Quantifying the Effect of Status in a Multi-Tier Loyalty Program

Abstract

Multi-Tier Loyalty Programs (MTLPs) have become a popular marketing instrument to develop customer-firm relationships. Within a MTLP, customers are assigned to different tiers based on their purchase behavior. In this article, we examine whether and when tiers in the MTLP are effective in influencing customer purchase behavior, specifically share of wallet (SOW). A unique business-to-business dataset of a firm in the German agricultural market from 2009 to 2017 is used for the analysis. Data is available on the customer-specific tier level in the MTLP each year. We utilize a Tobit-style panel regression model for the analysis which is inspired by the Regression Discontinuity Design approach. This study makes several important contributions. First, it examines the effect of status in MTLPs and uses causal design to quantify the hitherto intangible effect of customer tiers. Second, this study reveals important insights on how the tier levels interact with other drivers of customer-firm relationships. Third, we use an interesting dataset from a B2B market and thereby contribute to the limited existing literature on the effectiveness of loyalty programs in B2B markets. Armed with a new understanding of how customers respond to tier levels or the negative effects of tenure especially in the highest tier, academics and managers gain new perspectives of whether and how loyalty programs affect customer behavior and drive desired outcomes in the marketplace.

<u>Keywords:</u> *Multi-tier loyalty program; Customer tiers; Status; B2B marketing; Regression Discontinuity Design*

INTRODUCTION

Loyalty programs have become a popular tool in many industries to retain customers and to grow their share of wallet (Berry 2015; Bond Brand Loyalty, 2018). Many of these programs have a hierarchical design that allows firms to bestow customers who meet predefined requirements a corresponding tier level, accompanied with additional financial rewards and non-financial benefits (Bijmolt, Krafft, Sese, and Viswanathan, 2018; Henderson, Beck and Palmatier 2011). For example, airlines, hotels and car rental companies frequently assign customers to tiers such as silver, gold, or platinum. Such multi-tier loyalty programs (MTLPs) are also gaining popularity in the Business-to-Business (B2B) arena with applications in technology distribution (Techselect, by Tech Data), agriculture (AgSolutions Rewards Program, by BASF Canada), and automotive (Extra, by Bosch). However, as these programs proliferate, so do the questions about their ability to change customer behavior and improve firm profitability (Eggert, Steinhoff, and Garnefeld 2015; Shugan 2005; Wagner, Hennig-Thurau, and Rudolph 2009). Among marketing practitioners, in particular, MTLPs represent a major concern, as progressive rewards for higher tiers are costly, but might not be producing the intended results (Berry 2014). Hence, understanding whether and when MTLPs influence customer behavior, remains a major theme in the marketing discipline.

Despite the popularity of MTLPs in business practice, marketing science has only a small, yet growing body of literature on MTLPs (see for an overview Bijmolt, Krafft, Sese, and Viswanathan, 2018). A few empirical studies have examined the specific effects of customer tiers on sales and customer purchase behavior. Studies have found evidence supporting both positive (Kopalle et al. 2012; Wang et al. 2016) and negative (Bombaij and Dekimpe 2020; Eggert, Steinhoff, and Garnefeld 2015; Wagner, Hennig-Thurau, and Rudolph 2009) effects of tiers on customer behavior and firm performance. Other studies have focused exclusively on the tier

component itself (Von Wangenheim and Bayon 2007; Wang et al. 2016), or at positive or negative changes in tier level (Eggert, Steinhoff, and Garnefeld 2015; Wagner, Hennig-Thurau, and Rudolph 2009) and ignored prior purchase behaviors. Despite the merits of these studies, the knowledge gained about MTLPs is limited. Most existing research on loyalty programs in general, and MTLPs in particular, focus almost exclusively on B2C markets. However, in B2B markets, customer-firm relationships are characterized by highly demanding and powerful customers. While B2B firms invest in CRM practices (Lilien 2016; Viswanathan, Sese and Krafft 2017) and service innovations (Woo et al., 2021) to enhance customer value and satisfaction, increase switching costs and maintain an efficient product return system (Russo et al., 2016), it is surprising that there are few studies that focus on the effects of loyalty programs in B2B markets.

This study makes three important contributions to the literature on loyalty programs. First, our study contributes by examining the influence of customer tiers in MTLPs in fostering deeper firm-customer relationships using a longitudinal database covering a period of nine years. The database and analyses allow us to quantify the impact of four different tier levels on individual customer behavior while assessing potential moderating effects of tenure in the MTLP and points collected from purchases made by the customer. Second, our study contributes to the ongoing debate on the financial implications of loyalty programs (Chaudhuri, Voorhees, and Beck 2019; Faramarzia and Bhattacharya 2021; Liu and Yang 2009; Nunes and Drèze 2006; Wetzel, Hammerschmidt, and Zablah 2014) by examining the impact on actual customer purchase behavior, in particular SOW, which is more closely linked to firms' financial performance than attitudinal measures. Third, we contribute to the limited existing literature on the effectiveness of loyalty programs in B2B markets.

In the following, we first present a conceptual framework for the possible effects of MTLPs on customer behavior. Next, we empirically test our conceptual framework by using a unique dataset from a MTLP with four tiers – standard, silver, gold, and platinum – launched by a firm in the agriculture industry. Customers enrolled in the program are assigned a tier level depending on their SOW in the previous year. We utilize a panel regression model with Tobit-style lower and upper boundaries. Comparable to a Regression Discontinuity Design analysis, we define and assess the impact of the MTLP through a step function for the lagged dependent variable as an independent variable. In the analysis, we control for the effects of other potential drivers of SOW such as points collected, tenure, and marketing activities. Next, in the results section, we provide insights on the MTLP effects on SOW and offer empirical support for our conceptual framework. Furthermore, through the interaction effects of tier changes with tenure and points collected from purchases, we demonstrate that the MTLP effectiveness depends on customer characteristics. In the final section, we discuss our findings and implications for the management of MTLPs and research opportunities that could further our scholarly understanding of such loyalty programs.

CONCEPTUAL FRAMEWORK

In this section, we provide a conceptual understanding of the role of status in influencing the purchase activity of B2B companies in the context of a MTLP. Figure 1 offers a graphical representation of our proposed framework. As the central performance outcome measurement, we focus on customers' SOW since it represents an important metric for the strength of the relationship between the firm and its customers (Keiningham, Perkins-Munn, and Evans 2003). SOW indicates the share of all the requirements by the customer that is allocated to the firm (Du, Kamakura, and Mela 2007). In our framework, we start with the general assumption that, due to strong inertia in business markets (Van Doorn and Verhoef 2008), SOW in the current purchase cycle will be

determined by SOW in the previous cycle. We then argue that higher customer tiers conferred by MTLPs can disrupt this inertia and produce improvements in SOW above those expected by the previous purchase activity. We also argue the tier effects of MTLPs are heterogeneous and vary depending on the characteristics of B2B firms.

[Insert Figure 1 about here]

Inertia in Business Markets

In business markets, customer relationships tend to be characterized by intense inertia that causes parties to conduct regular behaviors and operations – or "business as usual" (Van Doorn and Verhoef 2008). B2B markets are characterized by the complexity of the offers and solutions and by strong uncertainty about the value-in-use that these products and services can provide to customers (Macdonald, Kleinaltenkamp, and Wilson 2016). To reduce uncertainty and increase purchase efficiency, B2B companies have a disposition toward maintaining the status quo by eliminating the need to consider other options, which creates behavioral inertia in the form of engaging in fixed and repetitive decision processes that are reproduced over time (Henderson et al. 2021; Vafeas and Hughes 2021). As a result, the customers present a strong tendency to maintain the relationship with the same suppliers (Anderson and Weitz 1989) and avoid switching their business to alternative providers (Heide and Weiss 1995). Therefore, business customers tend to dedicate a steady share of their business to a supplier, i.e., a stationary SOW. This notion is similar to the stationarity in market shares observed at a macro-economic level by Dekimpe and Hanssens (1995). They demonstrated that market shares are in a long-run equilibrium where the relative position of firms is only temporarily disturbed by marketing activities. We thus state the following hypothesis:

H1: The SOW of business customers in the current period t is affected by their SOW in the previous period t-1.

Multi-Tier Loyalty Programs (MTLPs): Role of Status in Driving Purchases

To enhance customer behavior and improve financial performance, a MTLP stratifies the customer base explicitly into a hierarchical set of tiers. Typically, customers are classified into these tiers based on past purchase behavior. The tiers are frequently labeled using status-laden precious gems or metals (e.g., bronze, silver, gold, platinum) to further reinforce the notion of a hierarchy among the firm's customers and provide observable indicators of status (Berger, Cohen, and Zelditch 1972; Melnyk and Van Osselaer 2012). Additionally, the purchase requirements to be in a specific tier level increases from one tier to the next, leading to the typical pyramid structure for MTLPs (Bijmolt et al. 2018; Drèze and Nunes 2009). Frequently, the MTLP provides symbolic or soft benefits and utilitarian or hard benefits to the customers, where these benefits increase between customer tiers. In a MTLP, higher tiers tend to receive better hard benefits, such as larger rewards or lower prices. The soft benefits may include recognition, preferential treatment, or special privileges (e.g., shorter waiting times, access to direct telephone lines or VIP areas, personal assistance by courteous personnel) that are being offered to customers in higher tiers (Drèze and Nunes 2009).

By providing instrumental benefits (monetary and non-monetary rewards) that increase from one tier to the next, the economic utility of the offering increases with each tier (Henderson, Beck, and Palmatier 2011). Thus, customers in higher tiers will experience more benefits, ultimately producing stronger effects on behavior. In the literature, these behavioral effects can be attributed to two main effects: a "points pressure" effect, or a motivational impulse to increase purchases in anticipation of the reward (Kivetz, Urminsky, and Zheng 2006); and a "rewarded

behavior" effect (Taylor and Neslin 2005), as customers experience a positive reinforcement to the performed behavior. Therefore, it can be said that customers consider tiers or rewards as goals they strive to achieve.

Belonging to higher tier levels is associated with higher status (Henderson, Beck and Palmatier 2011). Achieving a high status is an important aspect in helping individuals bolster their self-image and self-esteem, facilitating the formation of a social identity (Tajfel and Turner 1979). In addition, MTLPs provide a sociological context that promotes the development of a strong customer-company identification. In this context, members can share the experiences and benefits received from the program, helping individuals to define who they are and enhance their self-image and self-esteem (Brashear-Alejandro, Kang, and Groza 2016). Furthermore, customers have a natural desire for status, as it helps them feel superior and better than other groups (Viswanathan, Sese, and Krafft 2017). This motivation is essential under social comparison theory (Festinger 1954), by which individuals tend to compare themselves with others who are worse off than they are (i.e. downward social comparisons) in order to derive positive self-evaluative assessments and facilitate self-enhancement. Hence, tiers can be considered as a reflection of customer status.

The magnitude of benefits in a MTLP increases with tier levels. Status-related soft benefits are especially considered powerful instruments for stimulating customer loyalty (Henderson, Beck, and Palmatier 2011). The allure of status is a strong motivator of human behavior (Frank 1985; McFerran and Argo 2014) and has been described as a universal human motive (Anderson et al. 2001). According to social exchange theory, the reciprocity norm suggests that when individuals receive benefits, it triggers a desire to return those benefits because of feelings of gratitude (Bagozzi 1995; Palmatier et al. 2009; Wetzel et al. 2014). This indicates that higher ranked customers should feel like giving back more compared to those of lower tiers and as such have a higher SOW.

Given this, we argue that the status provided by higher MTLP levels and its associated benefits can disrupt the tendency among business customers to engage in inertial purchase behaviors such that improving a customer's tier level will produce an increase in SOW above what would be expected based on the SOW in the previous period. More formally:

H2: Business customers in higher MTLP tier levels will generate a higher SOW in period t over and above what would be determined by their SOW in period t-1.

Heterogeneity in Status Effects

Previous studies suggest that the effects of a loyalty program can be highly heterogeneous (Liu and Yang 2009; Bies, Bronnenberg and Gijsbrechts 2021). Depending on various customer characteristics (e.g. length of time in the program, sales), customers may have different sensitivities to the program benefits and, thus, respond differently to changes in the customer tier (Wagner, Hennig-Thurau, and Rudolph 2009). We thus similarly expect that the effects of tier level on SOW in business markets will also be heterogeneous. In this study, we focus on program tenure and points collected from purchases made by the customer in that year as moderators based on expert interviews with B2B decision-makers. Since no strong lines of reasoning exist for the moderating role of these variables in extant academic literature, we explore these relationships empirically, rather than postulating causal hypotheses. We thus put forth the following general expectation:

H3: The impact of higher MTLP levels on SOW in period t will vary between business customers depending on (i) their tenure in the program and (ii) points collected from purchases in that year.

RESEARCH DESIGN

Data

Our partner firm for this study sells a variety of agricultural products and services to farmers. In early 2008, the firm introduced a MTLP with four tiers – standard, silver, gold, and platinum – for their customers in Germany. The main objectives of this loyalty program were to build stronger relationships with customers and to gain a larger share of their customers' wallets. Almost 60% of all farms in Germany are registered members of this loyalty program and hence, this database represents a majority of all farmers in this country.

An important aspect of this MTLP is that a farm's SOW computed at the end of year *t-1* determines the tier *j* conferred on the farm for the following year *t*. To estimate a farm's SOW, the firm carries out periodic observations of the farm's crop(s) and estimates the total value of agricultural products and services the farm would need to sustain operations. The firm then tracks the value of products and services it has sold to the farm at the end of each year to calculate the farmer's SOW. Customers who meet specified benchmarks with respect to SOW are then conferred a corresponding tier level for the following year *t*. For example, a farm's SOW with the company in 2009 determines its tier for 2010. Hence, a customer's tier is not being calculated based on absolute sales but on relative sales. This implies that even small farmers can belong to the highest platinum tier if they buy almost all the products needed from the focal firm. At the same time, a big farm can be a standard member if only a small fraction of its requirements is purchased from the focal firm.

Similar to other MTLPs, the program offers soft benefits which increase from the bottom to the highest tier. For example, only platinum tier members receive VIP privileges such as free entrance to trade fairs, guidance on professional development, and invitations for industry events. Besides being able to gain soft benefits through the tier structure, the firm also offers hard benefits

in exchange for points. The number of points obtained primarily depends on the absolute sales. Thus, farmers can obtain points by purchasing products and services from the company. In addition, farmers can get additional bonus points based on their respective tier at the end of the season, namely 10%, 25%, and 50% for silver, gold, and platinum membership. Later, the points can be redeemed for a variety of rewards ranging from TV sets to agricultural tools.

For this study, we used a database that spans the period from 2008 to 2017. Our model specification, as will be discussed later, requires at least two consecutive years of information. 9,286 loyalty program members remain, with in total 44,787 yearly observations. In particular, we have annual information on each customer's tier and SOW, sales calls made by the firm, the year in which the customer joined the loyalty program, and the loyalty program points equivalent to purchases made by the customer. A similar dataset using a shorter time period from 2008-2012 was used in a study by Viswanathan, Sese, and Krafft (2017) examining a different phenomenon, namely, the effect of social influence on adoption of the loyalty program.

Operationalization of Variables

Dependent variable. The main objective is to examine whether and when customer tiers affect customers' subsequent purchase behavior. Therefore, we use SOW in year *t* for a farm *i* as the dependent variable. Each year, the firm determines purchases made by a farm and computes the SOW for each farm. In cases where the purchases by a focal firm exceed the predicted requirements, SOW is being set to 100%. On average customers have a SOW of about 24%.

Independent variables. In principle, all-things-equal, the SOW for farmer *i* in the previous year *t-1* would be an explanatory variable for the SOW for farmer *i* in year *t*. In particular, we split $SOW_{i,\ t-1}$ into four ranges, equivalent to the four tier levels, from between 0% and the lowest threshold (standard tier level) up to between the highest threshold and 100% (platinum tier level).

Consistent with the main idea of this study, we expect that the different tiers of the MTLP affect the outcome of the loyalty program. Thus, a focal independent variable of the study is the customer tier of each farmer for the year *t* (based on the SOW in year *t-1*). We create three dummy variables for the ordinal tier levels: a silver tier dummy $SilverDummy_i$ (= 1 if the farmer has a tier of at least silver, 0 otherwise), a gold tier dummy $GoldDummy_i$ (= 1 if the farmer has a tier of at least gold, 0 otherwise), and a platinum tier dummy $PlatinumDummy_i$ (= 1 if the farmer has a platinum tier, 0 otherwise).

We also included two potentially important characteristics of the customers as independent variables, namely the number of points (log transformed) collected by farmer *i* in year *t* termed as $\ln(Points_i)$ and the number of years farmer *i* is enrolled in the loyalty program termed as $Tenure_i$. For our investigation, we use the number of points as a proxy for purchases made by the farmer in that year. We also examine the interaction effects of these variables with the three tier dummy variables created above. $Tenure_i$ and $\ln(Points_i)$ are mean-centered to facilitate interpretation of the interaction model.

Next, we added two dummy variables to account for boundary values of SOW, namely whether the SOW for farmer *i* in year *t-1* is greater than 0, i.e., positive (1) or not (0), and whether the SOW for farmer *i* in year *t-1* is 100% (1), or not (0). Finally, we included a variable $Sales_{i,\,t-1}$ which represents the number of sales calls made by the company's representatives to farmer *i* in year *t-1*. The descriptive statistics for the variables used for the analysis are reported in Table 1.

[Insert Table 1 about here]

Model Specification and Estimation

The SOW for farmer *i* in the previous year *t-1* is expected to be an important explanatory variable for the SOW for farmer *i* in year *t*, though this effect could vary across the four MLTP levels. One could consider the MTLP level as a quasi-experimental treatment because the tier level cannot directly be influenced by the farm. While the customer does make purchase decisions, the exact SOW and thus the tier level conferred is an outcome of a process that is largely a black-box for the farmer. If the tiers of the MTLP have an impact on SOW, this would lead to a jump in the regression line at the SOW values corresponding to the tier thresholds (see Figure 2). This reasoning is equivalent to regression discontinuity design analysis (Hartmann, Nair, and Narayanan 2011) and the three dummy variables corresponding to the steps in the MTLP discussed in the previous section, therefore, play an important role in the model specification and estimation. Thus, the model specification is as follows:

Equation (1)

$$
\begin{aligned}
SOW_{i,t} = {} & \alpha + \beta_1 SilverDummy_{i,t} + \beta_2 GoldDummy_{i,t} + \beta_3 PlatinumDummy_{i,t} \\
& + \beta_4 Tenure_{i,t} + \beta_5 \ln(Points)_{i,t} + \beta_6 SalesCalls_{i,t-1} \\
& + \beta_7 StandardSOW_{i,t-1} + \beta_8 SilverSOW_{i,t-1} + \beta_9 GoldSOW_{i,t-1} + \beta_{10} PlatinumSOW_{i,t-1} + \beta_{11} SOW > 0_{i,t} + \beta_{12} SOW = 100_{i,t} \\
& + \delta_1 SilverDummy_{i,t} \cdot Tenure_{i,t} + \delta_2 GoldDummy_{i,t} \cdot Tenure_{i,t} + \delta_3 PlatinumDummy_{i,t} \cdot Tenure_{i,t} \\
& + \delta_4 SilverDummy_{i,t} \cdot \ln(Points)_{i,t} + \delta_5 GoldDummy_{i,t} \cdot \ln(Points)_{i,t} + \delta_6 PlatinumDummy_{i,t} \cdot \ln(Points)_{i,t} \\
& + \varepsilon_{i,t}
\end{aligned}
$$

where β_1, β_2 and β_3 are the threshold effects of the dummy variables for tiers silver, gold, and platinum, respectively, and H2 is tested using these parameters. The coefficients β_4 and β_5 measure the effects of the variables tenure and points collected from purchases made that year for farmer *i*. The coefficient β_6 measures the extent to which the SOW of farmer *i* in year *t* is influenced by the number of sales calls made by the firm in the prior year *t-1*. The coefficients β_7 to β_{10} measure the effects of the farmer's SOW in the previous year *t-1* in each of the four tiers, and correspond to testing H1. In addition, the model contains two parameters β_{11} and β_{12} for a dummy variable to

indicate a positive (non-zero) SOW and another dummy variable to indicate a SOW of 100%. The coefficients δ_1 to δ_6 capture the interaction effects of each of the three tier dummy variables with tenure and points collected and are used to test H3. For the estimation, we use a Tobit panel regression model, which is a linear model with a lower bound of 0 percent and an upper bound of 100 percent.

[Insert Figure 2 about here]

RESULTS

Estimation Results

The estimated coefficients for the model predicting SOW are presented in Table 2. We provide a detailed view of the results as we progressively build the model from one comprising of only main effects (Model 1) to one that includes the interaction effects for each moderating variable one at a time (Models 2a and 2b) and finally a fully specified model (Model 2c) that reflects Equation 1.

The results for the main effects (H1 and H2) are highly consistent across all four models, and the results for the interaction effects (H3) are very similar between Models 2a to 2c, which indicates the robustness of our findings. Therefore, the following discussion of findings is based on the full model 2c with all main and interaction effects, reported in the last column of Table 2.

The concept of inertia dictates that customers tend to remain stable concerning their SOW over time. Therefore, customers' lagged SOW is essentially a reflection of previous customer behavior and displays within which tier a customer's comfortable level of spending falls into. The results of our analysis indicate that the lagged SOW within each tier, which is basically the slope

for each tier, has a significant positive effect ($p < 0.01$) on this year's SOW, thus finding support for H1. The effect within the platinum category is the strongest with $\beta_{10} = 0.268$, followed by silver with $\beta_8 = 0.161$, and then with both standard β_7 and gold β_9 equal to 0.069. This implies that customers who were in the platinum tier last year are most likely the ones that invest the most into this years' SOW.

We find significant jumps in the dependent variable i.e., this year's SOW, at the thresholds of each of the different tiers ($p < 0.01$), thus finding support for H2. The coefficient for each tier is additive and reflects the discontinuous incremental effect for that tier. As expected, the intercept i.e., SOW for customers belonging to the standard tier, is positive but close to zero ($\alpha = 0.100$, $p<0.01$). The discontinuous effects for each subsequent tier on SOW are also positive and significant, with the incremental effects of silver tier being $\beta_1 = 0.158$ ($p<0.01$), of gold tier being $\beta_2 = 0.088$ ($p<0.01$), and of platinum tier being $\beta_3 = 0.097$ ($p<0.01$). Hence, each additional tier level significantly increases the predicted SOW, which indicates a positive impact of the hierarchical structure of the MTLP.

We now discuss the results of our expectations stated in H3. The interaction effect of $Tenure_{i,t}$ with $SilverDummy_{i,t}$ and $GoldDummy_{i,t}$, variables is not significant, but for the $PlatinumDummy_{i,t}$, the interaction effect is significant and negative ($\delta_3 = -0.007$; $p < 0.01$). Thus, the positive effect of being in platinum tier on SOW ($\beta_3 = 0.097$) decreases with -0.007 if $Tenure_{i,t}$ (mean-centered, with SD = 2.217) goes up with one year. However, note that the interaction effect is relatively small, and the effect of being platinum remains clearly positive even for the highest tenure levels. Looking at this interaction effect through the lens of the effect of $Tenure_{i,t}$, being a long-time customer has a negative effect on SOW in general ($\beta_4 = -0.008$; $p < 0.01$), and being in the platinum tier intensifies this negative effect with -0.007.

An interesting result is that the interaction effects of ln($Points_i$) with $SilverDummy_{i,t}$, $GoldDummy_{i,t}$, and $PlatinumDummy_{i,t}$ are all significant and negative (δ_4 = -0.028, δ_5 = -0.007, δ_6 = -0.004; $p < 0.01$). Thus, the positive effects of each tier ($\beta_1 = 0.158$, $\beta_2 = 0.088$, and $\beta_3 = 0.097$ for silver, gold, and platinum, respectively) are weakened by their respective interaction effects with ln($Points_i$), a proxy for purchases made by the farm. Therefore, within each tier, the net effect of tier level is stronger for small farms than for large farms. This is an important result, and we discuss the implications of this result in further detail in the following sections. Yet, given the relative size of the original positive effects versus the negative interaction effect, and the range of ln($Points_i$) (mean-centered, SD = 6.028), the effects of the tiers remain positive even for large firms. The effect of the silver tier is an exception, as this effect becomes basically zero for points collected about 1 SD above the mean. The main effect of ln($Points_i$) on SOW is positive and significant ($\beta_5 = 0.064$; $p < 0.01$). This indicates that large monetary purchases have a positive effect on SOW. Again, as an alternative interpretation for the positive interactions between ln($Points_i$) and the three tier dummies, the effect of ln($Points_i$) ($\beta_5 = 0.064$) is significantly larger for all tier levels above the lowest tier. Hence, we do find empirical support for H3 on heterogeneity of the MTLP effects, especially for the number of points collected from purchases in that year.

Looking at the results of other variables, the coefficient of customers having a positive share of wallet i.e., $SOW > 0_{i,t}$ is $\beta_{11} = -0.098$; $p < 0.01$, and broadly indicates that customers are inclined to reduce their SOW over time. However, this effect is overcome by the positive slopes of each tier reported above. Having a $SOW_{i,t} = 100$ has no significant effect. In addition, marketing activities in the form of sales calls in *t-1* also do not have a significant effect on customers' SOW.

DISCUSSION

Despite the growing popularity of MTLPs in B2B and B2C markets, the academic literature on MTLPs has not kept pace and scholars have only recently started to investigate these programs (Dorotic, Bijmolt, and Verhoef 2012). In this study, we develop a framework and take a longitudinal empirical approach leading to new insights on the effect of tiers and quantifying this intangible effect in a MTLP while examining how it influences customer purchase behavior. Specifically, the study reveals three important and interesting findings that have important implications for theory and practice. First, the study finds that there is a significant positive effect of having a certain tier level based on prior purchase behavior on subsequent purchase behavior. Second, we find a discontinuous positive effect of status at each tier threshold, and each higher tier intensifies this positive effect. Third, the magnitude of the discontinuous effects varies depending on customer characteristics. In this study, we find that the discontinuous effects of tier level are a) greater for new customers in the highest platinum tier than for long-term customers in that tier and b) greater for small customers than for big customers in every tier. Below, we explain the theoretical and managerial implications of the study and its findings in greater detail.

Theoretical Implications

In this study, we draw from different theoretical domains (e.g., social exchange theory, social comparison theory), to identify and understand the various ways a program, through being in a certain tier and reaching a certain tier over time, influences business customers' behavior (Henderson, Beck, and Palmatier 2011; Kim, Steinhoff, and Palmatier 2020). This understanding begins with the frequently observed inertial pattern of business relationships (Anderson and Weitz 1989; van Doorn and Verhoef 2008; Heide and Weiss 1995). We find indeed empirical evidence of inertia, given the significant impact of customers' last year's SOW on this year's SOW.

However, our results also imply that MTLPs are a useful tool to reduce this inertia through the allure of status by motivating customers to maintain or increase their level of spending.

A key contribution of this paper is that we add to the existing literature of MTLPs by quantifying the intangible effect of status, as reflected by the tier level. Previous research has already highlighted the role of status as a motivator (Frank 1985, McFerran, and Argo 2014). Our findings support the importance of status for customer behavior within a MTLP. Since we not only consider the effect of status within one tier, but also across tier levels, we are able to draw conclusions about the effect of status over time. Reaching a higher tier, and as such achieving higher status (Henderson, Beck, and Palmatier 2011), intensifies the positive effect of tier level on customer behavior. It appears that the anticipation of reaching a higher tier level motivates customers to increase their SOW. At the same time, they are being rewarded with tangible and intangible rewards for their previous purchasing behavior. Furthermore, these rewards cause customers to reciprocate by increasing their SOW. Therefore, the allure of status and the associated benefits are a strong enough motivator to positively influence customer behavior.

Tier level has a significant effect in particular on small customers. From the results, we can observe that while large customers on their own (i.e., main effect) are more likely to increase their SOW, smaller customers who are rewarded with higher status levels are more likely to have a high SOW. This is an interesting effect and has important implications for how goal-driven behaviors may vary between large and small B2B customers.

In our study, the only variable that tier level did not interact favorably with is tenure. Customers who have had a long relationship with the company are likely to have a lower SOW, and the tier level is unable to mitigate this negative effect. Notably, platinum tier farmers who have a longer relationship with the company, are likely to further drop their SOW. We speculate that

customers in the highest tier feel less motivated, and reaching the highest tier possibly robs them of another higher goal they can strive for.

Managerial Implications

The study also has important implications for managers directing MTLPs, especially in the B2B arena. Given the huge investments by companies in these programs, one critical concern that business managers face is to what extent MTLPs can fundamentally change customer behavior and produce a positive impact on the bottom line. The findings from this study can help firms understand how their customers will react to these programs. The results reveal that customers are positively affected by the tier structure of the MTLP. While customers in lower tiers are motivated to increase their SOW in order to reach a higher tier and increase their status, customers in the platinum tier show the strongest positive effect. The results suggest that firms must design MTLPs with the optimal mix of financial and non-financial rewards across various tiers to incentivize customers to aspire for higher tiers and maintain their high(est) tier level.

At the same time, tenure of platinum customers has a negative effect on their SOW. Therefore, managers should pay special attention to long-term customers at the highest tier level. These customers require some additional motivators to maintain their high SOW. Rewards that include both tangible and intangible benefits e.g., a special ten year anniversary gift for valued customers or providing “stars” that further increase the perception of status are some examples. . In general, it is advisable to closely attend to long-term customers to reduce the negative main effect of tenure. Thus, besides rewarding customers for their spending, their loyalty over time also needs special recognition.

A MTLP based on SOW is particularly relevant for firms that rely on a long tail of small customers or businesses. This study shows that a MTLP based on SOW is a strong motivator for

small firms as the tier level is not dependent on absolute purchasing power. Thus, even small firms can rise through the ranks and attain the highest tier. At the same time, the MTLP also rewards large firms by awarding them points for their absolute purchases. Therefore, MTLPs that provide incentives for small and large firms make the program equitable for the entire customer base.

Limitations and Future Research

While this study furthers our understanding of how the intangible effect of tiers in MTLPs influence customer behavior, additional research efforts are required to gain further insights into this theme. Here, we have studied the effect of tiers across different thresholds and the effect within each tier but have not examined the underlying mechanisms that drive these effects. While the role of status in form of customer perceptions, attitudes, and emotions has been conceptually acknowledged in prior research, these mechanisms and their corresponding effect sizes within a MTLP need to be studied in more detail. Future research should go beyond an analysis of past data. We recommend testing the effects of tiers and similar status elements in a quasi-experimental manner by comparing, e.g., regions exposed or not exposed to more or fewer tiers or tiers with additional or fewer tangible vs intangible benefits.

Our study has also focused on quantitative performance measures to evaluate the effectiveness of changes in tier level in the MTLP. However, it would also be interesting to look at mindset metrics both at the program level (e.g., customer engagement in the MTLP, loyalty to the program), and at the firm level (e.g., affective commitment, perceived relationship quality, or word of mouth). Doing so would help scholars and managers evaluate the short-term and long-term effects of status on these constructs. Future research should follow a mixed-method approach and combine non-anonymous survey data with objective CRM or MTLP data, as in our study. Thus, explanations could be provided on why certain effects of loyalty tiers can be observed, or not.

This study focuses exclusively on a B2B loyalty program, and the results are based on a single loyalty program for one firm that operates in the agriculture industry. While this represents an interesting contribution of this study, future research can extend our study and research design to other B2B and B2C settings to compare and trace patterns of behavior that may be present in other types of MTLPs. Clearly, MTLPs is an important and relevant area in marketing and more work needs to be done using data from other industries and programs to validate and extend the findings from this study. We recommend replicating our study in B2B settings such as machinery and tools or fleet management, which have applied MTLPs for a few years. Similarly, investigating the effects of MTLPs in different countries might reveal distinct interrelations of variables.

In recent years, we have observed many firms modify the rules that determine how tier levels are awarded in their respective MTLPs. While recent research has looked at tier changes endowed by the firm (Eggert, Steinhoff, and Garnefeld 2015), no prior study has investigated customer reactions to changes in tier level because of changes in the company's MTLP policy. This would be a particularly promising avenue for research at the intersection of marketing theory and practice. For example, in the airlines industry, companies such as Delta Airlines, United Airlines and Alaska Airlines recently embraced several modifications to their MTLPs that involved changes in how their program members earn elite status. Understanding how these changes affect customers' tiers in the program, modifies customers' perceptions and subsequent behavior in the program and towards the firm represents an interesting avenue for future loyalty program research.

In sum, this study not only makes important contributions to this area of research but also lays a nice foundation for future studies that aspire to study the effects of soft rewards such as tier levels and evaluate their impact on firm-customer relationships.

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Figure 1 - Research Framework

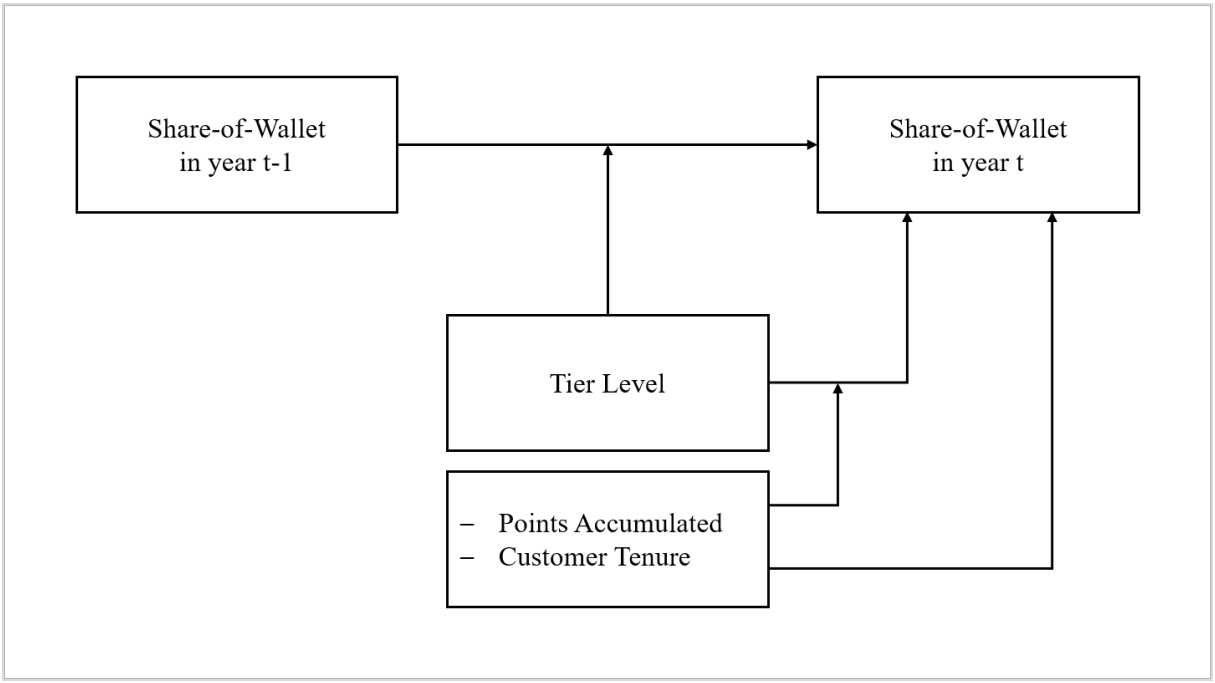

Figure 2 - Modelling Approach for the MTLP Effect

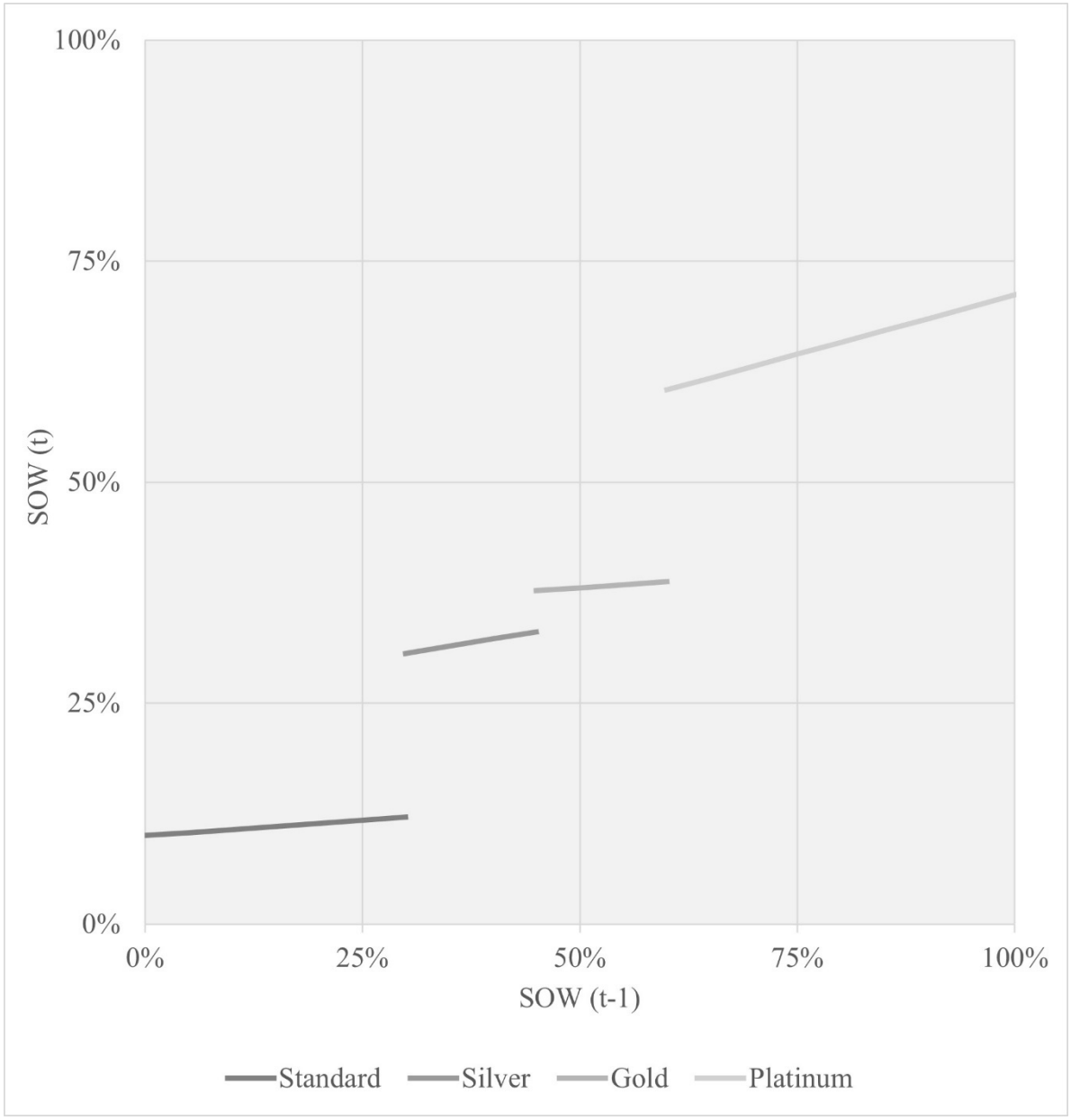

Table 1 - Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
SOW	0.238	0.213	0.00	1.00
Tenure[1]	5.035	2.217	2.00	10.00
ln(Points)[1]	5.569	6.028	-12.87	13.39
SalesCalls	0.164	0.844	0.00	31.00
StandardSOW	0.155	0.128	0.00	0.30
SilverSOW	0.027	0.045	0.00	0.15
GoldSOW	0.019	0.043	0.00	0.20
PlatinumSOW	0.024	0.075	0.00	0.50
SOW > 0	0.870	0.336	0.00	1.00
SOW = 100	0.000	0.010	0.00	1.00

Number of cross-sections N = 9,286
Number of observations N x T = 44,787
[1] before mean-centering

Table 2 - Panel Regression Results

Variables	Coef.	Model 1	Model 2a	Model 2b	Model 2c
Constant	α	**0.187*****	**0.185*****	**0.102*****	**0.100*****
		(0.0027)	(0.0028)	(0.0040)	(0.0040)
SilverDummy	β_1	**0.072*****	**0.072*****	**0.159*****	**0.158*****
		(0.0030)	(0.0030)	(0.0044)	(0.0044)
GoldDummy	β_2	**0.079*****	**0.079*****	**0.088*****	**0.088*****
		(0.0037)	(0.0037)	(0.0041)	(0.0041)
PlatinumDummy	β_3	**0.124*****	**0.121*****	**0.100*****	**0.097*****
		(0.0041)	(0.0041)	(0.0040)	(0.0040)
Tenure	β_4	**-0.009*****	**-0.008*****	**-0.010*****	**-0.008*****
		(0.0004)	(0.0005)	(0.0004)	(0.0005)
ln(Points)	β_5	**0.033*****	**0.033*****	**0.064*****	**0.064*****
		(0.0002)	(0.0002)	(0.0008)	(0.0008)
SalesCalls	β_6	**-0.001**	**-0.001**	**-0.001**	**-0.001**
		(0.0010)	(0.0010)	(0.0010)	(0.0010)
StandardSOW	β_7	**0.095*****	**0.101*****	**0.062*****	**0.069*****
		(0.0085)	(0.0086)	(0.0083)	(0.0084)
SilverSOW	β_8	**0.159*****	**0.164*****	**0.153*****	**0.161*****
		(0.0283)	(0.0282)	(0.0275)	(0.0275)
GoldSOW	β_9	**0.081*****	**0.086*****	**0.061****	**0.069*****
		(0.0262)	(0.0262)	(0.0255)	(0.0255)
PlatinumSOW	β_{10}	**0.368*****	**0.359*****	**0.275*****	**0.268*****
		(0.0147)	(0.0147)	(0.0142)	(0.0142)
SOW > 0	β_{11}	**-0.092*****	**-0.092*****	**-0.099*****	**-0.098*****
		(0.0030)	(0.0030)	(0.0031)	(0.0030)
SOW = 100	β_{12}	**0.015**	**0.014**	**0.033**	**0.032**
		(0.0778)	(0.0777)	(0.0750)	(0.0749)
SilverDummy x Tenure	δ_1		**-0.001**		**-0.001**
			(0.0011)		(0.0011)
GoldDummy x Tenure	δ_2		**-0.001**		**-0.002**
			(0.0015)		(0.0014)
PlatinumDummy x Tenure	δ_3		**-0.007*****		**-0.007*****
			(0.0016)		(0.0015)
SilverDummy x ln(Points)	δ_4			**-0.028*****	**-0.028*****
				(0.0010)	(0.0009)
GoldDummy x ln(Points)	δ_5			**-0.007*****	**-0.007*****
				(0.0007)	(0.0007)
PlatinumDummy x ln(Points)	δ_6			**-0.004*****	**-0.004*****
				(0.0005)	(0.0005)
Number of Observations (N x T)		44,787	44,787	44,787	44,787
Number of IDs (N)		9,286	9,286	9,286	9,286
Log-Likelihood		14,746.63	14,774.87	16,672.59	16,707.45
Chi-Square Statistic		40,507.72	40,592.63	29,037.95	29,166.68

Note. Standard errors in parentheses
*** p < 0.01, ** p < 0.05