

*Full Length Research Paper*

# Talk to me: A preliminary study of the effect of interaction with a spokes-character

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**This paper examines one type of marketing practice that has a strong positive effect in traditional media and a growing internet presence; the spokes-character. In this study, we tried to understand the effect of using an interactive spokes-character in communications with potential customers. The conceptual model of Garretson and Niedrich (2004) was used to develop an experiment to examine how the spokes-character affect consumer's attitude toward brand. The results of the study indicated that the Garretson and Niedrich model explained the effect of spokes-character in a traditional setting. But when the spokes-character was used as the interactive agent, the model was inadequate in explaining the effect of the spokes-character. Therefore, we have concluded that a new theoretical framework might be needed to explain the effect of those interactive spokes-characters to the company or their products.**

**Key words:** Spokes-characters, interactive agent, internet marketing.

## INTRODUCTION: INTERACTION WITH THE SPOKES-CHARACTERS

The global commercial expansion of the internet provides marketers with an excellent platform to practice new ways of communicating with their target customers. Therefore, the internet as a novel and viable advertising medium has forced marketing researchers to rethink their traditional models of marketing communication and persuasion. Among those traditional marketing practices, one that has great potential on the internet is the spokes-character. Spokes-characters are animate beings or animated objects that are used to promote a product, service, or idea (Phillips and Lee, 2005; Brown et al., 2010).

For more than a century, marketers and advertisers have utilized spokes-characters, such as Ronald McDonald or the Colonel from KFC, in promotional campaigns and on product packaging (Callcott and Lee, 1995). Seven to eleven convenience stores use OPEN-JIANG and Mr. Black Cat as spokes-characters to interact with their customers on the company website and microblog in Taiwan. Companies have successfully

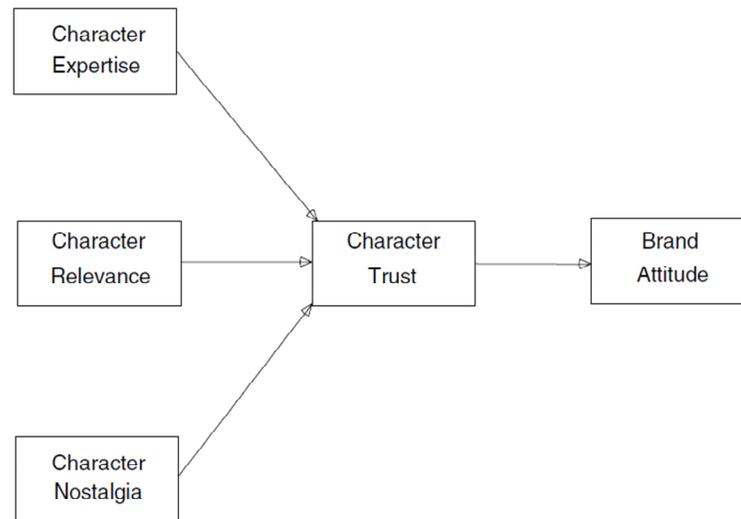
adapted their spokes-characters over time for use in different media such as radio and television. When companies embrace the internet, they also move their spokes-characters to the web.

Previous studies have shown that most of the companies are indeed using their traditional spokes-characters on the internet. Most often, the spokes-characters appear static and silent on their website. Some companies provided limited interactivity by allowing the viewer to start the animation with a click or roll-over, or by using the character as a hyperlink (Pashupati, 2008). More complex forms of interaction, such as a game with their spokes-characters and opportunities to e-mail them were seen more often at sites targeted toward children, such as Open City on the Facebook.

Companies have long interacted with their customers on the internet through e-mail, forums, blogs, Facebook, or instant messengers such as MSN (Kim, 2008). Exploratory research indicated that consumers like spokes-characters and even expressed their trust and respect for these virtual characters (Callcott and Phillips, 1996), even though they obviously know the characters are not real. Some customers even treat these virtual characters as if they are other human beings.

Therefore, an interesting research topic has emerged: Instead of interacting with the company or their

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**Figure 1.** The conceptual model of Garretson and Niedrich.

executives, will the customers allow the virtual spokes-character to do the same thing for them? Can the spokes-character be the representative of the company or their product and interact with the customers on the internet? In this paper, a preliminary study was conducted to explore this possibility and its effects on consumer response.

### Using spokes-characters in marketing

A significant portion of research concerning the use of spokes-characters has explored the attitude-related consequences of featuring characters with brands. Within traditional media, spokes-characters have been studied as formal advertisement features that successfully build an emotional connection between the consumer and the brand (Callcott and Phillips, 1996; Phillips, 1996; Chang, 2010); that is, a spokes-character's primary contribution is likability, which positively influences attitude toward the brand. In turn, spokes-character likability can increase purchase intention (Callcott and Alvey, 1991; Callcott and Phillips, 1996; Stewart and Furse, 1986).

In order to explore the relationship between the use of the spokes-character and the response of customers, Garretson and Niedrich (2004) proposed a conceptual model as shown in Figure 1. Based on prior studies (Dotz et al., 1996), Garretson and Niedrich believed that spokes-character trust is important, given the contention that consumers tend to like and purchase products from trustworthy characters. They also predicted that three factors (spokes-character expertise, the relevancy of the character to the promoted product, and nostalgia elicited by characters) will affect customers positively toward trust in the spokes-character.

In prior studies, trust was defined as the expectation

that the target object represents integrity, sincerity, and honesty (Crosby et al., 1990). Garretson and Niedrich argued that the relationships consumers feel they have with the spokes-characters may share some of the same characteristics as those conceptualized in relationship literature. Thus, in the context of spokes-characters, they predicted that the expectation that characters will be honest, sincere, and reliable in their communication and promotion of products will favorably affect brand attitudes. In other words, they expected that spokes-character trust could mediate the impact of the three factors on brand attitude.

In this study, the conceptual model of Garretson and Niedrich will be tested again in order to empirically measure the effect of interaction with the spokes-characters on the internet. We argue that the model may well explain the relationship between the use of spokes-characters and brand attitudes when the company moves their spokes-characters directly to the web. That is, they use their spokes-characters in the traditional way, allowing limited or no interaction between their characters and customers on the internet. But when intensive online interaction is held in the name of the spokes-characters, we believe that the interaction will improve customers' attitude and trust toward the brand. On the other hand, Garretson and Niedrich's model may no longer be valid in explaining the relationship between the use of spokes-characters and brand attitudes.

### Spokes-characters as the interactive agent

Interactivity was viewed as one of the most important differentiating features and the primary benefit touted for internet use over traditional media (Cho and Leckenby, 1999; Yoo and Stout, 2001). Interactivity can be

conceptualized as users' active control over their internet experience, enabling two-way communication in real time (McMillan, 2000). Ironically, the studies that have empirically examined the effects of interactivity on consumer response have come to contradictory conclusions (Phillips and Lee, 2005). For example, Coyle and Thorson (2001) reported that greater interactivity, measured by functions of the website, did not increase consumer liking of the site. At the same time, Yoo and Stout (2001) found that greater interactivity, measured by consumers' self-reported behavior, did increase liking of a website. McMillan (2000) reported no significant differences in attitude toward the website based on interactive functions, but a strong positive correlation between consumers' perceived interactivity and attitude toward the website.

Phillips and Lee (2005) concluded that the elements under their control, the structural properties and functions of the website, did not appear to affect consumer response; the customer will respond positively only when they have perceived interactivity with the website. So, the real challenge for internet marketers here is not only the technical or functional design of their websites, but also, how to get consumers to interact with their websites to capture the benefits of interactivity.

Current research in computer science about the animated interface agent may shed some light on how to get consumers to interact and increase their perception of interactivity. We believe that researching animated interface agents may also provide insight into the future possibilities of spokes-characters on the internet. Interface agents are computer programs that aid a user in accomplishing computer tasks and can act autonomously in an intelligent, context- and user dependent way (Dehn, 2000). Interface agents, "appear on the screen as embodied characters and exhibit various types of life-like behaviors, such as speech, emotions, gestures, and eye, head, and body movements" (Dehn, 2000). One of the major benefits of interface agents is that they may cause users to react to the program as if it were a social being. That is, the use of an agent on a website allows users to view their contact with the website as a social interaction, subject to rules, such as attention, and to feel an emotional connection to the agent (Lee and Nass, 2003; Moreno et al., 2001). Choi et al. (2001) found that consumer perceptions of social presence, that is, their perceptions of their web experience as personal, warm, sociable, and friendly, were stronger for a website that interacts with their customers.

Nass et al. (2001) demonstrated that computer personality can be easily created using a minimal set of cues and people will respond to these personalities in the same way they would respond to similar human personalities. Therefore, customers' interaction with the spokes-characters can be fundamentally social (Nass et al., 1994). Based on their findings, the researchers believed that making the spokes-characters act as interactive agents would positively influence customers'

attitude toward the brand; and in turn, may increase their intention to purchase.

## METHODOLOGY

### Experimental setting

In an effort to investigate the effectiveness of using the spokes-characters as the interactive agents for consumers in a marketing event, a counterfeit brand - Sentimental Drink - was created for a new brand of mix drink. A bartender from a famous local night club was hired to develop four flavors of sentimental drink.

The experiment conducted was created to identify the positive effects, if any, of using spokes-characters as an interactive agent for the company of their product. The majority of spokes-characters are associated with low-involvement products (Callcott and Lee, 1994; Phillips and Gyoerick, 1999); consequently, mix drink was chosen because it was thought to be of lower involvement for the participants in the experiment: College students. In addition, the mix drinks do not currently have a prominent spokes-character in their advertising practice in Taiwan.

We designed a spokes-character - Nana - for the new brand of mix drink: Sentimental Drink. Nana (Figure 2) was described as a young girl and the creator of Sentimental Drink (Figure 3). Each flavor represented a different mode of Nana in her daily life. The four flavors of Sentimental Drink were; happy, angry, relaxing, and embarrassing. Each flavor was packaged in glass bottle with a different color.

One hundred and fifty-one undergraduate students took part in our study. Because students are commonly exposed to the promotional use of spokes-characters, they were considered an appropriate population for this study. The students were informed that a new startup company (Hung-Jun Food and Beverage Company) in the university incubating center was interested in testing their product - a new mix drink - and the company wanted to recruit volunteers to evaluate the drink for them. When the students first showed up at the experimental site (a private room in the incubating center), they were randomly assigned into either an interactive or traditional group according to their interactive types. In both groups, Nana animations and advertisements of the Sentimental Drink were seen on all the products. However, when online communication took place with the traditional group, the company staff interacted with the customers, while in the interactive group it was Nana that interacted with the customers.

Each student received a brief description about the new mix drink and its creator, Nana, by watching a two and half minute animation. After viewing the animation, the student was instructed to come back during the week to taste all four flavors of Sentimental Drink. Later, each time the student showed up to taste the drink, they were led to a computer with our interactive agent installed on it. The interactive agent was an MSN robot we developed for this experiment. The interactive agent dialoged with the student to finish the procedure of evaluating one flavor of Sentimental Drink. The agent first asked the student to order a flavor. After they did so, the computer notified a waiter to send in the drink and showed a one minute animation of Nana introducing the flavor. After they finished the drink, the interactive agent computer then led the student to finish the evaluation form for that flavor. The only difference in the process between the interactive group and the traditional group was the different behavior of our interactive agent. In the interactive group, the interactive agent acted like Nana herself. While in the traditional Group, the interactive agent acted just like a testing system being operated by one of the company staff.

When the student finished all four flavors of Sentimental Drink, a questionnaire, developed by Garretson and Niedrich (2004) in their previous study, appeared on the computer screen and the interactive agent (again, either Nana or a staff member of Hung-Jun



**Figure 2.** Nana, the spokes-character.



**Figure 3.** The logo of Sentimental Drink.

Co.) asked the student to complete it before receiving their payment of 400 NT dollar (approximately 13 US dollar).

#### **Instrument development**

All items in this study were based on measurements developed or

used by Garretson and Niedrich (2004) and were modified according to our setting. Spokes-character expertise was measured with five, seven-point items anchored by, not an expert/expert, inexperienced/experienced, unknowledgeable/knowledgeable, unqualified/qualified, and unskilled/skilled (Ohanian, 1991). Spokes-character/product relevancy was measured with four, seven-point items anchored by very appropriate and very inappropriate. The

**Table 1.** Scale reliabilities.

Scale	Number of items	Cronbach's $\alpha$
Relevancy	5	0.896
Expertise	4	0.846
Nostalgia	5	0.896
Trust	5	0.914
Brand attitudes	5	0.853

four relevancy items were; 1) "It makes sense for Nana to be featured with Sentimental Drink"; 2) "I think that pairing Nana with those drinks is appropriate"; 3) "I think that Nana is relevant for those drinks"; and 4) "Together, Nana and the drinks represent a very good fit." The measure of spokes-character nostalgia used in this study was developed by Garretson and Niedrich (2004). The scale included four, seven-point Likert-type items anchored by strongly disagree and strongly agree. The four nostalgia items were; 1) "Nana makes me remember events that occurred when I was younger"; 2) "Nana reminds me of experiences from the past"; 3) "When I see Nana, it makes me remember different moments in my life"; and 4) "Nana makes me think of memories."

Based on Ohanian (1991), spokes-character trust was measured with five, seven-point items anchored by un dependable/ dependable, dishonest/honest, unreliable/reliable, insincere/ sincere, and untrustworthy/trustworthy. Consistent with Garretson and Burton (1998), Goodstein (1993), and Miniard et al. (1991), attitude toward the brand was measured using four, seven-point items anchored by like/dislike, favorable/unfavorable, good/bad, and positive/negative.

### Measures

The constructs of reliability and validity of the instrument were evaluated. Table 1 shows the number of items comprising each scale. Factor reliabilities, as represented by Cronbach's  $\alpha$  in Table 1 were between 0.821 and 0.914 for each factor. The sample showed a reasonable level of reliability ( $\alpha > 0.70$ ) (Cronbach, 1970).

Factor analysis also confirmed that the construct validity of the scales could be measured adequately. Using the principal components method with varimax rotation, construct validity was examined. Table 2 reports the factor loadings and variance for each of the factors. Bagozzi and Yi (1988) suggested that factor loadings for each item should be over 0.6 to be considered valid. The factor loadings for all items exceeded 0.7 in this study, which indicates that the individual items had discriminant validity.

## ANALYSIS AND RESULTS

Correlation coefficients were analyzed to avoid the high linearity that is inherent among independent variables, and also to determine the appropriateness of regression analysis. The Pearson correlation coefficients of different variables are listed in Table 3. All of these coefficients were found to be significant.

Data associated with relevancy, expertise, nostalgia, trust, and brand attitude constructs were analyzed using a one-way-ANOVA test with independent variables. The result of the independent sample t-test on five variables, together with the respective means and standard deviations, for the two interactive types in the survey are

summarized in Table 4.

As shown in Table 4, compared to the traditional group, the result shows that customers in the interactive group indicated a higher trust in the spoke-character Nana, and more positive brand attitudes toward Sentimental Drink. It is interesting to note that interactive Nana not only had a positive impact on trust and brand attitude, but also toward the three factors (spokes-character expertise, the relevancy of the character to the promoted product, and nostalgia elicited by characters) that Garretson and Niedrich believed would affect customers positively toward trust in the spokes-character. The results for relevancy and nostalgia are understandable. After interaction with Nana, instead of an unknown company staff, it is reasonable to believe that customers would feel more relevance to the character, emotionally triggering their nostalgia. But customers in the interactive group also report they have higher expertise on spokes-character and is somewhat peculiar. Since the students are randomly assigned, it is unlikely to be a sampling error.

For both the interactive and traditional groups, the residuals were analyzed to verify the assumptions of Garretson and Niedrich's model. As the researchers predicted, all the assumptions were confirmed in the traditional group. The t statistic,  $R^2$ , and significance level are illustrated in Figure 4, as is whether the hypothesis was supported ( $\alpha < 0.05$ ). The results for customers with traditional staff interaction indicate that relevancy ( $\beta = 0.279$ ,  $p < 0.1$ ), expertise ( $\beta = 0.343$ ,  $p < 0.1$ ), and nostalgia ( $\beta = 0.341$ ,  $p < 0.01$ ) had positive impacts on their trust toward Nana. The three variables account for 68.3% of the variance in trust. Expertise had the strongest impact on trust, followed by nostalgia and relevancy. Trust ( $\beta = 0.809$ ,  $p < 0.01$ ) positively influenced brand attitudes. The variable explains 66.5% of the variance in brand attitude.

However, in the interactive group, when users were interacting with Nana, only relevancy ( $\beta = 0.334$ ,  $p < 0.01$ ) and nostalgia ( $\beta = 0.522$ ,  $p < 0.01$ ) had positive and direct effects on their trust toward Nana in Figure 5. These two variables explain 47.4% of the variation in trust. Nostalgia had the strongest impact on trust, followed by relevancy. Trust ( $\beta = 0.295$ ,  $p < 0.1$ ) positively affected brand attitudes. This variable explains only 8.7% of the variance in brand attitude. Therefore, for users in different groups (interactive or traditional), our findings indicate that the relationships between relevancy, expertise, nostalgia, trust, and brand attitudes were different. The results from the interactive group show that even though they reported higher values on all five factors in Garretson and Niedrich's model, the model cannot explain those customers' stronger positive brand attitudes toward Sentimental Drink. Comparing the results from the two groups revealed two major differences. First, the higher expertise in the interactive group did not have a significant effect on trust; and secondly, the customers' greater trust in Nana within the interactive group had a significant but minimal ( $R^2 = 0.087$ ) effect on their brand

**Table 2.** Summary statistics and factor loadings for all constructs.

Scale	Item	Mean	Standard deviation	Factor loading
Relevancy	CR1	4.55	0.974	0.864
	CR2	4.56	0.990	0.851
	CR3	4.44	0.913	0.827
	CR4	4.63	0.914	0.866
	CR5	4.40	0.986	0.791
Expertise	CE1	4.42	0.875	0.714
	CE2	4.37	1.000	0.864
	CE3	4.60	0.900	0.867
	CE4	4.55	0.914	0.860
Nostalgia	CL1	4.79	0.948	0.737
	CL2	5.38	0.916	0.892
	CL3	5.15	0.908	0.874
	CL4	5.27	0.947	0.880
	CL5	5.05	1.002	0.816
Trust	CT1	4.58	0.920	0.875
	CT2	4.56	0.886	0.919
	CT3	4.55	0.914	0.897
	CT4	4.86	0.974	0.757
	CT5	4.68	0.967	0.862
Brand attitudes	BA1	4.60	0.883	0.774
	BA2	4.75	0.871	0.799
	BA3	4.94	0.858	0.873
	BA4	4.90	0.834	0.850
	BA5	4.85	1.067	0.670

**Table 3.** Pearson correlation coefficients.

	1	2	3	4	5
Relevancy	1				
Expertise	0.717**	1			
Nostalgia	0.448**	0.480**	1		
Trust	0.673**	0.638**	0.659**	1	
Brand attitudes	0.673**	0.644**	0.527**	0.636**	1

\*P < 0.05, \*\*P < 0.01.

attitude toward Sentimental Drink.

## DISCUSSION

In this preliminary study, our findings indicate that by using the spokes-character as an interactive agent, the effect of spokes-character on customers' brand attitude is different from traditional beliefs. First, trust in the spokes-characters is not a major factor in explaining customers'

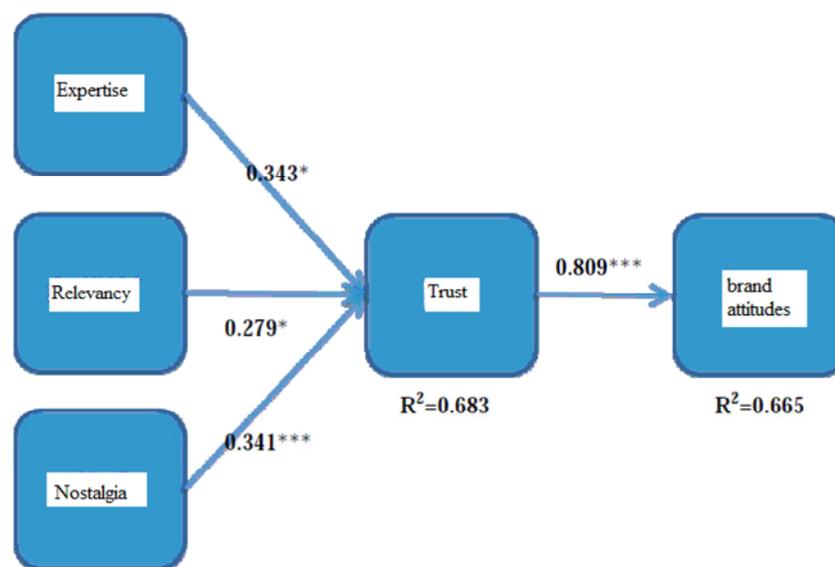
brand attitude ( $R^2 = 0.087$ ). The use of a spokes-character as an interactive agent also changed the relationship between trust and the three factors (expertise, relevancy, and nostalgia). In the interactive group, Nana created more relevance and triggered nostalgia more effectively among the customers.

Our findings also indicated a peculiar result with the interactive group, customers felt they had more experience with spokes-characters but their experience did not have a significant effect on their trust of Nana. To

**Table 4.** The impact of interactive types (Interactive or Traditional Group) on each variable.

Variable	Group	Number	Mean	Standard deviation	F	P-value
Relevancy	Interactive	63	4.83	0.598	23.120	0.000**
	Traditional	61	4.19	0.868		
Expertise	Interactive	63	4.83	0.531	32.521	0.000**
	Traditional	61	4.13	0.808		
Nostalgia	Interactive	63	5.31	0.739	7.099	0.009*
	Traditional	61	4.94	0.807		
Trust	Interactive	63	4.90	0.699	14.310	0.000**
	Traditional	61	4.38	0.822		
Brand attitude	Interactive	63	4.97	0.575	7.209	0.008*
	Traditional	61	4.64	0.801		

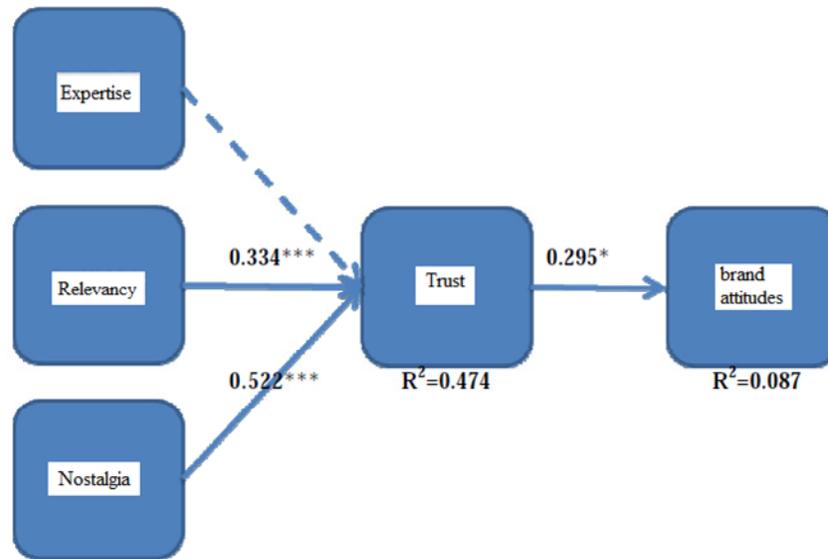
\* p &lt; 0.05, \*\* p &lt; 0.01

**Figure 4.** The results for the traditional group.

explore this, the researchers interviewed 12 students in the interactive group. According to those students, they felt that they experienced a friendship while filling out the questionnaire. Their relationship with Nana seems to have prohibited them from answering negatively on the questionnaire. In other words, after going through the interactive process with Nana, these students not only treated her as a social being like the previous studies indicated, they also treated Nana the spokes-character, as their friend. Therefore, they answered the questionnaire in a way that would please her (just like what they would do with their friends). For example, some students confessed that they may answer questions about

Sentimental Drink positively not because they think so but because they were trying not to hurt Nana's feelings. Strangely, all of the interviewed students told us that they were not fooled by our MSN Robot and thus did not believe that Nana was a real girl. They knew fully well that it was the Hung-Jun Company behind Nana, but they still preferred her as their interactive agent for the product: Sentimental Drink. This seems to echo the findings of Nass et al. (1994) that social responses to computers are not the result of conscious beliefs that computers are human or human-like. Rather, social responses to computers are commonplace and easy to generate.

We believe that one possible explanation for this may



**Figure 5.** The results for the interactive group.

lie in the distinction that is made in social psychology literature between exchange relationship and communal relationship (Clark and Mills, 1993). The interaction with Nana instead of staff from the Hung-Jun Company seems to switch the students' key concern of their communication from economic factors (the exchange relationships) to social factors (the communal relationships). In an exchange relationship, a person provides a benefit to their partner with the specific expectation of receiving a comparable benefit in return. It is obvious that you are not going to build a relationship unless you believe that you can trust the partner. Therefore, in the traditional group, trust in the character Nana can be a vital determinant factor in customers' brand attitude.

On the other hand, in a communal relationship, the key concern is mutual support by the partners. In such relationships, people give benefits to each other to demonstrate a concern for that person and to express attention to their needs (Aggarwal, 2002). Therefore, in the interactive group, customers will pay attention to Nana's needs and intend to provide more positive answers to the questionnaire. In other words, the interactive group may have more positive brand attitude because they consider themselves Nana's friend and therefore, have high levels of trust in her. Although the students in the interactive group rated their own expertise of spokes-character higher than the traditional group, this did not affect their trust in Nana because for them, she was considered more like a friend instead of only a spokes-character.

## Conclusion

The study's findings indicate that using spokes-

characters as an interactive agent might be a useful marketing tool. The results show that when the customers were allowed to interact with Nana, they had higher levels of trust in the spokes-character and also more positive attitudes toward the brand: Sentimental Drink.

After further exploration of our findings, they seem to indicate that when using a spokes-character as the interactive agent, the traditional beliefs of the effects of a spokes-character might be altered. Companies may want to be cautious when moving their spokes-characters to the internet and trying to integrate them in the interactions with their customers because, according to our findings, customers may treat them differently from the traditional icon based spokes-character. Customers may change their relationship with the spokes-character from an exchange relationship into a communal relationship. In this case, a new theoretical framework might be needed to explain the effect of those spokes-characters on the company or their products.

Our results provide further evidence that the impact of interaction with a spokes-character should not be a direct extension of the traditional way of doing things, but rather, a switch in the customer's psychological mechanism. Our study is likely to shed some light on ways of understanding why and how people interact with virtual characters in internet marketing. These results may lead to numerous and unprecedented hypotheses, unexpected implications for website design, new approaches to usability testing, and so on. Nonetheless, because this study is exploratory in nature, with a limited sample size and a unique experiment setting, these limitations need to be mitigated when considering our findings. The identified findings should therefore be recognized as a starting point in terms of exploring spokes-character marketing on the internet.

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