THE EFFECTS OF INCENTIVES, DEAL PRONENESS, SATISFACTION AND TIE STRENGTH ON WORD-OF-MOUTH BEHAVIOR

Patricia Chew and Jochen Wirtz*

9 January 2001

*Patricia Chew is a doctoral candidate and Jochen Wirtz is Associate Professor. Both authors are from the Department of Marketing, Faculty of Business Administration, National University of Singapore, 17 Law Link, Singapore 117591. Tel: 65-8743656, Fax: 65-7795941, E-mail: fbawirtz@nus.edu.sg.

The authors thank Cindy Koh Kai Lin for her excellent research assistance throughout this project and the National University of Singapore for funding this project.
THE EFFECTS OF INCENTIVES, DEAL PRONENESS, SATISFACTION AND TIE STRENGTH ON WORD-OF-MOUTH BEHAVIOR

ABSTRACT

Although more than 30 years of research has established the power of word-of-mouth (WOM), little work has focused on how it could be managed effectively. This study examined how incentives would work to actively encourage WOM, and to see how it would potentially interact with other variables that have been shown to drive WOM. In particular, a 3 x 3 x 2 experiment was conducted to examine the impact of incentives (no incentive, $25, $100), tie-strength (weak vs. strong), and satisfaction (dissatisfied, satisfied, extremely satisfied) on WOM behavior. Consumer deal proneness was investigated using a quasi-experimental design.

Our findings showed that extremely satisfied consumers were not more likely to generate WOM than those who were just satisfied. However, once a satisfied consumer did generate WOM, it was more favorable and the likelihood of making a purchase recommendation was increased. As hypothesized, incentives were shown to be an effective catalyst to increase WOM behavior of satisfied consumers. Tie strength also had an impact on WOM behavior. The likelihood of generating WOM to strong ties was greater than to weak ties. Furthermore, dissatisfied consumers generated more negative WOM, and recommended more strongly against a purchase to strong ties than to weak ties, and vice versa for extremely satisfied consumers. Contrary to expectations, deal proneness did not moderate the incentive-WOM relationship. Our findings suggest that deal prone consumers generate more WOM, independent of incentives.
INTRODUCTION

Since the 1960s, much research has documented the pervasive influence and importance of WOM on consumer behavior. In particular, customers pay more attention to WOM, because it is perceived as credible and custom-tailored, and generated by people who are perceived as having no self-interest in pushing a product (e.g., Arndt 1967b; Silverman 1997). However, marketers may have been neglecting the management of WOM, believing that it is out of their control (Lovelock 1996, p.330). This study aims to contribute to WOM research in four ways.

First, given the importance of WOM, a more proactive stance should be taken to seek ways to manage and influence it. One method could be through the use of incentives as a motivator. To our knowledge, no empirical research has focused on the effectiveness of incentives in generating WOM. In this study, we tested a monetary incentive program. Deal proneness was included as a moderating variable to explore whether deal prone consumers would respond stronger to incentives than less deal prone consumers.

Second, research on interpersonal communication and influence has consistently shown that personal sources play an influential role in affecting product choice (e.g., Katona and Mueller 1954; Kiel and Layton 1981; Price and Feick 1984). In particular, opinion leaders are believed to be more influential, and to generate more WOM than non-opinion leaders (Engel, Blackwell and Miniard 1990; Rogers 1995). This has led marketers to focus on opinion leaders for generating positive WOM. However, research on customer satisfaction has shown that 'ordinary' consumers, i.e., non-opinion leaders, also generate WOM. In particular, very satisfied consumers would generate positive WOM (Bitner 1990), while very dissatisfied consumers would generate negative WOM (Richins 1983). In this paper, we also
advanced that an incentive might further enhance or amplify the satisfaction-WOM relationship.

Third, past research has shown that tie strength affects information flows. Individuals in a strong tie relation tend to interact more frequently and exchange more information, compared to those in a weak tie relation (Brown and Reingen 1987; Reingen and Kernan 1986). Thus, it would seem that consumers would generate more WOM to strong than to weak tie relations. This study explored the relationship between tie strength and WOM. In addition, the impact of satisfaction on this relationship was also studied.

Fourth, the study uses a service as research context, because WOM is generally seen as more important for services than goods. Services are generally experiential in nature, and are therefore difficult to evaluate before purchase. The characteristics of services (i.e. intangibility, heterogeneity, and the inseparability of production and consumption) force consumers to place greater reliance on the opinions of others for evaluation prior to the purchase of services (Haywood 1989; Lovelock, Patterson and Walker 1998). As a result, perceived risk with regard to the purchase of services is relatively higher compared to the purchase of goods (Arndt 1967b; Rust, Zahorik and Keiningham 1996), and consumers who purchase services are thus more likely to rely on WOM to make their purchase decisions (Murray 1991).

In summary, the research objectives of this study are to examine the influence of incentive programs, deal proneness, satisfaction, and tie strength on WOM behavior in a service context. It is hoped that the findings would help to guide the design and targeting of programs that proactively encourage and manage WOM.
LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The following sections develop the research hypotheses using the potential drivers of WOM behavior namely, incentives, deal proneness, satisfaction and tie strength.

Incentives

Both Dichter (1966) and Arndt (1967b) have developed a list of motivators to explain why people engage in WOM. Basically, people have a need to share their purchase experience to ease a tension that the positive or negative experience produced, to reassure themselves in front of others, to gain support from others who share their opinions, to use WOM to develop and enhance relationships, to share the benefits of things enjoyed, or because they are stimulated by the way the product is presented in the media.

From the above, we see that consumers expect to gain something from engaging in WOM, or that they indirectly satisfy a desire when providing others with WOM, regardless of the root of the motivation. Incentive programs may therefore work as an extrinsic motivator, and people may engage in more WOM behaviors when incentivised, and this motivation may increase as the incentive increases. Although many have proposed the use of incentive programs for encouraging positive WOM (e.g., Griffen 1995; Misner 1995; Ryan 1996), there is a lack of empirical research on the effectiveness of such programs. Hence, the following hypotheses are advanced.

H1a: There is a positive relationship between the size of an incentive offered, and a consumer's likelihood to generate WOM.
H1b: There is a positive relationship between the size of an incentive offered, and the favorability of the WOM generated.

H1c: There is a positive relationship between the size of an incentive offered, and a consumer's likelihood to make a purchase recommendation.

Incentives and Deal Proneness

Deal proneness has been defined as "an increased propensity to respond to a purchase offer because the form of the purchase offer positively affects purchase evaluations" (Lichtenstein, Netemeyer and Burton 1990, p. 56). In other words, deal prone consumers may perceive the deal as an end in itself and just the fact that it is a deal, makes them want to make a purchase. Similarly, deal prone individuals are suggested to be more likely to respond to a promotional deal (Hackleman and Duker 1980; Thaler 1983). Thus, deal proneness was included as a moderating variable in this study, as individuals with different degrees of deal proneness may respond differently to incentive programs. The following hypotheses are proposed.

H2a: When incentivised, a high deal prone consumer is more likely to generate WOM, than a low deal prone consumer.

H2b: When incentivised, a high deal prone consumer is likely to generate more favorable WOM, than a low deal prone consumer.

H2c: When incentivised, a high deal prone consumer is more likely to make a purchase recommendation, than a low deal prone consumer.
Satisfaction and Tie Strength

The degree of satisfaction or dissatisfaction with a consumption experience has generally been regarded as a key antecedent of product-related WOM (Arndt 1967a; Bitner 1990; Dichter 1966; Reichheld and Sasser 1990). Schlesinger and Heskett (1991), and Swan and Oliver (1989) found a positive relationship between customer satisfaction and WOM. However, other studies found a negative relationship between satisfaction and WOM, with dissatisfied customers engaging in more WOM than satisfied customers (Richins 1983; Schlossberg 1991; Westbrook 1987). These seemingly contradictory findings can be explained by an asymmetric U-shape relationship between customer satisfaction and WOM, where WOM is higher for extremely satisfied and extremely dissatisfied consumers than for those with more moderate levels of satisfaction (Anderson 1998).

WOM is a social behavior. A consumer will interact with people from a spectrum of various degrees of tie strength, ranging from strong primary (e.g., a spouse) to weak secondary (e.g., a seldom-contacted acquaintance). Strong ties are more likely to be activated for information flow (Arndt 1967a; Brown and Reingen 1987; Granovetter 1973; Leonard-Barton 1985; Reingen and Kernan 1986). For example, it was found that the amount of WOM generated was higher within groups with many strong tie relations than when a group had many weak tie relations (Bone 1992).

Richins (1987) found that strong social ties increased the likelihood of negative word-of-mouth when consumers experienced post-purchase dissatisfaction. These findings were also supported by Takada and Jain’s (1991) study in a cross-cultural context, where negative WOM to in-group members were more likely as an outcome of post-purchase dissatisfaction. Given the findings of the impact of tie strength on negative WOM, it seems plausible that the same principle also holds for positive WOM. An extremely satisfied consumer would
probably also share his positive feelings about a product or service with people closer to him. The following hypotheses integrating satisfaction and tie strength are thus advanced:

H3a: When dissatisfied, a consumer is likely to generate less favorable WOM to strong tie relations than to weak tie relations. Conversely, when extremely satisfied, a consumer is likely to generate more favorable WOM to strong tie relations than to weak tie relations.

H3b: When dissatisfied, a consumer is more likely to make a recommendation not to purchase to strong tie relations than to weak tie relations. Conversely, when extremely satisfied, a consumer is more likely to make a purchase recommendation to strong tie relations than to weak tie relations.

**METHODOLOGY**

**Research Design**

A 3 x 3 x 2 between-subject factorial design was used. Incentives (no, medium, and high incentive), tie strength (weak and strong), and satisfaction (dissatisfied, satisfied and extremely satisfied) were manipulated in an experimental design. For deal proneness, a quasi-experimental approach was used.
Most WOM studies used surveys, where subjects were required to recall conversations or discussions related to the actual purchase of certain products or services, and whom they had talked to (e.g., Blodgett, Wakefield and Barnes 1995; Halstead and Droge 1991; Singh 1990). A drawback of recall-based methodology is that it is subjected to the vagaries of human memory. To overcome that, our research was conducted using a projective role playing method simulating two WOM encounters, one with a strong tie relation, and another with a weak tie one. A fictitious service firm was used as the talking point in the encounter. Using a projective role playing method enhances internal and statistical conclusion validity by increasing control over the manipulated variables and reducing random noise in the experiment by standardizing the setting for all respondents (Cook & Campbell 1979).

Sample

A total of 250 questionnaires were distributed through convenience sampling, employing students who distributed the questionnaire to relatives and family friends. 223 questionnaires were returned, of which eight questionnaires were discarded due to incomplete responses. Thus, 215 were used for the analysis. Each respondent was exposed to two tie strength scenarios, which resulted in 430 responses to the experimental conditions. A mobile phone service, with the fictitious name ‘Telemobile’, was chosen as the research context. Only users or subscribers of a mobile phone service were recruited to ensure that respondents were familiar with the research context.

Experimental Procedure and Manipulations

Subjects were told that they were participating in a study on "Recommend-a-friend" promotions for mobile phone services. They were verbally informed that the study was not
linked to any mobile phone service provider to reduce potential biases that the subjects might have had towards any one provider.

Subjects were asked to read the first page of the questionnaire, which contained the cover story for the research. Following that was the questionnaire proper. In the first section of the questionnaire, a written scenario containing the operationalization of incentive and satisfaction was presented. Subjects were instructed to read the scenario carefully, and answer three questions (manipulation checks for satisfaction) before proceeding to the next section. The incentive program was operationalized at three levels: no incentive, $25, and $100 (see Table 1), while satisfaction was operationalized at three levels, namely dissatisfied, satisfied, and extremely satisfied (see Table 2).

The next section contained the tie strength manipulation. Tie strength was operationalized at two levels, namely weak (an ex-colleague with whom there had been no contact for a long time) and strong (a first degree relative) (see Table 3). A random half of the respondents was exposed to the strong tie manipulation first and then later to the weak tie manipulation, while the other half was exposed to manipulations in the reverse order. This procedure was employed to control for potential order effects. Immediately following each tie strength manipulation were the manipulation checks for tie strength, and measures for the dependent variables.

Each subject was debriefed after completing the questionnaire. Discussions with the subjects showed that none of them had guessed the experimental hypotheses.

A pretest was conducted with a convenience sample of 36 subjects to determine the effectiveness of the manipulations for incentive, satisfaction and tie strength. The respondents were randomly assigned to the experimental conditions. The pretest results showed that both independent variables were perceived as intended, and significant (p<0.01). The questionnaire design was fine-tuned using the feedback obtained during the pretesting.
### TABLE 1
MANIPULATION OF INCENTIVE PROGRAM: (I) NO INCENTIVE, (II) MEDIUM INCENTIVE, AND (III) HIGH INCENTIVE

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(I)</td>
<td>For the no incentive condition, there was no reference to the &quot;Recommend-a-Friend&quot; program in the questionnaire.</td>
</tr>
<tr>
<td>(II)</td>
<td>&quot;Telemobile has recently launched a “Recommend-a-Friend” promotion. It will credit $25 into Chris’s account when he recommends a friend to subscribe to Telemobile’s service.&quot;</td>
</tr>
<tr>
<td>(III)</td>
<td>&quot;Telemobile has recently launched a “Recommend-a-Friend” promotion. It will credit $100 into Chris’s account when he recommends a friend to subscribe to Telemobile’s service.&quot;</td>
</tr>
</tbody>
</table>

### TABLE 2
MANIPULATION OF SATISFACTION: (I) DISSATISFIED, (II) SATISFIED, and (III) EXTREMELY SATISFIED

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(I)</td>
<td>&quot;Chris subscribes to a mobile phone service provided by Telemobile. Telemobile charges competitive prices. Its network coverage is still acceptable, but it offers an inconsistent level of customer service. Overall, Telemobile’s service is somewhat worse than that of its main competitors. Chris has been somewhat unhappy with Telemobile.&quot;</td>
</tr>
<tr>
<td>(II)</td>
<td>&quot;Chris subscribes to a mobile phone service provided by Telemobile. Telemobile charges competitive prices. Its network coverage is good, and customer service is reasonably efficient and friendly. Overall, Telemobile’s service is about the same as that of its main competitors. Chris has been reasonably happy with Telemobile.&quot;</td>
</tr>
<tr>
<td>(III)</td>
<td>&quot;Chris subscribes to a mobile phone service provided by Telemobile. Telemobile charges competitive prices. Its network coverage is excellent, and its customer service is extremely efficient and friendly. Overall, Telemobile’s service is much better than that of its main competitors. Chris has been extremely happy with Telemobile.&quot;</td>
</tr>
</tbody>
</table>
TABLE 3
MANIPULATION OF TIE STRENGTH: (I) WEAK, AND (II) STRONG

(I) "Chris unexpectedly meets Josephine, an ex-colleague whom he has not seen for a long time. Josephine tells him that she intends to subscribe to a mobile phone service and is thinking of which service to subscribe to."

(II) "Chris is dining with his sister, Jean. Jean tells him that she intends to subscribe to a mobile phone service and is thinking of which service to subscribe to."

Manipulation Checks

We did not include a manipulation check for the size of incentives, as pretests with a very small sample size already yielded significant results ($p<0.001$) and demonstrated that subjects clearly perceived the different sizes of incentives offered. In addition, this check might have introduced potential demand effects as it would have focused respondents more strongly on the generous amount or absence of an incentive. Manipulation checks were included for satisfaction and tie strength. For satisfaction, a three-item, seven-point scale was used, where the subjects indicated the extent to which they felt that the statements best described Chris's feelings towards Telemobile. The first question was anchored at "displeased" and "pleased", the second question had "dissatisfied" and "satisfied" as anchors, and the third was anchored at "disgusted" and "contented". This scale was adapted from Oliver and Swan's 1989a and 1989b studies. The tie strength manipulation check was adapted from Brown and Reingen's 1987 study, and consisted of a one-item, seven-point scale anchored at "merely an acquaintance" and "so close to Chris that he cannot imagine life without her".
Measures for Dependent and Moderating Variables

The WOM construct was operationalized as (1) the likelihood to generate WOM (L-WOM); (2) the favorability of WOM generated (F-WOM); and (3) the likelihood to make a purchase recommendation (RECOMMEND). All items were adapted from Swan and Oliver (1989). Seven-point scales were used, and were recoded into -3 to +3 for ease of interpretation. A value of +3 indicated the most positive extreme, while a value of -3 indicated the most negative extreme.

Specifically, for L-WOM, subjects were asked if they thought Chris would talk to Jean/Josephine (strong vs. weak tie) about Telemobile. This variable was anchored at “definitely not”, and “definitely yes”. For F-WOM, assuming Chris would talk to Jean/Josephine, subjects were asked about the favorability of WOM generated about Telemobile, with the scale anchored at “mostly negative”, and “mostly positive”. For RECOMMEND, subjects were asked if Chris would recommend Jean/Josephine to subscribe to Telemobile. The scale was anchored at “definitely not subscribe”, and “definitely subscribe”. A 6-item scale for deal proneness was adapted from Lichtenstein, Netemeyer and Burton (1990) (see Table 4).
TABLE 4
MEASURES FOR DEAL PRONENESS

(1) Redeeming coupons and/or taking advantage of promotional deals make me feel good.

(2) When I use coupons and/or take advantage of promotional deals, I feel that I am getting a good deal.

(3) I enjoy using coupons and/or take advantage of promotional deals, regardless of the amount I can save from doing so.

(4) I am more likely to buy brands or patronise service firms that have promotional deals.

(5) Coupons and promotional deals have caused me to buy products and/or services I normally would not buy.

(6) Beyond the money I save, redeeming coupons and taking advantage of promotional deals give me a sense of joy.

Note: All items were measured using Likert-type scales ranging from '1'=Strongly Disagree to '7'=Strongly Agree.

DATA ANALYSIS

Manipulation Checks

Manipulation checks were carried out for the tie strength and satisfaction manipulations using a two-way analysis of variance (ANOVA). The ANOVA test results showed that all the intended manipulations were successful. The manipulation for satisfaction showed a significant main effect (F=1,003.0, p<0.001), and no other significant main or interaction effect was found. A further analysis of the cell means showed that when the subjects were presented with the dissatisfied condition, they rated the level of satisfaction lower (μ=2.34) than subjects who were given the satisfied (μ=5.36) and extremely satisfied (μ=6.19) conditions.
Similarly, the tie strength manipulation showed a significant main effect (F=770.45, p<0.001), and no other main or interaction effect reached significance. An examination of the cell means revealed that they were in the intended direction (i.e., for weak ties, μ=2.51, and for strong ties, μ=5.57). The ANOVA results suggest that the manipulations were successful.

**Reliability and Nomological Validity**

The multi-item scales used to measure satisfaction and deal proneness had Cronbach alpha values of 0.98 and 0.73, respectively. As such, the measures employed for this study displayed sufficient reliability.

In addition, the correlation coefficients between all variables were examined to explore nomological validity. Satisfaction was found to be positively correlated with the favorability of WOM generated (r=0.68, p<0.01), and with the likelihood to make a purchase recommendation (r=0.63, p<0.01). Furthermore, the favorability of WOM generated was found to be positively correlated with the likelihood of making a purchase recommendation (r=0.84, p<0.01). In sum, the correlations were as predicted by past research (Swan and Oliver 1989), supporting the nomological validity of the variables involved.

Potential order effects for the tie strength manipulation were examined. Three one-way ANOVAs showed that the order of presentation had no significant impact on the dependent variables: likelihood to generate WOM (F=0.27, p>0.1), favorability of WOM generated (F=0.02, p>0.1), and likelihood to make a purchase recommendation (F=0.02, p>0.1). These results show that the order of presentation of the tie strength manipulations had no impact on the dependent variables of interest.
Main and Interaction Effects on WOM

A four-way ANOVA, including all independent variables of the study was conducted. The independent variables were incentive, deal proneness, satisfaction and tie strength. For the deal proneness variable, the sample (N=430) had to be separated into two groups, i.e., low deal prone and high deal prone subjects, in order to test H2. A median split resulted in 4.51 being the separating point between the low and high deal prone groups. The “low deal prone” group had 228 cases, and the “high deal prone” group had 202 cases. Table 5 provides an overview of all significant main and interaction effects observed.

**TABLE 5**

**4-WAY ANOVA RESULTS FOR DEPENDENT MEASURES**

<table>
<thead>
<tr>
<th>Manipulations</th>
<th>Likelihood to Generate WOM (L-WOM)</th>
<th>Favorability of WOM (F-WOM)</th>
<th>Purchase Recommendation (RECOMMEND)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incentive (I)</td>
<td>F= 8.99 (confirms H1a) *</td>
<td>F= 11.10 (confirms H1b)</td>
<td>F= 13.55 (confirms H1c)</td>
</tr>
<tr>
<td>Deal Proneness (D)</td>
<td>F= 4.51</td>
<td>F= 1.05</td>
<td>F= 0.15</td>
</tr>
<tr>
<td>Satisfaction (S)</td>
<td>F= 1.91</td>
<td>F= 286.80</td>
<td>F= 218.56</td>
</tr>
<tr>
<td>Tie Strength (T)</td>
<td>F= 69.93</td>
<td>F= 3.90</td>
<td>F= 0.38</td>
</tr>
<tr>
<td><strong>Interaction Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I x D</td>
<td>F= 0.73 (rejects H2a)</td>
<td>F= 0.74 (rejects H2b)</td>
<td>F= 0.17 (rejects H2c)</td>
</tr>
<tr>
<td>S x I</td>
<td>F= 2.86</td>
<td>F= 1.88</td>
<td>F= 1.14</td>
</tr>
<tr>
<td>S x T</td>
<td>F= 0.41</td>
<td>F= 14.25 (confirms H3a)</td>
<td>F= 13.05 (confirms H3b)</td>
</tr>
<tr>
<td>S x I x D</td>
<td>F= 0.11</td>
<td>F= 2.51</td>
<td>F= 1.47</td>
</tr>
</tbody>
</table>

Note: Shaded cells represent the F-values that are significant at p<0.05. All significant interaction effects are presented in this table, and no other interaction effects reached significance.
* Cells that directly refer to a hypothesis advanced in this paper show the result of the hypothesis testing.
The subsequent sections provide the results of the hypothesis tests and further analysis of the findings shown in Table 5. The hypotheses testing is presented first, followed by other significant findings.

Hypothesis Testing

**Incentive Main Effect on WOM (H1).** There were significant main effects of incentive on the likelihood to generate WOM (F=8.99, p<0.001), the favorability of WOM generated (F=11.10, p<0.001), and the likelihood to make a purchase recommendation (F=13.55, p<0.001). As hypothesized, the likelihood to generate WOM (H1a), the favorability of WOM (H1b), and the likelihood of making a purchase recommendation (H1c) all increased with increasing incentives (see Table 6). These results supported H1a, H1b, and H1c.

**TABLE 6**

**MEANS OF INCENTIVE MANIPULATIONS**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>No Incentive</th>
<th>$25</th>
<th>$100</th>
<th>F ratio/ P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood to Generate WOM</td>
<td>1.28</td>
<td>1.51</td>
<td>1.92</td>
<td>F=8.99</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>Favorability of WOM</td>
<td>0.43</td>
<td>0.83</td>
<td>1.09</td>
<td>F=11.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>Purchase Recommendation</td>
<td>0.42</td>
<td>0.92</td>
<td>1.18</td>
<td>F=13.55</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>P&lt;0.001</td>
</tr>
</tbody>
</table>

Note: A value of +3 indicates the most positive extreme, while a value of –3 indicates the most negative extreme.

**Incentive/Deal Proneness Interaction on WOM (H2).** We hypothesized that deal proneness would act as a moderator in the incentive-WOM relationship. However, contrary expectations, none of the interaction effects between incentive and deal proneness reached significance. (F=0.73, p=0.48; F=0.74, p=0.48; F=0.17, p=0.85, for likelihood to generate WOM, favorability of WOM, and likelihood of making a purchase recommendation,
respectively). Since high deal prone subjects did not respond more favorably to the incentive manipulation than low deal prone subjects, H2a, H2b and H2c were rejected.

Satisfaction and Tie Strength on WOM (H3). As hypothesized, the interaction between satisfaction and tie strength had a significant impact on the favorability of WOM generated (F=10.41, p<0.001), and on the likelihood to make a purchase recommendation (F=11.42, p<0.001). These interaction effects are presented in Figures 1 a & b). From both figures, it can be seen that the WOM generated to strong ties is more extreme in its valence and follows the consumer satisfaction evaluations more closely than the WOM provided to weak ties. Specifically, when dissatisfied, consumers generated more negative WOM to strong tie relations than to weak ties (µ=-1.70 and µ=-0.61, respectively). Conversely, when extremely satisfied, the WOM generated to strong tie relations was more favorable than that to weak ties (µ=2.05 and µ=1.78, respectively; Figure 1 a). The results provided support for H3a.

Likewise, it can be seen from Figure 1 b) that when dissatisfied, consumers were more likely to make a recommendation not to purchase to strong tie relations than to weak ties (µ=-1.39, and µ=-0.46, respectively). When extremely satisfied, they were more likely to make a purchase recommendation to strong tie relations than to weak ties (µ=2.06, and µ=1.60, respectively). Thus, H3b was supported.
Other Findings

This section will be presented in the following order: a) deal proneness main effect; b) satisfaction main effect; c) satisfaction and incentive interaction; d) tie strength main effect; e) satisfaction, incentive and deal proneness interaction.

*Deal Proneness Main Effect. Our findings show that high deal prone consumers did not generate more favorable WOM (F=1.05, p=0.31), and were not more likely to make a purchase recommendation (F=0.15, p=0.70). However, the main effect for deal proneness on the likelihood to generate WOM reached significance (F=4.51, p<0.05) and suggested that high deal prone consumers generated more WOM (µ=1.70) than low deal prone consumers (µ=1.44). This finding, combined with the rejection of our hypotheses on the incentive/deal proneness effect (H2), suggests that deal prone consumers talk more about products or services anyway, without the need for incentives to motivate them to do so.

*Satisfaction Main Effect* Our findings showed that satisfaction alone did not necessarily lead to greater likelihood to generate WOM (F=1.91, p>0.05). However, there
were significant main effects for satisfaction on the favorability of WOM generated (F=286.80, p<0.001), and on the likelihood to make a purchase recommendation (F=218.56, p<0.001). The favorability of WOM increased with increasing levels of consumer satisfaction (µ=1.58 and µ=1.92 satisfied, and extremely satisfied conditions, respectively). A dissatisfied consumer on the other hand, would generate negative WOM (µ=-1.15). In addition, satisfied and extremely satisfied consumers were also more likely to make a purchase recommendation to others (µ=1.62 and µ=1.83 for satisfied and extremely satisfied conditions, respectively), while dissatisfied consumers were likely to recommend against a purchase (µ=-0.93). In conclusion, satisfaction alone did not increase the likelihood of WOM being generated. However, once WOM was initiated, satisfaction significantly determined the favorability of WOM generated, and the strength of a purchase recommendation.

*Satisfaction/Incentive Interaction on WOM* A further finding is the significant interaction effect between satisfaction and incentive on the likelihood to generate WOM (F=2.86, p<0.05). As discussed in the previous paragraph, satisfaction alone did not induce a consumer to generate WOM (F=1.91, n.s.). However, incentives were shown to be effective in inducing satisfied consumers to generate WOM. For extremely satisfied consumers, the WOM increased with increasing incentives (µ=1.20, µ=1.71, µ=2.16 for no, $25 and $100 incentive respectively). A similar pattern was found for satisfied consumers incentives (µ=1.11, µ=1.59, µ=2.14 for no, $25 and $100 incentive respectively).

Interestingly, dissatisfied consumers were less likely to talk to others about the service firm when offered a $25 (µ=1.21) or $100 incentive (µ=1.47), than when no incentive (µ=1.53) was offered. This finding showed that incentives reduced negative WOM. Finally, when no incentive was offered, dissatisfied and extremely satisfied consumers were more likely to generate WOM than a satisfied consumer (µ=1.53, µ=1.20, and µ=1.11,
respectively). This U-shape relationship between satisfaction and WOM replicated Anderson's (1998) findings. In summary, incentives were found to be effective in inducing satisfied consumers to engage in positive WOM, and in reducing negative WOM.

**FIGURE 2**

SATISFACTION AND INCENTIVE ON L-WOM

---

_Tie Strength Main Effect on WOM._ There was a significant main effect for tie strength on the likelihood to generate WOM ($F=69.93$, $p<0.001$). The likelihood to generate WOM was greater to strong tie relations than to weak tie relations ($\mu=2.09$ and $\mu=1.05$ for strong and weak ties, respectively). This finding is consistent with earlier work by Bone (1992), where the amount of WOM generated was higher in groups with many strong tie relations, compared to groups with many weak ties. A significant main effect of tie strength on the favorability of WOM was also found, but this relationship was qualified by the strong interaction effect between tie strength and satisfaction on the favorability of WOM, which was discussed in the section on hypothesis testing (H3).
Satisfaction, Incentive and Deal Proneness Interaction on WOM. A further finding arising from the analysis showed that when combined, satisfaction, incentives and deal proneness had a significant interaction effect on the favorability of WOM (F= 2.51, p<0.05). Figure 3 a) shows that an incentive increased the favorability of WOM by low deal prone satisfied consumers. High deal prone satisfied consumers, provided positive WOM independent of the availability of incentives. (see Figure 3 b).

**FIGURE 3 (A)**
SATISFACTION, INCENTIVE AND LOW DEAL PRONENESS ON F-WOM

**FIGURE 3 (B)**
SATISFACTION, INCENTIVE AND HIGH DEAL PRONENESS ON F-WOM

DISCUSSION, AND MANAGERIAL IMPLICATIONS

**Theoretical and Managerial Implications**

Incentives were found to be effective in managing WOM behavior. The likelihood of generating WOM, the favorability of the WOM generated, and the likelihood of making a purchase recommendation all increased with increasing incentives. This finding provided
support for H1. This study provided empirical evidence for monetary incentives being an effective tool to proactively manage WOM behavior.

We found that high deal prone consumers were more likely to generate WOM than low deal prone consumers. This could be because high deal prone consumers tend to buy more brands, and they switched brands more frequently (Webster 1965), so they may be more likely to exchange information on the latest products and deals. However, although previous research showed that deal prone consumers were more likely to take advantage of a deal (Hackleman and Duker 1980; Thaler 1983), the results for the hypothesized interaction effect between incentive and deal proneness did not reach significance. H2 was thus rejected. This could be due to the difference between buying and talking, i.e., the two behaviors have different moderators. It seems that deal prone consumers talk anyway about a product when an opportune moment arises, regardless of whether there is an incentive. Purchasing behavior on the other hand, may be more driven by whether the product is ‘on offer’ (Cotton and Babb 1978). Hence, deal prone consumers respond stronger than non-deal prone ones

When consumers were satisfied, the WOM generated was more positive and they were more likely to make a purchase recommendation, in line with Swan and Oliver's 1989 findings. However, satisfaction alone did not guarantee that consumers would generate WOM but giving an incentive would increase the likelihood of them generating WOM. Interestingly, an incentive also decreased the likelihood of WOM being generated by dissatisfied consumers. These results show that marketers need not be bound by the belief that consumer WOM cannot be proactively influenced and managed. What is more important is that marketers should focus on keeping their customers satisfied, so that incentives can then be used effectively to increase positive WOM.

Our findings show that tie strength affects WOM behavior. Consistent with Bone’s (1992) study, we found that consumers were more likely to generate WOM to strong tie
relations than to weak tie relations. Furthermore, we found that when dissatisfied, consumers spoke more negatively of the service firm to strong tie relations than to weak tie relations, supporting Richin’s (1987) results. We also found that there was a greater likelihood to make a recommendation against a purchase. Conversely, the WOM generated by satisfied and extremely satisfied consumers was more positive, to strong than to weak tie relations. These results supported H3, which advanced that communication to strong ties is more direct and follows the satisfaction level of the consumers more closely.

Based on our findings, high quality marketers could seek out current customers and target their family members and friends when designing incentive programs. For example, some mobile phone companies offer lower priced family subscription plans for mobile phone services, along the lines "get yourself the latest model, and give your current phone to your child".

In conclusion, satisfied customers are a necessary but not sufficient condition for getting positive WOM. Our study showed that incentives are an effective way to get satisfied customers to recommend a firm. Furthermore, incentive programs targeted at strong ties may be more effective than those targeted at weak ties.

**DIRECTIONS FOR FURTHER RESEARCH**

One of the main contributions of this study is testing the effectiveness of a monetary incentive in managing WOM behavior. In practice, many firms use gifts, discounts, or credits to encourage their customers to recommend their offers to family members or friends. Future studies can examine the relative effectiveness of non-monetary incentives, such as credit and gifts. A better understanding of the relative effective of different types of incentives would be important, as they carry different costs to the firm.
We found that consumers were usually more open in expressing their feelings to strong tie relations than to weak tie relations. Future research can also test how the Internet as a medium of communication, affects the tie strength-WOM relationship. On the Internet, one tends to come into contact with more people of weak ties. Constant, Sproull and Kiesler (1996) conducted research in an organization and found that weak ties helped solve technical problems and had superior resources to do so, through the computer network. Thus, weak ties could become the main source of WOM rather than strong ties, with the Internet as a medium. In addition, Sussman and Sproull (1999) found that computer-mediated communication increased honesty and accuracy in delivering negative information. If a lot of Internet WOM takes place between weak ties, this could be contrary to our findings that consumers are more open to strong ties. Future research is needed to understand how the Internet our understanding of WOM behavior.

Finally, for external validity, the findings could be validated through the use of a different methodology, like in field experiments, where real-life and real-time WOM exchanges are observed. In-depth personal interviews rather than projective role-plays could then be used.
BIBLIOGRAPHY


________________________, Patterson, P. G., and Walker, R. H (1998), Services Marketing – Australia and New Zealand, Prentice Hall


