

# *Factors Affecting the Amount of External Information Business Search for Use of Aviation Services in Bali*

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**Abstract**—*This research tries to identify factors that determine the extent of external search effort by consumer in purchasing airline service. Based on the previous research by Srinivasan and Ratchford (1991), this study examines the impact of amount of experience, product class knowledge, interest in product, perceived risk, size of evoked-set, perceived benefit of search and cost of search on external search effort. This study finds that external search effort directly affected by amount of experience, product class knowledge, interest in product, and perceived benefit of external search activities pre-purchase. The perceived benefit itself is affected by amount of experience, perceived risk, and the number of brands considered to be purchased. The result of this study conform to psychological/motivational perspective in which interest in product category motivate the consumer to search for more information. The findings that perceived benefit of search positively affects external search effort conform to cost/benefit perspective in which consumer will continue searching for information as long as the perceived benefit of search exceeds the cost of search.*

**Keywords**—*external search effort; amount of experience; product class knowledge; interest in product; perceived risk; size of evoked-set; perceived benefit of search; cost of search; airline service*

## I. INTRODUCTION

In the third millennium era accompanied by the increasingly globalized world, the conditions of competition in the business world will be increasingly sharp. This situation requires the management of the company or business units to be managed more effectively and efficiently in order to win the competition, as well as in the aviation industry. Along with the development of the aviation industry, many airlines have emerged that highlight the generosity of ticket prices. The motto of Flying is Cheap seems to indicate that flying now is not always expensive. But this is not the case with consumers

who understand the importance of comfort, safety and standard service of a flight.

Like sea and land transportation services, aviation transportation is risky transportation. Consumers are trying to find external information that gives them complete information about aviation services before making a choice. Information about services and services will make consumers feel more confident in determining the choice of flight services they are interested in. This information is usually obtained from facilities offered by the aviation industry either through call centers, internet sites, mass media advertisements and television or customer service services that will always be open to provide information. The aviation service businesspeople will usually compete to make new service breakthroughs to attract consumers.

Judging from its characteristics, aviation services can be categorized into products or services that require complex decision making in purchasing. According to reference [1], there are two conditions that mark complex decision making. First, the decision making process requires extensive information processing. Second, there is a high level of consumer involvement with products and services. In complex decision making, consumers evaluate brands in detail and comprehensively. This decision making usually occurs in the purchase of products and services that are expensive, risky and reflect a person's self-image [1].

In the information search stage, consumers are actively looking for information to make better decisions. It should also be noted that consumers also obtain information about products or services even though they do not plan to buy products or services in the near future [2]. The process of finding information can be internal and external. Internal searching occurs when consumers use information that has been stored in memory. An external search involves searching information

from the environment because the information needed is not yet available or cannot be retrieved from memory.

In an environment where competition is increasingly fierce, an understanding of how consumers obtain information becomes indispensable for decision making by marketers. For marketing managers, understanding the determinants of information search is very important in the preparation of effective marketing communication campaigns because information search represents the main stage in which marketers can provide information and influence consumer decisions [2].

Based on previous studies, there are contradictions regarding the effect of product knowledge on information retrieval. Reference [3] found a negative relationship between product knowledge and the amount of information seeking. Reference [4] found that very low and very high levels of knowledge would reduce the amount of information retrieval, while intermediate knowledge would increase the amount of information retrieval. Other studies by reference [5] [6] found a positive relationship between product knowledge and the magnitude of consumer information seeking.

Product knowledge makes a person more confident in his decision so that it will reduce the perceived risk. However, product knowledge will help consumers structure search problems well so that it will increase the perceived benefits consumers will seek for external information. In addition, by making consumers increasingly aware of various purchasing alternatives, product knowledge will positively influence the size of the evoked-set [5].

This study seeks to identify the variables that are determinants of the amount of external information retrieval efforts undertaken by consumers on the use of Garuda Indonesia flight services. Research conducted by reference [5] shows that the magnitude of the search for consumers' external information on purchasing durable products is directly or indirectly influenced by the amount of experience, positive experience, product knowledge, interest in the product, perceived risk, magnitude of evoked- set, perceived benefits and search costs. However, the model used by reference [5] is limited in its use to consumers who have purchased a product more than once. With the positive experience variable, consumers who first purchase a product cannot be included in the research.

In this study, researchers adopted models, hypotheses and variables used by reference [5] consisting of the amount of experience, product knowledge, interest in the product, perceived risks, the magnitude of the evoked-set, perceived benefits and search costs for explain the determinant of the amount of external information retrieval efforts undertaken by consumers. In this study, the positive experience variable is not used to accommodate first-time customers using Garuda Indonesia flight services.

The product used is a service product that is Garuda Indonesia flight usage services. The author chose Garuda Indonesia flight services on the grounds that as an airline that controlled 50 percent of domestic flights, Garuda Indonesia became one of the barometers of air transportation in

Indonesia. At the international level, Garuda Indonesia also expanded its flights thanks to cooperation with airlines in other countries.

The dominance of Garuda Indonesia as an airline of integrity is demonstrated by the continued expansion of the domestic market. Garuda Indonesia's customer service also continues to dominate the air transportation business in Indonesia. This is demonstrated by having 40 branch offices throughout Indonesia, 38 branch offices in various cities throughout the world and representative offices in 13 cities. With such strong company support, Garuda Indonesia serves 30 domestic flight destinations and 24 international flights. In addition, Garuda Indonesia is an airline that shows characteristics, the symbol of the eagle, as the identity of a nation, the same as Quantas with the symbol of its kangaroo. As an airline that also opens international routes, choosing Garuda Indonesia is a form of nationalism and pride in Indonesian identity. Therefore, it is very significant to place Garuda Indonesia as the leading barometer in air transportation services in Indonesia.

Referring to the background above, to face the competitive situation that occurs in the aviation business, especially in Bali, Garuda Indonesia must be able to make policies oriented to the needs of customers, both through improving the quality of products or services offered, facilities and infrastructure that support even up to to using high-tech facilities.

Previous research conducted by reference [5] showed that the amount of external information seeking by consumers on purchasing durable products is affected either directly or indirectly by the amount of experience, positive experience, product knowledge, interest in the product, perceived risks, the size of the evoked-set, perceived benefits, and search costs.

In line with the research of reference [5] above, the writer wants to re-test the results obtained from previous studies with different objects and locations, namely the use of Garuda Indonesia Bali Region flight services. In this study, the effect of positive experience variables, product knowledge, product interest, perceived risks, evoked-set size, perceived benefits, and search costs will be tested to explain the amount of external information seeking efforts undertaken by consumers in the use of aviation services. Garuda Indonesia. However, in this study positive experience variables were not used to accommodate first-time customers using Garuda Indonesia flight services. Thus, the formulation of the issues raised in this study is as follows:

- 1) How does the amount of experience influence the perceived risk.
- 2) How does the amount of experience influence the perceived benefits.
- 3) How does the amount of experience influence the size of the external information search business.
- 4) How does the effect of product knowledge on perceived risk.
- 5) How does the influence of product knowledge on the amount of evoked-set.

- 6) How does the influence of product knowledge on perceived benefits.
- 7) How does the interest in the product influence the perceived benefits.
- 8) How does the interest in the product influence the size of the external information search business.
- 9) How does the perceived risk influence the amount of evoked-set.
- 10) How does the perceived risk influence the perceived benefits.
- 11) How does the size of the evoked-set affect the perceived benefits.
- 12) How does the size of the evoked-set affect the amount of external information seeking.
- 13) How is the perceived benefit impact on the size of the external information search effort.
- 14) How does the search cost affect the size of the external information search business.

## II. RESEARCH HYPOTHESIS

To answer the research question, the following hypotheses were developed:

- H1: The amount of experience has a negative effect on perceived risk.  
H2: The amount of experience has a negative influence on perceived benefits.  
H3: The amount of experience has a negative influence on the size of the external information search effort.  
H4: Product knowledge has a negative influence on perceived risk.  
H5: Product knowledge has a positive influence on the amount of evoked-set.  
H6: Product knowledge has a positive effect on perceived benefits.  
H7: Interest in the product has a positive influence on perceived benefits.  
H8: Interest in the product has a positive effect on the amount of external information seeking.  
H9: The perceived risk has a positive effect on the size of the evoked-set.  
H10: The perceived risk has a positive effect on the perceived benefits.  
H11: The amount of evoked-set has a positive effect on perceived benefits.  
H12: The amount of evoked-set has a positive effect on the amount of external information seeking.  
H13: Perceived benefits have a positive effect on the amount of external information seeking.  
H14: The cost of searching has a negative effect on the size of the external information search effort.

## III. RESEARCH PURPOSES

In accordance with the formulation of the problem above, the purpose of this study is:

1. To test the effect of the amount of experience on perceived risk.
2. To test the effect of the amount of experience on perceived benefits.
3. To test the effect of the amount of experience on the size of the external information search effort.
4. To test the effect of product knowledge on perceived risk.
5. To test the effect of product knowledge on the amount of evoked-set.
6. To test the effect of product knowledge on perceived benefits.
7. To test the effect of interest in the product on perceived benefits.
8. To test the effect of interest in the product on the size of the external information search effort.
9. To test the effect of perceived risk on the magnitude of the evoked-set.
10. To test the effect of perceived risks on perceived benefits.
11. To test the effect of the magnitude of the evoked-set on the perceived benefits.
12. To test the effect of the magnitude of the evoked-set on the size of the external information search effort.
13. To test the effect of perceived benefits on the size of the external information search effort.
14. To examine the effect of search costs on the amount of external information retrieval efforts.

## IV. METHODS

### A. Sampling

This study was designed to obtain data on the influence of the amount of experience, product knowledge, product interest, perceived risks, the magnitude of evoked-sets, perceived benefits, and the cost of searching for the amount of external information retrieval efforts undertaken by consumers on the use of Garuda Indonesia flight services in Bali. The study population is consumers who have made purchases or used Garuda Indonesia flight services. The sampling method in this study uses nonprobability sampling with purposive sampling, with a judgmental sampling approach. That is, a nonprobability sample that meets certain criteria [7] [8]. In judgmental sampling, researchers subjectively select sample members who are believed to be able to represent the target population or understand the topic under study [9].

The selection of respondents for this study was determined as follows: the respondent was the first time making a purchase or using flight services when filling out the questionnaire. Minimum use of flight services 2 times a year, then all consumers aged 20-50 years where at that age someone is a good information seeker and can act as a good decision maker [10].

With consideration of convenience, this study took a sample of consumers in the province of Bali. The number of samples needed for testing the model using SEM according to reference [11] is in the range of 100-200. If the sample size is too large, for example more than 400, the SEM method

becomes very sensitive so it is difficult to get good goodness of fit measurements. As the recommendation of reference [11], the maximum number of samples used is 200 samples with a distribution of 240 samples.

**B. Data collection technique**

This research uses survey method. Primary data collected by distributing questionnaires by researchers directly. This research questionnaire contains a list of questions distributed to consumers who use Garuda Indonesia flight services in Bali so that unclear questionnaire questions can be responded to immediately. Researchers distributed questionnaires to the respondents to fill out at that time. After the respondents completed completing the questionnaire, the researcher took it back directly. The technique of distributing and collecting questionnaires was carried out at Ngurah Rai Airport, Denpasar, Bali.

The second method of distributing questionnaires and data collection is done using snowball techniques. In this technique the researcher gives a questionnaire to a group of individuals both with probability and non-probability methods, then these individuals will give questionnaires to other individuals who meet the requirements [7]. Operational definition in this study there are six latent constructs and two observed variables. The six latent constructs are product knowledge, interest in the product, perceived risks, perceived benefits, search costs and the amount of external information retrieval efforts. Two variables were observed, namely the amount of experience and the amount of evoked-set. The operational definition and measurement of the variables used in this study refer to research conducted by reference [5].

**C. Data Analysis Procedure**

In this study the proposed hypothesis will be tested with Structural Equation Modeling (SEM) a multivariate technique that combines aspects of multiple regression and factor analysis to estimate a series of dependency relationships simultaneously [11]. Structural equation modeling (SEM) is known by various different names, such as covariance structure analysis, latent variable analysis, confirmatory factor analysis and causal modeling. SEM testing is especially useful when one dependent variable becomes an independent variable on the next dependency relationship.

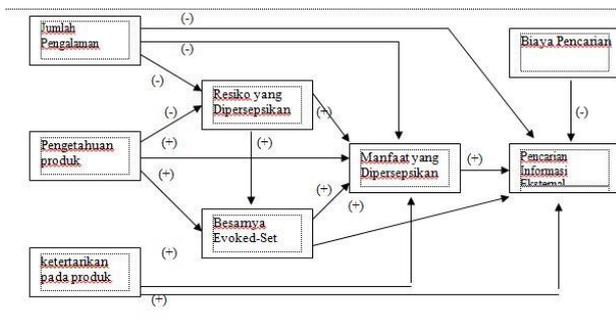


Fig. 1. Factors That Influence the Size of External Information Search Efforts in the Use of Aviation Services.

**V. RESULTS AND DISCUSSION**

A two-step approach to SEM was carried out to test the proposed structural model as shown in Figure 5.1. In the two-stage SEM approach, the measurement model is first estimated, then determined in the second stage when the structural model is estimated Anderson & Gerbing [12]. In this study, maximum likelihood (ML) estimation is used to test the parameters of the model with the average value of raw data as input. The use of a composite value reduces the number of parameters estimated and results in an acceptable ratio of the number of samples and estimated parameters. However, when using a composite indicator for a latent construct, the indicator does not perfectly estimate the construct. Thus, the conservative value of the error term is set at 0.1 Sx2 and the corresponding lambda value is set at 0.95 Sx Anderson & Gerbing cited [12].

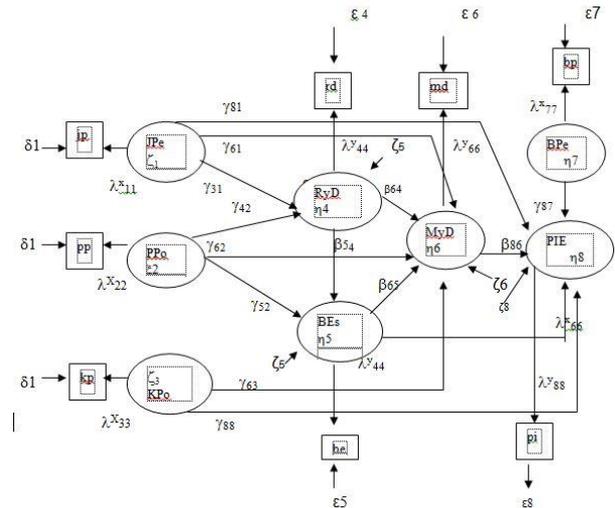


Fig. 2. Structural Model of Information

TABLE 1. INDEKS GOODNESS OF FIT

Goodness of fit Index	Nilai kritis
$\chi^2$ - Chi-square	Diharap kecil
$\chi^2$ -Significance Probability	$\geq 0.05$
RMSEA	$\leq 0.08$
GFI	$\geq 0.90$
AGFI	$\geq 0.90$
Relative $\chi^2$ (CMIN/DF)	$\leq 2.00$
TLI	$\geq 0.90$
CFI	$\geq 0.90$
NFI	$\geq 0.90$

Source: Ferdinand, Augusty (2002), *Structural Equation Modeling Dalam Penelitian Manajemen*, edisi 2, Semarang: BP UNDIP.

In SEM analysis, there is no single statistical test tool to test hypotheses regarding the model. Along with the emergence of SEM in recent years, measurements of goodness-of fit continue to be developed and new measuring tools continue to emerge. Testing the goodness-of fit of a model is more a relative process than an absolute criterion. The use of multiple suitability indices allows researchers to gain consensus regarding acceptance of the proposed model [11]. The next thing that needs to get the attention of

researchers is regarding the level of acceptance of each index. Although various guidelines on the level of acceptance have been proposed, no absolute value is available. The researcher must therefore decide for himself whether the goodness of fit or the suitability value is acceptable [11].

In conditions where the proposed goodness of-fit model is not good, modifications to increase the suitability index value of the model can be done by re-specifying the dependency relationship if there is sufficient theoretical support. The modifications made must be based on large modification indices and are supported by sufficient theoretical basis. The criteria for testing the goodness of fit and the critical value for accepting a model that is tested as a whole is presented in table 1:

Knowledge of aviation service products owned by consumers has a positive and significant impact on the number of airlines that consumers consider when going to buy aviation service products. There is no evidence that the customer's knowledge affects the level of risk perceived from the purchase of aviation service products and the perceived benefits from external information retrieval activities before purchase.

This study also found that consumers' personal interest in aviation service products and to search for more information about aviation service products had a significant positive effect on the perceived benefits of consumers from external information seeking activities and significantly increased the amount of effort consumers took to search for external information. before purchasing a flight service product. When viewed from a theoretical study, a positive relationship between interest in the product with the amount of external information seeking in accordance with the psychological / motivational view where the desire to obtain information can motivate someone to search for information [2].

The risk perceived by consumers on the purchase of aviation service products has been proven to significantly increase the number of airlines that consumers consider when buying a flight service product and increase the perceived benefits of consumers from the search for external information.

The number of airlines that are considered when going to buy flight service products is proven positively to the benefits perceived by consumers from external information search activities, but it is not proven that the magnitude of the evoked-set directly increases the amount of effort it does in searching for external information before purchasing.

The perceived benefits will be obtained by consumers from external information search activities proven to have a positive effect on the amount of effort done by consumers to search for external information before purchasing.

This finding is consistent with an economic theory approach or a cost / benefit perspective in which external information search will be carried out and will continue as long as consumers perceive that the benefits of searching outweigh the costs incurred [2]. However, the results of this study which

show that the search costs do not affect the size of the consumer information search business did not succeed in proving that the search costs reduce the extent of external information search as proposed by the cost / benefit donor.

In an environment where competition is increasingly fierce, an understanding of how consumers obtain information becomes indispensable for decision making by marketers. Marketers are now increasingly aware that their effectiveness in meeting consumers' needs will directly affect their profitability. The better they understand the factors underlying consumer behavior, the better their ability to develop effective marketing strategies to meet consumer needs [1].

For marketing managers, understanding the determinants of information search is very important in the preparation of effective marketing communication campaigns because information seeking and influencing consumer purchasing decisions Walkie and Dickson [2]. When marketers provide information needed by consumers, the marketer can direct consumers to provide certain responses such as cognitive, affective, or behavioral responses. Basically, marketing communicators must move the target audience to a higher level of readiness to buy [13].

The results of this study indicate that the external information search efforts undertaken by students when they are going to buy a flight service product are directly affected by the amount of flight service purchase experience they have done, product knowledge owned by the consumer, consumer interest in the flight service product or to search for information about the product jsa flights, and the perceived benefits a customer will obtain from external information search activities before purchase. The less purchasing experience a consumer has ever had, the more he will seek information from external parties.

This can be used by marketers to communicate their products to generate cognitive, affective and behavioral responses that lead to greater sales opportunities. Product knowledge owned by consumers, especially at the intermediate level will increase the amount of external information search efforts because consumers are better able to interpret and evaluate the information it receives. Therefore, marketers should provide information about general aviation service products, especially regarding the risks that can occur in the purchase of aviation service products.

In addition, marketers also need to increase consumer interest in products and interest in finding information about the product. This can be done in various ways, including creating a comfortable and pleasant atmosphere at the sales counter. The perceived benefits will be obtained by consumers from external information search activities will increase their efforts in searching for external information. The benefits felt by consumers themselves are influenced by the risk perceived from the purchase of aviation service products and the number of airlines they are considering buying. Therefore, marketers need to increase the perceived benefits of these consumers by providing clear information about the risks that can occur in

the purchase of airline and alternative service products that can overcome these risks.

In addition to the findings regarding the relationship between variables hypothesized above, this study also found that the amount of experience had a positive and significant effect on product knowledge owned by consumers. The next finding is that someone's interest in the product and to search for more information about the product significantly increases product knowledge and the number of airlines the customer is considering buying. The final finding is that product knowledge owned by consumers has a positive effect on the amount of external information retrieval efforts before purchase.

## VI. CONCLUSIONS AND SUGGESTION

This study tries to test a model that describes the relationship between variables that are hypothesized to affect the amount of external information seeking by students on the purchase of aviation services. The results of this study indicate that the large number of experience purchasing airline services owned by consumers or in this case consumers significantly reduce the level of risk perceived from purchasing flight services, reduce the perceived benefits to be gained from external information search activities, and reduce the amount of external information search efforts conducted by these consumers on the purchase of aviation service products.

Each study is inseparable from the shortcomings and limitations. The first limitation in this study is that the distribution of consumers who are respondents is uneven in all places in Bali but is limited to certain places that are easily accessed by researchers, in this case only limited to domestic flights at Ngurah Rai Airport, Denpasar, Bali. Besides that the selection of respondents limited to student consumers makes the results of this study cannot be generalized to all actual aviation service consumers.

The next limitation is that this model does not include positive experience variables, where those variables have been identified as having an influence on the amount of external information seeking. However, the omission of this variable also has the advantage of allowing first-time customers of aviation services to purchase to be analyzed as part of the overall consumer of aviation service products.

Based on the results of the study and the limitations that exist in this study in terms of the structural model used, it is better to include positive experience variables to see whether adding these variables can improve the level of goodness-of-fit structural model used.

Judging from the selection of respondents used in the analysis, the respondents who were sampled in this study need to be further expanded in their coverage and distribution of the region. In reality, consumers of aviation service products are not limited only to consumers who are capable or upper middle class, but also other community groups. Judging from

the object of research used, testing should be done using other services to see the consistency of the results of this study.

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