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The role of social ties in word-of-mouth effectiveness: a segmentation approach

Abstract

This article develops consumer segmentation based on the strength of social ties in word-of-mouth (WOM) communication and examines the influence of WOM on behavioral attitude and intention in these segments. Data were collected through a survey among receivers of retail banking WOM. A cluster analysis identifies four WOM receiver segments based on the tie strength between the sender and the receiver, and the cluster solution is successfully validated. Each segment shows distinct patterns of tie strength and influence on the receiver's perception of WOM, behavioral attitude and intention. Moreover, the WOM influence is examined for customers as well as non-customers.

Keywords: consumer behavior, word-of-mouth, social ties, effectiveness, segmentation.

JEL Classification: M31.

Introduction

The growing influence of word-of-mouth (WOM) communication has been demonstrated through ample research (Allsop et al., 2007; Bruyen and Lilien, 2008; Prendergast et al., 2010). Recent empirical findings indicate that WOM referrals have longer carryover effects than traditional marketing actions and produce higher response elasticities (Trusov et al., 2009).

Several studies suggest that the WOM effectiveness depends on the social sender-receiver relationship (Sweeney et al., 2008). However, most of these studies do not consider the important question on *how* different social ties influence the perception and impact of WOM (Sweeney et al., 2008). Very little is known about which interpersonal ties are more likely to be activated for the WOM communication and which activated ties are more likely to influence consumers' decision making (Brown et al., 2007; Brown and Reingen, 1987; Goldenberg et al., 2001; Yale and Gilly, 2005). This article addresses the lack of research on how WOM dissemination and effectiveness depend on the social tie between the sender and receiver.

Network sociology can contribute to the understanding of the influence of WOM. All people belong to multiple social networks, and the size and structure of these social networks vary by product category (Allsop et al., 2007). The social relation can be characterized by the strength of tie, e.g., close friend or acquaintance (Brown and Reingen, 1987; Granovetter, 1973, 1983).

Consumer segmentation is a well-known marketing tool for developing market segments and targeting. Traditionally, bases for segmentation of consumer markets can be geographic, demographic, psychological (e.g., needs, involvement and attitudes),

psychographic (e.g., lifestyle) and behavioral (e.g., usage and brand loyalty) criteria. Segmentation is important in market positioning and planning. We suggest that new segmentation criteria based on the strength of social ties can contribute to the understanding of consumers and how to reach them through WOM marketing.

To our knowledge, no study in marketing literature has placed focus on how the strength of ties in WOM communication can serve as segmentation criteria and how such segments will differ according to consumers' behavioral attitude and intention.

The purpose of this article is twofold: First, to demonstrate the relevance of tie strength in a WOM relation as segmentation criteria for a company using the largest Danish retail bank as case study. Second, to study how the receiver's perception of WOM (positive as well as negative) differs depending on the strength of the tie to the sender, and how the WOM source affects the influence of WOM on behavioral attitude and purchase intention.

This research represents a step towards a more profound understanding of the consumer decision-making process and the role of social ties in WOM effectiveness. The segmentation approach is valuable for the marketers to identify WOM receiver segments that are relevant in their business. This study provides insight into how the proposed WOM receiver segmentation may improve targeting WOM marketing efforts.

1. Theoretical background

1.1. Types of WOM. WOM can be positive (PWOM) or negative (NWOM). PWOM encourages brand choice and is expected to impact consumer responses positively (Anderson, 1998; Bruyn and Lilien, 2008), while NWOM discourages brand choice and is expected to have a negative impact (Anderson, 1998; Gildin, 2002). Most research seems to indicate that NWOM is more powerful

than PWOM (East et al., 2007; Fiske, 1980) even when the amount of PWOM exceeds the amount of NWOM (East et al., 2007; Keller, 2007; Mittal and Lassar, 1998; Peterson et al., 1992).

It is possible to make a distinction between actively sought WOM and passively received WOM. Passive informal information exchange tends to occur unsolicited in everyday conversation according to both Arndt (1967) and Bone (1995); however, receivers often initiate product conversations by asking senders for information (Arndt, 1967). Actively sought WOM can be seen as a process of deliberately searching and attaining information. Several studies (e.g., Bansal and Voyer, 2000; Brown and Reingen, 1987; East et al., 2005; Kempf, 2011; Mangold et al., 1999) find that sought WOM has greater impact on the receiver's decision making than unsought WOM.

1.2. Types of social ties. WOM communication takes place in a social relationship that can be characterized by the strength of the tie between the information receiver and the sender indicated by closeness, intimacy, support and association (Bansal and Voyer, 2000; Frenzen and Davis, 1990; Kirby and Marsden, 2006). A social tie can be either weak or strong. Weak ties typically include acquaintance and relationships with strangers and have the advantage of not being limited to the receiver's social network. Chances of finding useful information about a product from weak-tie sources are thus increased if some of the weak-tie persons possess a greater expertise. WOM from experts who are knowledgeable with respect to a particular product or service may be more influential than WOM from non-experts because such information is perceived to be more diagnostic of actual performance according to the availability-diagnosticity theory (Bone, 1995).

Strong ties include family and friendship relationships (Granovetter, 1973, 1983). Usually, strong ties are more readily available and result in frequent interpersonal information flow where the consumer is actively involved in WOM, and where transfer of information may arise (Brown and Reingen, 1987; Granovetter, 1973, 1983; Reingen and Kernan, 1986). This is also supported by Bone (1995), who points out that WOM generally occurs more in groups with strong relations compared to groups with weak relations. The argument is that information obtained from strong-tie sources is more reliable and trustworthy than impersonal information or information from superficial acquaintances (Kirby and Marsden, 2006). Moreover, people in a strong-tie relation will often know much more about each other and each other's preferences than those in a weak-tie relation. Strong ties are able to provide customized

information (Duhan et al., 1997) which may facilitate an active information search among consumers in strong-tie relations. Keller (2007) states that a testimonial from a family member or a friend often is a response to a question, which often makes the receiver pay more attention to it, as it is perceived as more relevant and a more complete form of communication.

Attribution theory explains why WOM coming from a trustworthy sender has high impact on the receiver. According to Hilton et al. (1995), attribution theory provides the receiver of WOM with an understanding of the sender's motives for communicating the specific WOM information. This theory owes its origins to Heider (1958) and is concerned with the way in which a person attributes the behavior of others to his/her own behavior. The desire to understand why a person actually behaves the way he/she does is natural to people. The tentative answers (causal attributions) that the receiver ends up with will influence the receiver's relation to the sender, and the receiver will decide whether he/she will find the sender's motives interesting. If the sender's motives are perceived as favorable to the receiver, the receiver is likely to respond favorably. Otherwise, the receiver may turn down the sender's information. Hilton et al. (1995) assume that the receiver's perception of the sender influences the receiver's subsequent interpretation of the message. Thus, according to attribution theory, it is the receiver's perception of the sender's trustworthiness that establishes acceptance. If the sender truly believes in what she/he is communicating, the sender is more likely to be perceived as a reliable and trustworthy person, and the receiver will accept the information as being independent and objective (Laczniak et al., 2001).

Receivers of WOM who are searching for recommendations will have different motives for using strong-tie sources and weak-tie sources. Brown and Reingen (1987) find that receivers often turn to weak-tie experts for active information search; they initiate a conversation with experts to obtain information. On the other hand, information and recommendations through strong ties will often have a greater impact and influence on the receivers' decision-making process. Findings by Brown and Reingen (1987) thus indicate that receivers evaluate strong ties as crucial and more important to the flow of influence than those perceived as weak ties. This is supported by Bone (1995), Frenzen and Nakamoto (1993) and Reingen and Kernan (1986). Brown and Reingen (1987) conclude that WOM through strong ties have greater impact on the receiver's behavior than WOM through weak ties. Duhan et al. (1997) also supports the proposition by Brown and Reingen (1987) that

receivers choose different sources for different purposes, and that these sources seem to have a different impact on the receiver.

2. Methodology

2.1. Data collection. The largest retail bank in Denmark, Danske Bank, is used as a case study. Data was obtained from a national online panel comprising 35,000 members. The panel members have completed registration forms with approximately 70 basic demographic, psychological and sociographic background variables used for representative sampling. We selected a stratified sample of 1,972 individuals between 18 and 60 years of age from this online panel and sent an e-mail invitation to each potential respondent containing an embedded URL link to the survey website. In total, 1,112 panel members responded and a representative sample was obtained. This is a 56% response rate of the invited panelists, which is in the upper part of the normal range of response rates in online surveys (Manfreda et al., 2008). The questionnaire started with screening questions to ensure that the respondents were aware of Danske Bank and had received PWOM or NWOM about the bank. On the basis of these screening questions, we received 500 usable completed questionnaires from both customers and non-customers.

The questionnaire includes 27 survey items (listed in the Appendix) about the consumers' perception of PWOM and NWOM, whether they actively search for WOM and use this information in their decision making, behavioral attitude and intention regarding Danske Bank.

2.2. Measures. A central component in this study is the strength of the social tie in WOM communication. Tie strength is measured by single items for the present study's consumer segmentation approach. The items are developed to capture WOM in the consumers' information search phase and information use phase for choosing bank. In both phases, items are developed to measure three types of social ties: (1) strong ties, (2) weak ties, and (3) experts (cf. section 1.2).

The other four constructs are measured by multiple items based on existing, well-recognized scales in

the literature. To measure PWOM and NWOM, the scales developed by Bansal and Voyer (2000) and Murray and Schlacter (1990) are used. The behavioral attitude scale used for this study is adapted from Martensen et al. (2007) and Spears and Singh (2004). The measurement of behavioral intention is based on Martensen et al. (2007) and Putrevu and Lord (1994).

Martensen and Mouritsen (2014) have analyzed how consumers' talk about advertising messages and WOM influence consumers' responses. They use the same measures of PWOM, NWOM, behavioral attitude and intention based on the same retail bank data as in the present study, and they report satisfactory reliability and validity results for these four constructs and the corresponding items (Martensen and Mouritsen, 2014, p. 63 and 68-69).

2.3. Analytical approach. The purpose is to segment receivers of WOM on the basis of whom they actively search information from in terms of products, attributes, prices, etc. and the extent to which the sender influences the receiver's behavioral attitude and intention regarding the bank. The senders are characterized by their relationship to the receiver (i.e., strong-ties, weak-ties or experts) based on the respondents' (receivers') responses to item Q1-Q6. The method that enables us to address our research purpose is a cluster analysis, and we use the SPSS two-step cluster analysis procedure, which provides automatic selection of the best numbers of clusters (SPSS, 2010, p. 162). The profiling of the segments and the interpretations are performed on the basis of an assessment of segment means, and the primary focus is what differentiates the segments from each other. One-way between-groups analysis of variance (ANOVA) and Tukey's test for multiple comparisons are applied for this segment profiling.

3. The clustering variables

The mean response for WOM receivers' information search (Q1-Q3) and use (Q4-Q6) for each of the three types of social relationship is shown in Table 1. For all items, the responses are transformed from the original seven-point scale to a 0-100 (low-high) scale.

Table 1. WOM from three sources according to tie strength

	Index (mean response)	Standard deviation	Number of respondents
Information search			
Strong ties (Q1)	54	33	474
Weak ties (Q2)	46	33	470
Experts (Q3)	51	33	456
Information use			
Strong ties (Q4)	50	35	481
Weak ties (Q5)	40	32	475
Experts (Q6)	49	32	465

The data indicates that WOM is actively sought from all three sources, however, primarily from strong-tie people, secondarily from experts and tertiary from weak-tie people (see Table 1). Paired t-tests show that all the differences between the indexes (mean responses) of the three WOM sources are significant (Q1 vs. Q2, $p < 0.001$; Q1 vs. Q3, $p = 0.05$; Q2 vs. Q3, $p = 0.003$). It is worth noticing the level for information search. On average, more than one in two people actively searches information from experts, families or friends. This confirms that many people actively search WOM information.

When a consumer is exposed to WOM on the basis of his/her own search, he/she begins to process the information. An obvious question is how the obtained information is used, i.e., whether the sender's opinion influences the receiver's decision making. Both strong-tie and expert opinions influence the receiver, but weak-tie opinions have significantly less influence (Q4 vs. Q5, $p < 0.001$; Q5 vs. Q6, $p < 0.001$). Furthermore, we find it interesting that the influence from experts is as high as the influence from strong-tie people (Q4 vs. Q6, $p = 0.345$). On average, one in two receivers are affected by these two sources, while only four out of ten are influenced by weak-tie people, such as acquaintances, neighbors and colleagues.

There is a strong relationship between information search about banks and the influence on the choice of bank within the three WOM sources. The finding is quite clear; if a receiver turns to a sender for information, the receiver will use this information

when choosing a bank. All three relationships between WOM source and self-reported influence (Q1 and Q4; Q2 and Q5; Q3 and Q6) are strongly significant on the bases of the correlation coefficients ($p < 0.001$). This is also expected, as we are examining active information search, where the receivers individually select the sources they want information from.

4. Cluster analysis results

A two-step cluster analysis procedure was conducted, and both the Bayesian Information Criterion (BIC) and the Akaike Information Criterion (AIC) point to four segments as the best solution (SPSS, 2010, p. 164). On the basis of a number of initial cross-tabulations, the four-segment solution seems very applicable as several significant differences between the segments appear. Each of the four segments consists of 19-34% of the respondents, which indicates that the four segments are of a substantial size.

Table 2 is used for the profiling of each of the four segments, and the index (mean response) for each of the six clustering variables is shown for the four segments. The higher the index, the greater importance is attached to the specific source of sender. Six one-way analyses of variance (ANOVAs) show strongly significant differences between the four segment indexes across the six survey items (all $p < 0.001$). This means that there are significant differences between the segments in view of the research question.

Table 2. Cluster analysis results: Segment profiles on the clustering variables

	Segment 1 <i>n</i> = 107 24%	Segment 2 <i>n</i> = 150 34%	Segment 3 <i>n</i> = 82 19%	Segment 4 <i>n</i> = 100 23%	Entire sample <i>n</i> = 439 100%
Index					
Information search					
Strong ties (Q1)	25	61	35	85	53
Weak ties (Q2)	25	49	21	80	45
Experts (Q3)	27	38	82	72	51
Information use					
Strong ties (Q4)	11	63	29	85	49
Weak ties (Q5)	8	52	14	73	39
Experts (Q6)	13	45	80	72	50

5. Interpretation and discussion of the segments

The two-step cluster analysis identifies four WOM receiver segments based on the tie strength to the sender and the indexes in Table 2 can be used to name the segments: Light WOMers, mainly strong-tie WOMers, mainly expert WOMers and heavy WOMers. Each segment shows distinct patterns in terms of which sender sources are searched and used (see Table 2). WOM from different sources also seems to influence the segments' behavioral attitude and

intention to choose bank when looking on indexes of these variables for each segment (see Table 3). Four composite variables (PWOM, NWOM, behavioral attitude and intention) are created by averaging the corresponding measurement variables, i.e. items (see Table 3 and Appendix). The segment profiling is supplemented with these composite variables, which support the distinctiveness of the segments and make their interpretation easier. The four segments are described in the following sections.

Table 3. Cluster analysis results: Segment profiles on PWOM, NWOM, behavioral attitude and intention

	Segment 1 n = 107 24%	Segment 2 n = 150 34%	Segment 3 n = 82 19%	Segment 4 n = 100 23%	Entire sample n = 439 100%
Index					
PWOM (Q7-Q12)	26	36	36	48	37
NWOM (Q13-Q18)	41	48	36	47	44
Behavioral attitude (Q19-Q23)	31	34	43	41	37
Behavioral intention (Q24-Q27)	27	36	47	45	38

5.1. Segment 1: Light WOMers. The light WOMers are not particularly interested in WOM, regardless of the source of sender. One source is not sought more than any other source for WOM and one source is not used and has greater influence than others. Compared to the three other segments, segment 1 scores significantly lower on all items in relation to PWOM (see Table 3). On average, approximately every third or fourth person has been told something positive about the bank. However, this segment receives significantly more NWOM than PWOM – on average, four out of ten are told something negative about the bank (index 41), while on average every fourth person hears something positive (index 26). This segment has a significantly lower behavioral attitude and intention when choosing bank (see Table 3).

5.2. Segment 2: Mainly strong-tie WOMers. This segment is mainly based on strong ties, and the receivers are heavily influenced by these in their interpretation of PWOM and NWOM. This segment hears the most NWOM. Perhaps the heavy influence of NWOM explains that strong-tie senders do not influence the receiver’s behavioral attitude and intention when he/she is choosing bank – this segment has the lowest behavioral attitude and intention index. This very active WOM segment primarily searches for WOM from strong-tie people (index 61), secondarily from weak-tie people (index 49), and tertiary from experts (index 38). Segment 2 is highly affected by the information and makes use of this information when choosing a bank.

Segment 2 receives significantly more NWOM than PWOM – almost one in two hears something negative whereas only one in three hears something positive (index 48 vs. 36). The average level of PWOM in segment 2 equals the average level of PWOM in the total sample (index 36 vs. total index 37), whereas this segment has the highest level of NWOM of all four segments (index 48). This segment rests highly on WOM from strong-tie people, and since these are regarded as trustworthy, it may have significant consequences for the bank. If the bank wishes to approach this segment, its marketing activities should be directed towards the non-experts, providing them with arguments that reduce the negative and unfavorable comments and reinforce the positive comments.

5.3. Segment 3: Mainly expert WOMers. This segment is mainly based on WOM from experts, and it differs from segment 2 in the way that persons only receive NWOM to a very small extent. At the same time this segment has the highest positive behavioral attitude and intention scores among all four segments. Segment 3 is very active in searching WOM, but primarily from experts who are contacted and in this way influence the receiver. This is the case for eight out of ten persons (index 82 and 80, respectively). The experts’ influence is significantly higher than both strong-tie and weak-tie senders. It is also worth noticing that strong-tie people are sought significantly more and have a significantly higher influence than weak-tie people. Experts can be used as a lever if the bank wants to approach this segment, since the segment turns – and also listens to this source for WOM. This opens up to a clear and unambiguous marketing strategy directed toward this segment, since only one source needs to be in focus.

Segment 3 receives significantly less PWOM and NWOM than any of the other three segments – only one in three people hears something positive or negative (both indexes are 36). The average level of PWOM corresponds to the average in the total sample (index 36 vs. total index 37) and this is equal to the level of segment 2, which mainly uses strong-tie WOM sources. Experts thereby promote as much PWOM as strong-tie people. It is interesting that segment 3 has the lowest level of NWOM between all four segments (index 36), which means that experts are far more reluctant to give negative information about the bank than both strong-tie and weak-tie people. This is an advantage for the marketers since experts are often a smaller and more specific target segment than the two other sources, which opens up for more targeted communication. Segment 3 has the highest behavioral attitude and intention score of all four segments (index 43 and 47, respectively). WOM from experts thus has an extraordinarily positive impact on the receiver’s behavioral attitude and intention, which marketers ought to make the most of.

5.4. Segment 4: Heavy WOMers. The heavy WOMers are very active in searching information from all sources, and all sources have high impact on the receiver’s choice and perception of WOM.

This segment receives the most PWOM of all segments, but it also receives just as much NWOM as PWOM. The behavioral attitude and intention score for the segment of heavy WOMers is almost as high as that of segment 3 (mainly expert WOMers), which also support the importance of targeting experts in WOM marketing campaigns.

Segment 4 requests a lot of information. The people in this segment contact all sources, listen to all kinds of advice and use it in their decision making. Strong-tie senders have significantly greater influence than both weak-tie senders and experts (both $p < 0.001$). Yet the influence from experts does not differ significantly from the influence from weak-tie senders ($p = 0.72$). Interestingly, when a high degree of information is sought from all sources a significant positive synergy effect is generated. When all sources are in use (segment 4) the index of PWOM is 48, compared to 36 for the strong-tie segment (segment 2) as well as for the expert segment (segment 3). Segment 4 has the second highest behavioral attitude and intention scores among all four segments (index 41 and 45, respectively).

6. Comparing customers and non-customers

The data can be used to compare customers' and non-customers' answers to the survey items. Both

customers and non-customers search and use information through social networks with all three types of tie strength. The indexes of the six tie-strength variables are at the same level among customers and non-customers (see Table 4), and the index differences are not significant (two-group t-test for equality of means, all $p > 0.18$). It can be argued that customers search and use information to a lesser extent than non-customers, but our data does not support this hypothesis. This may be due to the fact that we in this study investigate the consumers' choice of bank, which often is perceived as a complex decision (Lee and Marlowe, 2003). Complexity relates to how difficult it is to transform information into knowledge in a decision-making process (Hansen and Thomsen, 2008). When it comes to choosing a bank, several concrete and abstract attributes need to be evaluated, which can be a difficult process. When facing a complex decision situation, WOM can be used to simplify the information search and decision-making process. Here, consumers may rely on WOM as a cue for evaluating and choosing a product (Duhan et al., 1997), and therefore traditional information search may be limited in complex decision contexts, and consumers may be likely to search and rely on more easily processed cues such as WOM.

Table 4. Searching and using information, WOM, behavioral attitude and intention for customers and non-customers

	Customers	Non-customers	Difference
Index			
Information search			
Strong ties	55	54	1
Weak ties	44	47	-3
Experts	52	50	2
Information use			
Strong ties	51	49	2
Weak ties	38	40	-2
Experts	51	49	2
PWOM	47	30	17
NWOM	34	50	-16
Behavioral attitude	68	23	45
Behavioral intention	67	21	46

The sum of the PWOM and NWOM indexes is at the same level for customers and non-customers (see Table 4). However, for customers PWOM is one-third larger than NWOM, and for non-customers NWOM is two-thirds larger than PWOM. In other words, customers are more susceptible toward PWOM and use it as a confirmation of bank choice, while the non-customers receive significantly more NWOM than PWOM about the bank.

Also, as expected, the behavioral attitude and intention are notably more expressive among customers than non-customers (see Table 4).

It is reasonable to assume that the receiver of WOM deals with positive and negative messages differently and that an asymmetric effect of PWOM and NWOM exists. But there are contradictory findings on this asymmetry. East et al. (2008, p. 221) state that "it is our understanding that both academic and practitioner marketers believe that NWOM has more impact on brand purchase than PWOM. Our evidence indicates that this belief is a mistake." Are the reasons to these contradictory findings, that PWOM and NWOM exert impact differently among customers and non-customers? To address this issue, we have conducted a regression analysis with

behavioral intention as a dependent variable and PWOM and NWOM as independent variables for customers as well as non-customers (see Table 5).

Table 5. Regression analysis results: The impact of PWOM and NWOM on behavioral intention for customers and non-customers

Independent variable	Customers Standardized coefficient	Non-customers Standardized coefficient
PWOM	0.636 (8.82)*	0.653 (13.49)*
NWOM	-0.313 (-4.33)*	-0.256 (-5.30)*
	$R^2 = 0.548$ $F(2.88) = 53.35^*$	$R^2 = 0.601$ $F(2.190) = 143.39^*$

Note: t-values associated with each coefficient are in parentheses. * $p < 0.001$ (one-tailed).

PWOM as well as NWOM has strongly significant impact on behavioral intention in the expected direction, i.e., PWOM has positive impact, and NWOM has negative impact (see Table 5). PWOM and NWOM influence the behavioral intention in roughly the same way for customers and non-customers. For customers, the impact of PWOM is twice as strong as NWOM, and for non-customers it is even more. However, no single study can provide conclusive evidence, but our analysis supports East et al.'s (2008) evidence mentioned above.

Similar regression analyses are conducted with behavioral attitude as the dependent variable, and the results are pointing in the same direction as the analyses with behavioral intention as the dependent variable. In addition, our data shows a strong relationship between behavioral attitude and behavioral intention for both customers and non-customers ($r = 0.906$ and $r = 0.874$, respectively, both $p < 0.001$).

Conclusively, our study shows that customers and non-customers receive a somehow equal amount of WOM. However, customers receive more PWOM than NWOM, and since PWOM have a stronger effect than NWOM, the customer relationship also gets stronger. On the other hand, the attraction of non-customers is modest, as non-customers receive more NWOM than PWOM.

Schumann et al. (2010) emphasize the strong positive impact of received PWOM among existing customers in their study, which is based on 1,910 bank customers in 11 countries.

7. Managerial implications

The findings of this study suggest that consumers can be segmented on the basis of whom they talk to and actively search information from. This WOM receiver segmentation can be a useful basis for a practical WOM marketing strategy, focusing on generating WOM, which is a critical and rising element in marketing strategy.

Advertising is also used socially (Mitchell et al., 2007), and in this way conversations on advertising message content and presentation generate WOM (Graham and Havlena, 2007; Libai et al., 2011).

When it comes to choosing a bank, WOM sought from experts has a higher influence on the receiver's behavioral attitude and intention than WOM sought through strong or weak ties. Marketing communication plans could thus be more effective if they are developed to promote recommendations from this source of sender, and if communication channels with a particular relevance for experts are used as well. Furthermore, experts mainly promote PWOM, which makes the communication easier. The experts should be provided with the 'right' positive arguments to use in relation to the WOM receivers.

People in strong-tie relationships create a lot of WOM, but unfortunately they seem to promote more NWOM than PWOM. To encourage more PWOM and less NWOM from strong-tie people, advertising messages should be developed to stimulate and provide content for PWOM. Marketers should investigate which aspects consumers feel worthy of discussing and which are evaluated positively, and then use this in the marketing-generated consumer-to-consumer communication. Alternatively, they need to find out what negative aspects consumers communicate to others and then try to reduce or eliminate them.

The segmentation solution is profiled both on the clustering variables (Q1-Q6), PWOM, NWOM, behavioral attitude and intention (Q7-Q27). Moreover, it is possible to supplement the profiling of the segments on additional variables, as information based on selected demographic, psychological and sociographic variables are also present as mentioned above. In this way a more nuanced profiling of the segments can be achieved.

For practical applications it is obvious to supplement with relevant data, for instance media exposure data, attitudinal and lifestyle data, and product and brand usage. This type of market research would lead to improved segment profiling, and in this way also to greater segment accessibility. The various types of WOM receivers should be addressed in different ways, and with more segment insight, a highly differentiated advertising and WOM marketing strategy is possible.

The comparative analysis of customers and non-customers also gives rise to managerial implications. It is well known that PWOM is a tool for customer acquisition. Our findings demonstrate that PWOM have a strong effect on customers' behavioral attitude and intention. Received PWOM influences customers positively and therefore PWOM is also an important tool for marketing

managers to increase customer retention. This implication is also emphasized in other studies (Schumann et al., 2010; Wangenberg and Bayón, 2004). This means that marketing communications and other marketing actions should be planned and implemented in a way that they also generates PWOM among existing customers, especially on markets where WOM is highly influential.

Conclusions

Contributions to the field

This article contributes to the WOM literature and empirical evidence in three areas. First, segmentation is not a new technique; what is new is that segmentation is based on the strength of the social tie in WOM communication. Second, this study has identified unique and distinctive segments, which are meaningful both in theoretical basis and practical significance. It is also meaningful to look at experts as separate WOM sources and use the tri-partition: strong-tie source, weak-tie source and experts. Third, the article contributes specific knowledge on how social ties differ based on the type of WOM they promote.

To systematically generate WOM as a promotional tool, our findings provide useful insights for marketers.

Limitations and directions for further research

We acknowledge that our findings are limited to a single bank in the retail banking market in Denmark. WOM does hardly have an equal influence on all types of products and industries; there may be considerable variation between products and industries (East et al., 2005). Our

expectation is that the segmentation criteria regarding WOM information search and use are of such a general nature that they can be used for other products and industries as well. However, the segments will presumably vary and have different interpretations.

Further validation using other products, industries, and countries (including cultural conditions) is encouraged to assess the generalizability of the findings of this study.

In this study we have focused on actively sought WOM, but it would also be interesting to explore passively received WOM; is the influence of social tie different if the exchange of product information and recommendations etc. take place by chance in a consumer-to-consumer conversation? Perhaps strong ties will play a decisive role compared to weak ties, and the experts have less influence.

It is expected that consumers increasingly will use WOM in their choice of products and services (Keller, 2007; Keller and Fay, 2012), especially online or electronic WOM in today's digital world (Prendergast et al., 2010). But what does this increasing use of WOM mean to consumers' buying decision process? And, do face-to-face and electronic WOM have different influence on consumers' responses?

We hope that future research will pursue these and other important questions to understand more fully the influence of social ties on WOM effectiveness.

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Appendix. Survey items

Tie strength

To what extent do you agree or disagree that you often search information about products, attributes, prices etc. before choosing a bank from the following persons:

- Q1 Families and close friends
- Q2 Other people (acquaintances, neighbors, colleagues, etc.)
- Q3 Experts

To what extent do you agree or disagree that the following persons' opinions influence your choice of bank:

- Q4 Families and close friends
- Q5 Other people (acquaintances, neighbors, colleagues, etc.)
- Q6 Experts

PWOM

To what extent do you agree or disagree that other people tell you *positive* things about this bank which...

- Q7 ... I have not thought about before
- Q8 ... influence my opinion about this bank in a positive way
- Q9 ... help me make a decision about choosing this bank
- Q10 ... show me, that they are proud of having chosen this bank
- Q11 To what extent do you agree or disagree that other people recommend you to choose this bank
- Q12 To what extent do you agree or disagree that other people only have good things to tell you about this bank

NWOM

To what extent do you agree or disagree that other people tell you *negative* things about this bank which...

- Q13 ... I have not thought about it before
- Q14 ... influence my opinion about this bank in a negative way
- Q15 ... help me make a decision about not choosing this bank
- Q16 ... show me that they would never consider choosing this bank
- Q17 To what extent do you agree or disagree that other people will dissuade you from choosing this bank
- Q18 To what extent do you agree or disagree that other people only have bad things to tell you about this bank

Behavioral attitude

- Q19 I have a positive attitude toward choosing this bank
- Q20 This bank is a good choice for me
- Q21 This bank fulfills my needs
- Q22 This bank is my preferred brand among banks
- Q23 I like this bank

Behavioral intention

- Q24 This bank will be worth considering next time I have to choose a bank
- Q25 I will choose this bank next time I need a bank
- Q26 I will recommend this bank to others
- Q27 If you had to choose a bank today, how likely is it that it will be this bank?

Note: All survey items are rated on a seven-point scale from 'strongly disagree' to 'strongly agree' (Q1-Q26) or from 'very unlikely' to 'very likely' (Q27).