Abstract
This study aims at identifying strategies applied by Center for Scientific Documentation and Information, Indonesian Institute of Sciences (PDII LIPI) in promoting its knowledge products. The research use eight elements of promotional and communication strategies namely identifying the targeted audience, determining the communication objectives, designing the messages, selecting the channels, budgeting, deciding promotional tools, measuring the results, managing and coordinating the integrated marketing communications. This is a single case study using in-depth interviews and references desk to collect data. Informants are selected using a purposive sampling method. Then the data is analyzed using coding techniques consisting of three stages namely open, axial, and selective coding. Result shows that the strategies applied fulfill the seven of eight promotional and communication strategies elements. The element that has not been fulfilled is on measuring the promotional results. Cost budgeting is one element, which also requires being optimized more. It would be better if the institution uses objective and task method to clearly define the specific objectives and determine the required tasks to perform in achieving those objectives as well as to estimate costs in performing those tasks. By implementing these methods, it is expected that the short-term and long-term goals may be clearly defined that the goals of the promotional activities may be achieved better. In addition, the team formation focusing on the promotional activities may also become a consideration for the effectively and efficiently integrated marketing and promotional communication.

Keywords: Knowledge Product, Communication Strategy, Promotion Strategy
Introduction

Knowledge dissemination is crucial for progress in a specific discipline. At the simplest level, dissemination is best described as the delivery and receipt of a message, the engagement of an individual in a process, or the transfer of a process or product. Dissemination serves three broadly different purposes: awareness, understanding, and action. Indeed, effective dissemination of a knowledge product will most likely require that it satisfies all three in turn: utilization is the goal (Serrat, 2017).

The production of knowledge, much of which represents invaluable intellectual capital, lies at the heart of modern organizations. However, the value of any knowledge product hangs on its effective dissemination to present and future audiences: without outreach the efforts of knowledge workers are wasted. For this reason, dissemination is a core responsibility of any organization tasked with generating and sharing knowledge products, especially of new kinds of unique (and uniquely valuable) content that are as usable and accessible as possible. Dissemination of knowledge is just as important as its production (Serrat, 2017).

Fiske and Hartley in Kotler (2000) consider general factors which affect the effectiveness of communication, namely:

1. The greater the monopoly of the source of communication to the recipient, the more likely the recipient will receive the influence or message delivered.
2. The biggest influence of communication is when the message delivered is in accordance with the opinion, trust, and character of the recipient.
3. Communication can cause very effective changes to unknown problems, are considered mild and not core problems, which are not located at the center of the recipient's value system.
4. Communication will tend to be more effective if the source is believed to have expertise, high status, objective or preferred. but the main thing is that the source has power and between the source and its power can be considered identical.
5. The social context of the group, or reference group, will be the place for communication to take place and influence whether communication will be accepted or rejected.

Center for Scientific Documentation and Information as one of repository of research information. They produce the knowledge product and provide the scientific information to society. They have several product knowledge like Indonesian Scientific Journal Database (ISJD) which enable people to access those scientific journals in facilitating the users to improve the quality of their researches. On ISJD page, the users may sign up to become the member that they can easily access hundred thousands of articles from thousands of journals available. In addition, PDII LIPI also provides spaces for those people requiring scientific information in the form of books, research reports, theses, dissertations and hardcopies of scientific journal articles. To meet the user’s demands to easily access information through internet, PDII also provides one information system called Library and Archive System (LARAS). ISJD recently contains approximately 299,426 journal articles derived from 7,526 scientific journals. Meanwhile, LARAS contains approximately 75,916...
scientific papers derived from proceedings of scientific conferences, 77,426 research reports, 88,034 books, 32,896 theses/dissertations, and 6,859 patents. In August 2015, PDII LIPI has launched Neo ISJD, as its latest ISJD version. Through this latest version, the users may register themselves as the members and may directly download the articles for free. Besides, Indonesia has 5,913,252 students in university, 257,606 lecturers, and 9,308 researchers who need that knowledge product. This number is a very large captive market and may be considered as potential users for ISJD, LARAS, and other scientific information services provided by PDII LIPI. This research objectives at analyzing and evaluating the promotion and communication strategies used by PDII LIPI to promote its product knowledge that people may optimally utilize.

**Literature Review**

According to Kotler & Keller (2012) and Belch & Belch (2015) the communication development in a promotional activity is a process starting from determining the targets and communication goals, designing the messages, choosing the communication channels, determining the budgets and promotional distributions, measuring promotional results, as well as managing and coordinating the integrated marketing communication.

1. **Identifying The Targets**
   
   There are several steps made to determine the segment as stated by Kotler (2000) that segmentation process may be started by conducting a survey to determine consumers’ motivation, attitudes, and behaviors. The results of the survey are then analyzed to obtain the number of segments, while the last step is making the formed segment profiling based on attitudes, behaviors, demographic, psychographic, and media patterns. The segments may be subsequently named in accordance with the dominated characters consisting of four main variables covering the geography, demography, psychography, and behavior to form the segmentation (Belch & Belch, 2015).

2. **Determining Communication Goals**
   
   The goals are determined based on what responses are expected by the organization on the identified targets. The targeted audience commonly give cognitive, affective, or psychomotoric responses. It means that organization as the communicator intends to include understanding or persuade the targeted goals to change the attitudes or encourage targets to make actions. John R. Rossiter and Larry Percy in Kotler & Keller (2012) classify the communication purposes into four: (1) to encourage people to own a product category (Category Need); (2) to create people’s brand awareness; (3) to support people’s positive attitudes on a product and influence their intention (brand attitude and intention); (4) to facilitate people’s purchases (brand purchase intention).

3. **Designing The Messages**
   
   The communicators should be able to design effective messages. When formulating the messages, there are four aspects to consider: the message content (what to say), structure (how to say it logically), format (how to symbolically say it), and source (who should say it). In addition, message effectiveness depends on the message content and structure. According to Carl I Hovland on Kotler &
Keller (2012) there are three commonly used message structures: (1) one sided presentation in which communicators deliver various advantages of the product, (2) a two-sided argument in which the message is presented by showing the product’s weaknesses and strengths, (3) the presentation order which is the message structure presentation emphasizes on reinforcement of certain dominating parts. In addition to message structure, the communicators should also develop a powerful message format. However, the message source credibility is the main aspect to consider. There are three factors underlying the message source credibility: (1) expertise, (2) trustworthiness or feasibility to be trusted, and (3) likeability or the ability to be liked. Of the three factors mentioned above, the last factor is the most important one and has the highest ranking in selecting the message source.

4. Choosing The Communication Channels
It takes various communication channels to use in various communication contexts. There are two types of communication channels: personal and nonpersonal or mass communication channels. Personal communication channels are frequently considered as more effective than the other ones. However, nonpersonal channels may become the main entrance to encourage personal communication.

5. Determining The Budgets
This is the most crucial one in decision making for an organization to determine how much funding may be spent for promotion. Kotler (2000) states that there are four main methods used to develop the promotional budgets: (1) affordable method, in this case, the organization sets the promotional budget based on its ability; (2) sales percentage method; (3) competitive parity method; and (4) objective and task method.

6. Promotional Tools Distributions
Belch & Belch (2015) state that marketing distribution consists of advertising, personal selling, direct marketing, public relation/ publicity, sales promotion, as well as internet/interactive media and supports. Advertising may be used to create long-term image and efficiently reach a wide range of targets which are geographically spread out. Unlike advertising, personal selling involves direct contact between communicators and communicants through either face to face or other communication forms. In addition to personal selling, an organization may directly communicate with their targets through direct marketing to generate responses or transactions. Some major direct marketing devices cover telemarketing, direct mail, and database management. Direct marketing has some characteristics, such as nonpublic, adjustable, the newest one as messages may be fast and interactively delivered. Each medium used in direct marketing has certain functions. Meanwhile, public relation or publicity refers to non-personal communication on organization, product, service or idea which does not require direct payments or are made in the forms of sponsorship. Publicity is generally in the forms of news, editorials, or announcements regarding to an organization, product or service made. Unlike publicity, public relation has a broader goal that is building and maintaining the organization’s positive image on the views of those people who become its target. However, public relation also uses publicity in its activities and other devices, such as special publications, participations in
community events, special sponsorship events, and others to improve the organization's image. Public relation and publicity have special appeal as their characteristics have high credibility, capability to gain the previous targets, and dramatization. The other marketing distribution type is interactive medium which recently allows information to mutually flow that users may modify the real-time information forms and contents. The interactive media which have the greatest impact on promotional and marketing activities is Internet especially through the component of websites. One most effective old promotional distribution is printed material. This printed material option includes brochures, newsletters, booklets, flyers, calendars, bumper stickers, and catalogs which provide more spaces and opportunities to present more detailed information about the promoted products or services.

7. Measuring The Results
Various methods may be utilized to measure the promotional results, such as intercept surveys, focus group discussions, theater tests, and tracking studies. In this case, communicators should be able to collect behavioral levels from the targeted responses, such as the levels of interest up to utilization or purchase intensity.

8. Managing And Coordinating The Integrated Marketing Communications
the integrated marketing communication is one marketing communication planning concept considering the added value of a comprehensive plan which evaluates the strategic roles of various communication disciplines. The integrated marketing communication may improve the organization in reaching the right targets, at the right time and the right place.

Methodology
This study uses descriptive studies because they want to describe implementation of promotion communication strategies carried out by PDII LIPI. so PDII LIPI’s knowledge product can be accessed and used by the wider community.

The design of this study uses a case study research design. According to Neuman (2014) case study research is a study in the form of a more in-depth investigation of various kinds of information about one or a small set of cases, focusing on various details in each case and its context. According to the development model, this case study uses a single level analysis case study with a single problem, which is how the implementation of the marketing and promotional communication strategies carried out by PDII LIPI.

The data collecting use depth interview. In this study the interview method used was open-ended interviews or structured interviews (in Lincoln and Guba, 1985: 268). In-depth interviews are conducted on four key informants: Head of PDII LIPI, Head of Information Dissemination Division, Head of Information Access Facility, and Public Relation Officer. Informant selected using purposive sampling.

The data analysis technique used in this study is using coding. Coding in qualitative research means processing raw data into conceptual categories and creating themes or
concepts (Neuman, 2013). Three types of qualitative data coding are used, namely open coding, axial coding, and selective coding.

Result And Discussion

1. PDII’s Product Knowledge
   There are three levels of products according to Kotler & Lee (2007) which is a model that explains that from a customer's point of view a product is not just a feature, style and design. But also must have many benefits that are expected when they buy and use a product. Based on the level, the core product of PDII LIPI is divided into two, namely information access and information packaging. Access to information in the form of access services for the community on information obtained from research by PDII LIPI while information packaging is a product of repackaging information that are tailored to the needs of users. Both core products are expected to be a problem solving for people who have difficulty finding scientific references and also information on research results to develop commodities or products that are being made by the community. From the core product, it was revealed to be an actual product that has its own brand name. The core information access product has two actual products, namely the Indonesian scientific journal database (ISJD) and the Library and Archive System (LARAS) which have hundreds of thousands of research information in the form of journal articles, books, proceedings, patents, research reports and so on. Whereas the core product packaging information has actual products in the form of Industry Trees, selected Information Packages, and Regional Series Information Packages. The three products contain information that has been processed in such a way that is easier for users to understand. Additional products are owned by access to information namely scientific journal directories containing names and addresses of journals throughout Indonesia. This product is intended for writers to be able to submit scientific articles to various journals that are available and in accordance with their scientific fields. There is also an Online Thesaurus which contains thousands of keywords according to scientific fields. There is also a Decision Support System (DSS) which contains analysis of the results of research trends, and finally the additional services are integrated with the ISSN online. An online ISSN is an online system for registering periodical publications to obtain an ISSN number so that the publication can be registered internationally at the ISDS (International Serial Data System). From the description above, it is clear that on the product level aspect, PDII LIPI has fulfilled the element of product level even though for packaging products it does not have additional products. In the future, it is expected that information packaging can be had

2. Identifying The Target
   To determine the target audience PDII LIPI initially surveyed the needs of users, then they identified several universities that were targeted by the criteria of large universities but did not have sufficient information resources to meet the needs of the academic community such as they did not subscribe to scientific journals and so on. After that, PDII LIPI profiled the intended targets as seen as there were resources and what potential could be developed there. Information for profiling is obtained from official websites owned by the institution or other information obtained from the survey results. Like informan 2 said "Yes, we are profiling, so we are always profiling, for example if in Unpam so ... what faculties do we see,
what potential, if what regional potential, what commodities, what tourism is this agricultural economy etc ... to compile for example about the potential of the kebumen area, we want to go there ... we are profiling first ... now it's rather easy with the websites ... we see that, "

3. Determining Communication Goals
The purpose of promotional communication carried out by PDII is to convey to the public that PDII is one of the work units in the field of information services related to research, so PDII LIPI delivers specific information, specifically in terms of the results of all research in Indonesia focused on Indonesian Institute of Sciences. Besides that, it also introduces and also gives an understanding to the community that PDII LIPI has so much information resources for the advancement of science in Indonesia and for introducing the PDII LIPI brand to the public. Like informan 4 dan informan 1 said "Promotion is not just an exhibition ... it is true that it is not only selling books, not only selling products stored on the tables ... it is monitored, right ... but introducing this brand to the public, it is indeed a promotion to introduce the brand to the community". The goals are included into brand awareness creation category since PDII LIPI has made various efforts to make people familiar with its brand as well as products and services which provide information to people on their special characteristics and benefits.

4. Designing The Messages
In designing the communication message, PDII LIPI adjusted its promotional material to the target audience that will be explained. In designing messages, the central role is in the public relations department. The message material delivered is usually in the form of benefits from products or services and how people access or obtain these products or services. Like informan 4 said "The message ... the meaning of the brochure is yes ... yes ... usually we convey to the public about the usefulness of that product ... if we promote our products in brochures or banners or flyers, we convey the benefits of our services, then the types of products and services there is nothing that PDII has, for example ISJD, we say that there are lots of scientific articles in them and can be accessed directly so users do not need to be confused looking for scientific references for college assignments for example ... or for scientific purposes ... so we are rich ... solution problem huh ... for those who are more confused looking for scientific references. And what we should not forget is how we can access our services ... we will usually tell you in the brochure and banner the web address or url that can be accessed by the public huh ... besides of course we also always include the address ... like that ... "

5. Choosing The Communication Channels
Almost all communication channels are used by PDII LIPI to convey communication messages such as via e-mail (email), WhatsApp, Blackberry Messenger, posters, banners, brochures, exhibitions, visits, FGD (focus group discussion), radio ads, open houses, programs PDII LIPI goes to campus and industry, as well as social media such as Facebook, Twitter, You tube, and Hipwee. Like informan 1 said "It seems like all channels are done, sometimes via email, via social media, too, which is done by the official as PPID, the term is already past WA, BB pin is also still, Facebook, all are used. Then for example promoting the training via email too, through the posters like that ... then this PDII goes to campus, right, we come there, the door to door meets the term, then there are signs
of responses, then invited to FGD is really ... just two institutions we invite ... This FGD is actually a channel, right, but the channel is more interactive, not one-way ... ", PDII LIPI has actually determined its proportional communication channels which are selected based on communication objectives and needs.

6. Determining The Budgets
In budgeting costs for promotional communications, PDII LIPI always budgets it every year, but the nominal cannot be determined, it can rise can also go down. and if there is a budget cut in the middle of the year, then the budget for promotion will definitely be cut even if it is not eliminated. Like informant 1 said "From the first time it was rolled up and down ... so the activity will follow money, money first ... but clearly if the term promotion never does not exist, if other activities can be cut the activity can be absent, if there is promotion, right? can you walk ... "
Unfortunately, PDII LIPI is still using ability method that the promotional activities may not determine its long-term purposes due to the financial problems. Referring to the cost budgeting method stated by Kotler (2000), PDII LIPI then employs affordable method.

7. Promotional Tools Distributions
The promotional distributions made by PDII are advertisement on radio Sonora in the form of advertisement jingles played three times a day in a month. And then, the employees promote PDII when they have opportunities to become speakers on activities outside. Besides, Exhibition as one sales promotion function is frequently performed by PDII. PDII frequently holds press conferences at least twice a year for the routine events of Dokinfo National Workshop and Memory of the World. Open house activities are also made by PDII on its 50th anniversary to promote its products and services. PDII holds an event called PDII Goes to Campus which is conducted door to door to the targeted universities. PDII has an entrance website for all information about PDII. And PDII is quite active in social media such as facebook (Pdiilipi), twitter (@PDII_LIPI) and You Tube (redaksi PDII LIPI). In 2016, PDII LIPI also uses Hipwee social media to promote its products and services. PDII LIPI is recognized still using various promotion devices for its communication activities. Unfortunately, those promotional devices used are adjusted with the budget conditions. However for the entire promotional distributions, the budget is sufficiently provided and various that the personal side needs to be improved for personal selling, exhibitions, and maintaining the website as the information on PDII LIPI’s main entrance. In addition to its social media contents, the standard rules should be applied because the social media account as the company official account should determine its language and contents unlike a personal account which may post anything.

7. Measuring The Results
Evaluation or measurement of promotional activities carried out by PDII LIPI is still a simple evaluation in the form of observations and visit data. evaluation has not been carried out using in-depth research or study methods. In addition, evaluation of activities carried out in the form of monitoring and evaluation in the middle and end of the year by the Monitoring and Evaluation Planning team (PME). Evaluation in the form of achieving activity targets. whether the targeted output at the beginning of the year is achieved or not and how far the achievement is. Like informant 1 said "Not yet, so for the promotion that we have been working
on all this time, it's not for evaluation like that before, so it's only limited to what hmmm observation? from the results of the data, our data on this visit is so, what are they. so the evaluation is still simple, it hasn't arrived at the study, it hasn't used the methods ... it's still normal evaluation. "PDII LIPI also annually evaluates customer satisfaction in the form of a community satisfaction survey (SKM). This evaluation is routinely carried out every year because PDII LIPI has obtained an ISO 9001 certificate; 2008. For 2016, the value of SKM PDII LIPI reached 81,679 (very good), which means that the community was quite satisfied with the PDII LIPI service. Like informan 1 said “If the routine evaluation is always done by the Community Satisfaction Survey (SKM) it must be ... because we are already ISO 9001: 2008. well, if this SKM is by distributing questionnaires to users of PDII services whether they come directly or through online huh ... in 2016 our SKM value rose to 81, 679 ... Alhamdulillah it means that our value is very good ... service users feel satisfied ... Well if there is no special evaluation about the promotion itself ... when the activities with Sonora also have no special evaluation ... we just saw the open house show like that ... more lively ... that's it ... " PDII LIPI has not systematically conducted a measurement and limited on data collected from the observation. It is expected that PDII LIPI may conduct evaluation on promotional results, such as by conducting a survey to the users in which the data are already available at PDII LIPI.

8. Managing And Coordinating The Integrated Marketing Communications

PDII LIPI considers that promotion is something important, because without promotion, the institution cannot focus on thinking about how the product or service of an institution is used or used by the community. at present, both promotions, marketing and exhibitions always coordinate with the LIPI Legal and Public Relations Bureau. promotion activities are always there, but in the organizational structure it is never explicitly included only in the main tasks and functions of one part of the organization. In addition, PDII LIPI does not have a team that specifically handles promotional issues. the team is usually more informal and incidental. According to the American Association of Advertising Agencies in Kotler & Keller (2012), integrated marketing communication is a marketing communication planning concept that considers the added value of a comprehensive plan that evaluates the strategic roles of various communication disciplines. from the description above, it can be seen that the management and coordination of integrated marketing communications at PDII LIPI has not gone well. There must be a synergy between components within the scope of the PDII organization, so that promotional activities and the selection of media or activities carried out can be well integrated so that the objectives of promotional activities can be achieved better.

Conclusion

1. promotional communication strategies made by PDII LIPI has fulfilled seven of the eight components in effective promotional communication
2. One element that has not been performed is the measurement of promotional results on the intended targets
3. Lack of human resources become a barrier to doing an effective promotion and communication activities
Limitation and Recommendation

1. In this research, the researchers only select informants from internal parties since they want to describe the institution’s internal side without involving external parties.
2. This research may be completed with the distribution method by combining both qualitative and quantitative methods. The qualitative method is conducted to examine the data obtained from internal institutions. Meanwhile, the quantitative method is conducted to examine the data obtained from external parties, especially customers. Due to the presence of these two methods, then the data obtained will be more comprehensive and may also be developed using the branding theoretical framework.
3. PDII should also have a special promotion team and keep on focus that communication activities may become more comprehensive and the purpose of PDII to further introduce its products and services may be well achieved.
4. The budgets for promotional communication activities should be prepared based on purpose and task method. PDII LIPI should determine the specific objectives of the undertaken promotional activities followed with the tasks to achieve the goals. Budgeting should be based on the undertaking tasks that both long and short-term goals may be achieved.
References


Contact email: halwa_adzkia@yahoo.com, ysuryati09@gmail.com