1 INTRODUCTION

Background

In the context of customer equity, consumers generate values to the organization by means of financial and non-financial contributions. Based on the Customer Lifetime Value (CLV) approach, financial value to the organization is typically defined as business worth of nominal profit generated by customer. However, traditional model of CLV only captures the financial value of the customer to the organization (Reinartz and Kumar, 2000). The other value, non-financial such as social or relational value which refers to relationship worth in the business-to-customer context, has not been commonly captured yet. The current CLV scheme has not yet accounted for the value of customers beyond purchasing behavior and this could mislead organization in loosing valuable customers from targeting efforts (Bolton et al., 2004).

The relational value of customer to organization serves as a fundamental antecedent toward loyalty. The relationship between customers and organization is based on the value perception of each participant. The continuation of the relationship reflects the expectation of future collaboration on the part of the parties involved. Anticipation of future interaction and willingness to provide referrals are identified as the signals of an enduring long term relationship (Bejou et al., 1996). Loyal customers become primary goal for organization for their long-term generating profit. Cost for retaining customer is only one fifth of cost for acquainting new customer (Reichheld, 1996). It is an important prerequisite for the continuation of successful relationships over time. With loyalty becoming more of challenge and price changes a fact of everyday business, it is less evident who the loyal consumers are and how much values they generated in term of financial and non-financial to the organization. However, a successful loyalty program needs to properly manage not only for retaining loyalty but also obtaining profitability from the customers (Kumar & Petterson, 2005).

Customer Value Management (CVM) varies marketing resource allocation depending on values generated by each customer to organization. It is crucial for a business firm to identify its valuable customers and effectively target them to improve the quality of relationship in order to sustain long-term relationship benefit of the organization as well as of the customers. The CVM concept has been implemented in many business areas including airline industry. For example, understanding customer needs and preferences and taking them into consideration when airline makes business decisions will develop customer loyalty in the long periods of time (Weber, 2005). However customers do not have identical buyer behavior, thus financial attractiveness for each customer will also be different (Sohrabi and Khanlari, 2007). Recognizing customer’ values are crucial for the organization to sustain its profitability in terms of the revenue generated by the customers as well as the intangible supports from the customers such as word-of-mouth and recruitment efforts (Hogan et al., 2003). However, airlines have normally determined their customer values by current tier of the loyalty program rather than lifetime values (Tirenni et al., 2007). As a matter of a fact, most loyal
customers are not necessarily the most profitable (Reinartz & Kumar, 2000). Using Customer Relationship Management (CRM) approach as a marketing strategy focusing on customer transactions and behavioral knowledge, organization manage their customer relationship and optimize profitability. Business orientation has been changed from product-centric to customer-centric processes. Marketing strategy needs to be able to target the right customer with the right marketing actions, such that the cost to serve a customer aligns with the revenue generated by that customer to enhance profitability (Kumar & Peterson, 2005).

Marketing has been a crucial in global airlines industry after the deregulation in the early 1990s (Pustay, 1992). Airline is forced to conduct innovation in order to grasp the market, fulfill customer needs, deliver excellent service quality, sustain the profit and win the competition. On the other side, as a profit center, airlines shall maintain revenue growth, operating profit and the market shares. One of the transformation models is customer-oriented marketing approach initiated by American Airlines with its frequent flyer program known as “AAdvantage” in 1981. Continuous relationship between airlines and its loyalty members has become enhancement business strategy in which optimizing profitability, revenue and customer satisfaction and remain competitive by organizing around customer segments, supporting customer satisfying behavior and implementing customer-centric processes. Any airline’s market share and revenue depend on customer satisfaction and loyalty (Wen, 2010). The emergence and creation of a new competitive environment in airlines industry has become norm through a loyalty reward point namely Frequent Flyer Program called “FFP” (Kaynak et al., 1994). Browne et al. (1995) even stated that FPPs has become the biggest and most successful innovative marketing program in the airline industry. Becoming aware of the significant of this concept, airlines now widely use their frequent flyer programs as marketing tools to attract consumers. Improving the strong relationship with its frequent flyer members is an important strategy for many airlines to keep customer loyal and to grow the revenue. Therefore, it is important for airlines to identify the benefits of frequent flyer programs referring to different segments rather than offering the same benefit scheme for all customers because each type of customer segmentation has particular preferences pertaining to the benefits of frequent flyer programs (Suzuki, 2003).

Key drivers of behavioral airline loyalty depend on market segmentations. Business travelers and leisure travelers have different behavioral loyalty. Recent study (Dolnicar et al., 2011) has indicated that at aggregate level, FFP’ membership and price are amongst variables which best discriminating between the loyalties of passengers to the airline. Loyalty programs are strongly related with behavioral loyalty for business travelers and for frequent travelers. FFP is one of the key drivers of loyalty instruments for business travelers. However, casual and leisure travelers are not strongly associated with behavioral loyalty as they are more influenced by the price. The different effect of loyalty programs between regular and less regular travelers implied that loyalty is motivated by the type of incentive offered as what is called “deal loyalty” according to Dowling and Uncles (1997). Unlike FFP’ member who enjoy attractive benefits from many offerable privilege options as well as free miles that can be redeemed, infrequent passengers membership in a FFP program has not have the same benefit. This is
in line with the study of Hess et al. (2007) that indicated FFP meaningless to holiday travelers.

Airline shall identify FFP’ members correctly that only those FFP members who are highly profitable be targeted and then effectively initiate a right marketing effort in order to get the expected response from the customer. Who are customers whom can be persuaded to increase the transaction and multiply their flight activities up? Identification can be preceded throughout customer segmentation. Furthermore, information derived from segmentation data can be applied to marketing for FFPs. However, airlines have normally determined their customer values by current tier of the loyalty program rather than lifetime values. Therefore it is crucial to identify correctly who are the valuable customers.

Market segmentation is useful to select target market selection so that airlines can effectively target them through creating accurate marketing efforts and optimize resources allocation. Targeted marketing (differentiated marketing) separates the market into groups of customers of whom having different inquiries and needs. Airlines need to provide a somewhat tailored marketing strategy that fulfills each of customer segmentation. The outcome is improving customer relation to strengthen customer loyalty and maximizing profit derived from customers’ responses as well as. This concept is aligned with the mandatory methods in developing a successful marketing strategy (Sarvary & Elberse, 1995), which are: market segmentation; target market selection; and product positioning. One of best & appropriate tools to identify market segmentation is clustering analysis (Churchill & Iacobocci, 2010; Myers & Mullet, 2003).

Despite being recognized as the largest membership of loyalty reward program worldwide with more than 254 million members (Colloquy, 2008), airline frequent flyer program has been associated with the difficulty and restriction of the redemption policies. Beaver (1996) estimated that only around 28% of frequent flyer points have been redeemed. Up to 4 times more mileages are being earned yearly than redeemed.

Figure 1 Chronology of mileage redemption 1981-2005
(Source: Frequent Flyer Service, 10 Oct 2012)
It was also reported that there were 17 trillion unredeemed frequent-flyer miles with an estimated liability of US$ 480 billion for the US airlines industry (Greenberg, 2008 in Ho et al., 2009). The following figure shows cumulative unredeemed frequent flyer mileages for period 1981 until 2005 (Source: FrequentFlyerService.com, 10 Oct 2012). The gap between award and redeemed miles becomes increased.

The loyalty reward program can be significantly costly for the organization (Reinartz and Kumar, 2000). The same indication has been considered for FFP membership being accused for high investment and high failure rate. It costs the airline about $2 - $12 million to starting up the program (O’Connell, 2009). Huge cost consequences of starting and running the FFP raise a question on the effectiveness of the program. While FFPs have attracted a great deal of attention in the transportation and marketing literatures, there has been relatively little formal modeling of FFPs by academics. The purpose of this paper is to analyze a modeled aspect of FFPs in terms of customer valuations to the airline. This research will focus on the understanding the effects of loyalty reward program that occurs on the customer side and the outcomes of that program to the benefit of the firm. Understanding how the benefits (social versus economic) of rewards is perceived by the members in relating to this relational program is crucial to be clearly understood by the airline. This research will be also conducted to study the monetary and non-monetary worth of FFP customers to organization. The study will be using dataset FFP profiles and transactions of membership of a national airline in Indonesia, Garuda Indonesia to review on its customer segmentation. The FFP member’s financial value and future value based on Customer Lifetime Value will then also be evaluated. Moreover, a comprehensive model of relational value of customer to organization will be developed by integrating the streams of relational benefits and relationship quality. Specifically, how loyalty rewards interact with redemption policy issue to influence relational program effectiveness. The effectiveness of relational program is defined and measured by relational worth, the social (relational) value of FFP customer to organization.

**Problem Statement**

Traditional model of CLV only captures the financial value of the customer to the organization based on customer’s purchase behaviors. Non-financial value, which is influenced by beyond purchasing behaviors, has not been commonly captured yet. Bolton et al. (2004) believed that there is other specific customer behavior beyond buying behaviors would impact customer lifetime value. But because of the measurement difficulty, this beyond purchasing behavior has not been considered yet in determining customer value. This non-financial customer value is believed to be the key in keeping the consumers loyal to the company which then leading in preserving the profitability of company (Berry, 1995). As far as the context of this non-financial customer behavior to organization, the first and only study on the effect of loyalty reward on the non-financial value of customer to organization (business-to-customer exchanges) has been ever conducted is study by Melancon et al. (2011). The study was carried out in a specific geographic area (USA) on a specific type of relational program (paid and
(non-accumulated type of rewards) in the context of a professional sports team and a fictional hotel reward). The effect of loyalty reward onto the non-financial value of airline frequent flyers (non-paid and accumulated type of rewards) has never been studied yet. Hence, the non-financial value of FFP’s members to the airline related to the loyalty program has not been known.

The value of customer to a firm should not only be determined based on profit related matters. Customer can also value to the firm through indirect means, such as helping the firm to attract other customers, to retain some current customers, and also to provide guidance to the firms. Therefore the true value of a customer to service industry is not only generated by economic benefits but also social interactions, such as word of mouth, imitation (adoption) and other social effects which can generate significant future profits for the firm (Hogan et al, 2003). Other previous study also suggested considering the impact of social behaviors in determining customer value (Zeithaml, 2000). This other customer behavior may have an indirect effect to the profitability of an organization. This is in line with the goal of relation program in retaining consumers who are profitable to the organization. The number of consumers joining FFP membership has been growing year-on-year, however it has been questioned on the effectiveness of the FFP program. The growth of FFP membership has not always been aligned with the same growth of member’s transactions. For instance, FFP’ members of Garuda Indonesia Frequent Flier did increase but the average transaction per member declined. Similarly, flight inactivity of the FFP membership nearly doubled from 2008 to 2010, as shown Figure 2.

Figure 2  Flight earning transactions
(Source: Garuda Indonesia, Sep 2010)

Airlines have inaccurately determined their customer values by current tier of the loyalty program (FFP) rather than the combination financial and non-financial lifetime values. In the context of service organization such as airline industry, the value derived from current customers greatly influences the profitability of organization.

An airline shall identify this FFP as a loyalty scheme to direct a right marketing technique and managing these customers pro-actively to the ultimate benefit of the airline as well as the customers (members). These are important to improve customer relationship and increase profit as well. Airlines have very little understanding of their customers and have little knowledge about their most valuable passengers (O’Connell, 2009). Understanding the profile of customers: those who are likely and who are unlikely to make a purchase, is a key-role of a
financial success of direct marketing (Hughes, 2005). Customer segmentation will define the marketing effort to target customer accurately. Not all customers have purchased identical transaction. Some have ordered more often, some have ordered more recently, some have ordered higher value of transactions. Sohrabi and Khanlari (2007) found that not all customers are equally attractive financially to the company, such that it is critically important to determine their profitability and identify their customer values. This leads to different treatment (loyalty incentives and or marketing program) for different segments of the FFP market.

Airlines shall identify the benefits of frequent flyer programs referring to different segments rather than offering the same benefit scheme for all customers because each type of customer segmentation has particular preferences pertaining to the benefits of frequent flyer programs (Suzuki, 2003). Airline should identify the customers, including the FFP members to strengthen customer loyalty and maximizing profit. Customer segmentation could be performed by clustering analysis (Churchill & Iacobocci, 2010; Myers & Mullet, 2003).

A customer value to an organization is not only driven by financial benefit but additional value beyond purchasing behavior has been detected to have substantial value in generating revenues for the organization. Referring to Hogan et al. (2003), this research will review on non-financial aspects of customer value to the organization in the context of aviation loyalty reward program. The current research will also aim to identify positive stewardship-like behaviors that may generate from a mutual relationship between customer and organization which is called the relational worth of frequent flyer reward. In line with the above discussion, herewith the problem statement of the study.

**Research Questions:**

RQ1. What is the FFP’s customer segmentation? Which frequent flyer members should be selected for targeting by means of effective marketing efforts and resource allocation of the airline?

RQ2. What is the customer overall value of FFP members to the airline in terms of benefits of financial value and non-financial value (Relational Worth) which is beyond a traditional CLV measurement?

RQ3. How does frequent flyer programs’ reward influence non-financial behaviors of FFP members (Relational Worth)?

RQ4. How is the relationship quality, customers’ commitment to the airline and customer satisfaction, affected by the reward program?

**Research Objective**

In order to understand the customer segmentation of FFP and maximize earning profit of mileage spending by the FFP members as described in the above background and problem statement sections, this study has the following purposes as follows:

a. **Customer Segmentation**:

   To identify FFP group members based on RFM (Recency, Frequency & Monetary)
To analyze the correlation between customer segmentation & FPP’s demographic, behavioral transactions & its Tier profiles
To target FFP members effectively to improve customer relationship and maximize customer’s value to the airline

b. Customer Valuation:
To identify consumer’s overall value to the organization beyond traditional CLV measurement
- Financial benefits: To identify FFP’ Customer Lifetime Value
- Non-financial benefits: To identify FFP’ relational worth

c. Modeling:
Modeling of non-financial FFP members’ value to the airline in terms of relational benefit’ approach, relationship quality approach and relational marketing outcome

Significant of the Study

This study will be useful for airlines to obtain the benefits from its FFP as well as for local airline industry with regard to Customer Relationship Management (CRM). The study contributes to the body of knowledge as follows:

a. To Business:
To business sector, this research will be beneficial to identify FFP’ groups and effectively target them to improve Customer Relationship Management (CRM) and maximize shareholder’s profitability. Business world can use the result to identify FFP values to the organization for further establishment of a better marketing effort to target the customer. It also will help the organization to improve customer satisfaction and hence customer loyalty. Furthermore, business sector can find opportunities to maximize earning profit and hence reduce the airline’ liability

b. To Academics:
To academics world, this research will be beneficial as additional source of research that can be cited or experimented in other context or demography. This research will develop non-financial values of customers to the organization, especially in airline industry. The result will also propose an improvement of member value proposition from the point of view of financial as well as social benefits. It will enrich the loyalty approaches especially in airline industry.

Novelty

The study will include research methods for studying the phenomenon of interest of relationship marketing theory in terms of loyalty reward program. A new approach to the study of relational value of customer to organization will be explored by involving the non financial worth of consumers beyond their purchase
behaviours. This approach will capture other side of customer value as the addition to evaluation the traditional financial contributions of the consumers. The research on the effects of relational reward benefit to the relationship quality will also be explored by integrative approach involving the construct of satisfaction. The later would create an opportunity for theory development of relationship quality approach.

In summary, the contribution of this research are covering the following domains:

- First to consider:
  - “satisfaction” as a relationship-quality’ construct to specific non-financial valuation (relational worth)
  - First-order measurement of 5-relational worth factors
- The first modeling of the relationship relational benefits and relational worth for “non-paid” and “accumulated” reward programs, specifically in airline’ FFP LRP context.
- The first study of customer FFP’ valuation in both financial & non-financial values to the airline. This research will be pioneering the study on the effect of loyalty reward onto the non-financial value of customer to organization (business-to-customer) conducted in context of airline industry.
- Adjustment of the indicator instrument of the latent variables based on the FFP’ reward context

**Scope of the Study**

The aim of the study is to gain insight of Loyalty Reward Program at Garuda Indonesia Persero (Tbk), a flag carrier of Indonesia. The Frequent Flyer Program is named Garuda Frequent Flyer (GFF). The dataset captured for this study will be taken from GFF members’ profiles & activities and also marketing data of the company during the year 2012. The research will develop modeling of non-financial customer’ value to the organization in terms of relational benefit’ approach, relationship quality approach and relational marketing non-outcome. The model will be examined on GFF members through survey.

The grand theory supporting this research is Customer Relationship Management (CRM), whereas the body of knowledge involves in this research are the following:

- **Loyalty:**
  - Commitment : affective/normative/continuance
  - Satisfaction : equity theory
  - Loyalty Reward Program (LRP): reward - redemption
  - Customer Lifetime Value (CLV): future customer profit’ prediction
- **Relational program**
  - Customer Relationship Management
  - Relational benefit – relationship quality – relational outcomes
- **Customer Segmentation**
  - Quantifying customer behaviour based on historical transaction activity
  - Recency – frequency– monetary
Limitation of the Study

Limited type of FFP membership

Considering the context of this research is on “non-paid” and “accumulated” reward programs, the respondent will only cover GFF regular and Junior/Kid membership. The other type of membership (EC Plus and Co-branding card) will be exempted from this study.

Affect of MLA (Multi Lateral Alliances)

The study is not capturing the affect of strategic alliance amongst the airlines. Garuda Indonesia will be formally joint a multi lateral alliance (MLA), Sky Team, as of by the end of 2013.

Even tough MLA gives substantial benefits to airlines but merging the FFPs in an alliance in the long run seems uneasy as it will be depending on the homogeneous size of the program, information technology & databases setting, and also flexibility of changing an FFP too much to adapt to another partner (Gudmundsson S.V. et al., 2002).

Limited FFP in Indonesia

In this study, the loyalty program’ customer value to the airline will be referred to FFP of sole Indonesian airline, Garuda Indonesia. The analysis could not be examined to loyalty program on the other Indonesian airlines due to insignificant numbers. Referring to Globalflight (2013): there are only 3 (three) Frequent Flyer/Loyalty Programs in Indonesia acknowledged by the airline industry: Passport Club (Lion Air), Garuda Frequent Flyer/GFF (Garuda Indonesia), and Easy Flyer (Merpati). Amongst these three, only GFF could be considered as representative source for examining the purpose of the study. From the aspects of membership numbers: GFF has more than 600,000 members while Passport Club of Lion Air has been identified having around 30,000 members only (O’Connell, 2009). Easy Flyer of Merpati has even not identified yet. Furthermore, Globalflight (2013) reported that only Garuda’s GFF is opted as professional FFP in Indonesia while the other Indonesian airlines do not offer a wide range of FFPs. Other review on Airline FFP posted in 21 May 2009 (www.indonesianmatters.com) posit it is not worth joining Lion’ Passport Club and Merpati’ Easy Flyer.