data, a direct observation is carried out in the field which included direct observation in the field by conducting direct interviews with stakeholders and users.

Primary data is used to determine the packaging conditions carried out obtained through interviews, both interviews with questionnaire guidelines and in-depth interviews. To stakeholders, members of society and users who often used the library in fulfilling the information they need.

Furthermore, secondary data was obtained by desk study method obtained from the Universitas Riau Library, Universitas Riau Computer Center Unit, UniversitasLancangKuning Technical Implementation Unit and from various studies, other documents with the same theme for later analysis.

4. Research Procedure

Packaging information was an activity that started from selected various information from different sources, collected relevant information, analyzed, synthesized, and presented information that suited the needs of users. Repackaged information made it easy to disseminate information and information retrieval. Evaluation activities are carried out in a participatory manner, involving stakeholders and users, because this process was learning to reflect on what has been done, strengths and weaknesses must be realized, which then thought and planned what needs to be done for further improvement.

5. Data Analysis
Analysis was the process of systematically searching and planning all data and materials that have been collected so that the researcher understands the true meaning that has been stated and can present it to others clearly. The analysis used in this study was to use an evaluative descriptive approach about information technology-based product packaging models at the Universitas Riau Library. The SWOT analysis based on the information technology product packaging model was then carried out at the Universitas Riau Library.

In the process of collecting data the author used interview techniques, documents, and direct observation to the research location. The data collected in this research were in the form of descriptions of data that have been compiled on a regular basis using inductive research patterns that are processed interactively. This meant that data relation between one and another is always maintained both at the pre-implementation, implementation and at the time of the preparation of research results. After the data is collected the data selection process is carried out, then the data is presented systematically so that it would be easier to understand. From the presentation of the data that has been processed is interpreted and drawn a conclusion.

The analysis technique used in this research was through three components:

1. Data Reduction
2. Data Presentation
3. Conclusion and Verification

These three components form interactions with the data collection process as a cycle. The process can be described as follows:

![Interactive Analysis Model Scheme](image)

Source: H.B. Sutopo (2006:120)

IV. RESULT AND OUTCOME

1. Result

Universitas Riau Library was founded in 1962 coincided with the establishment of the Universitas Riau, which was still under control of Universitas Riau Foundation and occupied only 100 square meters of space. In 1980 Universitas Riau Library only had a 500 square meter building located on the old campus location on No. Pattimura Street. 9 Pekanbaru. Since 1992 Universitas Riau Library was moved to a new campus namely the Bina Widya Panam Campus HR Soebrantas Road KM 12.5 Simpang Baru, Pekanbaru in line with the relocation of the Rector's office and several faculties.

Universitas Riau Library had four units of buildings each consisting of two floors. Of the four existing library units, they occupied only two buildings with a total area of 4,000 square meters with a seating capacity of 250, built on an area of 2 hectares.
The library currently served more than 27,500 students, 1,400 lecturers and 654 employees. Universitas Riau Library held more than 132,000 titles or 365,000 copies of library material collection, with an annual increased of around 8,500 copies. In addition, Universitas Riau Library had an electronic collection consisting of journals and "local content" collection materials. The number of e-journals that are subscribed to was more than 5,000 titles in various disciplines required especially by the Universitas Riau academic community. Both types of journal electronic collections can be accessed through the network www: lib.unri.ac.id and www: ur-lib.com.

Universitas Riau Library has been using the library automation system for the past two years used the SliMS program and its complement has been developed from the CendanaSliMS program development, a self-service application that has been applied for lending, extension and book return transactions in an effort to improve services. The application of the Mandiri Service application was on 30 August 2013.

Universitas Riau Library received the best value in library accreditation in 2013, namely the "A" Category. The results of Universitas Riau Library accreditation assessment by the National Library of Indonesia Assessors Team from 17 September to 18 December 2013 contained in the National Library Library Accreditation Certificate Number 19/1 / ee / XII.2013

2. Outcome

Universitas Riau Library Mapping

1. Library Segmentation

In the marketing approach there were several things that became the main questions, including: Who were the main users or consumers of the company? What did users want? What could a company do so that user desires are fulfilled? And in what ways could the company meet user needs? Practices in the world of marketing and services also occurred in the library. Buyers or consumers in the library are called visitors or users. Libraries must be keen to see the market and determine the segmentation of its users. Market segmentation was the process of separating the total market into market groups with similar needs. Market segments were individuals or organizations with similar characteristics so that the needs were also similar. In the university library, the segment consisted of two identifications, namely actual users and potential users. The academics of higher education (lecturers, employees, and students), alumni, students / lecturers outside the university, were the actual segments that must be served. While potential segments were groups of people or other organizations that might use our products or services in the future. It was possible for students around Pekanbaru, the general public (such as local residents), political organizations in Pekanbaru, or various other educational foundations to utilize information technology-based products. Market segmentation at Universitas Riau Library was as follows:

1. Lecturers from all faculties in Universitas Riau
2. Doctoral Students, Master Students, Bachelor Students or Diploma Students from all faculties in Universitas Riau
3. Employee both administration staff or functional staff in Universitas Riau
4. Students, scholars, and lecturers from the outside of Universitas Riau
5. Society

The segmentation of IT-based Product Packaging was as follows:

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<th>Packaging Types</th>
<th>Segmentation</th>
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Table 1. T-Based Product Packaging Segmentation
2. Library Targeting

Library as a university library unit in this case the target was clear, namely the entire Universitas Riau academic community. The targeting of the academic community includes:

1. Lecturers from all faculties in Universitas Riau
2. Doctoral Students, Master Students, Bachelor Students or Diploma Students from all faculties in Universitas Riau
3. Employee both administration staff or functional staff in Universitas Riau

The number of users can be seen as follows:

| Table 2. Number of Library users up to June 1, 2017 |
|-----------|----------------|----------------|------|
| Status   | Amount          | Number of registered library members | %    |
| Scholars | 27,500          | 8,460                        | 30.8%|
| Lecturers| 1,400           | 5                            | 0.4% |
| Employee | 654             | 23                           | 3.5% |
| Total    | 29,554          | 8,488                        | 28.7%|

Source: data from researcher, 2017

| Table 3. Number of Electronic Journal Unit Users in Universitas Riau Library Th. 2017 |
|----------------------------------|----------------|
| Month   | Searched per month |      |
| January | 102                |      |
| February| 92                 |      |
| March   | 425                |      |
| April   | 398                |      |
| May     | 398                |      |
| June    | 234                |      |
| July    | 166                |      |
| Total   | 1815               |      |

Source: Internet Services Staff, 2017

Based on the data above, it can be said that Universitas Riau Library must be more active in promoting the existence of information technology-based products owned by Universitas Riau Library because only a few are registered as members compared to the total number of academics, which was only 29%, so the Universitas Riau Library needed to strive for products based on available information technology that is maximally utilized to users, especially academicians. And those who use ejournal from 2017 to July amount to 1815 out of 8488 members of the academic community library if only 21% of them use ejournal. Then there were only 5 lecturers who were members of the library from 1,400 lecturers, if presented only 0.4% of the total number of lecturers at Universitas Riau, so it was unfortunate that not until 1% of the lecturers were members of the library at Universitas Riau meant it should promoted the existence of libraries harder than before. It also shoud promote about information technology-based products that have been served in the library of the Universitas Riau.
In addition, the library also applied cheap pricing in making library member cards. Penalty fines for returning books were also cheaper compared to late book fines in the faculties and other universities.

**SWOT Analysis in Packaging of Information Technology-Based Products at University Riau Library**

For the SWOT analysis here the researchers took the state library as well, namely UIN SUSKA library because there were only two state universities in Riau Province. In the packaging of information technology-based products between Universitas Riau Library and UIN SUSKA Library, they had a significant difference where the Universitas Riau Library that digitized and processed is done by temporary staff then at UIN SUSKA by scholars, if it's uploaded the employee only needs to check and re-check if there were errors and incompleteness.

Here it can be concluded that in the processing and management there was little convenience if all is done by the student concerned so that the staff just needed to see and review the shortcomings or incompleteness of what was uploaded, as for the students uploaded were: 1. Cover, 2. Endorsement Sheet, 3 Abstract, 4. Introduction / appreciation, 5. Table of Contents, 6. CHAPTER 1 to CHAPTER VI, then the last bibliography list photo after that must contact the officer to be checked, and the officer checks the match between the soft file and hard copy, both must be the same then asked for a letter to the Administration (2 days with Mrs. Feni) then Mrs. Feni issued a library free letter, so if there was a name error means the student is inputted incorrectly because the officer prints based on the student's input, the number of computers provided in the room is 6 items on the 3rd Floor (Interview dated May 30, 2018) then just register for graduation, where the number is limited to 800 people for each graduation, and graduation is held 4 times a year.

Then at Universitas Riau Library all that was done in the Lt. 2 by 3 staff members on duty namely Firdausyam, S.IP and his two friends while in UIN SUSKA carried out by the students concerned on the 3rd floor of the library building.

In Universitas Riau Library collected on a Compact Disc while in UIN SUSKA it did not use a Compact Disc, if the CD is damaged or cannot open it was an obstacle in digitalized process, while in the UIN SUSKA library it was directly uploaded in the system by the student concerned.

**Information Technology-Based Product Packaging Model at Universitas Riau Library**

After two years researchers conducted research in Universitas Riau Library and then continued at UIN SUSKA, it can be seen that in packaging Information Technology-based products, both libraries had the same model, which were both using the Pdf format and then given a watermark as a identifier interview institutions but in handling between the two had a significant difference where Universitas Riau Librarry was doing the digitization and processing by staff (interview 12 April 2017) while UIN SUSKA is conducted by students, said the staff on duty (interview May 12, 2018), if already uploaded by employees just check and re-check if there were errors and incompleteness.

**V. CONCLUSION AND SUGGESTION**

**Conclusion**

- Based on the results of research and discussion conclusions as followed:
  - The information technology-based product packaging model in Universitas Riau Library used the Pdf format and is given a watermark before it is served to users.
  - Stakeholders' perceptions of information technology-based services were good but still needed improvement in terms of security, where there have been incidents that their websites have been hacked by irresponsible people.
  - Based on the SWOT analysis described above, Universitas Riau Library should use the methods which used by UIN SUSKA in handling student final assignments.

**Suggestion**

- Universitas Riau Library must be more observant in choosing the system used because if it can not be left behind from other libraries in Riau Province.
• Must consider the use of students in digitization so the scholars did not get stuck in the processing and implementation of information technology-based products.

REFERENCES