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**Connie R. Bateman**

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**University of North Dakota**

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## LETTER FROM THE EDITOR

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The articles contained in this volume have been double blind refereed. The acceptance rate for manuscripts in this issue, 25%, conforms to our editorial policies.

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Connie Bateman  
University of North Dakota



# THE IMPACT OF ADDING IMPROVISATION TO SEQUENTIAL NPD PROCESSES ON COST: THE MODERATING EFFECTS OF TURBULENCE

Enrique Nuñez, Ramapo College of New Jersey  
Gary S. Lynn, Stevens Institute of Technology

## ABSTRACT

*The ability to develop new products efficiently has become an important consideration in the current atmosphere of constrained budgets and fast-changing environments. New product development (NPD) researchers and practitioners have taken note, but there are limited and conflicting findings on the relationship between the type of NPD framework used for development and the ability to meet cost expectations under conditions of environmental change. In a study of over 400 NPD projects, we examined the impact of adding improvisation to sequential NPD process on meeting cost expectations under different conditions of turbulence. Our results support previous findings, but also demonstrate that turbulence moderates the direct effect, with the penalty for improvisation being less severe as environmental turbulence increases.*

*For the practitioner, our results suggest that when efficiency is paramount, they may consider adopting a “throttled” approach to NPD, loosening control to allow for more improvisation where fruitful, while tightening control in other stages.*

## INTRODUCTION

Coping with a volatile environment is a job requirement for all modern-day new product development managers as change and uncertainty characterize today’s unpredictable business world (Calatone, Garcia, & Dröge 2003; Lynn & Akgün 1998). A useful taxonomy of new product development classifies approaches according to the degree to which they emphasize control (e.g. Bower & Hout 1988; Cooper 1994b, 1998; Eisenhardt & Tabrizi 1995) and the degree to which they emphasize adaptability (e.g. Iansiti 1995b; Kamoche & Cunha 2001; Miner, Bassoff, & Moorman 2001). Such a classification is useful as it highlights the tension in the literature between the amount of structure necessary to control development, versus the need to adapt to changes (e.g. Deuten & Rip 2000; Gwynne 1997; Kamoche & Cunha 2001).

However, the problem for business is that NPD approaches that emphasize control may be too rigid for today’s highly dynamic markets (Chakravarthy 1997; Cooper 1994b; Deuten & Rip 2000; Hoopes & Postrel 1999; Iansiti 1995a; Imai, Ikujiro, & Takeuchi 1985; MacCormack & Verganti 2003; Moorman & Miner 1998b; Rosenthal 1992), while approaches that emphasize

adaptability are inefficient (Aram & Walochik 1996; Miner, et al. 2001; Sharkansky & Zalmanovitch 2000). Therefore, in this study, we test an integrated approach to new product development that combines control with adaptability (Nuñez & Lynn 2007). We theorize that coupling these two seemingly divergent approaches offers a way to reinforce the strengths of each approach, while overcoming their respective shortcomings.

While examining an integrated approach to new product development is constructive, this usefulness is diminished if the environment is not considered as well. New product development is the principal means by which firms adapt to changing market and technical conditions (Schoonhoven, Eisenhardt & Lyman 1990), and innovative approaches have emerged as an effective means by which to manage in unstable environments (e.g. MacCormack, Verganti & Iansiti 2001). Scholars have given the environmental context of a project insufficient consideration in the literature (MacCormack & Verganti 2003). This research attempts to remedy this deficiency by examining the impact of novel NPD approaches on a critical development outcome in a turbulent environment. The following research question drives this study:

*How can we best maintain cost effectiveness of a new product development project under various levels of environmental turbulence?*

To answer this question, we develop and test two hypotheses. We begin by providing a brief overview of various product development approaches, describing where each may be lacking under conditions of rapid change. To address issues with existing NPD approaches, we propose an integrated approach that builds on the existing literature, and develop a theoretical framework focusing on a significant aspect of NPD processes: cost reduction. We then provide our research methodology which includes our questionnaire design, sampling procedure, process to ensure measure reliability and validity, and the analytical techniques performed. Next, we move into an analysis of our results and discuss the implications of our research to academics and practitioners. Finally, we discuss the limitations of our research and provide the broad conclusions we have drawn from our study.

## **THEORETICAL FRAMEWORK**

### **Sequential NPD Helps to Control Costs with Structure**

The highly-structured, sequential NPD framework, characterized by consecutive product development phases, with each separated by a decision point (Cooper 1998), is the most pervasive model in the literature (e.g. Cooper & Kleinschmidt 1991; Millson & Wilemon 2002; and Shepard & Pervaiz 2000). As such, scholars have been enthusiastic in studying this model, including its impact on controlling costs. This type of framework supports new product development decisions and helps reduce the uncertainty inherent in the innovation process (Dosi

1988) by suggesting a series of steps to be completed sequentially. Ultimately, the objective of the model is to provide a clear-cut plan for product development and execution (Cooper 1998).

Throughout much of this literature, researchers have consistently found that the structure associated with sequential NPD processes help to manage costs (e.g. Barrett 1998; Cooper & Kleinschmidt 1991; Shepard & Pervaiz 2000). Indeed, the literature notes that the chief contribution of sequential new product development processes is to control costs (Cooper & Kleinschmidt 1991). As a rule, if an objective of a new product development initiative is efficiency, then the development process must avoid changes and uncertainty by using well-structured mechanisms to manage development such as uniform processes, firm objectives, and centralized control (Barrett 1998; Bhattacharya, Krishnan & Mahajan 1998; Cooper & Kleinschmidt 1991). Subsequently, under conditions of relative stability, an effective way to control new product development costs is through the use of a sequential approach. But what are new product development managers to do when change is unavoidable? As the literature notes, innovation under low levels of environmental instability is well-suited to development using a structured, cost reduction orientation (Lynn 1998) – in other words, sequential NPD. But is this same approach as effective as environmental instability increases?

### **Navigating Environmental Turbulence**

Tumultuous change and uncertainty typify virtually all industries in today's volatile business environment (Lynn & Akgün 1998). Environments that change rapidly can destroy the value of existing competencies (Tushman & Anderson 1986). Moreover, the consequence of fast changing environments is the generation of uncertainty – uncertainty that makes it difficult to predict which knowledge will be important to future success (Marsh & Stock 2003). Thus, under environmental uncertainty, organizations must search for ways to adjust to a dearth of information (Scott 1987). Consequently, approaches that facilitate rapid product development, and alleviate uncertainty are of fundamental interest to scholars and practitioners alike. Yet, the literature indicates that fast changing environments pose challenges that traditional sequential NPD approaches are not well-suited to address (Chakravarthy 1997; Cooper 1994b; Deuten & Rip 2000; Hoopes & Postrel 1999; Iansiti 1995a; Imai, et al. 1985; MacCormack & Verganti 2003; Moorman & Miner 1998b; Rosenthal 1992; Trygg 1993).

While there is a growing realization that NPD approaches based on traditional mechanisms are counterproductive in a turbulent environment (Freedman 1992), firms that have embraced more flexible product development approaches are becoming more competitive (Iansiti & MacCormack 1997). Firms are beginning to realize that to be successful, different types of projects carried out in different environments are likely to require different development processes (MacCormack & Verganti 2003).

Fortunately, improvisation has emerged as one technique to help contend with the contemporary requirements of increased speed and reduced uncertainty. Nevertheless, as the

literature asserts, improvisation alone is not enough. Scholars contend that improvisation is costlier than traditional planning. Whereas planning is aimed at solving problems in an optimal manner, improvisation endeavors to adequately manage them (Sharkansky & Zalmanovitch 2000). Thus, following a wholly improvisational approach is prone to missteps that cost more than following an established plan. In a study of new product development activities, Miner, Bassoff & Moorman (2001) found that while team members viewed improvisation as a tool for flexibility and adaptability, their use of improvisation was limited. In addition, other areas within the firm shunned improvisation, viewing it as a source of inefficiency and costly errors. This follows another study that concluded that improvising sometimes brings about negative organizational outcomes (Aram & Walochik 1996). Both studies support Barrett's contention that "risky explorative attempts are likely to produce errors" (1998), as well as Crossan that maintains that "improvisation requires some tolerance for error" (1998).

So how can NPD practitioners utilize improvisation to help speed product development and reduce uncertainty while still maintaining costs? We believe that in order to realize cost-containment benefits with improvisation under conditions of environmental instability, improvisation must be coupled with a structured process, such as that found in sequential NPD.

### **How Might the Addition of Improvisation to Sequential NPD Affect Outcomes?**

Researchers have noted that improvisation often occurs within a larger structural context. Moorman and Miner contend that improvisation occurs along a continuum upper-limited by spontaneous action and lower-limited by entirely planned action (1998b). Cunha, Cunha, and Kamoche also note that improvisation can happen in environments rich with direct supervision and standardization (1999). Eisenhardt and Tabrizi observe that by establishing basic aspects of process such as milestones, firms can provide a sense of structure and routinization to improvisational activities often perceived to result from chaos and disorder (1995). Indeed, some believe that fostering improvisation within a larger structural context should be the objective to encourage certain types of innovation. In referring to breakthrough innovation, Mascitelli states that the goal includes establishing an environment in which improvisation merges with practical demands of the product development process (2000).

As scholars have observed, managers of successful firms must balance mechanistic and organic elements (Brown & Eisenhardt 1997). Mechanistic organizations implement structures such as plans and schedules that produce clear responsibilities and priorities, while organic organizations foster creativity through extensive communication and decentralized decision-making (Brown & Eisenhardt 1997; Burns & Stalker 1961). Kamoche and Cunha express a similar sentiment in stating that firms that succeed in realizing the synthesis of control and adaptability seem to be effective in the management of NPD projects in turbulent environments. As they have noted, the critical NPD challenge is to achieve a balance between control and

adaptability (Kamoche & Cunha 2001). This is the issue we have sought to address with our study.

Our approach to studying the new product development process combines the structure inherent in sequential approaches, with improvisation, thereby allowing for the robust control mechanisms associated with sequential models, with the adaptability inherent in improvisational methods. The use of the sequential model provides for a unifying framework throughout the development process, while the improvisational techniques offer a mechanism for product developers to adapt to changes. Thus, this approach aims to maintain the strengths of traditional sequential NPD, namely structure, while introducing adaptability into the process, thereby preserving each model's advantages while addressing drawbacks.

### **HYPOTHESIS DEVELOPMENT**

As the rigidity of traditional sequential NPD is considered inappropriate for fast changing environments (Chakravarthy 1997; Cooper 1994b; Deuten & Rip 2000; Hoopes & Postrel 1999; Iansiti 1995a; Imai, et al. 1985; MacCormack & Verganti 2003; Moorman & Miner 1998b; Rosenthal 1992; Trygg 1993), we would expect sequential NPD to become less important as environmental change increases. However, the structure intrinsic to sequential NPD becomes more significant under fast changing environments when viewed from another perspective. As fast changing environments generate uncertainty (Marsh & Stock 2003), a new product development process focused on meeting cost expectations in highly uncertain environments would need to reduce the level of uncertainty. A factor such as planning reduces uncertainty (Dosi 1988; Sharkansky & Zalmanovitch 2000). Therefore, when viewed from this perspective, sequential NPD with its emphasis on planning, would become more important to meeting cost objectives as environmental instability increases. Consequently, we expect these two perspectives to create equilibrium in fast-changing environments.

While teams may abandon a rigid implementation of sequential NPD under conditions of instability, we anticipate these forces to be tempered by the need for planning to reduce the uncertainty inherent in unstable environments. Thus, we anticipate that development teams will follow the various sequential NPD phases to a medium degree as environmental change increases. We also expect development teams to follow sequential NPD phases closely under low levels of environmental change, as the structure intrinsic to sequential NPD remains important to maintaining cost expectations.

Although improvisation is considered costly (Sharkansky & Zalmanovitch 2000; Miner, et al. 2001; Aram & Walochik 1996; Barrett 1998; Crossan 1998) and inappropriate for slow changing environments (e.g. Moorman & Miner 1998b), it allows the generation of situation specific knowledge (Eisenhardt & Martin 2000) which in, turn reduces uncertainty (Morabito, Sack, & Bhate 1999). Improvisation can also help speed development in fast changing environments (Akgün & Lynn 2002), thus allowing a project to be impacted by fewer changes.

Therefore, while we expect improvisation to always negatively impact meeting cost expectations; we expect this penalty to be less severe as environmental change increases. As a result, we expect to see medium levels of improvisation as environmental change increases. Consequently, we anticipate that the regression equations that will result from our statistical analysis will change as the level of turbulence changes. Put more formally:

*H1: Development teams will improvise modestly and follow a sequential NPD approach closely under conditions of low environmental turbulence.*

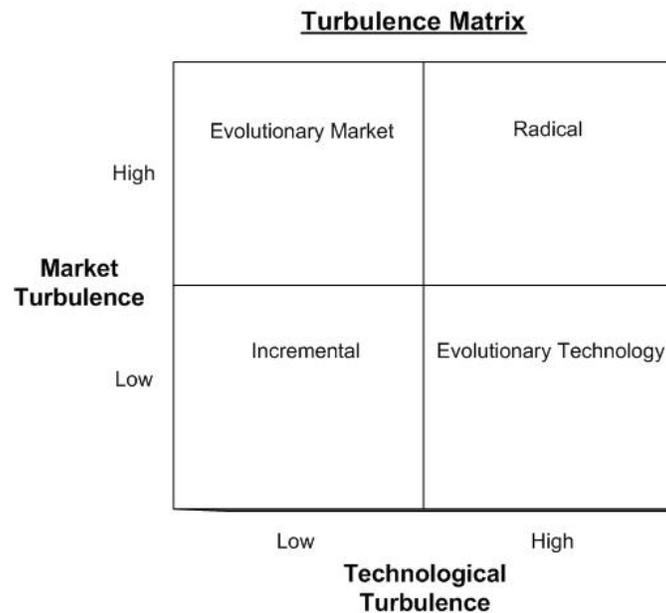
*H2: Development teams will demonstrate a medium level of improvisation, and will not follow a sequential NPD approach closely under conditions of high environmental turbulence.*

## METHODOLOGY

### Classifying a Turbulent Environment

To analyze this integrated approach within an environmental context, we used a previously developed matrix to categorize and test turbulence (Lynn 1998) (see Figure 1).

**Figure 1: Turbulence Matrix**



The Turbulence Matrix is based on Jaworski and Kohli's work on market and technological turbulence. They defined market turbulence as the rate of change in the composition of customers and their preferences, and technological turbulence as technological change (1993). The Turbulence Matrix classifies environmental turbulence by dividing the environment into four quadrants, with each quadrant indicating a degree a degree of turbulence. A slowly changing technology and market characterize the Incremental quadrant. Thus, products in this quadrant are likely to remain stable as customer preferences scarcely change.

A rapidly changing market, but slowly changing technological environment represents the Evolutionary Market quadrant, where technological innovation remains modest, but customer preferences change quickly. A slowly changing market accompanied by a rapidly changing technological environment characterizes the Evolutionary Technology quadrant. Rapid technological and market change characterized the radical quadrant; thus, this quadrant represents a virtually unpredictable environment.

Our hypotheses state that the regression equations representing how closely development teams follow the sequential NPD approach and level of improvisation in the development process will differ under varying conditions of turbulence. That is, we expect development teams to follow the sequential NPD approach closely under low levels of environmental change (i.e. "High" Sequential NPD) and not as closely as environmental change increases (i.e. "Medium" Sequential NPD). We also anticipate moderate levels of improvisation under both low and high levels of environmental turbulence (i.e. "Medium" Improvisation).

Figure 2 graphically on the following page depicts the degree to which we anticipate development teams to follow the sequential NPD approach while incorporating improvisation as the amount of environmental turbulence varies.

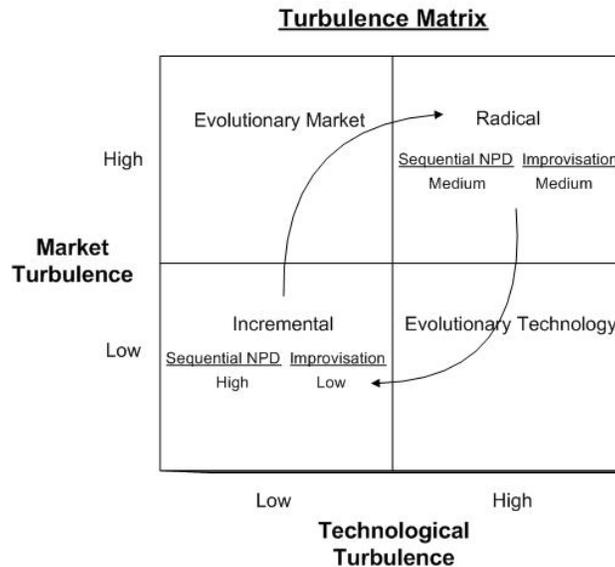
### **Questionnaire Design and Sampling Procedure**

To test our hypotheses, we developed a questionnaire based on previous research (e.g. Jaworski & Kohli 1993; Moorman & Miner 1998a, b) and distributed it to members of the senior management team in a number of northeastern US-based technology companies. As suggested by Huber and Power (1985), we informed participants that their responses would remain anonymous and would not be linked to their companies or products to encourage cooperation without fear of reprisal. Respondents to our questionnaire were product / project managers, department managers and directors who were on a NPD project from pre-prototype through launch.

Of the 579 respondents invited to participate, 454 of them completed and returned a questionnaire - a 78% response rate. Of the 454, there were 414 fully completed questionnaires. The reason for the high response rate is because in each company, we personally knew each respondent through executive workshops that we gave or from a referral that we knew in each company who provided us a name and contact information of an appropriate individual who was

personally contacted. The responses represented the following industries: telecommunications, pharmaceuticals, computer and electronics, fabricated metal products, chemical manufacturing, information services, food manufacturing and machinery manufacturing.

**Figure 2: How closely NPD team is expected to follow respective approach under varying degrees of turbulence**



### Measure Reliability and Validity

We used a Likert scale (0 = Strongly Disagree to 10 = Strongly Agree) to operationalize the constructs. An initial reliability analysis was run to determine internal consistency of each scale and the extent to which the items in the questionnaire were related to each other, and to identify problem items that should be excluded from the scale. A confirmatory factor analysis was then run to retest the validity of the constructs. A Principal Component Analysis using a Varimax rotation method was used as the extraction method. The scales used in the analysis (see Appendix - Table 6) loaded onto factors as expected. The following provides a brief summary of the measures.

Table 1: Summary of Measures		
Independent Variables		
Sequential NPD	We asked fifteen questions to operationalize Sequential NPD. Items roughly correlate to the five stages that are found in most sequential models (e.g. Cooper, Edgett & Kleinschmidt 2002). Items loaded onto one factor and the mean was used as the variable.	
Team Improvisation	We asked three questions to operationalize team improvisation. Items were adapted from Moorman and Miner (1998b). All items loaded onto one factor related to improvisation and the mean of these items was used as the variable.	
Dependent Variable		
Cost Expectations	We asked three questions to operationalize cost expectations. All items loaded onto one factor and the mean was used as the variable. Items were adapted from Griffin (1997).	
Environmental Variable		
Turbulence	Technical	We asked three questions to operationalize technical turbulence. All items loaded onto one factor and the mean was used as the variable. Items were adapted from Jaworski & Kohli (1993).
	Market	We asked two questions to operationalize market turbulence. All items loaded onto one factor and the mean was used as the variable. Items were adapted from Jaworski & Kohli (1993).

## Analytical Techniques Performed

Table 2 shows the one-tailed correlation coefficients for independent and dependent variables, as well as for our environmental variables. Here, we discuss some of the more significant findings.

Table 2: Correlation Coefficients							
Variables		1	2	3	4	5	6
1	Sequential NPD	1.000					
2	Team Improvisation	-.058	1.000				
3	Cost Expectations	.368***	-.033	1.000			
4	Technical Turbulence	.052	.183***	-.047	1.000		
5	Market Turbulence	.028	.118***	-.107***	.346***	1.000	
6	Total Turbulence	.049	.186***	-.079**	.907***	.718***	1.000
Significance (one-tailed test): * $p < .1$ ; ** $p < .05$ ; *** $p < .01$ .							

As theorized, we found a significant positive correlation ( $p < .01$ ) between dependent variable *Cost Expectations* and independent variable *Sequential NPD*. Also as theorized, we also found a negative correlation between *Cost Expectations* and *Team Improvisation*, although it was not significant. As theorized, we also found significant positive correlations ( $p < .01$ ) between *Team Improvisation* and different classifications of turbulence, thus bolstering previous assertions that improvisation may be appropriate under changing environments.

Also as theorized, we found negative correlations (both significant and insignificant) between *Cost Expectations* and different classifications of turbulence, thus supporting our assertions that meeting cost expectations under changing environments may be more difficult than under stable environments.

Before running our regression for *Team Improvisation* and *Sequential NPD* as predictors of *Cost Expectations* under varying degrees of turbulence, we decided that it would be useful to determine if each approach added significantly to the other. For example, would adding *Team Improvisation* to *Sequential NPD* help significantly with meeting *Cost Expectations* (without taking the variability of the environment into account), or would an NPD team be better off simply using a sequential approach on its own?

To determine this, we ran two hierarchical regressions to establish: (1) whether *Sequential NPD* adds significantly to *Team Improvisation* while maintaining cost expectations, and conversely (2) whether *Team Improvisation* adds significantly to *Sequential NPD*.

Model		Adjusted R <sup>2</sup>	Change Statistics				
			R <sup>2</sup> Change	F Change	Sig. F Change	df1	df2
1	a	-.001	.001	.481	.488	1	412
2	b	.121	.124	58.065***	.000	1	411

Significance of F (one-tailed test): \* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$ .

Table 3 lists the details of this hierarchical regression. Model 1 lists the statistics for the regression with only the *Team Improvisation* variable entered, and Model 2 represents the regression after entering the *Sequential NPD* variable. The purpose of this table is to demonstrate the changes in the variables as new variables are entered into the regression equation.

Here, our *Adjusted R<sup>2</sup>* indicates that an estimated 12.1% of the variance in *Cost Expectations* is accounted for after *Sequential NPD* has been added to *Team Improvisation*. In addition, our *R<sup>2</sup> Change* indicates that the inclusion of *Sequential NPD* explains an additional 12.4% of the variance. For these data, our *F-ratio* is 58.065, and is significant (i.e. *Sig F Change* ( $p < .01$ )). Note that the *F-ratio* is a measure of how much the model has improved the prediction of *Cost Expectations*. We can therefore conclude that *Sequential NPD* does indeed add significantly to *Team Improvisation* for dependent variable *Cost Expectations*.

Table 4: Determine if Improvisation Adds Significantly to Structure							
Model		Adjusted R <sup>2</sup>	Change Statistics				
			R <sup>2</sup> Change	F Change	Sig. F Change	df1	df2
1	a	.123	.125	58.667***	.000	1	412
2	b	.121	.000	.078	.781	1	411

Significance of F (one-tailed test): \* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$ .

Table 4 lists the details of our next hierarchical regression. Model 1 lists the statistics for the regression with only the *Sequential NPD* variable entered, and Model 2 represents the regression after entering the *Team Improvisation* variable. As before, the purpose of this table is to demonstrate the changes in the variables as new variables are entered into the regression equation.

As expected, our *Adjusted R<sup>2</sup>* has not changed and indicates that an estimated 12.1% of the variance in *Cost Expectations* is accounted for after *Team Improvisation* has been added to *Sequential NPD*. In addition, our *R<sup>2</sup> Change* indicates that the inclusion of *Team Improvisation* does not help explain any additional portion of the variance. For these data, our *F-ratio* is .078, and is not significant. We can therefore conclude that *Team Improvisation* does not add significantly to *Sequential NPD*. This outcome is not surprising as we expect improvisation to negatively impact meeting cost expectations. Next, we ran a hierarchical regression for Cost Expectations while splitting the file by *Environmental Turbulence*.

## RESULTS

The literature notes that the most important contribution of sequential NPD approaches is to control costs. However, as rigid, highly-structured approaches are inappropriate for fast changing environments, we anticipated that development teams would not follow the phases of the sequential NPD approach closely as environmental change increases. Conversely, we expected development teams to rigidly follow the phases of the sequential NPD approach as environmental change decreases, as doing so is important to maintaining cost expectations.

Scholars contend that improvisation is costlier than traditional planning. However, as improvisation can help speed development in fast changing environments, we theorized that it might allow a project to be impacted by fewer changes. Therefore, while we expected improvisation to always negatively impact meeting cost expectations; we expected this penalty to be less severe as environmental change increases.

Model		Adjusted R <sup>2</sup>	Change Statistics				
			R <sup>2</sup> Change	F Change	Sig. F Change	df1	df2
1	a	.120	.125	28.559***	.000	2	401
2	b	.123	.010	1.478	.220	3	398
3	c	.150	.039	3.080***	.006	6	392

Significance of F (one-tailed test): \* $p < .1$ ; \*\* $p < .05$ ; \*\*\* $p < .01$ .

A review of Table 5 seems to bear out our theory. This table lists the details of the hierarchical regression for dependent variable *Cost Expectations* under a turbulent environment. Model 1 lists the statistics for the overall regression, Model 2 represents the intercepts, and Model 3 lists details of the regression weights.

As the table demonstrates, the regression equations do indeed differ significantly for dependent variable *Cost Expectations* under a turbulent environment. For these data,  $F$  is 3.080, and is significant (i.e. *Sig F Change* ( $p$ ) < .01). We can therefore conclude that our regression model overall does predict *Cost Expectations* under a Turbulent environment significantly well.

Our Adjusted R<sup>2</sup> indicates that an estimated 15% of the variance in *Cost Expectations* is accounted for by *Sequential NPD* and *Team Improvisation*. Thus, our hypotheses are supported.

## DISCUSSION

When we began our research, one of the issues we observed with new product development was that highly-structured NPD approaches were too rigid for dynamic environments, while less-structured approaches were inefficient for stable ones. As we developed ideas to address this issue, we quickly recognized that a “middle of the road” approach would not work – that is, one with a “medium” amount of structure. Such an approach would only work to compromise the integrity of each model, while ignoring the outlying environmental conditions that reveal the strength of each approach. What we felt was required was an approach that preserved the strengths of the existing models, even as it addressed their shortcomings. This insight led us to the development of the integrated approach to new product development.

In developing this approach, we theorized that by coupling structure with improvisation we could offer a way to reinforce the strengths of each approach, while overcoming their respective weaknesses. In studying this issue, we hoped to demonstrate that an integrated approach to NPD influences outcomes as we had hypothesized. Results from our study demonstrate that an integrated approach is indeed viable in helping achieve certain outcomes. We also hoped to establish that environmental turbulence moderates our integrated approach to NPD. This implies that as the environment changes from low (market and technological)

turbulence to higher levels of turbulence, the mixture of structure and improvisation would also need to change in order to maintain optimal results.

The data supported our hypotheses that anticipated development teams would follow the sequential NPD approach closely under low levels of environmental change and not as closely as environmental change increases. We also anticipated moderate levels of improvisation under both low and high levels of environmental turbulence. That is, we theorized that structure becomes less important as environmental change increases. Conversely, structure with its cost containment benefits (Barrett 1998; Cooper 1983) was thought to become more important to maintaining cost expectations as environmental change decreases. In addition, as improvisation can help speed development in fast changing environments, we thought it might allow a project to be impacted by fewer changes as environmental change increases. Our results support this theory.

This study is the first of its kind to analyze NPD using these two seemingly divergent approaches. Our study supports prior findings indicating that following a structured approach helps NPD teams achieve cost containment outcomes. In our study, we have found that structure adds significantly to maintaining costs, and that it has more influence than improvisation. Nevertheless, our research sought to achieve more than establish a single, dominant approach - our study ventured to address the call by scholars for balancing structure with adaptability.

For this study, we have defined environmental turbulence in terms of *change* in the market and technology, and found that the degree of structure and improvisation in an integrated approach differs for cost expectations under different degrees of turbulence. This implies that as the environment changes from low (market and technological) turbulence to higher levels of turbulence, the mixture of structure and improvisation would also need to change in order to maintain optimal costs.

Various studies have found that following a structured approach helps NPD teams achieve a variety of outcomes. Our study supports these findings. However, critics have argued that under certain circumstances, a more flexible approach may be advantageous. In this respect, our study has broken new ground by establishing highly-structured approaches as a foundation on which to build. Specifically, we have found that under conditions where NPD teams are using a structured approach but require additional flexibility, adding improvisation to structure is productive. For example, a team may consider adopting a “throttled” approach to innovation, whereby control could be loosened to allow for more improvisation where fruitful (e.g. design), while tightening control in other stages (e.g. testing). For the practitioner, this implies that by intelligently coupling structure with improvisation, our solution plays to the strength of each, while offering a way of overcoming many of the shortcomings of either approach.

## LIMITATIONS AND FUTURE RESEARCH

To test our hypotheses, we developed a questionnaire and distributed it to members of the senior management team in a number of northeastern US-based technology companies. Although single sourcing is a potential limitation, we consider these issues with to be moderated by research demonstrating that a single source is more reliable and accurate than averaging multiple sources (Huber & Power 1985). In addition, further research demonstrates that managers rely on their own self-reports and offer reliable and objective data (Lucas & Ferrel 2000; Podsakoff & Organ 1986).

For this study, the phenomenon we sought to understand was the integrated NPD approach. Using this as our guide, we seek to bolster our research findings in a systematic, iterative manner. Given our focus on cost outcomes, we recognize the need for further research to identify other areas in which an integrated approach is useful. As our current analysis has focused on immediate, tangible outcomes, a future examination could center on the less tangible opportunities created by using an integrated approach versus another, less adaptable method.

While our current analysis has concentrated on issues that are important to new product development, we could also extend our research to help shed some light on higher level strategic issues with firm level implications. An initial way to do this could include assessing how senior management expectations were met when using an integrated approach versus other methods. We could also assess how senior management's role in driving new product development differs according to which approach is used.

Another useful analysis would identify those *stages* wherein improvisation is most productive and most inefficient when coupled with structure. A "throttled" approach to innovation would seek to loosen control and allow more improvisation where fruitful (e.g. design), while tightening control in other stages (e.g. testing).

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## APPENDIX

Table 6: Scales		
Sequential NPD (Cooper, et al. 2002)	New Product Development Process: Reflecting back on this project from concept to launch ...	
	<ul style="list-style-type: none"> <li>• Initial screening of the product idea (first review of the venture).</li> <li>• Translating the product concept into business terms (such as market share, profitability, etc.).</li> <li>• Preparing the written proposal of the product concept.</li> <li>• Determining the desired product features.</li> <li>• Conducting a market study or marketing research.</li> <li>• Assessing the required investment, time and risks of the product concept.</li> <li>• Conducting preliminary engineering, technical and manufacturing assessments.</li> <li>• Building the product to the designated or revised specifications.</li> <li>• Specifying a detailed program for full-scale manufacturing.</li> <li>• Selecting customers for testing market acceptance.</li> <li>• Submitting products to customers for testing.</li> <li>• Interpreting the findings from customer trials, test markets and market surveys.</li> <li>• Completing the final plans for manufacturing.</li> <li>• Completing the final plans for marketing.</li> <li>• Launching the product in the marketplace – selling, promoting and distributing.</li> </ul>	
Team Improvisation (Moorman & Miner 1998b)	<ul style="list-style-type: none"> <li>• The team figured out the new product development process vs. strictly following the plan.</li> <li>• The team improvised in developing the product vs. strictly following the plan.</li> <li>• The team improvised in commercializing the product vs. strictly following the plan.</li> </ul>	
Cost Expectations (Griffin 1997)	<p>This project ...</p> <ul style="list-style-type: none"> <li>• Was launched within or under the original budget.</li> <li>• Came in at or below cost estimate for development.</li> <li>• Came in at or below cost estimate for production.</li> </ul>	
Environmental Turbulence (Jaworski & Kohli 1993)	Technical	<ul style="list-style-type: none"> <li>• The technology in the industry was changing rapidly.</li> <li>• A large number of new product ideas have been made possible through technological breakthroughs in the industry.</li> <li>• Technological changes provided big opportunities in the industry.</li> </ul>
	Market	<ul style="list-style-type: none"> <li>• Customers' preferences changed quite a bit over time.</li> <li>• Customers tended to look for new products all the time.</li> </ul>



# A STUDY ON THE ONLINE SHOPPER'S SELF-DISCLOSURE

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## ABSTRACT

*Building a continuous relationship is regarded as a key success factor in businesses. Many scholars and executives have looked for influencing factors on the development and maintenance of a sound relationship with its customers. In psychology, self-disclosure has been viewed as a major factor in the development, maintenance, and even deterioration of a relationship depending upon the amount of information disclosed. The concept of self-disclosure is defined as the process of revealing personal information to another. This paper attempts to identify these functions of self-disclosure in the business context, particularly in the online shopping environment. Data were gathered from conveniently selected 280 undergraduate business students. Respondents consisted of individuals with at least three or more times of purchasing experiences in the online shopping malls. The Results of empirical analysis revealed that 1) responsiveness and trustworthiness of the online shopping malls positively affects the amount of self-disclosure; 2) effectiveness and social presence of Internet media positively influenced the amount of self-disclosure. However, privacy assurance of the online mall and ease of use of Internet media did not significantly affect the amount of self-disclosure; and 3) self-disclosure positively influenced user satisfaction rating towards the online mall. Practical and theoretical implications of the current study were discussed.*

*Keywords: Self-disclosure, Online Shopping, Computer Mediated Communication, Online Social Interactions, Reciprocity, Interpersonal Relationships*

## INTRODUCTION

Self-disclosure is known to be an important factor to the sound mind. Many psychologists and health professionals recommend self-disclosure as a method of improving well-being (Carmeron et al. 2009). Self-disclosure, is defined as the process of revealing personal information to another, is an essential component of building intimacy and trust (Holmes 1991). It is also associated with enhancing relationship quality as well as maintaining physical and

psychological health (Pennebaker 1989). The concept of self-disclosure plays a vital role in relationship development and maintenance in which self-disclosure and relationship developments are “mutually transformative”(Derlega et al. 1993). The act of self-disclosure transforms the nature of the relationship and the relationship transforms the meaning and consequences of self-disclosure. Consequently, self-disclosure is viewed as a major factor in the development, maintenance, and deterioration of a relationship (Lee et al. 2008).

The act of self-disclosure can be applied to the relationship between online shopping malls and online consumers. Self-disclosure has significant meanings to the relationship between malls and online consumers in two dimensions. The first dimension is associated with customers' psychological purification and relationship building. Previously mentioned, self-disclosure is recommended as a method of improving well-being and a mean to develop trusting relationship. The second dimension is related with the importance of information to be useful to marketers. Most researchers agree that the key to successful marketing implementation in a "new world" is information (Deighton 1996; Forrest and Mizerski 1996; Schwartz 1997). It is said that a company with more information about its customers can satisfy customers' needs better than a company with less information.

However, recent studies find that the high perception of risk stemming from online disclosure of personal information is a primary reason that people choose not to participate in ecommerce (The Digital Future Report 2004). Perceptions of the risk of disclosing information during ecommerce transactions arise from consumer' felt lack of control about how their personal information will be used once it is divulged online (Metzger 2006).

There are different kinds of information we have to get. Some types of information are easier to obtain than others. In most retail environments, for example, information about individual transactions and purchase decisions can almost always be gathered easily, using sophisticated monitoring systems and well maintained databases. The advantage to these types of data collection systems is that they require little cooperation on the part of the consumers. Other types of information are less accessible, forcing companies to rely on more intrusive means to obtain important data. This typically involves requesting that consumers engage in some type of self-disclosure (Moon 2000). To date, relatively few studies have been investigated the reciprocal dynamics associated with self-disclosure in the online shopping malls. The present study represents an attempt to examine some of factors related with self-disclosure in a customer-online shopping mall context. By identifying factors affecting consumer's self-disclosure, we can understand the way to interact with our consumers. As marketing paradigms have shifted toward the need to build a relationship with consumers, marketers need to facilitate two-way communication in order to better understand them. We'll examine two different kinds of factors influencing consumer's self-disclosure – factors related shopping mall and internet media perception.

## LITERATURE REVIEW

Self-disclosure is the telling of the previously unknown so that it becomes shared knowledge, the “process of making the self known to others” (Jourard and Lasakow 1958). More specifically, it is the quantity (breadth) and quality (depth) of personal information that an individual provides to another (Jourard 1971). Breadth refers to the number of topics covered by disclosure and depth describes the intimacy level of the disclosure. Yoo (1987) conceptualized self-disclosure into two categories: realistic self-disclosure and emotional self-disclosure. The realistic self-disclosure refers to an individual honestly shares what he/she experienced or is currently experiencing with others. On the other hand, the emotional self-disclosure refers to the emotions and feelings an individual expresses when experiencing certain phenomenon. Particularly in romantic relationships, it serves to increase mutual understanding (Laurenceau, Barrett, and Pietromonaco 1998), and builds trust by making the discloser increasingly vulnerable (emotionally or otherwise) to the other person (Rubin 1975). Since self-disclosure is often reciprocated within a dyad, it often serves to strengthen the ties that bind people in romantic or friendship-based relationships (Jourard 1971).

Disclosure within groups can serve to enhance the bonds of trust between group members, and it can also serve to legitimize group membership and strengthen group identity (Galegher, Sproull, and Kiesler 1998). Disclosure between an individual and an organization can serve authentication purposes. For instance, to establish an identity, companies allow user to authenticate and establish an identity. This enables the organization to recognize the user in the future in order to personalize its offerings and communications.

In general, however, self-disclosure research has shown that people are reluctant to divulge information about themselves (Kelly and McKillop 1996; Lane and Wegner 1995). A common feature of self-disclosure related research is the basic assumption that consumers are reluctant to disclose personal information about themselves because of privacy issues (Kelly and McKillop 1996). Thus, it is important to identify the factors affecting self-disclosure to develop closer relationship with consumers.

A number of psychological and marketing researches have examined the phenomenon of self-disclosure (Altman and Taylor 1973; Berg 1984; Collins and MiUer 1994; Cozby 1973; Daher and Banikitos 1976; Dindia and Allen 1992; Moon 2000, Andrade et al. 2002; Lee et al. 2008). Generally, this research adopts a social exchange theory perspective (Thibaut and Kelley 1959; Ajzen 1977) suggesting that self-disclosure, like other interpersonal behaviors, is engaged in and interpreted in terms of the costs and benefits to the individuals (Andrade et al. 2002). In our research, the benefit of self-disclosure is being able to obtain wanted information and offerings based on the needs of the consumers. The costs of self-disclosure are often consumer concerns relating to privacy issues and misuse of offered information. As a result, a third party might send unwanted and unsolicited e-mail offering products and services that the consumer didn't sign up for.

Moon (2000) found that individuals interact with sources of electronic communications in the same way they interact with people face-to-face. It is very interesting that interpersonal theories on self-disclosure can also apply to an electronic setting as well as to interpersonal interactions (Andrade et al. 2002). Consequently, self-disclosures can be defined herein as online shopper's expressing anything customers want to say about the e-shopping mall. Specifically, customer can inform his/her opinions, complaints and praises to visiting e-malls on the board or via email.

### **Computer-mediated Communication and Self-disclosure**

Since the beginning of online interaction, the study of computer-mediated communication (CMC) has been a major topic of interest. CMC takes the form of using email, computer, conference, and chat systems, all of which differ from face-to-face communication, which partly relies on nonverbal cues and communication (Walther 2002). Self-disclosure on the Internet appears to be a necessary factor when companies are trying to form and develop relationships with its customers via CMC (Cho 2007).

Self-disclosure is of particular interest to researchers of computer-mediated communication and human-computer interaction for a number of reasons (Joinson et al. 2008). Since it acts as a signifier of trust and acceptance of privacy assurances, it is of interest in terms of e-commerce and relationship building online (Joinson and Paine 2007). Secondly, self-disclosure is critical for many Internet-based services (e.g. personalization, Web 2.0 software) to function effectively (Chellappa and Sin 2005) or for Internet applications (such as e-recruitment; Nickel and Schaumburg 2004) to be used to their fullest potential. Within the online environment, customers' information deriving from their self-disclosure tends to be stored in media (Kim and Park 2004). Additionally, customer's self-disclosure reveals information which e-malls/retailers are desired to know. Consumers' self-disclosed information are of kept continuously online someone erases (Kim and Park 2004).

The importance of consumer information has been increasingly emphasized in a marketing context. With improving Internet technology, it became easier to collect consumer information using a combination of tools including databases and information gleaned from tracking purchasing behavior. These data have some limitations as they can only show consumers' behavior in individual transactions and purchase decisions, but typically cannot provide detailed information on a consumer's psychological and sociological characteristics. As a result, more companies are trying to collect detailed consumer information to better understand the needs of consumers using methods such as engagement and types of self-disclosure.

Self-disclosure on the web

Internet users reveal a good deal of personal information about themselves on Internet chats and on-line discussion boards (McKenna et al. 1998). This is the result of psychological aspects of communication on the Internet that make the likelihood of self-disclosure quite high.

In the context of person-to-person mediated interaction, self-disclosure activities has been found to be higher online compared to face-to-face, as well as being responsive to changes in the design of interaction systems (Tidwell and Walther 2002). Explanations for heightened disclosure online usually refer to the reduced vulnerability that online anonymity affords the discloser (the ‘Strangers on the Internet’ phenomenon). Psychologically, anonymity has also associated with increased self-disclosure via changes in self-awareness processes (Joinson 2001), uncertainty seeking behavior (Tidwell and Walther 2002) and online disinhibition effect (Suler 2004).

McKenna et al. (2002) found that those who are better at expressing their “true self” (their inner feelings) were more likely to have formed close online relationships. Joinson (2001) asked same sex dyads to discuss a dilemma involving the selection of five people for a nuclear shelter. Half of the dyads communicated with one another in a face-to-face setting, while the other half communicated via an anonymous chat. The results showed that dyads in the chat setting spontaneously disclosed more personal information than those in the face-to-face setting. And they suggest that participants in computer-mediated settings disclose more information than those in face-to-face ones because of an increase in private self-awareness (an awareness of one's private thoughts and feelings) and a decrease in public self-awareness (a sense of identifiability and accountability). In a medical context, for example, patients report more symptoms when responding to an interview via a computer rather than face-to-face (Beth 2005). In a meta-analysis, Weisband and Kiesler (1996) found that people disclosed more personal information via a computer interview than on paper. In online relationships, Parks and Floyd (1996) found that people reported being more comfortable disclosing personal information online than in face-to-face settings. Migrating offline communities into online virtual communities has the potential to greatly improve their efficiency and ability to support the sharing of critical information and knowledge in a timely fashion (Koh 2007).

The comparative research on the difference in self-disclosure between CMC and face-to-face demonstrated that people using CMC could disclose personal information and develop relationships just as they can in face-to-face encounters (Cho 2007). On the other hand, Mallen (2003) also explored the level of self-disclosure through online chatting compared with face-to-face communication and found no significant difference in level of self-disclosure.

As mentioned above, studies of self-disclosure on the web has focused the difference between extent of online self-disclosure and extent of offline self-disclosure. There are few research with factors affecting self-disclosure on the web. Lee et al. (2008) identified antecedents influencing self-disclosure on the web focusing on the individual's psychological variables. They found the fact that self presentation, relationship management, keeping up with trends, information sharing, information storage, entertainment, showing off have positive influence on voluntary self-disclosure.

Self-disclosure also may be elicited in the social relations and social pressures inherent in dyadic interaction. One of the strongest and most reliably observed phenomena in the self-

disclosure literature is the reciprocity effect (Archer 1979; Goodstein and Reinecker 1974). After receiving a disclosure, it is highly likely that people will respond in kind, reciprocating the amount, topic, and even intimacy level of the original disclosure. Disclosure may be reciprocated even when we feel little attraction or liking for the initial discloser (Derlega et al. 1973). A man may make initial evaluations and decisions that lead to his disclosure to B. A's disclosure would then become part of the situation evaluated by B in deciding whether to disclose in return. B's response, or lack of response, would subsequently be considered by A, and so forth. The social norm for reciprocating disclosure would simply become one of the factors processed by A and B in making their decisions (Omarzu 2000). Thus, we will examine social factors influencing on-line self-disclosure, including perception on the mall's behavior and Internet media.

Shopping mall and social factor

According to the theory of social response, people tend to treat computers as social factors even when they know that machines do not possess feelings, intentions, "selves," or human motivations (Nass et al. 1997; Reeves and Nass 1996). More specifically, when presented with a technology possessing a set of characteristics normally associated with human behavior, humans responded by exhibiting social behaviors and making social attributions (Nass et al. 1995). Consequently, many of the same social conventions that guide interpersonal behavior are also evident in human-computer interaction, even when the conventions no longer make rational "sense" in this different context (Reeves and Nass 1996),

The theoretical explanation for social response theory is based on the idea that humans are social animals, evolutionally biased toward a social orientation (Reeves and Nass 1996). This social orientation becomes even more pronounced when humans are confronted with a technology that exhibits human-like characteristics; in these situations, the tendency to respond socially is reflexive, occurring without extensive thought or deliberation.

The theory of social response provides the basis for predicting how self-disclosure dynamics will unfold in a human-computer context. Moon (2000) proposed people form relationships with computers and these relationships are governed by many of the same social rules of behavior that govern interpersonal interaction. Thus, in the current study, we propose that social behaviors of internet shopping malls can affect consumer's self-disclosure. In addition, social behaviors of internet shopping malls include mall's responsiveness to consumer's request, trustworthiness and assuring privacy.

### **Disclosure Decision Model (DDM)**

Omarzu (2000) proposed Disclosure Decision Model by integrating existing researches on self-disclosure. The DDM outlines a decision-making process individuals follow before disclosing, identifies such variables, and makes predictions regarding their effects on the breadth, duration, and depth of self-disclosure. And the model proposes potential interaction with the target will be evaluated on two dimensions: subjective utility and subjective risk.

The subjective utility of the disclosure reward refers to the perceived value of the desired outcome to the individual disclosing. Derlega and Grzelak (1979) proposed a functional theory of disclosure. According to this theory, individuals disclose to achieve one or more of five basic functions: self-expression, self-clarification, social validation, relationship development, and social control.

The second factor that is assumed to influence specific disclosure behavior is the subjective risk of disclosure. The DDM assumes that, along with evaluating the utility of disclosure rewards, individuals consider the risks as well. These risks include social rejection, betrayal, and (more altruistically) causing discomfort for the listener. Baxter and Montgomery (1996) also identified four risks of disclosing: rejection by the listener, reduction of one's autonomy and personal integrity, loss of control or self-efficacy, and the possibility of hurting or embarrassing the listener.

We attempt to apply DDM to our study because, as previously mentioned, Internet shopping mall can be perceived as social actor by consumer. We'll identify shopping mall variables which promote consumer's self-disclosure focusing on subjective risk because subjective utility (issues) have strong relation with individual's internal effect not with external shopping mall.

Social rejection is concerned with shopping mall's responsiveness. Perceived mall's responsiveness can reduce the possibility of social rejection. Betrayal and reduction of one's autonomy and personal integrity is related with perceived privacy guarantee and trustworthiness of shopping mall. These variables will be explained more specifically in the hypothesis development section.

## **Media perception**

Cognitive psychology literature indicates that computer users react and perform differently when confronted with varied levels of task complexity, e.g. simple versus complex (Norman 1986). To examine the different user reactions in response to different tasks, the current study utilizes the task-technology fit framework. Tasks are broadly defined as the actions carried out by individuals as they turn input into output (Zigurs and Buckland 1998). Task-technology fit (TTF) is the degree to which technology assists an individual in performing his/her portfolio of tasks. At the heart of the TTF model is the assumption that technology provides value by assisting in the completion of tasks. The closer technology aligns with the task at hand, the better it performs (Goodhue 1998). In order to explore the fit between self-disclosure and Internet media perception, we incorporate theoretical concepts from social psychology, marketing, and technology. Specifically, this study incorporates three constructs from the media perception literature that have been used extensively in management information systems research and explores their relationship and impact on self-disclosure.

Research has shown that new media (e.g. the Internet) have the capability to improve and modify information gathering and dissemination strategies (Karahanna and Straub 1999), to affect social interaction (Walther 1995), and allow communication partners to exchange information that would not otherwise have been communicated. Lassar and Dandapani (2003) proposed three factors of Internet media which is supposed to affect user performance. These include social acceptance and social norms (social presence), communication effectiveness (effectiveness), and communications interface (ease of use). In our study, we will use these factors to influence customer's self-disclosure.

### **Factors**

Our first factor is social presence. Social presence is the degree to which a medium conveys the psychological presence of the message sender. It is further defined as the extent to which an individual psychologically perceives other people to be physically present when interacting with them. For instance, face-to-face interaction is considered to be high in social presence while computerized media is generally low (Chidambaram and Jones 1993). Because of the lack of nonverbal cues compared to other media, computers have been found to have less social presence or media richness than other media such as the telephone or voice mail (Perse and Courtright 1993). Past research showed that perception of social presence influences CMC motives and outcomes. For example, college students who rated computers as more socially present tended to use them more often and to find them more helpful in learning (Perse et al. 1992).

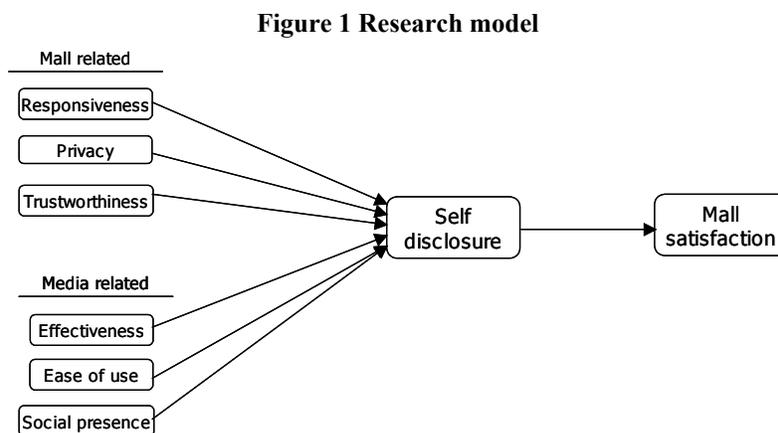
Second factor is communication effectiveness which addresses what medium is best suited for the completion of a specific task. Success depends on the fit between the media and the needs and demands of the audience. The key danger to communication effectiveness is a communication breakdown between user and medium (Lassar and Dandapani 2003). MacInnis et al. (1991) indicate that communication effectiveness is a factor composed of proper stimuli that are dependent on the proper coding of information.

Third factor is communications interface which refers to the actions required by the user to activate and use the communication channel. The human computer interface is the boundary between the human and a computer at which the two make contact, interact, and communicate with each other. Failure to optimize the interface can decrease user perceptions of performance, as messages are not properly decoded.

### **RESEARCH MODEL**

Moon (2000) proposed that the theory of social response provide the basis for predicting how self-disclosure dynamics will unfold in a human-computer context. The specific propositions of this theory are (1) that people form relationships with computers regardless of

whether the computers are represented by a box, a voice, an agent, or so forth; (2) that these relationships are governed by many of the same social rules of behavior that govern interpersonal interaction; and (3) that these relationships are not necessarily transferable, either to other computers or to other humans. Based on the theory of social response, task-technology fit framework, and media perception perspective, authors suggest research model as follow (Figure 1).



## Hypothesis Development

The authors developed hypotheses related to e-shopping mall factors by applying the theories of disclosure within interpersonal exchange relationships and hypotheses related to Internet media factors by applying task-technology fit theory. Metzger (2009) pointed out theories of disclosure within interpersonal exchange relationships might be a useful starting point for developing models of online disclosure in internet-based commercial exchanges.

The authors supposed two kinds of factors influencing shopper's self-disclosure behaviors. One is the factor related to the e-shopping mall. Another is the factor related to the Internet media. A hypotheses related to the e-shopping mall were developed according to the theories of disclosure applied with interpersonal exchange relationships. Metzger (2009) pointed out theories of disclosure within interpersonal exchange relationships might be a useful starting point for developing models of online disclosure in internet-based commercial exchanges. A hypotheses related to the Internet media were developed according to the task-technology fit theory.

### SHOPPING MALL'S RESPONSIVENESS AND SELF-DISCLOSURE

Disclosure may be encouraged or influenced by the actions of others and is assumed to be inherently rewarding to receive; it is also believed to create an obligation in the listener to return

the favor, either by disclosing in exchange or by granting other benefits to the discloser (Omarzu 2000). Receiving disclosure does appear to lead to more positive feelings about the discloser, which could be interpreted as evidence that receiving disclosure is usually rewarding. Research on self-disclosure in face-to-face settings suggests that self-disclosure begets self-disclosure because of a norm of reciprocity (Miller and Kenny 1986). Applied to Internet communication, this perspective maintains that an initial self-disclosure is likely to elicit a self-disclosure because participants are aware of a norm of reciprocity. Partners' responsiveness might reassure people that they are not rejected when partners provided needed social support (Carmeron et al. 2009).

*H1 Shopping mall's responsiveness will have a positive effect on customer's self-disclosure  
Securing privacy and self-disclosure.*

The underlying argument in the self-disclosure literature indicates that people benefit most from obtaining secrets, personal failures and shortcomings off of their chests. However, disclosing could potentially lead to social exclusion because secrets are typically kept to avoid rejection from others (DePaulo et al. 1996). Self-disclosure depends on the perception that the information is safe when divulged to others, based on the results of the previous research (Lee et al. 2008).

*H2 Securing privacy will have a positive effect on customer's self-disclosure.  
Shopping mall's trustworthiness and self-disclosure.*

It is important for e-retailers to make online environments less risky, to translate to higher consumer confidence (Lee et al. 2008). Salisbury et al. (2001) proposed that users often cite feeling secure in performing transactions on the Web as a major factor that removes users concerns about the effective usage of the Internet for making online purchases. Cheng et al. (2006) also insisted perceived web security is also a significant and direct determinant of customer's intention.

*H3 Perceived trustworthiness of the shopping mall will have a positive effect on customer's  
self-disclosure.*

### **Factors Related with Internet Media and Self-disclosure**

As described above, task-technology fit theory assumes that technology provides value by assisting in the completion of tasks; the closer technology aligns with the task at hand, the better it performs (Goodhue 1998). Thus, we can expect that customer's perception on the Internet as means of self-disclosure will impact the act of self-disclosure. As customer perceive Internet media as suitable means to self-disclosure, the possibility that customer reveals his opinion and emotion by Internet will increase.

In order to explore the fit between self-disclosure and Internet media perception, we incorporated the study from Lassar and Dandapani (2003). They proposed three factors of Internet media which is supposed to affect user performance. These include social acceptance and social norms (social presence), communication effectiveness (effectiveness), and communications interface (ease of use). Social presence is the degree to which a medium conveys the psychological presence of the message sender. Communication effectiveness addresses what medium is best suited for the completion of a specific task. In addition, communications interface refers to the actions required by the user to activate and use the communication channel. Thus, we can suppose online customers who intend to disclosure will evaluate the media characteristics (e.g effectiveness, ease of use, social presence) and then make up his/her mind to disclosure.

*H4 Internet media perception (effectiveness, ease of use, social presence) will have a positive effect on customer's self-disclosure.*

### **Self-disclosure and Mall Satisfaction**

Jourard (1971) viewed disclosure as a behavior indicative of psychological adjustment and proposed that individuals who tended to be non-disclosers would be more likely to suffer from mental illnesses. McKenna et al. (2002) found that those who better expressed their “true self” (their inner feelings) were more likely to have formed close online relationships. Self-disclosure plays a vital role in relationship development and maintenance, and self-disclosure and relationship development are “mutually transformative” (Derlega et al. 1993). Self-disclosure transforms the nature of the relationship and the relationship transforms the meaning and consequences of self-disclosure. Consequently, self-disclosure is viewed as a major factor in the development, maintenance, and or deterioration of a relationship (Lee et al. 2008).

*H 5: Customer's self-disclosure will have a positive effect on mall satisfaction.*

## **METHODOLOGY AND RESULTS**

To test our hypotheses, we gathered data by using self-report questionnaires. Respondents are randomly selected from 280 students attending marketing class. Respondents consist of current online shoppers with at least three or more times of purchase experience in online shopping malls and with a mean age of 20's. Especially, because social presence for the Internet is related to feelings which require frequent contacts in order for the user to experience any emotional ties, we therefore feel that respondents must have enough experiences with the Internet. Also, as these users in their 20's will become main consumers in the future electronic market, it is important to study their buying pattern.

Distribution and collection of questionnaires written in Korean were completed from June 2nd, 2008 to June 13th, 2008 in Pusan National University and Ulsan University. A total of 261 questionnaires were collected, except 11 with recording error, omission, or insincere reply. 250 were used in final analysis. Just over half of the sample population consisted of males (51.6%), 98.4% were between the ages of 20's and 30's, and 92.4% were students in the undergraduate program. Measurement items used in this research were used in most past researches and were modified according to the purpose of this research. Multi-item scales were used to measure focal constructs included in the model discussed earlier and all items were measured with a five-point Likert scale ranging from 1=strongly disagree to 5=strongly agree. Specific measurement items and related articles are as following (Table 1).

Constructs & Measurement Items	Sources
<u>Shopping Malls' Responsiveness</u> Shopping mall responses to customer's requests instantly Shopping mall tries to accept customer's proposal Shopping mall responses to customer's requests sincerely	Corbitt et al.(2003) Divett et al.(2003) Ridings et al.(2002)
<u>Shopping Mall's Privacy protection</u> I feel secure sending my information to the mall The mall is a safe means for me to shop I think the information given to the mall will not be misused	Salisbury et al.(2001) Cheng et al.(2006)
<u>Shopping Mall's Trustworthiness</u> I expect the mall's intentions are benevolent Promises made by the mall are likely to be reliable I do not doubt the honesty of the mall	Corbitt et al.(2003) Gefen &Straub(2004)
<u>Perceived Effectiveness For The Internet</u> Using the internet makes it easier for me to disclosure my opinions I find the internet useful to inform others Overall, I find using internet to be useful	Davis(1989) Cheng et al.(2006)
<u>Perceived Social Presence For The Internet</u> There can be a sense of sociability in the internet There can be a sense of human warmth in the internet There can be a sense of human sensitivity in the internet	Burke &Chadambaram(1999) Gefen &Straub(2004)
<u>Self-Disclosure In The Shopping Mall</u> Sometimes I disclose my opinions to the mall's board I have ever sent an e-mail to the manager of the mall I inform another customers by writing on the board I present myself through e-mail or mall's board	Carter &Narissra (2006) Miller et al.(1983) Sprecher &Hendrick(2004)
<u>Satisfaction With Shopping Mall</u> I am satisfied with the mall I like the mall The mall fulfills my expectation in most cases	Lockshin & Innis (1993)

**Table 2: Exploratory Factor Analysis And Reliability Validation**

Measurement Items	Factors								Cronbach alphas
	SD	PRIV	TRUST	EASE	SP	RESP	SATIS	EFFEC	
resp2	.143	.045	.050	.037	.030	.866	.131	.025	.840
resp3	.162	.060	.067	.047	.055	.867	.096	.069	
resp4	.116	.093	-.017	.069	.123	.797	.026	.040	
priv1	.086	.878	.005	.062	.023	.062	.079	.069	.874
priv2	.119	.869	.083	-.025	.055	.079	.077	.050	
priv3	.041	.886	.113	-.048	.074	.060	.066	.102	
trust1	.087	.061	.875	.145	.001	.056	.119	.031	.878
trust2	.103	.035	.883	.165	.075	-.032	.063	.064	
trust3	.192	.115	.841	.074	.093	.079	.030	.112	
effec1	.163	.007	.091	.083	.106	.011	.025	.825	.808
effec2	.028	.168	.036	.004	.014	.030	.045	.857	
effec3	.109	.044	.063	.078	.117	.089	.068	.812	
ease1	.116	-.078	.102	.850	.024	.071	.093	.094	.867
ease2	.045	-.013	.151	.887	.069	.023	.094	.017	
ease3	.001	.078	.112	.880	.009	.061	-.010	.056	
sp2	.054	-.004	.120	.044	.846	.091	.158	.101	.862
sp3	.123	.054	.025	.067	.899	.019	.028	.093	
sp4	.125	.101	.017	-.009	.844	.105	.101	.052	
sd1	.839	.056	.028	.068	.084	.114	.053	.133	.864
sd2	.801	.068	.136	.010	.077	.104	-.014	.086	
sd3	.792	.108	.109	.035	.038	.101	.023	.060	
sd4	.830	.030	.110	.063	.127	.129	.089	.048	
satis1	.004	.081	.098	.026	.176	.143	.851	.016	.823
satis2	-.034	.057	.090	.031	.069	.200	.856	.043	
satis3	.168	.093	.022	.121	.049	-.074	.813	.086	
eigen value	5.613	2.524	2.227	2.135	1.987	1.768	1.573	1.478	
accumulated variance explained	22.451	32.548	41.455	49.995	57.942	65.013	71.307	77.220	

In order to develop a factor structure for antecedents and consequences of self-disclosure, we first performed an exploratory factor analysis and reliability validation. We used an eigenvalue of 1.0 as the stopping criterion and a factor loading value of .4 as the factor interpretation. Principal component analysis (PCA) with varimax rotation yielded 8 factors with 27 measurement items. We found a stable factor structure that did not have cross-loaded items, and these 8 factors explained 77 percent of the matrix variance. Cronbach alphas revealed all measures were reliable (0.808~0.878).

## RESULTS

To validate proposed hypotheses, a two-step approach was employed to analyze the data. The measurement model was assessed by performing a confirmatory factor analysis and correlation matrix analysis. The measurement model statistics are reported in <Table 3>. The results suggest a good fit of the model to the data ( $\chi^2=307.124(p=0.006)$ ,  $\chi^2/df=307.124/247=1.243$ , GFI=0.916, AGFI=0.890, RMR=0.029, NFI=0.900, RFI=0.878, IFI=0.979, TLI=0.974, CFI=0.978, RMSEA=0.031). All indicator loadings are positive and significant ( $p<0.01$ ). The factor loadings for most items of each construct are fairly high, with 0.609 being the lowest loading value of any of the items. The statistics provide evidence of convergent validity: the average variance extracted values exceed the 0.5 cutoff and composite reliability values exceed the 0.6 cutoff recommended by Bagozzi and Yi (1998).

Table 3 : Measurement Model Statistics							
Construct	Items	Standardized Estimates	s.e	t	Composit Reliability	AVE	Goodness of fit indices
Responsiveness	resp2	.802			.804	.583	$\chi^2=307.124(p=0.006)$ , $\chi^2/df=307.124/247=1.243$ , GFI=0.916, AGFI=0.890, RMR=0.029, NFI=0.900, RFI=0.878, IFI=0.979, TLI=0.974, CFI=0.978, RMSEA=0.031
	resp3	.857	.089	11.052			
	resp4	.609	.082	9.152			
Privacy	priv1	.804			.878	.705	
	priv2	.837	.063	14.193			
	priv3	.877	.075	14.678			
Trustworthiness	trust1	.822			.872	.695	
	trust2	.890	.064	15.200			
	trust3	.786	.066	13.596			
Effectiveness	effec1	.752			.764	.519	
	effec2	.724	.136	8.903			
	effec3	.683	.123	8.693			
Ease of use	ease1	.677			.815	.599	
	ease2	.916	.145	9.931			
	ease3	.708	.122	9.806			
Social presence	sp2	.787			.857	.667	
	sp3	.861	.090	13.142			
	sp4	.801	.082	12.654			
Self-disclosure	sd1	.805			.856	.598	
	sd2	.740	.066	11.806			
	sd3	.722	.082	11.496			
	sd4	.822	.079	13.079			
Satisfaction	satis1	.863			.832	.625	
	satis2	.823	.081	12.689			
	satis3	.672	.086	10.714			

The statistics also provide evidence of discriminant validity: the average variance extracted values exceed squared correlation (Fornell and Larcker 1981) and confidence interval of correlation coefficient (correlation coefficient  $\pm 2$ \*standard error) do not include 1.0 (Anderson and Gerbing 1988).

**Table 4 Correlation matrix among constructs**

	Responsive ness	Privacy	Trust worthiness	Effective ness	Ease of use	Social presence	Self disclosure	Satisfaction
Responsiveness		0.059	0.136	0.058	0.021	0.049	0.017	0.109
Privacy	0.243** (0.043)		0.219	0.150	0.009	0.035	0.023	0.055
Trustworthiness	0.369** (0.035)	0.468** (0.041)		0.091	0.073	0.084	0.028	0.170
Effectiveness	0.241** (0.031)	0.387** (0.037)	0.301** (0.027)		0.038	0.055	0.001	0.071
Ease of use	0.146 (0.021)	0.095 (0.024)	0.271** (0.020)	0.196* (0.018)		0.057	0.003	0.047
Social presence	0.222** (0.036)	0.187* (0.040)	0.289** (0.032)	0.234** (0.029)	0.238** (0.021)		0.036	0.094
Self disclosure	0.131 (0.048)	0.151* (0.054)	0.167* (0.042)	0.024 (0.038)	0.051 (0.027)	0.191* (0.046)		0.012
Satisfaction	0.330** (0.030)	0.234** (0.032)	0.412** (0.026)	0.266** (0.023)	0.217** (0.017)	0.306** (0.028)	0.109 (0.036)	

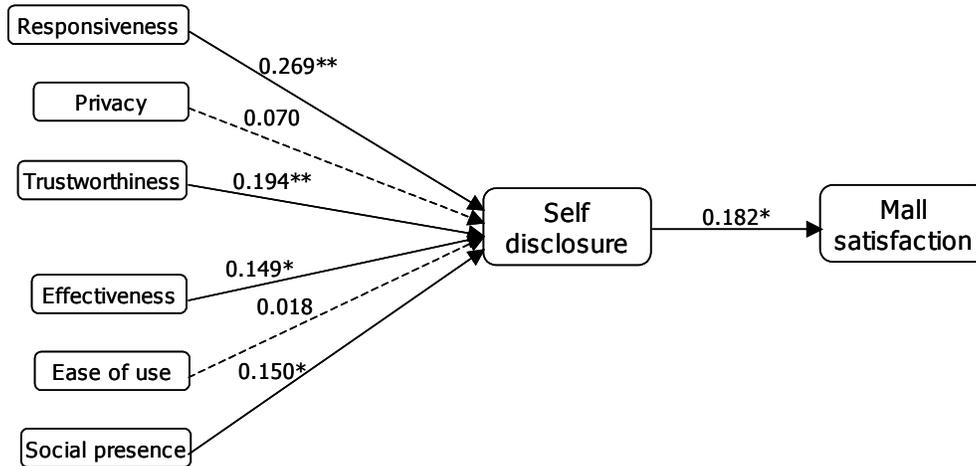
Note1) The lower part of a diagonal line represents correlation coefficients and the upper part of a diagonal line represents squared correlation among constructs.

2) \*\* :  $p < 0.01$ , \* :  $p < 0.05$

3) ( ): standard error

In addition, the relationships between the constructs in the structural model (displayed in Figure 2) were assessed. The goodness of fit indices suggests a good fit of the model to the data ( $\chi^2 = 370.107$  ( $p = 0.00$ ),  $\chi^2/df = 370.107/253 = 1.463$ , GFI = 0.900, AGFI = 0.871, RMR = 0.043, NFI = 0.889, RFI = 0.869, IFI = 0.962, TLI = 0.954, CFI = 0.962, RMSEA = 0.043). Except the paths between privacy, ease of use and self-disclosure, all of the standardized path coefficients in the model are positive and significant.

Figure 2: Structural Model



## DISCUSSION

The present study assumed that customer's self-disclosure is essential to build strong relationships and to maintain one's psychological health, namely satisfaction, from social psychology and psychology field researches. We examined the antecedents of self-disclosure by applying the theories of self-disclosure within interpersonal exchange relationships and task-technology fit theory. The empirical results support the hypotheses that responsiveness and trustworthiness of the e-mall and effectiveness and social presence of Internet media influence self-disclosure positively, but privacy assurance of the mall and ease of use of Internet media do not affect on self-disclosure significantly. As results shown self-disclosure influences user satisfaction for online malls significantly.

Initial disclosure is important because initial disclosure tends to not only intensify the mall satisfaction but also facilitate resulting disclosure. Research on social exchange theory finds that when risk-taking results in a successful outcome, people's perception of the risk of engaging in future similar action is lowered. On the Internet, people may feel encouraged by prior positive experiences with e-commerce and online disclosure, creating a type of "disinhibition effect" (Metzger 2009). In other words, after initial disclosure, more and repeated online disclosure can be perceived as less risky.

The antecedents of self-disclosure were first verified that online mall's responsiveness influences disclosure. Social penetration theory (Altman and Taylor 1973) proposed that initial disclosures elicit increasing amount of disclosure on the part of social interactions, which has been found in the studies of self-disclosure within relational dyads. Thus, online mall managers

have to recognize the importance of mall responsiveness and the need to measure the proper extent of responsiveness specifically (e.g. in terms of spent time) to elicit customer's disclosure. In high-risk situations such as e-commerce transactions, trust is crucial to the formation of exchange relationships. Recent models of consumer e-commerce behavior suggest that trust is a core variable in an electronic exchange environment; and customer's online disclosure may be viewed as a kind of electronic exchange behavior. Usually consumers tend to perceive disclosing information and/or expressing their opinions is a risky act. Thus, providing a sense of trustworthiness to the mall plays a vital role on inducing customer's act of disclosure. In addition, the present study incorporated the media factors as antecedents of self-disclosure. Media can be considered as a kind of communication technology. According to cognitive psychology literature, computer users react and perform differently when confronted with varied levels of task complexity (Norman 1986).

Internet has the capability to allow communication partners to exchange information that would not otherwise have been communicated. In our results, perceived social presence and effectiveness for the Internet media shown significant influence on customer's willingness to disclosure. Social presence is the degree to which a medium conveys the psychological presence of the message sender. As Internet technology improves and becomes more sophisticated, perceived social presence will be intensified.

Perceived effectiveness can be defined as extent which senders consider a medium as best means to express his/her opinions. Thus, users' perceived effectiveness for the Internet might be used as a predictor of customer's disclosure behavior. Mall managers can be restricted to control the customer's perception on the social presence and effectiveness for the Internet. However, they can predict the customer's disclosure behavior by monitoring changing perception on the Internet media. Therefore, mall managers need to focus on the customers who perceive Internet as a sociable environment and an effective tool to elicit more user disclosure behavior.

Several limitations and issues may be addressed. The absence of a detailed theoretical model which features the cognitive processes that affect self-disclosure in the shopping malls constitutes the major limitation to this research effort. Additionally, the study needs to consider multi-step process between self-disclosure and online mall satisfaction by applying more sophisticated cognitive process theories. The use of undergraduate school students as a sample might raise an issue of generalization unless the students represent the target population. Thus, additional study should examine whether these results may be applied to other consumers in e-commerce environments.

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# A FRAMEWORK FOR EXAMINING THE ROLE OF CULTURE IN INDIVIDUALS LIKELIHOOD TO ENGAGE IN SELF-GIFT BEHAVIOR

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## ABSTRACT

*The purpose of this research is to propose a framework to be used for investigating whether self-gifting is a universal phenomenon, or one confined to Western societies. Does everybody self-gift? What are the influences on self-gift behavior? In an attempt to establish who is most likely to self-gift, we have employed the Theory of Reasoned Action and incorporated self-construal to make predictions regarding individual's attitude to self-gifting in general and self-gift advertisements specifically. We also hypothesize that individuals who possess a dominant independent self-construal will have more favorable attitudes towards self-gifting and be more likely to self-gift, whereas individuals with dominant interdependent self-construals will tend to have more negative attitudes towards self-gifting and a strong motivation to comply with references groups negative feelings about self-gifting, and consequently be less likely to self gift, and suggest ways for marketers to appeal to the interdependent self.*

## INTRODUCTION

“Amy White is getting an early start on her holiday shopping list. The St. Louis attorney has already picked out a Harry Potter DVD, a \$70 coffee-table book and a \$39 Victoria’s Secret sweater. There’s even a \$625 purple vase on the list. And the lucky recipient...Ms. White herself” (Mechling, 2010).

Gift giving theory and research has primarily focused on interpersonal gifts (e.g. Belk, 1979). However, as demonstrated by the statement above, people may also give gifts to themselves, and it is believed that the self- gift phenomenon may be widely occurring in American society (Mick and DeMoss, 1990a, 1990b). In fact, previous self-gifting research has primarily focused on Western consumer behavior (e.g. self-gift motivations and occasions (Mick and eMoss, 1990a, 1990b), cognitive processes (Olshavsky and Lee, 1993), materialism (McKeage, Richins, and Debevec, 1993), attribution of achievement outcomes (Faure and Mick, 1993; Mick and Faure, 1998) etc.) However, it is well established that people with different cultural backgrounds may behave differently and have different reactions to similar situations. More specifically, research has shown that different cultural identifications have an impact on

the way people think, feel, and behave (e.g. Markus and Kitayama, 1991). This leads to the question then of whether the results of previous self-gifting studies can be generalized to consumers living in other countries. More specifically, the first question we have to ask is does the concept of a self-gift even exist in other countries or is it one unique to the United States. This research proposes to answer this question by developing a theory that examines different types of consumers attitude and likelihood towards self-gift giving.

More specifically, to investigate potential individual differences (reflecting differences in culture) that may exist with regards to consumers attitude and behavior of self-gifting, the Theory of Reasoned Action, with its established usefulness for predicting and explaining behavior, combined with self-construal, one of the most popular constructs used to explain the effects of culture on a variety of outcomes, will be used to develop a theory to answer this question.

### **SELF-GIFTING AND ADVERTISING**

“A new name has cropped up on holiday shopping lists: Me” (Mayk, 2009). Self-gifts are conceptualized as (1) personally symbolic self-communication through (2) special indulgences that tend to be (3) premeditated and (4) highly context bound (Mick and DeMoss 1990b, p.328). Previous research has substantiated the notion that self-gifts are a fairly common and important phenomenon particularly in western consumer behavior (e.g. Faure and Mick, 1993). According to social researchers, Western individuals have become increasingly self-oriented in their purchases and consumption behavior (Mick, DeMoss and Faber 1992), and an example of this phenomena has been labeled self-gifts. Similarly, McKeage et al. (1993) believe that people have been giving gifts to themselves since the early beginnings of self-indulgence.

Marketers have recognized this trend in the United States and have directed their product development efforts and advertising messages accordingly. For example, the diamond industry has caught onto the new “me” mood, with slogans like “Your left hand says ‘we,’ you’re right hand says ‘me’,” urging women to buy diamonds for themselves. Slogans such as “You deserve a break today” (McDonald's) and “The perfect little thank-me” (Andes candies) present indulgences as personal rewards (Mick and DeMoss, 1990b).

American advertisers have been capitalizing on consumers’ self-gift propensities for some time. The question then becomes whether the propensity to self gift is confined to the United States, or a more wide spread phenomenon. This has important managerial implications for marketers of self-gifts, particularly those in Western cultures that want to market their products abroad. Specifically, the question of which advertising strategy to pursue- one of customization or standardization arises. In other words, can they use the same “self-gift” message (standardization) that they use in the United States or do they need to develop a more tailored message (customization) for consumers in different countries stressing different benefits.

The controversy of choosing a standardization strategy versus a customization strategy is one that is heavily debated in the international marketing literature (e.g. Buzzel 1968; Levitt 1983; Onkvisit Shaw 1987; Yip 1989; Jain 1989; Saimee and Roth 1992; Szymanski et al. 1993 etc.). Proponents of standardization argue that consumers are becoming more homogeneous due to advances in technology and that standardization results in economies of scale which translate into higher profits. On the other hand, those that argue for customization claim that the world is not one big homogeneous market, and that for companies to succeed they have to “think local and act local.” They believe that marketers need to segment their audience and target their products and strategy accordingly or risk losing out to local competitors who better meet their needs.

Research has been done in the United States regarding marketing strategies for self-gift retailers (Mick, DeMoss and Faber, 1992). For example, based on their study of women purchasing perfume for their own use, Mick, DeMoss and Faber (1992), suggested that advertising that emphasized message themes about the increasing professional and personal independence of women may heighten the self gift propensity of women. However, to date no studies have been conducted on the self-gift propensity of international consumers.

The primary goal of this research therefore is to identify if self-gifting is a universal phenomenon, and address the gap in the literature regarding self-gift behavior in a context other than the United States. The results of this research have important implications for managers, particularly when choosing an international advertising strategy. It will help companies who market their products in the United States using self-gift appeals in their advertisements decide whether they should use these messages in other countries or need to modify them to successfully sell their products.

### **SELF-CONSTRUAL AND SELF-GIFTING**

Overall, it has been suggested that self-gifts represent a complex class of personal acquisitions that offer intriguing insights on self-directed consumer behavior (Mick and DeMoss 1990b). “Self gift theory will likely benefit from drawing on additionally relevant psychological research” (Mick and DeMoss, 1990b p. 329) since “with rich and complex qualities, self-gifts provide a window through which consumer behavior can be viewed in some of its most adaptive, dramatic and personal significant forms” (Mick and DeMoss, 1990b p.331).

As demonstrated by its name and definition, one of the predominant aspects of self-gifting is the direct focus and communication with the self. Self-concept, defined as ones beliefs of the images that he/she has about the self (Sirgy, 1982) is crucial to self-gifts in that self-gift giving is intertwined with self-concepts (Mick and DeMoss 1990a, 1990b; Mick, DeMoss and Faber, 1992). Clearly, if people view the self differently, they will react differently to self-gifting. Additionally, considerable evidence exists of cross-cultural differences in the nature of self-concept (e.g. Dhawan et al., 1995; Ip and Bond, 1995) and at least some of the

self-concept differences between cultures can be explained by underlying cultural dimensions such as individualism and collectivism (Watkins et al. 2003). Triandis (1989, 1990) has proposed that in individualist cultures, idiocentric self-conceptions are more likely, whereas in collectivist cultures, the self is more likely to be relational in nature with group cognitions prominent.

Self construals are aspects of self-concept that have been advanced as individual level cultural dimensions that are thought to explain the effects of culture on a variety of outcome measures. They are considered to be individual differences that reflect cultural differences. Self-construal is conceptualized as “constellation of thoughts, feelings, and actions concerning one’s relationship to others, and the self as distinct from others” (Singelis, 1994, p. 581). Taken together with the recommendation above by Mick and DeMoss (1990), we propose to draw on the psychological research of Markus and Kitayama (1991) who identified two dimensions of the self that can be used to characterize consumers self-construal as well as explain and identify differences between cultures: independence and interdependence.

According to Markus and Kitayama, self-construal can be conceptualized by the degree of independence/interdependence that a person possesses. They further state that all people contain both an independent and interdependent self, but that the culture in which they are brought up in influences which one dominates. For example, Europeans and Caucasian Americans are typically said to have an independent self because they tend to emphasize the individual whereas people from Asian cultures are typically interdependent because they tend to emphasize the group as more important than the individual. People with independent self-construals strive to develop and express their unique characteristics, whereas people with interdependent self-construals place value on harmonious relationships with others and acceptance in their community. Those with well-developed independent self-construals gain self-esteem through expressing the self and validating their internal attributes, whereas harmonious interpersonal relationships and the ability to adjust to various situations are sources of self esteem for the interdependent self-construal (Singelis 1994). After reviewing an extensive array of studies, Markus and Kitayama (1991) argue that these independent and interdependent views of the self influence cognition, emotion, and motivation and help to explain individual differences between cultural groups.

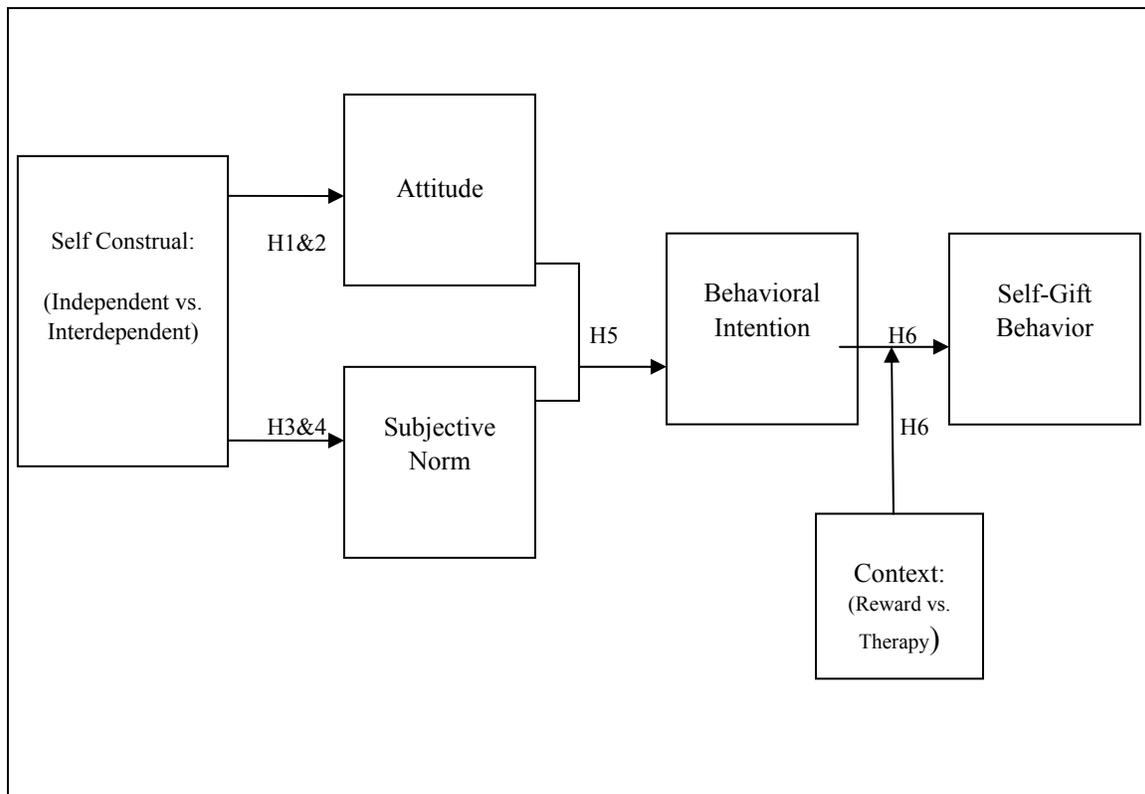
The influence of culture on behavior is supported empirically in various studies (e.g. Aaker and Maheswaran 1997). Triandis (1988) presented an explanation on the influence of culture on behavior by using the concept of the self as a mediating variable between culture and individual behavior. He concluded that culture affects behavior both by influencing self-image and by defining situations. Similarly, we propose that consumers self-construal will have an impact on their attitude and likelihood to self-gift as well as the type of self-gift. More specifically, it seems that people with an independent self-construal will be more likely to self-gift, as they tend to have self-benefiting motivations, such as the need to achieve and self-enhance. Conversely, people with an interdependent self-construal will be less likely to self-gift

as they tend to derive their motivations from what benefits others and a group as a whole, such as the need to be agreeable to others, to accommodate to their needs, and to restrain one's own wishes or wants.

In short, self-construal as defined by independence versus interdependence is the construct that will be used as a determinant of consumers attitudes towards self-gifting, since it emphasizes differences of ones view of the self and may influence the cognition, emotion and motivation to self-gift. In addition, the Theory Of Reasoned Action (TRA) (Fishbein and Ajzen, 1975, 1981), one of the most widely accepted and employed predictor of behavior theories in the social sciences (Ajzen and Fishbein, 1973; Ryan and Bonfield, 1975; Sheppard, Hartwick and Warshaw 1988) will be used to develop our theory on self-gift likelihood across cultures. The TRA has also been tested cross culturally and the findings have generally been consistent with the theory (e.g., Gidin et al., 1996).

The Theory of Reasoned Action predicts that a person's attitude and subjective norm both impact behavioral intent, which subsequently predicts behavior (Ajzen & Fishbein, 1970, 1974, 1980; Fishbein & Ajzen, 1975). The value of the attitudinal and normative components, as well as their relative weights in predicting behavioral intention, vary from person to person depending on a variety of social, cultural and individual factors. For example, self-related constructs (e.g. Miller and Grush, 1986), and culture (e.g. Lee and Green, 1991) are some of the factors that influence the relative weights of the two components in predicting behavioral intention. Charng, Piliavin and Callero (1988) suggest that "one might attain better prediction and better understanding of repeated behaviors if one were to *add* to the variables included in the theory of reasoned action some measure of the individual's self-concept in relation to the behavior one is trying to predict" (p.304). According to Park and Levine (1999) self-construals merit consideration as factors affecting the attitudinal and normative components. "Self-construals represent another branch in the study of self with an emphasis on how the self may differ in different cultural contexts." (Park and Levine, 1999, p.200). The conceptual model can be seen below.

Figure 1



### HYPOTHESIS DEVELOPMENT

According to our model, self-construal will influence people's subjective norm and attitude towards self-gifting. Together, the subjective norm and attitude towards self-gifting will be indicative of consumers intention to self-gift, and this intention according to the theory is the best predictor of what their actual behavior will be like. We also propose that their behavior will be moderated by the context of the self-gift, depending on whether they are self-gifting for reward or therapeutic reasons. This will be discussed below.

#### Self-Construal and Attitude

As mentioned earlier, it appears that self-gift purchasing may be linked to both cultural and personal values. For example, Shapiro (1993) suggested that self-gift behavior may be particularly linked to cultural beliefs that purchasing and consumption are appropriate to the pursuit of individual happiness. In addition, McKeage, Richins, and Debevec (1993) showed

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that materialists are more likely to self-gift than non-materialists due to their attitude of materialism as a personal value.

Clearly attitude is a key construct in determining self-gift behavior. We propose that self-construal will have an effect on the persons attitude towards self-gifting in general and towards self-gifting advertisements specifically. More specifically, since people with an independent self-construal place an emphasis on “a) internal abilities, thoughts and feelings, b) being unique and expressing the self, c) realizing internal attributes and promoting ones own goals, and d) being direct in communication” (Singelis 1994 p. 581) and people with an interdependent self-construal emphasize “a) external public features such as statuses, roles and relationships, b) belonging and fitting in, c) occupying one’s proper place and engaging in appropriate action, and d) being indirect in communication” their attitude towards self-gifting will reflect these tendencies. People with an independent self-construal will have a more favorable attitude towards self-gifting, as they tend to have self-benefiting motivations, such as the need to achieve and self-enhance. Conversely, people with an interdependent self-construal will have a less favorable attitude towards self-gifting as they tend to derive their motivations from what benefits others and a group as a whole, such as the need to be agreeable to others, to accommodate to their needs, and to restrain one’s own wishes or wants.

In addition, Park and Levine, (1999) found that the strength of an individuals independent self-construal was positively correlated with their personal attitude towards behavior and that the strength of an individuals interdependent self-construal was negatively related to ones personal attitude toward behavior. This is in support of our hypotheses.

More formally:

*H1: Individuals with independent (interdependent) self-construals will have a more (less) favorable attitude towards self-gifting than individuals with interdependent (independent) self-construals.*

### **Self-Gift Ads and attitude**

Belk, Bryce, and Pollay (1985) suggest that in order for ads to be effective, they have to appeal to the values that are salient in the culture of its intended audience. Not surprisingly, ads emphasizing values that are consistent with the value orientation of the society tend to be more persuasive. It has also been shown that one very important dimension of culture to consider when developing international advertising messages is that of individualism-collectivism (Han and Shavitt, 1994; Zandpour et al., 1994). Similarly, Gregory and Munch (1997) found that cultural values (norms and roles) are important dimensions to consider when developing international advertisements.

In their 1994 study, Han and Shavitt showed that members of individualistic and collectivistic societies responded differently to ads emphasizing individualistic versus

collectivistic appeals. They found that subjects in the United States were more persuaded overall by ads emphasizing individualistic benefits, whereas subjects in Korea tended to be more persuaded by ads emphasizing collectivistic benefits. “It is evident that cultural differences in individualism-collectivism play an important role in the persuasion processes both at the societal and the individual level, influencing the prevalence and effectiveness of different types of advertising appeals” (343).

Therefore, ads presenting norms and roles that are consistent with individuals’ self-construal will be more persuasive. Self-gift appeals will be favored by individuals with independent self-construals but will not be responded to favorably by individuals with interdependent self-construals. Conversely, if self-gift advertisers can use an appeal not emphasizing the independence and deservingness of individuals, but rather something more inline with the subjective norm of interdependents, these ads will be responded to more favorably by interdependents and may increase the likelihood of their self-gift behavior. More specifically:

*H2a: Individuals with independent self-construals (compared with interdependent self-construals) will respond more favorably to self-gift ads that present cultural norms consistent with an individualistic orientation. (e.g. “Because I’m worth it,” Loreal)*

*H2b: Individuals with interdependent self-construals (compared with independent self-construals) will respond more favorably to self-gift ads that present cultural norms consistent with a collectivist orientation. (e.g. “Your family thinks your worth it”)*

### **Self-Construal and Subjective Norm**

Subjective norm is composed of two components: normative beliefs and motivation to comply. Normative beliefs represent an individual’s perception of what significant others would think about his/her performing behavior and the motivation to comply with others refers to ones willingness to follow others wishes. Because those with independent self-construals emphasize their own thoughts, feelings and actions, rather than others, and like to feel independent, they will most likely not feel compelled to comply with others thoughts on self-gifting, because it will be an invasion on their sense of independence. Conversely, individuals with interdependent self-construals who do not view conformity to what others think and feel in a negative light, but rather consider it rewarding to meet others expectations and maintain harmony with significant others, will be more likely to comply with the expectations of others.

This is in line with research done by Kim and Markus (1999) who did a study comparing values of uniqueness and conformity in East Asia and the United States. Referring to East Asians and their desire for conformity, they say “it is not that they conform because they experience social pressure to conform but that they actively like to conform in the sense of being connected to others, For east Asians, following norms validates the self as a good person”

(p.786). In contrast, individuals in the United States believe that “attitudes, feelings, and behavior should be determined by the self without being controlled by any external cause.... conformity threatens the self as a worthy individual whereas uniqueness symbolizes the assertion of individuality and self-worth...” (p.786).

Similarly, we predict that individuals with independent self-construals will not be motivated to comply with how significant others view self-gifting, though the normative belief will probably be positive, and that individuals with interdependent self-construals will be motivated to comply with the normative beliefs of others, and these normative beliefs about self-gifting will not be positive.

In sum:

*H3a: Individuals with independent self-construals will have positive normative beliefs about self-gifting.*

*H3b: Individuals with interdependent self-construals will have negative normative beliefs about self-gifting.*

*H4a: Individuals with independent self-construals will not be motivated to comply with the thoughts of significant others*

*H4b: Individuals with interdependent self-construals will be motivated to comply with the thoughts of significant others.*

## **Behavioral Intention**

Based on the model, the attitude and subjective norm will indicate the behavioral intention of the individual to self-gift. The weights attached to these two constructs vary depending on the topic being investigated. Factors such as individual or cultural differences influence both a person’s attitude toward behavior and subjective norm as well as the relative weights of the two. For example, subjective norm was found to be a stronger determinant of the intention to buy sneakers for Koreans, while attitude toward behavior was a better predictor of the behavioral intention for Americans ( Lee and Green, 1991).

We therefore propose that for individuals with independent self-construals, their own attitude (rather than the subjective norm) towards self-gifting will play a more influential role in predicting their intention to self-gift, and that for individuals with interdependent self-construals, the subjective norm (rather than attitude) will play a more influential role in determining their intention to self-gift.

More formally,

*H5a: For individuals with independent self-construals, attitude, rather than subjective norm will be more influential in predicting individuals’ behavioral intention to self-gift.*

*H5b: For individuals with interdependent self-construals, the subjective norm, rather than attitude will be more influential in predicting individuals' behavioral intention to self-gift.*

### **Self-gift Behavior: Moderated By Context**

According to the model, the context of the self-gift will play a moderating role on individuals' self-gift behavior. These two contexts are reward (buying yourself a gift after a great accomplishment) and therapy (buying yourself a gift to cheer yourself up after a disappointment). These contexts and their role in the model will be discussed below.

Early research on self-gifts revealed that self-gifts appeared to be acquired within a relatively confined set of circumstances and motivations (Mick and DeMoss 1990a). More specifically, eight contexts for self-gifts were identified based on focus group discussions and prior qualitative survey research (Mick and DeMoss 1990a, 1990b): 1) to reward yourself, 2) to cheer yourself up, 3) because it was a holiday, 4) to relieve stress, 5) as an incentive to reach a personal goal, 6) because it was your birthday, 7) just to be nice to yourself, and 8) because you had extra money to spend (Mick and DeMoss 1992).

As mentioned above, eight contexts of self-gifts were identified, however the reward and therapy contexts appear to be the two predominant contexts of self-gifts (Mick and DeMoss 1990a, 1990b, 1992) and are the two contexts that this research will study. Specifically, we hypothesize that these two contexts will play a moderating role on self-gift behavior.

In their 1993 study, Faure and Mick suggest testing whether or not there are any differences between the types of self-gifts one buys after a success or after a failure. Mick and Faure (1998) also suggested that therapeutic self-gifts may result from a different type of psychological process than reward self-gifts. In keeping with this train of thought, we propose that the context of the self-gift may play a moderating role in consumers' likelihood to self-gift.

More specifically, previous research has shown that when self-gifting, there was a higher frequency of the reward motivation reported by males (Mick and DeMoss's 1990a) and Mick and DeMoss (1992) found that females were more likely to engage in self gift behavior in therapeutic and nice to self contexts, whereas males were more inclined in situations where the self gift served as an incentive to reach a goal. Similarly, Markus and Kitayama (1991) suggest that American men and women develop divergent self-construals similar to those observed cross-culturally. Men typically develop an independent self-construal, common in Western cultures, in which representations of others are separate from the self. Similar to Eastern societies, women typically develop an interdependent self-construal, in which others are viewed as part of the self (Cross & Madson, 1997).

Taken together, these results point to the following propositions:

*H6a: Individuals with independent self-construals will be more likely to self-gift in reward contexts and less likely to self-gift in therapy contexts.*

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*H6b: Individuals with interdependent self-construals will be more likely to self-gift in therapy contexts and less likely in reward contexts.*

## CONCLUSION

The purpose of this research was to propose a theory to investigate whether self-gifting is a universal phenomenon, or one confined to Western societies. Does everybody self-gift? What are the influences on self-gift behavior? In an attempt to establish who is most likely to self-gift, we have employed the Theory of Reasoned Action and incorporated self-construal to make various predictions. In short, it is hypothesized that individuals who possess a dominant independent self-construal will have more favorable attitudes towards self-gifting and be more likely to self-gift, whereas individuals with dominant interdependent self-construals will tend to have more negative attitudes towards self-gifting and a strong motivation to comply with references groups feelings about self-gifting, and consequently be less likely to self gift.

In addition, though the hypotheses predict that individual with independent self-construals will a more favorable attitude towards self-gifting and be more likely to self-gift than individuals with interdependent self-construals, this does not mean that individual with interdependent self-construals cannot be effectively targeted and motivated to self-gift. The right appeal combined with a positive subjective norm can encourage individuals with interdependent self-construals to self-gift as well. For example, rather than using slogans like those used in the United States that emphasizes the worth of the individual, (i.e. You deserve it), slogans that emphasize family and friends will be more effective for individuals with interdependent self-construals.

This research has contributed to the self-gifting literature by extending the self-gift research cross culturally, as well as by developing a theory that predicts self-gift attitude and behavior. In a recent study, based on empirical evidences, Tsai (2005) suggests that self-gifting behavior is a significant antecedent in individuals' likelihood of buying luxury brands. Further, it has important marketing implications for marketers of self-gift products and for marketers that use self-gift appeals in their advertisements that want to target consumers that are not the typical western independent individual.

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# USING TAGUCHI METHODS IN A MARKETING STUDY TO DETERMINE FEATURES FOR A SMARTPHONE

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## ABSTRACT

*One of the most important issues involved in launching a new product offering involves identifying those features which will enable a product to garner the greatest market share. Numerous approaches have been used for this purpose, with Quality Function Deployment (QFD) being perhaps the best known and most widely used. In recent years, there has been considerable discussion of the use of Taguchi methods in marketing studies for identifying product features, and yet the literature remains quite sparse in the actual use of Taguchi methods for this purpose. This paper makes a contribution to the literature on Taguchi methods in a marketing study to illustrate their use to identify the most important features to be offered for a SmartPhone. The paper further contributes to the existing literature by illustrating a means of estimating how pairs of features may inter-relate to yield a more favorable product reception by the market.*

## INTRODUCTION

Statistical experimental methods have emerged as a powerful method for analyzing cause and effect relationships among factors over the past 75 years. Design of Experiments (DoE) methods are used in industry for process improvement and optimization purposes (Singh et al. 2006; Huang and Lin 2004). Taguchi (1986) introduced a simplified and modified DoE approach, which has been widely adopted in industry. More recently, the power of Taguchi's approach is that it is quite generally applicable to a broad range of experimental situations in which the components of variation, including those of interaction, are desired.

It has been used for such diverse applications as bearing deflections, diesel engine nozzle design, cloth quality evaluation, the design of clothing, bank and insurance contracting and electrical power consumption (Taguchi, 1988b) as well as engineering and science in general (Wright 2002). One limitation of the method is the actual process tends to cause disruption in the plant, and may be uneconomical (Sukthomya and Tannock 2005). In recent years, researchers have developed approaches in Neural Networks (Guh and Tannock 1999); and Evolutionary Operations (Box 1978)) to test process parameters, without production interruptions. However, in this study, classical experimental analysis and Taguchi Methods, without actual experimentation, are used to investigate process parameter effects.

While Taguchi methods have been used widely in all sorts of applications, their use in marketing is relatively limited. Their most common applications have been in advertising and sales, and direct marketing campaigns where success factors, thought to have major influence on sales, are tested to create optimal ads for increasing response rates. The techniques have been used to increase response to email, website and more recently pay per click advertising. In these cases orthogonal arrays were created to test which combination of features or success factors such as pricing, subject line, monthly fee, message text, sender, image, etc. generate optimum response. The methods have been touted as producing response increases of hundreds sometimes thousands of percent (Kowalick 2004; Roy and Bullock 2004).

More relevant to the current study, Taguchi methods have also been used in marketing in later stage product design where optimal values are determined for product features. For example, the size or weight of a SmartPhone, or its data transfer rate, or its storage capacity might be optimized as to cost of manufacture versus the market share to be garnered by the new product. As a matter of fact, as will be seen below in the *Literature Review*, the literature on the use of experimental method in Marketing, particularly Taguchi's method, is relatively sparse. This is perhaps due to marketing's growth out of and reliance on social rather than hard sciences. As will be demonstrated, the adoption of this method, more commonly used in engineering design and process management, can prove quite useful in marketing research. Rather than traditional one-factor-at-a-time experiments Taguchi technique "can be used to study effects of change of many factors at a time. Because the behavior of all kinds of things may usually be dependent on more than one factor, the areas of use of the technique are unlimited" (Roy and Bullock, p. 3), including testing many factors in combination in order to optimize market share. Thus, this paper provides a novel addition to the relatively sparse literature.

The SmartPhone was chosen for analysis as an extension of a research project originally given to an advanced marketing class taught by one of the authors. This project simply provided a convenient opportunity to demonstrate the use of Taguchi methods in marketing analysis.

## LITERATURE REVIEW

The work of Sir Ronald A. Fisher of England (Fisher 1942) is credited with the immense contribution to experimentation over several decades ago (Kempthorne 1967). Up to the time that Fisher began his important work, estimation of population parameters and tests of hypotheses were performed by making assumptions as to the distribution of the unknown population parameters. Fisher argued that this approach was completely wrongheaded, and that the population parameters should be estimated from samples taken from the population (Fisher 1942). This insight revolutionized the entire field of experimental analysis. As a matter of fact, it was Fisher who originated most of the ideas used in modern experimental method (Box, Hunter and Hunter 1978).

In the late 1940s and early 1950s experimentation received another very large benefit when it began to merge with the quality movement that began taking root in Japan. During this period the ideas of Deming had been largely rejected by American industrialists. However, Deming found that his ideas concerning quality were readily accepted by the Japanese, who were attempting to rebuild their industrial base after WW II and were interested in reducing costs to the greatest extent possible. Moreover, Japan did not have extensive natural resources, and was solicitous of eliminating as much waste as possible. With this situation prevailing, Deming's ideas readily took hold. At the time Deming began work with the Japanese, he had been using statistical methods to improve quality (Sutterfield and Kelly, 2005), and soon began teaching them Statistical Quality Control. The Japanese had already discovered that statistical methods could be employed for much more than monitoring and improving quality (Montgomery, 1991). At about the same time, such pioneers as Ishikawa (1952), Masuyama (1955, 1956) and Taguchi (1956a, 1956b) had begun to use such methods to facilitate scientific experimentation.

In a third 1956 work, Taguchi published the original version of his monumental work on experimental method. Although many other Japanese scientists have made many substantial contributions to the field of experimental method, it is Taguchi, more than any other, who has advanced this area of science, and after whom the field has been named as "Taguchi Methods." Considering the immense success achieved by the Japanese using designed experiments, it is to be regretted that they have not been more widely used in the West (Montgomery 1991).

## METHODOLOGY

The philosophy and approach of experimental methodology are the same no matter which approach is used for the analysis of experimental results. Thus, the experimental methodology is identical whether classical analysis or Taguchi analysis is used. The experimental method has been discussed in detail by its trailblazers (Kempthorne 1967; Box et al. 1978), as well as a previous work by (Sutterfield, Drake and Kelly 2005). This latter work may be consulted for a concise statement of the philosophy and approach of the experimental method.

What the Taguchi method attempts to do is to estimate the strength of some response variable, in our case consumer preference, using variance as a measure of that preference. The control variables, in our case product features, are what cause the consumer response. Other approaches that might have been used to determine desirable features are Quality Function Deployment (QFD), and Analytical Hierarchy Process (AHP). These, however, do not seek to measure the strength of the consumer response, and certainly are not aimed at measuring feature interactions. So far as the authors are aware, no other method, not even conjoint analysis, seeks to measure the response of a large group of respondents to product features, nor the interaction among those features. In the present case, the approach was conceived after one of the writers, and engineer with a background in Taguchi methods, and the other writer, with a background in marketing, began to discuss how they might collaborate in a project.

In using Taguchi's experimental method, the experimenter first determines those factors (called control variables) thought to be responsible for causing a given effect (the response variable). The number of those factors, along with their possible interactions, determines the size of the experiment and, consequently, the orthogonal array to be employed. Orthogonal arrays have been developed for extremely large experiments. Software is available for Taguchi experimental analysis from Nutek, Inc., called Qualitek-4. The authors chose to perform such analysis manually, because manual analysis sometimes discloses information that is concealed when software is used to perform calculations.

In applying this methodology to marketing analysis, it was first necessary to decide which product features for a SmartPhone would be selected to be sampled with the respondents. Product features were determined through exploratory research including review of secondary data, a focus group and interviews with self described early adopters/heavy users. Along with those features to be tested, it was also necessary to determine the number to be included in the analysis at one time. In an actual product development application, more features might have been chosen for consumer testing. However, this would have meant that more feature interactions would have to have been investigated. Since the purpose of the authors was to demonstrate a methodology, the more limited set of factors, shown below in Table 1, was selected for analysis.

### **APPLICATION OF METHODOLOGY**

The control factors (product features) to be investigated were identified, and an orthogonal array selected to accommodate the factors and their interactions. The survey instrument was then designed to conform to the selected orthogonal array, and an extensive focus group conducted. The survey instrument was then administered. The experimental data used for this analysis were obtained from a survey performed with 177 students in a university class. The survey instrument was designed for several purposes, among which was to obtain a set of responses for this experiment. The relevant portion of the survey instrument for this experiment is shown below in Table 1.

<b>Table 1: Original Data from SmartPhone Experiment</b>				
<b>My ideal smartphone absolutely must have the following features:</b>				
<b>Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
<b>Quick Internet Access</b>	118 67%	42 24%	3 2%	14 8%
<b>Qwerty (standard) Keyboard</b>	104 59%	45 25%	8 5%	20 11%
<b>Touch Screen</b>	70 40%	50 28%	37 21%	20 11%
<b>GPS</b>	68 38%	56 32%	36 20%	17 10%
<b>Camera</b>	119 67%	40 23%	6 3%	12 7%
<b>MP3</b>	79 45%	54 31%	29 16%	15 8%
<b>Swype Texting</b>	32 18%	57 32%	61 34%	27 15%

Although this instrument has four categories of responses, and could have been analyzed using a slightly different type of factorial analysis, the resulting analysis would have been considerably more complex. Thus, it was decided for the purposes of this experiment to combine the two categories involving agreement and the two involving disagreement, so that two final categories resulted: The categories of disagreement becoming “No,” and the categories of agreement becoming “Yes.” Also, the features were rearranged to facilitate assignment to the orthogonal array. The result of these operations is shown in Table 2.

<b>Table 2: Adjusted Data from SmartPhone Experiment</b>						
		<b>Responses</b>				
<u>Factor</u>	<u>Definition</u>	<u>No</u>	<u>Yes</u>	<u>Totals</u>	<u>% No</u>	<u>% Yes</u>
1	Qwerty Keyboard	28	149	177	0.158	0.842
2	Swype Texting	89	88	177	0.503	0.497
3	Touch screen	57	120	177	0.322	0.678
4	Quick Internet Access	17	160	177	0.096	0.904
5	Global Positioning System	53	124	177	0.299	0.701
6	Camera	18	159	177	0.102	0.898
7	MP3	44	133	177	0.249	0.751

Further, in order to facilitate assignment of the above features to the orthogonal array, a factor identification, along with column identifications for each factor and factor interactions, was made for each of the above features as shown in Table 3.

Table 3: Factor Definition for Orthogonal Array		
Column	Factor	Definition
1	B	Querty Keyboard
2	G	Swype Texting
3	BxG	Interaction of BxG
4	C	Touch Screen
5	BxC	Interaction of BxC
6	CxG	Interaction of CxG
7	A	Quick Internet Access
8	D	Global Positioning System
9	E	Camera
10	AxF	Interaction of AxF
11	ExG	Interaction of ExG
12	e	Error term
13	F	Music Player 3
14	AxE	Interaction of AxE
15	AxD	Interaction of AxD

It is important at this point to discuss several of the finer points of Taguchi experimental analysis. First, once the factors to be examined have been selected, it is necessary to determine the possible interactions among these factors. Next, any interactions that are logically impossible are eliminated. Once this is done, an orthogonal array is chosen of a size that will accommodate all control factors (product features) plus their interactions plus one additional column for experimental error. Once selected, the orthogonal array becomes a template, or alternatively specifies a protocol, for conducting an experiment.

Factors may be assigned arbitrarily to columns, but are generally assigned so as to facilitate calculating the interactions between factors. In an orthogonal array, the sum of the column numbers for any two factors yields the number of the column in which their interaction is found. Take for example three factors: A, B and C. If factor A is assigned to column 1 and factor B to column 2, then their interaction AxB will be found in column 3 (1+2). Further, if factor C is then assigned to column 4, the interaction AxC will be found in column 5 (1+4) and that for BxC in column 6 (2+4), etc. All of this will explain the relationship between Tables 3 and 4. With regard to Tables 2 and 3, the order of the factors in Table 2 is the order in which the

factors (product features) were originally arranged in the survey instrument. The same identical factors appear in Table 3 rearranged to facilitate calculating interactions.

For this type of experiment, the experimental method selected was that of *factorial analysis*. In using factorial analysis, the orthogonal array chosen becomes the format for executing the experiment. Further, it is necessary to select an orthogonal array that will accommodate not only the principal factors (in the instant case SmartPhone *features*), but also the factor interactions that are thought to be significant. Since one of the chief purposes of this experiment was that of determining interactions among features, an orthogonal array of type L<sub>16</sub> (2<sup>15</sup>) was selected. What the preceding convention means in factorial analysis is that the necessary orthogonal array has sixteen rows and will accommodate fifteen factors, each with two levels. Since it is necessary to dedicate one column to experimental error, only seven feature interactions can be analyzed. However, there are twenty-one possible feature interactions (seven things taken two at a time). Thus, it was necessary to pare down the possibilities to seven before performing the analysis. For example, although there exists the *formal* possibility of an interaction between the *Camera* and *Music Player 3* features, there is no logical reason as to why there should be one. Consequently, this formal possibility was eliminated. Other possible formal feature interactions were similarly eliminated. The final result, along with column assignments for features and interactions, is shown in Table 4.

No.	1 B	2 G	3 BxG	4 C	5 BxC	6 GxC	7 A	8 D	9 E	10 AxF	11 GxE	12 e	13 F	14 AxE	15 AxD	Response Data	Working Data
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	378	-572
2	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	779	-171
3	1	1	1	2	2	2	2	1	1	1	1	2	2	2	2	835	-115
4	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1,193	243
5	1	2	2	1	1	2	2	1	1	2	2	1	1	2	2	612	-338
6	1	2	2	1	1	2	2	2	2	1	1	2	2	1	1	1,255	305
7	1	2	2	2	2	1	1	1	1	2	2	2	2	1	1	578	-372
8	1	2	2	2	2	1	1	2	2	1	1	1	1	2	2	929	-21
9	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1,343	393
10	2	1	2	1	2	1	2	2	1	2	1	2	1	2	1	1,023	73
11	2	1	2	2	1	2	1	1	2	1	2	2	1	2	1	972	22
12	2	1	2	2	1	2	1	2	1	2	1	1	2	1	2	922	-28
13	2	2	1	1	2	2	1	1	2	2	1	1	2	2	1	919	-31
14	2	2	1	1	2	2	1	2	1	1	2	2	1	1	2	674	-276
15	2	2	1	2	1	1	2	1	2	2	1	2	1	1	2	1,318	368
16	2	2	1	2	1	1	2	2	1	1	2	1	2	2	1	1,206	256

The values in the *Response Data* column were obtained by adding together the number of responses corresponding to the “1s” and “2s” in the row corresponding to the levels of the features in the columns. For example, the 378 for row 1 was obtained by adding together the “No” responses for all of the features, etc. One of the aspects of Taguchi methods is that of deducting an amount from each of the response datum called the *working mean*. In the present analysis, a working mean of 950 was deducted from each of the response datum to obtain the values in the rightmost column labeled *Working Data*.

## RESULTS

The total variation was obtained by summing the squares of the coded values, and deducting the square of the sum of these divided by 16, the number of coded values. This is illustrated in the following calculation:

$$S_T = X_1^2 + X_2^2 + X_3^2 + \dots + X_n^2 - \frac{(CF)^2}{n}$$

Then substituting the coded data for the response variable from Table 2 ....

$$S_T = (-572)^2 + (-171)^2 + \dots + (73)^2 + (22)^2 - \frac{(-572 - 171 + \dots + 73 + 22)^2}{16}$$

$$S_T = 1,210,114$$

The effect for a given control factor is obtained by summing the values of the response factor for the “1s” in a given column, summing the values of the response factor for the “2s” in the column, taking the difference between the two sums, and squaring it. The result of this calculation is the variation for the effect is known as the variation. For a  $2^n$  orthogonal array, the variation for any factor may be written as ...

$$S = \frac{[(\sum RV_2) - (\sum RV_1)]^2}{n}$$

where ...

$RV_2$  – the value of the response variable at the high level of the control factor in question

$RV_1$  – the value of the response variable at the low level of the control factor in question

$n$  – the number of experiments performed

This computation is illustrated for control factor “A” as follows:

$\Sigma(\text{coded values corresponding with “1s” in column for A}) = 1,433$

$\Sigma(\text{coded values corresponding with “2s” in column for A}) = -1,016$

$$S_G = \frac{[(1,433 - (-1,016))]^2}{16}$$

The variations for the remaining control factors and their interactions were calculated similarly. The error term was calculated in the manner just outlined, and then independently checked using the equation ...

$$S_e = S_T - S_A - S_B - \dots - S_n$$

In order to calculate the interactions between features, it was necessary to employ an approach similar to that of calculating marginal probabilities. A two-way table was laid out for the two features, similar to that for marginal probabilities and the fractions answering “No” and “Yes” for each of the features. This resulted in four different possibilities. By performing the four multiplications, it was possible to obtain the number of respondents wanting neither feature, the numbers for two cases in which respondents wanted one feature but not the other, and the number of respondents who wanted both features. Tables 5 and 6 below show an example calculation for obtaining these four possibilities.

		Feature G		
		Feature G		
		No (%)	Yes (%)	
		0.503	0.497	
Feature B	No (%)	0.158	0.080	0.079
	Yes (%)	0.842	0.423	0.419

	G <sub>1</sub>	G <sub>2</sub>
B <sub>1</sub>	14	14
B <sub>2</sub>	75	74

The numbers in Table 6 were obtained by multiplying the four marginal fractions in Table 5 by 177. The interpretation of the four numbers in Table 6 is as follows: B<sub>1</sub>xG<sub>1</sub> means that 14 respondents did not desire either feature; B<sub>1</sub>xG<sub>2</sub> that 14 respondents desired feature G but not feature B; B<sub>2</sub>xG<sub>1</sub> that 75 respondents desired feature B but not feature G; and B<sub>2</sub>xG<sub>2</sub> that 74 respondents desired both features. The reader will observe that the numbers in Table 6 sum to 177. The results for all of these calculations are shown in Table 7, the analysis of variance.

Table 7: Initial ANOVA for SmartPhone						
Source	dof	<i>S</i>	<i>V</i>	<i>F</i> <sub>0</sub> (95%)	<i>S'</i>	$\rho$
B	1	206,464	206,464	725.82	200,413	0.17
G	1	141	141	-----	-----	-----
BxG	1	6,942	6,942	-----	-----	-----
C	1	58,741	58,741	206.50	52,691	0.04
BxC	1	171	171	-----	-----	-----
GxC	1	1,851	1,851	-----	-----	-----
A	1	434,127	434,127	1,526.16	428,077	0.35
D	1	65,732	65,732	231.08	59,682	0.05
E	1	384,545	384,545	1,351.86	378,496	0.31
AxF	1	3,878	3,878	-----	-----	-----
GxE	1	3,062	3,062	-----	-----	-----
F	1	33,991	33,991	-----	-----	-----
AxE	1	9,415	9,415	-----	-----	-----
AxD	1	770	770	-----	-----	-----
e	1	284	284	-----	-----	-----
(e)	10	60,505	6,050	-----	90,755	0.07

For an  $F$  test significant at 95%, the significance value is 161. Thus, in our application for any feature to be significant, it must have an  $F_0$  of 161 or greater. Thus, any features or feature interactions having an  $F_0$  less than 161 were deemed to be insignificant at the 95% level, and were eliminated. Since neither these features nor the feature interactions were significant at the 95% their variation was attributed to experimental error and combined with the variation of 284 for e, which yielded the value of 60,505, designated as (e). Also, the degrees of freedom for these features and interactions were combined with that for e to yield the value of 10 for the degrees of freedom for (e).

In arriving at final estimates of the variation attributable to each of the principal features, it is necessary to calculate the *net variation* for each. This is done by subtracting one error variance, in the instant case 6,050, for each degree of freedom in each of the principal features. Thus, the values for net variation in column  $S'$  of Table 7 were obtained by deducting the amount of 6,050 from each of the values for gross variation in column  $S$ , to obtain the net variations for each of the significant features. In addition these five amounts of 6,050, totaling 30,250, were added to the (e) amount of 60,505 to obtain 90,755. The net variations resulting from these operations are shown under column  $S'$  in Table 8.

Table 8: Final ANOVA for SmartPhone						
Source	dof	S	V	F0(95%)	S'	$\rho$
B	1	206,464	206,464	725.82	200,413	0.17
C	1	58,741	58,741	206.50	52,691	0.04
A	1	434,127	434,127	1,526.16	428,077	0.35
D	1	65,732	65,732	231.08	59,682	0.05
E	1	384,545	384,545	1,351.86	378,496	0.32
(e)	10	60,505	6,050	-----	90,755	0.07
Total	15	1,210,114			1,210,114	100.00%

### ANALYSIS OF RESULTS

As might have been expected at the onset of the analysis, Feature A, *Quick Internet Access*, proved to receive the strongest response from the participants. Also, Feature F, *Music Player 3*, did not receive a strong participant response, and was not therefore significant at the 95% level of significance. Although it was anticipated initially that the interaction between Features A and F would not be significant, it was retained from the possible feature interactions for illustrative purposes. As was anticipated, this feature interaction proved virtually non-existent, and so this interaction was eliminated from further consideration. The conclusion at this stage is that Feature A should be included in the SmartPhone, but that MusicPlayer3 would not necessarily have to be included.

Of particular interest are Features B and C, the *Qwerty Keyboard* and the *Touch Screen*. Both were found to have been significant at the 95% level, but Feature B was decidedly more so. Although these two features tend to be mutually exclusive, they are not necessarily so. Thus, it was desirable to examine their interaction. Again, it was found that the interaction between the two was not significant at the 95% level. All of this would indicate that the *Qwerty Keyboard* should be offered as a design feature, without the necessity for offering either the *Touch Screen* or the *Swype Texting* features. Other features that should be offered in the final design are D and E, *Global Positioning System* and *Camera*. Both of these features proved to be significant at the 95% level, with the *Camera* being very strongly so.

In summary then, the features to be included in a final design for the SmartPhone would be ...

*Quick Internet Access*  
*Qwerty Keyboard*  
*Global Positioning System*  
*Camera*

## CONCLUSIONS

The purpose of this paper was to demonstrate a method for using Taguchi methods of experimental analysis to determine which of several possible features might best be made available in a SmartPhone design in order to maximize market share for the product. The method advanced in this paper enables a firm contemplating a new product not only to identify those features that should be included in the product design, but also to measure the strength of the preference for those features. Thus, this approach affords the very important advantage of including or excluding features in the product design based upon computing the actual strength of user preference for one or another of the possible features.

In addition, it enables a firm to assess the strength of interactions between possible features. This is extremely important because it is possible that with two features, one might prove statistically significant, and other statistically insignificant. However, the interaction between the two features might prove statistically significant, in which case a decision would be necessary as to whether the statistically insignificant feature should be offered as part of the design because of the benefit to the product from the interaction of the two features. In the final analysis, such a decision as this would have to be made based upon the economics of the situation: If the economic advantage of offering the statistically insignificant feature, due to its interaction with the statistically significant feature, were to exceed the economic disadvantage, then the statistically insignificant feature would be offered. Also, it should be noted that the Taguchi method might be used to investigate new features to an existing design, or for that matter to investigate currently offered features that might be discontinued. Supposing that the product were available, one would design the test instrument so as to include both existing features and those contemplated for addition. An orthogonal array would then be selected to accommodate the existing and contemplated features. Once the experiment was conducted, the ANOVA would be performed as usual to obtain the strength of the control group's preferences for each of existing features, the contemplated features and their interactions. Again, application of the F-test would disclose which product features should be included in the final design, and which would be excluded.

At this point it is worth considering how Taguchi methods differ from another well known experimental approach used in marketing, *Conjoint Analysis*. Conjoint analysis is an approach that attempts to quantify the complex psychological factors underlying individual product choices. It would seek to draw general conclusions about consumer choices for use in other product developments. The approach becomes problematical when the individual must choose from among the large number of combinations that can result from a relatively few features. In contrast to conjoint analysis, the Taguchi approach seeks only to draw conclusions about the preferences of large groups for a specific suite of features for some contemplated product offering. As a matter of experimental method applied to product design, it is important to identify strong group feature preferences early, so that such features can be optimized for

inclusion in a product design. Taguchi's experimental method permits this early feature identification with a relatively simple experiment. In summary, it is suggested that Taguchi's method be employed initially. Then, if more investigation were desired as to the psychological basis for feature choice, conjoint analysis might be employed.

Finally, it should be mentioned that in such product development as a SmartPhone that Taguchi methods would play a very important role in the next phase, viz, that of advanced design. In this phase, Taguchi methods might be used to optimize the measure of each feature as a function of market share. Through such an approach, it would be possible to estimate profits as a function of feature measures. Thus, although relatively new and little used, there is a very powerful and useful synergism to be realized through the use of Taguchi Methods in Marketing.

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# **CONSUMER-BASED BRAND EQUITY IN THE TELEVISION INDUSTRY: A STUDY OF A PRIVATE TV CHANNEL IN TURKEY**

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## **ABSTRACT**

*The study examines the consumer-based brand equity (CBBE) of a private TV channel, Kanal B, in Turkey. Specifically, it investigates 1) which of the brand equity aspects the viewers' perceive that Kanal B performs well; 2) how the programs the viewers like differ based on the viewers' demographic characteristics, and what demographic characteristics of the viewers influence their liking of the programs that Kanal B broadcasts, and 3) how the CBBE aspects that are perceived as being performed well by Kanal B differ based on the viewers' demographic characteristics. The study discusses the managerial implications of the CBBE findings in developing effective marketing and positioning strategies. Drawing from the literature, brand equity was measured with brand awareness, perceived quality, brand loyalty, brand image, brand association, and organizational association. An online questionnaire containing the above brand equity dimensions and several demographic and lifestyle questions were administered to Kanal B's viewers. This process produced a total of 411 usable surveys. The study presents the results of the CBBE survey and discusses the implications of the findings.*

Keywords: *Branding, Brand equity, Turkey, TV industry, TV programs,*

## **INTRODUCTION**

The recent technological advancements and lower financial entry barriers into the media industry have led to changes in practices of mass communication (Oyededeji, 2007). The current media environment is able to deliver specialized content to niche audiences in various formats through a large number of media channels (Goldstein, 2004). Not only the new media vehicles (e.g., blogs, satellite radio, podcasts, online video and news sources, etc.) and traditional media types (radio, television, magazines, and newspapers) presently compete for audiences and advertising revenues, but also the competition among the traditional media vehicles has become more intense. As a result, media organizations found themselves forced to adopt strategic management decisions and practices that had been once commonly used for the marketing of consumer products (Oyededeji, 2007). Television networks (e.g., ABC, CBS, NBC) have long sought to differentiate their products on the basis of functional attributes such as content features

and presentation. That is because gaining competitive advantages based on only product attributes (e.g., news, entertainment and sports) has become harder due to the increase in media outlets and fragmentation of audiences. Consequently, the television networks have to find ways of building distinctive and meaningful brand images in the minds of news audiences (Chan-Olmsted and Cha, 2008).

### **IMPORTANCE OF BRANDING IN A DEVELOPING MARKET**

While brand consultants emphasize the importance of branding, television networks shift their focus from their earnings per share to long-term shareholder value. Branding has become more important than programming because the value of a successful brand lasts longer and is higher than a program (Ryan, 1999; Chan-Olmsted and Cha, 2007). Yang and Tso (2007, p. 19) affirm that “In the field of media management, understanding consumer acceptance of media products is becoming a central issue in the face of audience fragmentation and media globalization.” Prior research concludes that international television programs in general moved from more advanced and culturally dominant countries to developing or less developed countries (Chadha and Kavoori, 2000; Chung 2005; Yang and Tso, 2007).

As one of the developing countries, Turkey is a great example of a market to study because of the rapid growth in the TV network industry. Since the first domestic television transmission signal was received in Turkey in 1968, the state-owned Turkish Radio and Television Corporation (TRT) held its monopoly position without facing any competition until 1990. However, after 1990, the Turkish TV industry experienced a boom of private TV channels in Turkey. This new era brought changes in the areas of production techniques and formats, and content of programs. Consequently, in 3-5 year span, the Turkish TV and Broadcasting industry became very competitive, offering new and interesting program formats. According to an OECD 1999 report (Hurriyet, 1999), Turkish Radio and TV industry experienced record growth during 1995-1997, with a two-year growth rate of 24.3%, compared to the 3.4 % OECD average. The same report indicates that the revenue in the Turkish Radio and TV industry grew at the annual rate of 26.6%, growing from \$341.2 million in 1995 to \$546.81 million in 1997. The growth of the Turkish Radio and TV industry continues today, making the industry even more competitive than it was in the 1990s. In 2009, the number of TV channels reached 199 (national, local and thematic). The rising number of the TV channels has intensified the competition in the Turkish TV industry which increased the importance of branding and the brand equity concept among TV channels in developing and implementing their business strategies.

### **CONSUMER-BASED BRAND EQUITY**

Branding is one of the most important management practices (Chan-Olmsted & Kim, 2001; Lin, Atkin, & Abelman, 2002) in the strategic management process for identifying a

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product and distinguishing it from similar goods and services (Aaker, 1991). Successful branding practices (e.g., differentiation, service quality) generate *customer-based brand equity* (CBBE)—a concept that predicts that consumers will react more favorably toward the product, price, promotion, and distribution of a branded product than they would toward a generic product in the same product category (Aaker, 1991; Keller, 1993).

The importance of effective branding strategy is further emphasized in prior research that CBBE enhances the value of products and services (Fombrun, 1996); improves consumers' disposition toward organizations and their products (Keller, 1993); directly affects consumers' psychological judgment with respect to a brand, making them favorably disposed toward paying more and searching further for the brand (Aaker, 1991; Aaker & Biel, 1992; Tauber, 1988), and helps organizations attain increased profitability through increased market share and favorable price structures (Aaker, 1991).

Researchers have used brand equity theory as a theoretical lens for studying various aspects of media management. Chan-Olmsted and Kim (2001) surveyed media managers of commercial television stations and found that the managers of stations agreed that branding is important, "overall a very useful business tool" that "will help them achieve long-term business success" and "stay competitive" (pp. 85–86), but they associated it with tactical operations, such as local news credibility, network affiliation image, station promotions, and logo design, rather than considering it as a strategic long-term management process. The researchers observed a negative correlation between experience in the industry and perception of the role of branding in media management. More specifically, industry newcomers were more receptive toward the practice of branding. McDowell and Sutherland (2000) used brand equity theory to analyze television program brand equity and conceptualize TV program brand equity as the outstanding audience loyalty and long-term market dominance (Oyededeji, 2007). McDowell and Sutherland (2000) concluded that each program carries its own brand equity independent of the brand equity of the station. Thus, programs with higher brand equity captured larger audience size.

Brand equity means that the value for the brand is created in consumers' mind through superior quality in the product and service, social esteem the brand provides for users, trust in the brand, and consumer self-identification with the brand (Schifmann and Kanuk, 2007). Keller (1993, p.2) coined the term customer-based brand equity (CBBE) and defined it as "the differential effect of brand knowledge on consumer response to the marketing of the brand." Aaker (1991) states that brand equity is a set of assets (or liabilities), and consists of brand awareness, brand associations, perceived quality, and brand loyalty that are important to customers.

In the literature, brand equity has been measured with multiple dimensions such as brand awareness (Aaker, 1991), perceived quality (Aaker, 1991, 1996, Yoo et al., 2000), brand loyalty (Yoo et al., 2000; Yoo and Donthu, 2001), brand image, brand association, brand personality (Aaker, 1997), and organizational association (Aaker 1996). Aaker (1996, p. 10) defines *brand awareness* as the "strength of a brand's presence in the consumers' mind." *Perceived quality* is

defined as the consumer's perception of the quality or superiority of a product/brand with respect to its intended purpose compared to its alternatives (Aaker, 1991, p. 85; Zeithaml, 1988, p. 3). It is based on purchasers' or users' subjective evaluations of product and/or service quality. In this study, because TV channels offer services that are intangible, consumers' perceived service quality could be an important factor for a TV channel's brand equity. *Brand loyalty* is defined as "the attachment that a customer has to a brand" (Aaker, 1991, p. 39). Following Kim and Kim (2004), the authors of this study also included *brand image* as one of the brand equity dimensions. Brand image is defined as "a set of brand associations, usually in some meaningful way" (Aaker, 1991, p. 109). Aaker (1991, p. 109) defines *brand association* as "any link in memory to a brand." According to Aaker (1991) and Aaker and Keller (1990), the associations with a brand will be stronger when it is based on many experiences or exposure than when it is based on few. Brand image consists of three dimensions of brand associations--brand's favorability, strength, and distinctiveness (Kim and Kim, 2004). Organizational associations are the customers' beliefs that an organization that markets the brand is honest, trustworthy and cares about its customers (Netemeyer et al., 2004). Because organizational associations are an idiosyncratic component of brand equity, they cannot be easily mimicked by other brands. Therefore, strong positive organizational associations can provide the company a competitive advantage (Sinha et al., 2008).

## STUDY OBJECTIVES

This study examines the consumer-based brand equity (CBBE) of a private TV channel, Kanal B, in Turkey. The specific objectives of the study are to determine: 1) which of the brand equity aspects the viewers' perceive that Kanal B performs well; 2) how the programs the viewers like differ based on the viewers' demographic characteristics, and what demographic characteristics of the viewers influence their liking of the programs that Kanal B broadcasts, and 3) how the CBBE aspects that are perceived as being performed well by Kanal B differ based on the viewers' demographic characteristics. Drawing from the literature, brand equity was measured with brand awareness, perceived quality, brand loyalty, brand image, brand association, and organizational association. The study presents the results of the CBBE survey and discusses the managerial implications of the CBBE findings in developing effective marketing and positioning strategies.

## METHODOLOGY

In order to accomplish the study objectives, a survey instrument was designed to measure the CBBE, which included multiple-item scales for each dimension of the brand equity. These scale measures were compiled from the literature (e.g., Aaker, 1991; 1996; Kim and Kim, 2006; Pappu et al. 2006; Yoo et al., 2000; Yoo and Donthu, 2001). In order to measure *brand*

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*awareness*, respondents were asked to write down the name of a TV channel in Turkey that came first to their mind. This was an un-aided recall question aimed to measure the top-of-mind brand recall (Aaker, 1991). *Perceived quality* was measured with nine items that were adapted from Aaker (1991, 1996), Pappu et al. (2006) and Yoo et al. (2001). A six-item scale for *brand image* was adapted from Kim and Kim (2004). *Brand association* was measured in two parts; *brand personality* (two items) and *organizational association* (nine items) for which the scale items were adapted from (Pappu et al., 2006). Measures for *brand loyalty* (six items) were adapted from Kim and Kim (2004), Yoo et al. (2000), Yoo and Donthu (2001). The measures for perceived quality, brand image, brand association, and brand loyalty were measured on a four-point Likert-type scale ranging from 1=strongly disagree to 4=strongly agree. The main reason for using a four-point scale was that the authors wanted to avoid neutral responses and force the respondents to indicate their degree of agreement or disagreement with the items.

The survey instrument was developed in Turkish, but the scales items were compiled from the literature in English. Therefore, these scale items were translated into Turkish, and then they were later translated back into English to avoid translation errors (Ball et al., 2002) and to make sure that the intended meanings of the questions were maintained. The Turkish version of the instrument was pilot-tested with several faculty members in order to assure the appropriateness and consistency of the scale items. Based on their suggestions, the instrument was further improved and refined. The survey also included demographic questions of age, gender, education level, occupation, marital status, having children, and income level. These questions were asked to examine if the demographic profiles of customers influenced their perceptions of the Kanal B's brand equity.

### **Sample and data collection**

An online survey instrument was administered to Kanal B viewers. The respondents were invited via an email cover letter and asked to click on a link to access the questionnaire. Because the study examines the CBBE dimensions for Kanal B viewers, the database containing the e-mail addresses of 12,000 Kanal B's viewers was utilized and the sample was selected randomly. In 14 days, 243 completed surveys were received. After two follow up email reminders, a total of 411 usable surveys were obtained for analysis. The *sample characteristics* of the 411 respondents are presented in Table 1. Among the respondents, there were slightly more females (52%) than males (48%). The average age was 31. The ages of the respondents ranged from 15 to 49, which reflect the age of the Turkish population using the Internet. All of the respondents' education levels were equally distributed from high school to master's degree. They were from all walks of life with variety of occupations. Respondents with a household monthly income of less than 1,000 Turkish Lira made up of 22.6 percent. However, the majority fell between 1,000 and 3,900 TL, which is considered medium income households in Turkey. The respondents' marital status was almost equal between married and singles, and slightly over half of the sample

had no children (51%). The average time a respondent spent watching TV was 2.5 hours a day. Finally, the respondents participated from all of the 80 provinces in Turkey.

<b>Table 1: Sample demographic characteristics</b>		
Demographic Characteristics	N	(%)
<i>Gender</i>		
Female	215	52.3
Male	196	47.7
<i>Age</i>		
15-19	67	16.3
20-24	70	17
25-29	55	13.4
30-34	56	13.6
35-39	44	10.7
40-44	62	15.1
45-49	57	13.9
<i>Education</i>		
High school	143	34.8
College 4 yr.	129	31.4
Masters	139	33.8
<i>Occupation</i>		
Engineer	38	9.2
Medical doctor	42	10.2
Housewife	39	9.5
Lawyer	37	9.0
Retired	37	9.0
Blue-collar	37	9.0
Educator	38	9.2
Student	40	9.7
Clerk	39	9.5
Entrepreneur	33	8.0
Other	31	7.5
<i>Income (monthly)</i>		
<1,000 TL	93	22.6
1,000-1,999 TL	80	19.4
2,000-2,999 TL	76	18.5
3,000-3,999 TL	76	18.5
4,000 TL and up	86	20.9
<i>Marital Status</i>		
Married	209	50.2
Single	202	49.8
<i>Children</i>		
Yes	201	48.9
No	210	51.1

## RESULTS

### Brand Awareness

As one of the CBBE dimensions, brand awareness was captured by asking the respondents to write down the first TV channel that came to their mind. Kanal B had the highest frequency with 8.8 percent, followed by Channel D with 8 percent, and Channel 24 with 7.8 percent, then ATV with 7.5 and Turkish Radio Television (government broadcast) with 7.3 percent. The remaining were Show TV and SkyTurk with 6.6 percent, Avrasya TV and ChannelTurk with 6.1 percent, TGRT News with 5.6 percent, Ata TV with 5.1 percent, Star TV with 4.1 percent, and TV8 with 2.9 percent. It should be noted that the reason for Kanal B to have the highest brand awareness may result from the fact that the respondents were the viewers of the Kanal B TV station. However, the closest competitors that challenge Kanal B in terms of brand awareness are also identified with this question.

### Consumer-based Brand Equity

The first objective of this study is to determine which of the brand equity aspects the viewers' perceive that Kanal B performs well. Although the analyses of the responses were conducted by using all of the statements under each CBBE dimension, Table 2 presents only the statements with mean values that are higher than 2.5 (the midpoint) on a 4-point scale, standard deviations, and combined percent's of the respondents who agreed and strongly agreed with the statements in each dimensions of CBBE. Although slightly more than half of the viewer's felt positively about most of these aspects of Kanal B, still the remaining half disagreed or strongly disagreed with them.

Perceived Quality	Mean	Std Dev.	Combined %
Q3: Channel B's newscasters look professional	2.60	1.12	53.5
Q7: Channel B programs are related to the real world	2.59	1.11	52.3
Q8: Channel B's newscasters respect their audience while broadcasting	2.53	1.14	48.7
Q5: Channel B's newscasters are knowledgeable on the news	2.50	1.11	49.8
Brand Loyalty	Mean	Std Dev.	Combined %
Q12: I feel loyal to Channel B	2.55	1.11	52.8
Q15: I do recommend Channel B to my friends	2.54	1.11	51.5
Q14: I am happy with Channel B's programs	2.51	1.10	51.1
Brand Image	Mean	Std Dev.	Combined %
Q21: Channel B broadcasts programs related to political issues	2.57	1.10	51.6
Q22: Channel B programs make me feel good	2.53	1.12	50.2
Q23: Channel B's programs are consistent with Turkey's image	2.50	1.10	49.4

Brand Association - Brand Personality	Mean	Std Dev.	Combined %
Q24: Channel B's programs can be considered as the best quality	2.54	1.11	53.0
Organizational Association	Mean	Std Dev.	Combined %
Q30: I watch most of the Channel B programs on a regular basis	2.65	1.11	56.7
Q28: Channel B shows up-to-date programs	2.59	1.14	54.5
Q31: I consider Channel B as a reliable source	2.55	1.15	51.8
Q32: I am proud of being Channel B's audience	2.51	1.10	52.3

The results of the CBBE dimensions shown in Table 2 indicate the following: 1) Four out of 9 perceived quality items have the mean values around 2.50, indicating that Kanal B's perceived quality for these items are better than average. In this area, the professional look of Kanal B newscasters scored the highest. 2) The mean values for three out of six brand loyalty items are higher than the midpoint of the scale, where "I feel loyal to Kanal B" scored the highest. Given the importance of loyalty for business performance, it seems that Kanal B is fairly successful in creating brand loyalty among its viewers. 3) Three out of six brand image items have the mean values above the midpoint of the scale with the highest mean for "Kanal B broadcasts programs related to political issues". These results indicate that Kanal B has an above average image among its viewers in these areas. 4) Concerning brand association, one of the two brand personality and four out of eleven organizational association items have the mean values above the midpoint of the scale. While these mean values show that Kanal B is perceived to be above average in these items, more brand association items that Kanal B performs are perceived below average.

Likewise, the respondents *disagreed* or *strongly disagreed* with some of the CBBE aspects that Kanal B performs. Those aspects are that Kanal B broadcasts educational (mean=2.44, ds=1.09, combined %=47.7), and entertaining programs (mean=2.43, ds=1.11, combined %=48.2). Although the means below the mid-point are not very low, the lower ratings still pose an opportunity for Kanal B to improve on the educational and entertaining programs. The mean values that are above or below the midpoint (average) offer important information to Kanal B managers in identifying its strengths and weaknesses as well as the strategic opportunities and threats.

### **Viewers' Liking of the Kanal B Programs**

The second research objective is to determine how the program types the viewers like differ based on the viewers' demographic characteristics. The eight program types listed were health, documentary, educational, cultural, daily news, economy, debate, and children's. In order to determine whether or not liking of these different TV programs is influenced by respondents' (viewers) demographics, mean comparisons (t-tests and one-way ANOVA) were conducted.

ANOVA with LSD Post Hoc and t-test results indicated none of the viewers liking of the different programs differed by gender. However, the viewers between 15 and 19 years old seemed to like health programs significantly more than 25-29 and 35-39 age groups. This may be because 15 to 19 year old teenagers are still new to health issues and may have personal interest in improving their health and appearance. The age group 25-29 liked documentary programs significantly more than the 15-19, 20-24, 30-34, and 40-44 age groups. This age group may be more inclined toward learning about new places, cultures, history, and politics. The 45-49 age groups liked the educational programs significantly more than 30-34 age groups. There were no significant differences in liking of daily news, economy, debate, cultural, and children programs across the age categories. The viewers' education did not make any differences in the likings of the programs by the viewers. Viewers with higher income liked debate programs significantly more than lower income groups. Married viewers liked educational programs significantly more than singles, and viewers with children liked children's programs significantly more than those without children. All of the differences were significant at  $p < .05$  level (see Table 3).

**Table 3: Differences test results in liking of programs**

	Mean	Std dev.	Mean diff.	Sig.
<i>Age by health</i>				
15-19	2.82	1.1		
25-29	2.33	1.2	.494	.014
35-39	2.34	1.1	.480	.024
<i>Age by documentary</i>				
25-29	2.85	1.18		
15-19	2.40	1.18	.452	.026
20-24	2.43	1.08	.426	.034
30-34	2.36	.97	.462	.029
40-44	2.42	1.08	.435	.035
<i>Age by educational</i>				
45-49	2.67	1.18		
30-34	2.25	.99	.417	.045
<i>Income by debate</i>				
1,000-1,999 TL	2.35			
2,000-2,999 TL	2.72	1.18	-.374	.039
3,000-3,999 TL	2.72	1.18	-.374	.039
<i>Marital status by educational</i>				
Married	2.63	1.12		
Single	2.40	1.13	.23	.034
<i>Children by Children programs</i>				
Have children	2.69	1.12		
Do not have children	2.47	1.07	.22	.043

As part of the second research objective, the study investigates what demographic characteristics of the viewers influence their liking of the programs that Kanal B broadcasts.

Stepwise regressions for the eight program types were performed separately to identify which demographic variables determine viewers liking of the programs. The demographic (independent) variables were age, income, marital status, gender, have children or not, education, and number of hours of TV watching. For health programs, only the age was a significant variable that had a negative correlation ( $t = -1.97$ ,  $p = 0.05$ ,  $R^2 = .009$ ). Younger viewers seem to like the health programs more than older audience. Marital status had a negative and significant correlation with educational programs ( $t = -2.13$ ,  $p = .34$ ,  $R^2 = .011$ ). This means married audience liked educational programs more than unmarried audience. For children's programs, two variables--hours of TV watching ( $t = -2.5$ ,  $p = .013$ ) and have children or not ( $t = -2.2$ ,  $p = .028$ )--seemed to be influential variables that determine the subscribers' likings ( $R^2 = .025$ ). The viewers who have children (1=have children, 2=do not have children) and watch fewer hours of TV (negative correlation) liked the children's programs. The finding, that the variance explained for the regression equations are small but the relationships are significant at  $p \leq .05$ , may suggest that there may be other influential factors that are not included in this study. For cultural, daily news, documentary, economy, and debate programs, none of the demographic variables determined the viewers' liking of these programs. The summary of the regression equations and significant statistics (constant and standardized betas) is provided in Table 4.

Program	Regression Equation	Sig.
<i>Health</i>	Liking = 2.75 -.097 (Age)	F=3.87, p=.05**
<i>Educational</i>	Liking = 2.86 -.105 (Marital Status)	F=4.53, p=.034**
<i>Children</i>	Liking = 3.24 -.123 (Hours of watching TV) -.108 (Have Children or not)	F=5.23, p=.006***
** significant at $p \leq .05$ ; *** significant at $p \leq .01$		

### Consumer-based Brand Equity Perceptions

The third research objective is to determine how the CBBE aspects that are perceived as being performed well by Kanal B differ based on the viewers' demographic characteristics. Appendix A provides in detail the number of respondents (N), mean (X), and standard deviation (sd), t and p values for the t-tests, and mean differences for ANOVAs with LSD Post Hoc test and p values for the CBBE aspects/items (presented in Table 2) that Kanal B performs well. Table 5 summarizes the significant relationships between the demographic variables and the CBBE aspects that are perceived as Kanal B performs well (for details, please see Appendix A). The findings in Table 5 indicate that the viewers' income level and having children or not has an impact on the awareness of Kanal B (Q1). The highest awareness is among viewers with an income of 4,000TL (mean of 2.73) and with no children (mean of 2.65). The comparisons show significant differences between the various income groups and between respondents with a child and no child (see Appendix A for detailed results).

The significant demographic factors for perceived quality items are income, marital status, hours of watching TV for Q3. Specifically, viewers with income between 1,000 and 1,999TL agreed with the statement (Q3), “Kanal B newscasters look professional,” significantly more than those with income 4,000TL and above. Married viewers agreed with the statement more than singles. Also, those who watch TV about 3 to 5 hours and 8 hours or more agreed with the statement more than those who watch TV between 6 and 8 hours a day.

Age was the only significant demographic for Q5. Viewers with ages younger than 30 and older than 35 agreed more with the statement (Q5), “Kanal B’s newscasters are knowledgeable on the news they present.” Age, education, income, and hours of watching TV were significant for Q7. Viewers who are in the 20 to 24 and 30 to 34 age groups agreed with the statement (Q7), “Kanal B programs are related to the real world,” significantly more than those in the 25 to 29 age group. Those with a 4 year college degree agreed with the statement more significantly than those with a master’s degree. Viewers whose income is between 2,000 and 2,999TL agreed more with the statement than those whose income is between 3,000 and 3,999TL. And, those who watch TV for 1-2 hours a day agreed with the statement more than those who watch TV for 3-5 hours a day. Lastly, gender, age, and hours of watching TV were significant for Q8. Males agreed with the statement (Q8), “Kanal B’s newscasters respect their audience while broadcasting,” more than female counterparts. Those in the 30-34 age group agreed with the statement more than 35-39 and 45-49 age groups. Those who watch TV between 3 and 5 hours agreed with the statement significantly more than those who watch 8 or more hours of TV a day.

For brand loyalty items, the significant demographics are age, marital status, hours of watching TV, and education. More specifically, viewers who are in the 30-34 age group felt more loyal than the 15-29 and 35-39 age groups (Q12). Also, singles felt more loyal than the married respondents. Viewers who watched TV for 1-2 hours felt more loyal to Kanal B than those who watched TV for 6-8 hours a day. Viewers with 4 year college degrees were happier with Kanal B programs than those with high school degrees (Q14). The younger age groups (15-19, 30-44) agreed that they recommend Kanal B to their friends significantly more than the 45-49 age groups (Q15).

For brand image, the significant demographics are age and education for Q21, and age and income for Q23. Viewers in 45-49 age groups agreed with the statement, “Kanal B programs are related to political issues,” significantly more than the 40-44 age group. High school graduates agreed with this statement significantly more than those with a 4 year college degree (Q21). No significant differences in the CBBE aspects were found for the statement, “Kanal B programs make me feel good,” based on the viewers’ demographics (Q22). The age groups of 20-29 and 45-49 agreed with the statement, “Kanal B’s programs are consistent with Turkey’s image,” (Q23) significantly more than the 35-39 age groups. Viewers with incomes 4,000TL and up agreed with this statement more significantly than those that earn between 3,000 and 3,999TL.

<b>Table 5 : Differences in CBBE areas by demographics that Kanal B performs well</b>	
Awareness	Significant Demographics
Q1: I am aware of Kanal B TV station	<i>Income, Have children or not</i>
Perceived Quality	Significant Demographics
Q3: Kanal B's newscasters look professional	<i>Income, Marital Status, Hrs watching TV</i>
Q5: Kanal B's newscasters are knowledgeable on the news they present	<i>Age</i>
Q7: Kanal B programs are related to the real world	<i>Age, Education, Income, Hrs watching TV</i>
Q8: Kanal B's newscasters respect their audience while broadcasting	<i>Gender, Age, Hrs. of watching TV</i>
Brand Loyalty	Significant Demographics
Q12: I feel loyal to Kanal B	<i>Age, Marital Status, Hours of watching TV</i>
Q14: I am happy with Kanal B's programs	<i>Education</i>
Q15: I do recommend Kanal B to my friends	<i>Age</i>
Brand Image	Significant Demographics
Q21: Kanal B broadcasts programs related to political issues	<i>Age, Education</i>
Q22: Kanal B programs make me feel good	<i>None</i>
Q23: Kanal B's programs are consistent with Turkey's image	<i>Age, Income</i>
Brand Association - Brand Personality	Significant Demographics
Q24: Kanal B's programs can be considered as the best quality ones	<i>Hours of watching TV</i>
Brand Association - Organizational Association	Significant Demographics
Q28: Kanal B shows up-to-date programs	<i>Age, Marital Status</i>
Q30: I watch most of the Kanal B programs on a regular basis	<i>Age</i>
Q31: I consider Kanal B as a reliable source	<i>Education</i>
Q32: I am proud of being Kanal B's audience	<i>Income</i>

For brand personality, the only significant demographic was hours of TV watching for statement Q24. Those who watch TV for 3-5 hours agreed with the statement, "Kanal B's programs can be considered as the best quality ones," more than those who watch it for 6-8 hours a day. For organizational association, age and marital status were significant for Q28, age was significant for Q30, education was significant for Q31, and income was significant for Q32. The age group of 30-34 agreed with the statement, "Kanal B shows up-to-date programs," significantly more than the 20-29 and 35-39 age groups. Singles agreed with the statement Q28 significantly more than married viewers. The age group of 25-29 watched most of the Kanal B programs on a more regular basis than the 30-34 age group (Q30). Viewers with a master's degree agreed with the statement, "I consider Kanal B as a reliable source," more than those with a high school degree (Q31). Finally, the viewers with monthly income less than 1,000TL, between 2,000-2,999TL, and 3,000-3,999TL were more proud of being Kanal B's audience than the 1,000-1,999TL income group (Q32).

The results indicate that the Kanal B viewers' perceptions of the CBBE aspects that Kanal B performs well vary significantly based on their different demographics. These differences could provide valuable information about the demographic profiles of Kanal B viewers who have the most and least favorable perceptions of the CBBE dimensions of Kanal B.

For example, the results for the three brand loyalty items in Table 5 and Appendix A show that: 1) The highest loyalty to Kanal B (Q12) is among the 30-34 years old, single, and 1-2 hours of TV watching viewers; 2) The viewers with 4 years of college are the happiest with Kanal B's programs (Q14), and 3) The viewers in the 30-40 age group are most likely to recommend Kanal B to their friends (Q15). Similar information can be obtained from Table 5 and Appendix A for other CBBE items to determine the favorable and unfavorable perceptions of the CBBE dimensions based on demographics characteristics of the viewers.

## DISCUSSION AND CONCLUSION

This paper examined the CBBE of a private TV channel named Kanal B in Turkey. An online survey containing questions for the CBBE dimensions of awareness, perceived quality, brand loyalty, brand image, and brand associations (brand personality and organizational associations), and demographic questions was administered to Kanal B's viewers utilizing a customer database. The responses from 411 viewers were analyzed to address three specific research objectives. The sample characteristics show that Kanal B seems to have very diverse groups of viewers, where there is no single demographic profile that dominates the viewers. This suggests that Kanal B is being watched by almost all population segments in Turkey.

Even though the survey was conducted using Kanal B's viewer database, only 8.8% of the respondents indicated that Kanal B was the first TV channel came to their mind. This suggests two things: 1) Kanal B is not a dominant TV channel they watch, and 2) the results help identify the close competitors among their viewers, and 3) viewers may not be loyal to one TV channel, rather, they might be loyal to TV programs. In this regard, Channel D, Channel 24, ATV, and Turkish Radio Television are the main competitors of Kanal B. This could be important information for the Kanal B managers in designing their programs to keep the current viewers, as well as attracting new viewers. However, this may require further research to identify the programs that attract Kanal B viewers to the competing TV channels.

In addressing the first research objective, the authors identified several CBBE aspects that Kanal B performed well, based on the mean values higher than the midpoint (2.5 on a 1-4 point scale). Specifically, the results show that Kanal B performs better than average on four perceived quality items, three brand loyalty items, three brand image items, and five brand association items (one brand personality and four organizational association items). The combined percentages of agree and strongly agree for these items are about 50% or above, indicating that viewers have fairly good or favorable perceptions of these CBBE aspects as they relate to Kanal B. Because other CBBE aspects are lower than midpoint of the scale and combined percentages for disagree and strongly disagree are below 50%, these areas may be considered as weaknesses, thus needing an immediate attention and challenges for Kanal B. Thus, the findings could help the Kanal B management to determine the specific areas to pay

close attention and identify opportunities to focus on when developing new programs and marketing strategies.

Concerning how the programs Kanal B offers that viewers like differ based on the viewers' demographic profiles, the results in Table 3 showed significant differences for the age and the health, documentary, and educational programs; income and the debate programs; marital status and the educational programs, and having children or not and the children's programs. Kanal B managers could utilize these findings to determine which programs are more (or less) liked than other programs by different demographic groups. This allows them to design new product/service strategies to address these differences. Also, the results showing no differences for the programs and demographic variables are beneficial for managers in their decisions because they can identify which programs are equally liked or not liked by the same demographic groups. In addition, the regression results in Table 4 show that: 1) age has a significant effect on liking of the health program; 2) marital status has a significant effect on liking of the educational programs, and 3) hours of watching TV and having children have significant effects on liking of the children's programs. The results in Table 3 and Table 4 show that certain demographics have strong associations with the viewers' likings of certain programs. Therefore, Kanal B managers may have to find ways to differentiate their programs in order to attract more of different demographic segments.

Finally, in addressing the third research objective, the results in Table 5 (and in Appendix A) identified the influential demographic factors that made significant differences in the CBBE aspects that Kanal B performs well. These findings provide valuable information for the managers of which demographic segments perceive the CBBE aspects of Kanal B performs better. In this way, it is possible to identify the most loyal demographic segments of Kanal B viewers.

### **Managerial Implications**

The findings have several managerial implications for Kanal B managers, as well as other TV Channel managers. The first implication is that because branding is one of the most important practices in the media environment (Chan-Olmsted & Kim, 2001; Lin, Atkin, & Abelman, 2002) and its growing importance for television networks due to the long term nature of the brands (Ryan, 1999; Chan-Olmsted and Cha, 2007), the findings of this study could help the managers of TV Channels like Kanal B to develop branding strategies to improve their company's brand equity. Specifically, the findings indicate the aspects of CBBE dimensions that are favored by viewers and those not so favored. Kanal B managers could improve on the aspects of brand equity dimensions perceived as poorly executed, while maintaining the aspects perceived as executed well. Other TV channels could conduct similar branding studies to determine their target viewers' perceptions of the aspects of their brand equity dimensions to improve or maintain. Such a study will take the guesswork out of decision making. As suggested

by (Chan-Olmsted and Cha, 2008), Kanal B and other TV channels' managers could build distinctive and meaningful brand images in the minds of its audiences.

The second managerial implication deals with identifying the close competitors and brand loyalty. Even though the study was conducted among the Kanal B viewers, the brand awareness results indicate that Kanal B is not the main TV channel they watch. In fact, other TV channels have also similar viewership. This indicates that viewers may not be loyal to a TV channel; rather, they may be loyal to TV programs presented by different TV channels. Kanal B or other TV managers could examine the popular shows offered by their close competitors that could help them in developing their TV programs.

The final managerial implication involves viewer (market) segmentation and offering TV programs that appeal to the targeted segments. Because the analyses for liking programs by viewer demographics identified the TV programs that are preferred by the market segments, these results could help Kanal B managers develop better programs to target their specific segments. Similar studies can benefit other TV channels. Such results could also help TV channel managers to better segment and match the TV programs with specific target segments. The authors believe that the strategies developed based on the results of this branding study could help TV managers improve their competitiveness and attain increased profitability through increased market share, as well as maintain sustainable competitiveness. This is because the results identify the close competitors of TV channels, their strong and weak areas of their brand, and their TV programs preferred by market segments, which could be viable information in designing differentiating strategies in fragmented media market (Yang and Tso, 2007).

### **Limitations of the Study**

The results of this study provided insights about different aspects of CBBE for Kanal B and their relationships with various demographic characteristics of their viewers. However, the study has some limitations; thus, the results must be interpreted with caution. The first limitation of the study is that the survey was conducted with the viewers' of Kanal B, which may have biased the responses, and therefore, the results. A future study could be conducted with a different sample in order to overcome this inherent bias. The second limitation deals with the survey instrument, which was developed specifically for this study and was not tested in other settings. The authors recommend that the instrument be further tested and refined. Finally, the measurements of the brand loyalty construct were adapted from Kim and Kim (2004). Future studies can also include behavioral-based measurements by asking the respondents how many times they watch a specific TV Channel or how often they watch a particular program.

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Appendix A: Differences in All CBBE Measures by Demographic Variables			
CBBE aspects	N, Mean (X), sd	t / mean difference	Sig.
<b>Awareness</b>			
<i>Income, Have children or not</i>	<1000TL N=93; X=2.71; sd=1.10	(<1000)-(1000-1999) =.36	.038**
Q1: I am aware of Kanal B TV station	(1000-1999) N=80; X=2.35; sd=1.15	(<1000)-(2000-2999) =.39	.025**
	(2000-2999) N=76; X=2.32; sd=1.08	(<1000)-(3000-3999) =.46	.009***
	(3000-3999) N=76; X=2.25; sd=1.12	(4000+)-(1000-1999) =.38	.030**
	(4000 & up) N=86; X=2.73; sd=1.14	(4000+)-(2000-2999) =.42	.020**
		(4000+)-(3000-3999) =.48	.007***
	Children N=201; X=2.31; sd=1.12 No child N=210; X=2.65; sd=1.14	t=-3.03	.003***
<b>Perceived Quality</b>			
<i>Income, Marital Status, Hours of watching TV</i>	(1000-1999) N=80; X=2.83; sd=1.05	(1000-1999)-(4000+) =.39	.023**
Q3: Kanal B's newscasters look professional	(4000 & up) N=86; X=2.43; sd=1.17		
	Married N=209; X=2.72; sd=1.11	t=2.11	.035**
	Single N=202; X=2.49; sd=1.12		
	(3-5 hours) N=115; X=2.76; sd=1.09	(3-5hrs)-(6-8hrs)=.42	.007***
	(6-8 hours) N=92; X=2.34; sd=1.04	(8 hrs or more)-(6-8hrs)=.33	.035**
	(8 or + hrs) N=109; X=2.67; sd=1.15		
<i>Age</i>	15-19 N=67; X=2.66; sd=1.15	(15-19)-(30-34)=.51	.01***
Q5:Kanal B's newscasters are knowledgeable on the news they present	20-24 N=70; X=2.61; sd=1.07	(15-19)-(45-49)=.39	.048**
	25-29 N=55; X=2.60; sd=1.08	(20-24)-(30-34)=.47	.017**
	30-34 N=56; X=2.14; sd=.96	(25-29)-(30-34)=.46	.029**
	35-39 N=44; X=2.48; sd=1.09	(40-44)-(30-34)=.50	.014**
	40-44 N=62; X=2.65; sd=1.19		
	45-49 N=57; X=2.26; sd=1.14		
<i>Age, Educ. Income, Hrs of TV</i>	20-24 N=70; X=2.83; sd=1.11	(20-24)-(25-29)=.54	.008***
Q7: Kanal B programs are related to the real world	25-29 N=55; X=2.29; sd=1.10	(30-34)-(25-29)=.48	.025**
	4-year N=129; X=2.71; sd=1.10	(4-year)-(master's) =.29	.035**
	master's N=139; X=2.42; sd=1.10		
	(2000-2900) N=76; X=2.78; sd=1.12	(2000-2999)-(3000-3999) =.38	.036**
	(3000-3999) N=76; X=2.39; sd=1.12		
	(1-2 hours) N=95; X=2.78; sd=1.10	(1-2hrs)-(3-5hrs) =.353	.023**
	(3-5 hours) N=115; X=2.43; sd=1.09		

Appendix A: Differences in All CBBE Measures by Demographic Variables			
CBBE aspects	N, Mean (X), sd	t / mean difference	Sig.
<i>Gender, Age, Hrs watching TV</i>	Female N=215; X=2.41; sd=1.15	t=-2.26	.024**
Q8: Kanal B's newscasters respect their audience while broadcasting	Male N=196; X=2.66; sd=1.11		
	30-34 N=56; X=2.82; sd=1.16	(30-34)-(35-39)=.50	.029**
	35-39 N=44; X=2.32; sd=1.03	(30-34)-(45-49)=.49	.023**
	45-49 N=57; X=2.33; sd=1.21		
	(3-5 hours) N=115; X=2.71; sd=1.15	(3-5hrs)-(8 or +hrs) =.41	.007***
	(8 or + hrs) N=109; X=2.3; sd=1.13		
<b>Brand Loyalty</b>			
<i>Age, Marital Status, Hrs TV</i>	15-19→N=67; X=2.40; sd=1.06	(30-34)-(15-19)=.53	.009***
Q12: I feel loyal to Kanal B	20-24→N=70; X=2.51; sd=1.12	(30-34)-(20-24)=.41	.038**
	25-29→N=55; X=2.51; sd=1.12	30-34)-(25-29)=.42	.048**
	30-34→N=56; X=2.93; sd=1.12	(30-34)-(35-39)=.46	.045**
	35-39→N=44; X=2.48; sd=1.17		
	Married→N=209; X=2.41; sd=1.07		
	Single→N=202; X=2.69; sd=1.14	t=-2.53	.012**
	(1-2hrs)→N=95; X=2.75; sd=1.07	(1-2hrs)-(6-8hrs)=.44	.007***
	(6-8hrs)→N=92; X=2.30; sd=1.08		
<i>Education</i>	High N=143; X=2.38; sd=1.13	(4-year)-(high)=.32	.016**
Q14: I am happy with Kanal B's programs	4-year N=129; X=2.71; sd=1.04		
<i>Age</i>	15-19 N=67; X=2.69; sd=1.06	(15-19)-(45-49)=.49	.014**
Q15: I do recommend Kanal B to my friends	30-34 N=56; X=2.71; sd=1.15	(30-34)-(45-49)=.52	.013**
	35-39 N=44; X=2.64; sd=1.18	(35-39)-(45-49)=.44	.047**
	40-44 N=62; X=2.66; sd=1.05	(40-44)-(45-49)=.47	.022**
	45-49→N=57; X=2.19;sd=1.10		
<b>Brand Image</b>			
<i>Age, Education</i>	40-44 N=62; X=2.31;sd=1.13	(45-49)-(40-44)=.54	.008***
Q21: Kanal B programs are related to political issues	45-49 N=57; X=2.84 ; sd=.94		
	High N=143; X=2.74; sd=1.09	(High)-(4-year)=.29	.029**
	4-year→N=129; X=2.45;sd=1.14		
Q22: Kanal B programs make me feel good	<i>None</i>		
<i>Age, Income</i>	20-24 N=70; X=2.67; sd=1.15	(20-24)-(35-39)=.54	.012**
Q23: Kanal B's programs are consistent with Turkey's image	25-29 N=55; X=2.73; sd=1.06	(25-29)-(35-39)=.59	.008***
	35-39 N=44; X=2.14 sd=1.15	(45-49)-(35-39)=.55	.013**
	45-49 N=57; X=2.68; sd=1.18	(4000+)-(3000-3999)=.35	.045**
	(3000-3999) N=76; X=2.29;sd=1.08		
	(4000 & up) N=86; X=2.64;sd=1.12		
<b>Brand Association Brand Personality</b>			
<i>Hours of watching TV</i>			
	(3-5hrs) N=115; X=2.44; sd=1.11	(1-2hrs)-(6-8hrs)=.42	.01***
Q24: Kanal B's programs can be considered as the best quality ones	(6-8hrs) N=92; X=2.40; sd=1.13		

Appendix A: Differences in All CBBE Measures by Demographic Variables			
CBBE aspects	N, Mean (X), sd	t / mean difference	Sig.
<b>Brand Association - Organizational Association</b>			
<i>Age, Marital Status</i>	20-24 N=70; X=2.41; sd=1.14	(30-34)-(20-24)=.48	.019**
Q28: Kanal B shows up-to-date programs	25-29 N=55; X=2.44 ; sd=1.03	(30-34)-(25-29)=.46	.034**
	30-34 N=56; X=2.89; sd=1.09	(30-34)-(35-39)=.53	.021**
	35-39 N=44; X=2.36; sd=1.10		
	Married N=209; X=2.48; sd=1.16	t=-2.00	.045**
	Single N=202; X=2.71; sd=1.09		
<i>Age</i>	25-29 N=55; X=2.85 ; sd=1.09	(25-29)-(30-34)=.43	.044**
Q30: I watch most of the Kanal B programs on a regular basis	30-34 N=56; X=2.43 ; sd=1.12		
<i>Education</i>	High N=143; X=2.40; sd=1.13	(Masters)-(high)=.31	.025**
Q31: I consider Kanal B as a reliable source	Masters N=139; X=2.71; sd=1.16		
<i>Income</i>	(<1000) N=93; X=2.60; sd=1.07	(<1000)-(1000-1999)=.38	.025**
Q32: I am proud of being Kanal B's audience	(1000-1999) N=80; X=2.23; sd=1.14	(2000-2999)-(1000-1999) =.45	.012**
	(2000-2999) N=76; X=2.67; sd=1.07	(3000-3999)-(1000-1999)=.36	.045**
	(3000-3999) N=76; X=2.58; sd=1.08		



# THE EFFECT OF BRAND EXPERIENCE ON BRAND RELATIONSHIP QUALITY

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## ABSTRACT

*It is very important for customers to have brand experiences in marketing practice. These brand experiences affect consumer-brand relationship quality positively. Brand experience is composed of four dimensions: sensory, affective, behavioral, and intellectual. These are evoked by brand-related stimuli like brand design, communications and environments.*

*In this research, we investigate which brand experiences affect brand relationship quality. Among four brand experience dimensions, we investigate affective and behavioral brand experiences, because affective and behavioral dimensions have a decisive effect on the brand attachment. According to this research, an affective brand experience affects brand trust and brand commitment positively. A behavioral brand experience does not affect brand trust meaningfully but positively affects brand commitment.*

*Also we examine brand trust-brand commitment relationship and brand relationship quality-brand loyalty. Brand trust affects brand commitment positively and brand relationship quality (trust, commitment) influences brand loyalty positively.*

*In this study, we suggest that not all brand experiences are effective to promote brand relationship quality. According to the goal of a company or a brand, marketing managers should implement brand experience strategies selectively. Also, it is important to choose a brand experience activity that is well matched with the pursuing brand relationships. Through this study, we suggest brand experiences are crucial for building a brand relationship and a brand loyalty.*

## INTRODUCTION

In marketing practice, brand experience has attracted much attention (Brakus, Schmitt & Zarantonello, 2009). It is important for marketing professionals to understand how customers experience brands and how the brand experience affects marketing strategies for services and products. Nowadays, customers are not satisfied with buying products for functional benefits. Many researchers suggested that the pervasive influence of emotional response in product consumption and shopping (Holbrook, Chestnut, Oliva & Greenleaf, 1984; Batra & Ray, 1986; Westbrook, 1987; Batra & Holbrook, 1990; Cohen, 1990). Schmitt (1999) said consumers increasingly make choices based on the experiential factor that the product offers. It has been

suggested that an emotion-rich experience provides not only brand differentiation and consumer loyalty but also sales increase and promotion of the brands (Morrison & Crane, 2007). It means that brand experience can affect the customer-brand relationship.

Relationship Marketing has been studied by using Fournier (1998)'s conceptualization of Brand relationship quality (BRQ). Brand relationship has arrived a new stage to be one of the principal focus of research on consumers and brands (Aaker, Fournier & Brasel, 2004; Breivik & Thorbjornsen, 2008; Chang & Chieng, 2006; Hass, 2007; Huber, Collhardt, Matthes & Vogel, 2009). Brand relationship quality is usually used to evaluate the relationship strength and the depth of consumer-brand relationship (Xie & Heung, 2009). The advantage of studying brand relationship is the ability to provide insights into the impact of brands on customers and their needs (Breivik & Thorbjornsen, 2008; Fournier, 1998; Monga, 2002). But empirical studies that deal with whether brand relationship quality could influence consumers' purchase intentions and behaviors are scant (Xie & Heung, 2009). Researches regarding the correlation between consumers' experiences of brands and brand relationship quality are also limited.

Therefore the purpose of this study is to examine how brand experience affects customer-brand relationship quality. This could be a contribution for marketing managers to improve their knowledge about the relationship between their brands and customers and to understand their customers more accurately.

## **THEORETICAL BACKGROUND AND PROPOSITION**

### **Brand Experience**

Brand experiences are "subjective, internal consumer responses (sensations, feelings, and cognitions) and behavioral responses evoked by brand-related stimuli that are part of a brand's identity, packaging, design, environments and communications" (Brakus, Schmitt & Zarantonello, 2009). Consumer and marketing research has shown that experiences happen when consumers search for products, when they are shopping for products or receive services, and when they consume products or services (Arnould, Price, & Zinkhan, 2002; Brakus, Schmitt, & Zhang, 2008; Holbrook, 2000).

The types of brand experience are related with product, shopping and service, and consumption experience. Product experiences occur when consumers interact with products (Hoch 2002). First, the product experience happens directly when there is physical contact with the product (Hoch & Ha, 1986) or indirectly when a product is presented virtually or in an advertisement (Hoch & Ha, 1986; Kempf & Smith, 1998).

Second, shopping and service experiences happen when consumers interact with a store's physical environments, its policies and practices (Hui & Bateson, 1991; Kerin, Jain & Howard, 1992). Thus, research in this area investigates how atmospheric variables and

salespeople affect the consumer's experience (Arnold et al., 2005; Boulding et al., 1993; Jones, 1999; Ofir & Simonson, 2007).

Third, consumption experiences arise when consumers consume and use products. These are multidimensional and contain hedonic dimensions, such as feelings, fun and fantasies (Holbrook and Hirschman, 1982). Many interpretive studies about consumption experiences have investigated hedonic goals that happen during and after the consumption such as at concerts and sports games (Arnould & Price, 1993; Celsi, Rose, & Leigh, 1993; Holt, 1995; Joy & Sherry, 2003).

Brand experiences vary in intensity and strength (Brakus, Schmitt & Zarantonello, 2009). Also, brand experiences vary in valence. Customer can face positive or negative brand experiences and short-lived or long-lasting brand experiences. Long lasting brand experiences, stored in the customer's memory, should affect customer loyalty and satisfaction (Oliver, 1997; Reicheld, 1996). These kinds of brand experience are different from brand image and brand association (Keller, 1993).

Brand experiences are different from other brand constructs. Attitudes are related evaluations based on affective reactions or beliefs (Fishbein & Ajzen, 1975; Murphy & Zajonc, 1993). However, brand experiences include specific sensations, cognitions, and behavioral responses caused by specific brand related stimuli (Brakus, Schmitt & Zarantonello, 2009). Brand experiences also distinguish between affective and motivational notions like involvement (Zaichkowsky, 1985) and customer delight (Oliver, Rust & Varki, 1997) because brand experiences can take place when customers are not interested in or do not have a personal connection with a brand. Finally, brand experiences are different from brand image and brand associations (Keller, 1993). A typical construct of brand association is brand personality (Aaker, 1997). Brand personality is processed inferentially (Johar, Sengupta, & Aaker, 2005), but brand experiences deal with actual sensations, cognitions, and behavioral responses.

### **Brand Experience Dimensions**

Dimensions of brand experiences are studied in philosophy, cognitive science, and experiential marketing and management (Brakus, Schmitt & Zarantonello, 2009). In the experiential marketing and management area, Schmitt (1999) suggested five experiences: when consumers sense, feel, think, act, and relate. These five experiences are related to Dewey's (1922, 1925) categorization, and Dube and Lebel's (2003) pleasure construct. Based on these researches, Brakus, Schmitt and Zarantonello (2009) developed four dimensions of brand experience. These are composed of sensory, affective, intellectual, and behavioral dimensions. 1) The sensory dimension means that brands can make strong visual impression on the customer. Zarantonello and Schmitt (2010) said a sensory dimension is "visual, auditory, tactile, gustative, and olfactory stimulations provided by a brand". 2) The affective dimension means that brands

induce feelings or sentiments. The affective dimension includes feelings produced by brands and their emotional tie with consumers (Zarantonello & Schmitt, 2010). 3) The intellectual dimension refer to brands' ability of making customers think or feel curious. 4) The behavioral dimension means when a customer uses a brand, it makes the customer physically active. The behavioral dimension includes bodily experiences, lifestyles, and interaction with brands(Zarantonello & Schmitt, 2010). According to brand experiences aroused and the intensity of stimuli, results of brand experiences can be more or less powerful. Lee, Jeon and Yoon(2010) suggested that affective and behavioral dimensions have a decisive effect on the brand attachment. Based on Lee et al.(2010), we chose an affective dimension and a behavioral dimension to investigate the relationship with brand relationship quality. Therefore, we conceptualize brand experience with two dimensions : affective and behavioral.

### **Brand Relationship Quality**

Fournier (1998) suggested that consumers perceive a brand as a behavioral entity. The core proposition that the framework of consumer-brand relationships is built is the assumption that consumers translate a brand' s behavior into trait language(Bengtsson, 2003). Brand relationship has reached a new stage to be one of the principal focus of research on consumers and brands (Aaker, Fournier & Brasel, 2004; Breivik & Thorbjornsen, 2008; Chang & Chieng, 2006; Hass, 2007; Huber, Collhardt, Matthes & Vogel, 2009). Brand relationship quality is usually used to evaluate the relationship strength and the depth of consumer-brand relationship(Xie & Heung, 2009). Consistent with previous studies (Aaker, Fournier, & Brasel, 2004; Hennig-Thurau, Gwinner, & Gremler, 2002), we apply a brand relationship quality concept to identify the strength of the relationship. Generally, relationship quality plays a role of reducing uncertainty, transaction cost and improving interaction efficiency, social need fulfillment (Hennig-Thurau & Klee, 1997).

In early research of relationship quality, Hennig-Thurau and Klee (1997) suggested that relationship quality is a concept related "salesperson' s ability to reduce perceived uncertainty" (Crosby et al., 1990). They considered relationship quality consisted of two dimensions, 1) trust in the salesperson and 2) satisfaction with the salesperson (Crosby et al., 1990). Relationship Quality is described as a second-order construct consisting of trust, commitment and social benefits (Gregoire, Tripp & Legoux, 2009). Trust means that consumers have confidence that a brand is dependable and can be relied on. Commitment is the willingness to maintain a relationship with a brand. Social benefits means that consumers perceive that brand and have one-to-one close connections by means of the personalization and customization of services. Hennig-Thurau and Klee (1997) said a product or service-related quality perception is a component of the more complex construct relationship quality. Relationship quality consists of the customer' s trust and commitment to the marketer.

Consumers who perceive a high level of relationship quality are more likely to take offense if they have a negative incident with a brand. When a consumer feels good about their relationship with a brand, a high level of commitment and loyalty results (Anderson & Sullivan, 1993; Mittal & Kamakura, 2001; Oliver, 1997). Horppu, Kuivalainen, Tarkiainen and Ellonen (2008) suggested that a customer's positive brand experiences can affect brand cognition, commitment, purchase intentions and brand reputation. Relationship quality can serve as a predictor variable for customer retention and purchase decision.

Based on these researches, we choose two components among three brand relationship quality concepts: trust and commitment. Moorman et al. (1992) defined trust as the willingness of general consumer to rely on the capability of the brand to carry out its stated function. Other explanations of trust also stress the concept of reliance as decisive to the trust (Morgan & Hunt, 1994). According to Morgan and Hunt (1994), brand commitment is another key relational variable that inspires the relevant partners in a relationship. Also brand commitment reduces uncertainty and saves a customer the cost of seeking new relational exchanges with other brand. In addition, we hypothesize that customers who have a high level of brand experience can have a strong relationship with a brand.

*H1 Brand experience affects a consumer's brand relationship quality positively.*

*H1-1 Affective brand experience affects a consumer's brand trust positively.*

*H1-2 Behavioral brand experience affects a consumer's brand trust positively.*

*H1-3 Affective brand experience affects a consumer's brand commitment positively.*

*H1-4 Behavioral brand experience affects a consumer's brand commitment positively.*

Morgan and Hunt (1994) suggested that the commitment-trust theory. They theorized that the existence of relationship commitment and trust is critical to successful relationship marketing. We defined brand trust as the willingness of the general consumer to rely on the capability of the brand to carry out its stated function (Chaudhuri & Holbrook, 2001). Brand commitment is related to the loyalty of consumers towards a specific brand and is getting increasing importance in consumer behavior (Martinand & Goodell, 1991). Delgado-Ballester and Munuera-Aleman (2001) suggested that brand trust acts a critical role as a variable that

causes customer's commitment. So brand trust could affect brand commitment and this allows us to examine the following hypothesis.

*H2 Brand trust affects brand commitment positively.*

Brand trust is extremely important for increasing customers' loyalty toward brands (Ha, 2004). Brand loyalty means consumers are satisfied with some brand, purchase the brand and then repurchase the same brand continuously (Aaker, 1991). Therefore, brand loyalty can be defined as the degree of consumer's attachment to a specific brand. We consider that a consumer's brand attachment is composed of brand preference, brand favorableness and purchase intention. Chaudhuri and Holbrook (2001) suggested that brand trust and brand commitment affect brand loyalty positively. Based on these researches, we suggest following hypothesis.

*H3 Brand relationship quality affects brand loyalty positively.*

*H3-1 Brand relationship quality of trust affects brand loyalty positively.*

*H3-2 Brand relationship quality of commitment affects brand loyalty positively.*

## **METHODS**

174 samples were collected from universities throughout South Korea. After excluding samples containing missing data, we were left with use 169 samples. In the final sample of 169 respondents, 53.3% were female, and 61.8% were between 20 and 29 years old.

We measured a brand experience using scales that Brakus, Schmitt and Zarantonello (2009) suggested. And trust and commitment as brand relationship quality are measured by scales that Gregoire, Tripp and Legoux (2009) used. We measured brand loyalty with the degree of brand preference, brand favorableness and purchase intention which are properly selected scales used by Aaker (1991) and Chaudhuri and Holbrook (2001)

We used structural equation modeling, which is a multivariate statistical technique for structural theory. Also, we adopted measurement scales from previous researches. Table 1 shows the exploratory factor analysis of measurement scales of Brand Experience Dimensions. Factor analysis uses Varimax rotation. Brakus, Schmitt and Zarantonello (2009) suggested 12 items to identify brand experience dimensions. However, according to the result of this factor analysis, we can chose 5 items to identify two brand experience dimensions. Table 2 shows the reliability and Brakus, Schmitt and Zarantonello (2009)'s construct validity of Brand Relationship Quality

measurement scales. Reliability indices are commonly used when they are over 0.6 (Palmatier, Dant, Grewal, & Evans 2006).

**Table 1: Brand Experience Exploratory Factor Analysis**

Construct	Item	Affective	Behavioral	Reliability
Brand Experience	This brand induces feelings and sentiments.	.829		.674
	I do not have strong emotions for this brand. <sup>a</sup>	.748		
	This brand is an emotional brand.	.741		
	I engage in physical actions and behaviors when I use this brand.		.948	.913
	This brand results in bodily experiences.		.944	

<sup>a</sup> Items are done reverse coding.

**Table 2: Validity of Brand Relationship Quality Constructs**

Construct	Item	C1	C2	C3	reliability
Brand trust	I felt that the firm was very dependable.		.813		.829
	I felt that the firm was of high integrity.		.687		
	I felt that the firm was of high integrity		.810		
Brand Commitment	I was very committed to my relationship with the service firm.	.895			.920
	I put the efforts into maintaining this relationship.	.820			
	I put the efforts into maintaining this relationship.	.896			
Brand Loyalty	Brand Preference			.863	.917
	Brand favorableness			.872	
	Purchase intention			.796	

## RESULTS

Many goodness-of-fit-criteria can be used to assess an acceptable model fit. Among them, the comparative fit index (CFI) and normed fit index (NFI) are preferred measures (Bentler, 1992). We used Amos 18.0 to analyze the hypothesized model, and we adopted a two-step model-building approach. The confirmatory factor models were tested prior to testing the structural model, and then the maximum likelihood (ML) estimation method was used.

**Table 3: Confirmatory factor analysis fitness**

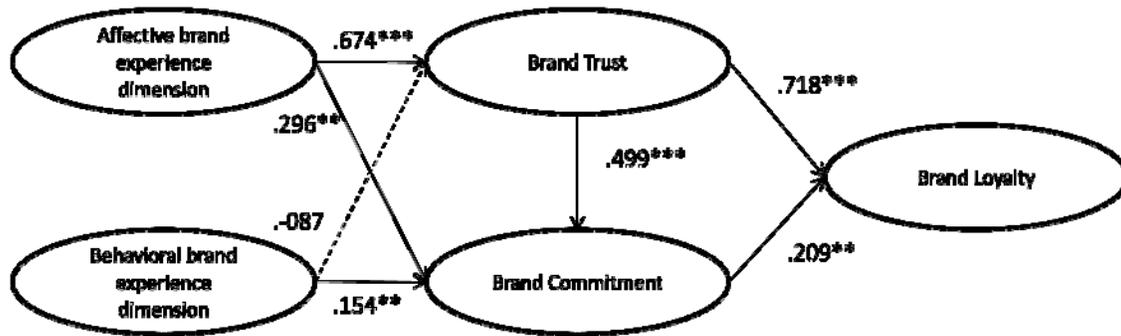
Model	Chi-square	df	GFI	TLI	AFGI	NFI	PNFI	CFI	IFI	RMR	RMSEA
	125.724 (p=0.000)	69	0.903	0.952	0.849	0.923	0.700	0.963	0.964	0.056	0.070

In this study, we examine model validity by using confirmatory factor analysis. Structural model results are shown in Table 3. There are several commonly used goodness of fit indices in structural equation model analysis : GFI, AGFI, RMR, and CFI. We used Amos 18.0 to examine

the structural model test, and we adopted CFI, IFI, and TLI as adequate fit indices. CFI may display little standard error with regard to sample size, IFI does not consider the sample size, and TLI is related to degrees of freedom. A model is considered appropriate when its GFI, AGFI, and CFI are greater than 0.9 and its RMR and RMSEA are between 0.05 and 0.08. All goodness of fit indices of the model in this study was satisfactory :  $-\chi^2 = 125.724$  (df = 69), GFI = 0.903, AGFI = 0.849, RMR = 0.041, CFI = 0.963, RMSEA = 0.070. As a result, these fit indices are appropriate for any sample size.

Figure 1 shows the results. After the hypothesis test, we can find that H1-1, H1-3, H1-4 and H2 and H3(H3-1, H3-2) are supported. But H1-2 is not supported. Table 4 shows the results of the hypotheses tests.

Figure 1: Structural model test result



Note: \*\*\* p<0.001, \*\* p<0.05, \* p<0.1

Table 4: Test of Hypotheses				
Hypotheses	Path	Regression weight	p-value	Results of test
H1 : Brand experience → brand relationship quality				
H1-1	Affective brand experience → brand trust	.674	.000	Supported
H1-2	Behavioral brand experience → brand trust	-.807	.294	not supported
H1-3	Affective brand experience → brand commitment	.296	.028	Supported
H1-4	Behavioral brand experience → brand commitment	.154	.037	Supported
H2	H2 : Brand trust → brand commitment	.499	.000	Supported
H3 : Brand relationship quality → brand loyalty				
H3-1	Brand relationship quality of trust → brand loyalty	.718	.000	Supported
H3-2	Brand relationship quality of commitment → brand loyalty	.209	.014	Supported

## DISCUSSION AND FUTURE RESEARCH

Brand experiences receive much attention from many marketing researchers. Accordingly, we examine brand experience dimensions, and investigate the relation between brand experience and brand relationship quality. Brand experience is composed of sensory, affective, behavioral, and intellectual dimensions (Brakus, Schmitt & Zarantonello, 2009). Brakus, Schmitt and Zarantonello (2009) examined whether brand experience affects customer satisfaction and loyalty. In this research, they found brand experience affects consumer's satisfaction and loyalty and have a relationship with brand personality dimensions. However, they did not examine the effect of each brand experience dimension on brand relationship quality. Overall brand experience might affect a customer-brand relationship positively. But each dimension of brand experience may not affect a customer-brand relationship quality positively. Therefore, we composed a model to find the effect of each dimension of brand experience on the brand relationship qualities of trust and commitment.

According to this study, all kinds of brand experiences do not affect the brand relationship quality construct. First of all, a customer who enjoys greater affective brand experiences thinks that the brand is more trustful. That is, when customers feel brands are affective, their relationships with brands are strengthened and they come to trust the brands. Also when the customer enjoys greater affective and behavioral brand experiences, the brand's commitment level also highly increases.

However, a behavioral brand experience does not affect brand trust meaningfully. According to Morgan and Hunt (1994), commitment is defined that an exchange partner believe that a relationship with another. And they suggested that commitment is main to all the relational exchanges between the firm and consumers. Moorman, Deshpande, and Zaltman (1993) defined that trust is a willingness to rely on an trade partner in whom one has faith. However, Morgan and Hunt (1994) demonstrated that the behavioral intention of "willingness" is unnecessary.

"Willingness to rely" should be rather viewed as an outcome of trust, because behavioral intention is best viewed as outcome of attitude (Fishbein & Ajzen, 1975). According to these researches, we think that a behavioral brand experience may be related outcome of attitude. This could explain that a behavioral brand experience affects brand commitment, not brand trust. Because a behavioral brand experience leads customers into behavioral and physical responses, brand trust may be less related to the behavioral brand experience. Future researches are needed to explore this issue further.

Secondly, the brand trust affects the brand commitment positively. And we also find that brand relationship quality affects brand loyalty positively. High levels of trust and commitment give a positive influence on the brand preference, the brand favorableness, and a purchase intention. Therefore we can bring to a conclusion that some kinds of brand experiences can affect brand relationship quality and consumer's brand loyalty eventually.

In this study, we suggest that not all brand experiences are effective to promote brand relationship quality. According to the goal of a company or a brand, marketing managers should implement brand experience strategies. Also, it is important to choose a brand experience activity that is well-matched with the pursuing brand relationship quality and brand loyalty.

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# ETHNOCENTRISM IN THE U.S.: AN EXAMINATION OF CETSCALE STABILITY FROM 1994 TO 2008

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## ABSTRACT

*The consumer ethnocentrism scale (CETSCALE) developed by Shimp and Sharma (1987) is a widely used survey instrument in Marketing Strategy research. However, few studies have been done to test the stability of consumer ethnocentrism CETSCALE scores over an extended period of time. This paper attempts to fill in this gap in the literature by analyzing the annual movement of CETSCALE scores in the U.S. between 1994 and 2006. Also of note is that fact that our sample includes data before and after the attacks of 9/11 – arguably one of the biggest “patriotic events” in recent U.S. history. The larger implications of this study for business strategy is to reinforce in the context of a large Western economy, the U.S., that ethnocentrism levels are basically very stable over time. People did react as expected to the attacks on 9/11; still, the reactions were very short-lived suggesting that fundamental underlying attitudes were probably unaffected by the event and people needed just a short amount of time to cope and adjust.*

## INTRODUCTION

The consumer ethnocentrism scale (CETSCALE) developed by Shimp and Sharma (1987) has been used by researchers in marketing strategy ever since its introduction as a tool for measuring consumer attitudes regarding the appropriateness of purchasing foreign produced goods and services. Specifically, strongly ethnocentric consumers feel that buying imported goods is wrong because it negatively affects the domestic economy and may be viewed as unpatriotic. There is extensive empirical work that has been done to support the link between CETSCALE scores and intended purchase behaviors (e.g., Acharya and Elliott, 2003; Balabamis and Diamantopoulos, 2004; Evanschitzky, Wangenheim, Woisetschlager, and Blut, 2008; Watson and Wright, 2002). The findings are particularly robust in studies done in Western developed economies showing a positive correlation between ethnocentrism and the likelihood of purchasing domestically produced products (Klein, Ettenson, and Krishnan, 2006). Consumers in advanced economies generally take pride in their domestic products and judge them favorably compared to foreign goods (Balabanis, Diamantopoulos, Mueller, and Melewar, 2001, Netemeyer, Durvasula, and Lichtenstein, 1991).

The overwhelming evidence linking CETSCALE scores to purchase intentions in advanced economies is important and useful information to strategists thinking about competing in markets with both foreign and domestic competitors and whether to position their brands based on being foreign or domestic (Klein, 2002). However, one potential weakness of the empirical work done so far is that ethnocentrism studies are normally done at a single point in time. Such studies allow for tests that show significance of the independent variable at that point of time; however, there is no way to gauge the behavioral sensitivity of consumers to attitudinal changes over time. Nielsen and Spence (1997) attempted to address this question by conducting surveys in the U.S. over an eight week period during which significant “patriotic events”, as the authors termed them, had occurred (e.g., terrorist bombings, political campaigning, and the Olympics). Lumb and Geib (2011) also addressed this question but in a developing country context, looking at two samples of Chinese consumers surveyed eleven years apart.

More studies need to be done over time to judge the stability of consumer ethnocentrism (CETSCALE scores). Further, to best judge stability, we would argue for multiple surveys conducted over the course of years and not weeks. This paper attempts to fill in this gap in the literature by analyzing the annual movement of CETSCALE scores in the U.S. between 1994 and 2010. Also of note is the fact that our sample includes data before and after the attacks of 9/11 – arguably one of the biggest “patriotic events” in recent U.S. history. So, large shifts in attitude might be expected around this major event. This provides an even greater opportunity to test, in the face of a major event, the sensitivity of consumer ethnocentrism as measured by CETSCALE scores.

## **THEORETICAL BACKGROUND**

### **Globalization and Its Likely Effect on CETSCALE Stability**

Globalization has been made possible by world-wide foreign direct investment, production and marketing; advances in telecommunication technologies and the internet; increases in world travel; the growth of global media; and technological advances that have made it easier and quicker to complete international transactions—both trade and financial flows -- and to acquire information about other countries (Ozsomer and Simonin, 2004; Steenkamp & Hofstede, 2002; Stremersch & Tellis, 2004; Van Everdingen, Aghina, & Fok, 2005).

Globalization is particularly impactful in developing countries where shifts in lifestyles and wealth accumulation can be very dramatic compared to already developed countries. For instance, in the obvious example of China, from 1979 to 2006, China’s real gross domestic product grew at an average annual rate of 9.7%, the size of the economy increased over eleven-fold, and its real per capita GDP grew over eight-fold (Congressional Research Service, 2007). Such dramatic changes in wealth accumulation most certainly affect consumption behaviors and attitudes over time. Hamzaoui, Essoussi and Merunka (2007) observe that with this economic

growth, there is an accompanying change in the availability of products in local markets. At first, there is a lack of local manufacturers and the attraction of growing markets invites foreign manufacturers to fill the void. This phenomena may in part explain the finding by Lumb and Geib (2011) that consumer ethnocentrism of Chinese consumers, as reflected in CETSCALE scores, was lower in 2006 than in 1995. Of course, over time this process becomes more complicated as some foreign brands begin to lose their appeal to Chinese consumers as local Chinese manufacturers enter the market and their brands increase in quality and attractiveness (Zhou and Hui 2003; Li, 2004).

We would propose that the Chinese example discussed above is consistent with a pattern of change found throughout the developing world. In this process, there is extreme market volatility as dramatic changes in wealth create large changes in market competition and, by extension, large changes in consumer attitudes about foreign products. While globalization is impacting competition in markets all over the globe, the quite dramatic changes that can be seen in a developing country like China are completely different from those that would be expected in developed countries. By contrast, wealthier countries such as the U.S. already have very well established markets with relatively stable competition as well as educated, wealthy consumers. Changes brought about by globalization should be incrementally much less impactful to both real economic activity and consumer attitudes in this context than in the developing country context.

### **Patriotism, Ethnocentrism and the Durability of Attitudinal Shifts**

Social identity theory in the psychology literature (see review in Hogg, 2006) focuses on the idea that people psychologically identify themselves as belonging to groups based on shared attributes that distinguish them collectively. Consumer ethnocentrism reflects a high level of social identity with the national collective and, consistent with a strong national identity, is the feeling of patriotism, i.e., to feel love for country and an attachment to national values (Skitka, 2005). This psychological link between the constructs of consumer ethnocentrism and patriotism in the minds of consumers is explained by Shimp and Sharma (1987: 280) as follows:

“From the perspective of ethnocentric consumers, purchasing imported products is wrong because, in their minds, it hurts the domestic economy, causes loss of jobs, and is plainly unpatriotic; products from other countries (i.e., out groups) are objects of contempt to highly ethnocentric consumers.”

Empirical work done in the marketing literature has largely supported that there is in fact a strong relationship between consumer ethnocentrism and both patriotism and Hofstede's (1984) collectivism dimension. In Shankarmahesh's (2006) review of the literature that has studied the antecedents to consumer ethnocentrism, he found four studies that looked at the collectivism variable and six studies that looked at patriotism. In his summary, he identifies all

four studies that looked at collectivism as having found a positive relationship between collectivism and consumer ethnocentrism while five of the six studies that looked at patriotism found a positive relationship (one study found no relationship).

Given the relationship between patriotism, reflected by a strong sense of collective national identity, and ethnocentrism, the events of 9/11 can be hypothesized to be a particularly relevant variable affecting U.S. consumer ethnocentrism. Terror Management Theory (TMT), as discussed by Thomas (2003: 859), “holds that individuals initially employ simple, direct defenses to banish death-related thoughts.” One defense is an increased identification with and loyalty to one’s worldview. In the case of 9/11, Thomas (2003) found heightened levels of patriotism in her survey of mid-life American women. Thomas’ (2003) findings are also supported by other survey research done immediately following the 9/11 attacks on the World Trade Centers and the Pentagon that also indicated Americans had an increased sense of patriotism following the attacks (Davies, Steele and Markus, 2008; Skitka, 2005; Traugott, et. al., 2002). The survey done by Traugott, et. al. (2002: 514) through the Institute for Social Research found that changes in attitude tended to “reflect more patriotism and national pride than an opposition to foreigners” noting the result as “a kind of patriotism of mutual support rather than a jingoistic reaction to all foreigners or even immigrants.” This evidence suggests that Americans should have become more ethnocentric in the year immediately following the attacks in large part because of an enhanced sense of patriotism and a greater sense of collective belonging.

Of course, while no event in recent American history compares with 9/11, there are still many events that occur over time that could be considered as well as ‘patriotic’ events powerful enough to affect ethnocentrism levels. There is always the possibility that any of these other events could also have affected people’s sense of patriotism and ethnocentrism just as we have hypothesized for 9/11. The study conducted by Nielsen and Spence (1997: 70) identified the summer of 1992 as having “several events” that could affect patriotism noting that “given the recent spate of terrorist bombings, political campaigning, and events such as the Olympics, the effect of patriotism should not be ignored.” The findings from Nielsen and Spence’s (1997) study as they tracked CETSCALE scores over eight weeks were somewhat inconclusive. They found that scores were stable for the population but not so for two specific sub-groups - military versus non-military personnel. Our sample will include a number of events similar to the events identified by Nielsen and Spence (1997) including the Oklahoma City bombing, multiple political campaigns, and the tech stock market bubble.

The durability of attitudinal changes following traumatic events is a complex variable to assess. Some events will tend to produce more permanent reactions compared to other events. There is extensive work done in psychology to deal with stress disorders following traumatic events and issues of recovery. In their review of the associated literature, Aldwin, Sutton, and Lachman (1996) note that “much of the literature supports the notion that the effect of stressors on mental and physical health is relatively short lived (p. 841).” However, they also observe

following their own experimental study that “under highly stressful circumstances, deviation amplification processes may occur that result in long-term changes in personality (p. 866).” Basically, coping mechanisms lead to no lingering effects in many cases; but, more devastating events require internal coping processes that have more long-lasting personality impacts. Any of the events that we have identified as potential patriotic events, including the 9/11 attacks, were not personalized events with important impacts on the daily lives of most Americans. Comparatively, such events are of minimal impact when contrasted with things like being assaulted or facing the unexpected death of a loved one and, as noted in Aldwin, et. al., (1996), such effects are often very short-term in nature. We would therefore suggest that any observable attitudinal changes in terms of ethnocentrism should similarly be only short-lived; immediate reactions that would not persist into the long-term.

### **RESEARCH QUESTIONS**

Given the preceding, we present the following research questions:

*Research Question 1: Do CETSCALE scores in the U.S. remain stable with little variation over time?*

*Research Question 2 Consistent with heightened levels of patriotism felt by Americans following the 9/11 attacks, did CETSCALE scores in the U.S. increase immediately following the 9/11 attacks?*

*Research Question 3: Did CETSCALE scores following the 9/11 attacks return towards pre-attack levels?*

### **RESEARCH DESIGN AND SAMPLE CHARACTERISTICS**

#### **Data Collection**

Survey research techniques were utilized to obtain the data for the study from a convenience sample. The total sample consisted of a total of 949 respondents, the majority of who were college students, who participated in the study. The 1994 and 2005 samples were from a larger study and not limited to college students. The questionnaire contained demographic information questions and the Consumer Ethnocentrism Scale, which is a measure of respondents’ ethnocentric tendencies. Respondents completed the 17-item CETSCALE on a scale of 1 (*strongly disagree*) to 7 (*strongly agree*). The sum of the responses on each of the 17 items indicates the respondent’s ethnocentric tendency with a higher score indicating a higher

ethnocentric tendency. In addition to the yearly data, samples were found for both the Fall and Spring term classes in 2001 and 2002, allowing for a comparison of CETSCALE scores immediately before and after 9/11.

## **Respondent Characteristics**

### **Age**

For all the samples the largest percentage of respondents placed themselves in the 17-25 year old age category: 95.2% of the total number of respondents is between the ages of 17-25 years. As this was mainly a convenience sample of college students, this age category was expected to be the largest.

### **Gender**

The number of respondents who disclosed their gender was 489 males and 377 females. To determine if there was significant difference in the number of male and female respondents a Chi-Square statistic was computed ( $\chi^2 = 18.80713$ ,  $df = 18$ ,  $prob. = .4038$ ), indicating that there was not a significant differences in the number of males and female respondents.

### **Student Sample**

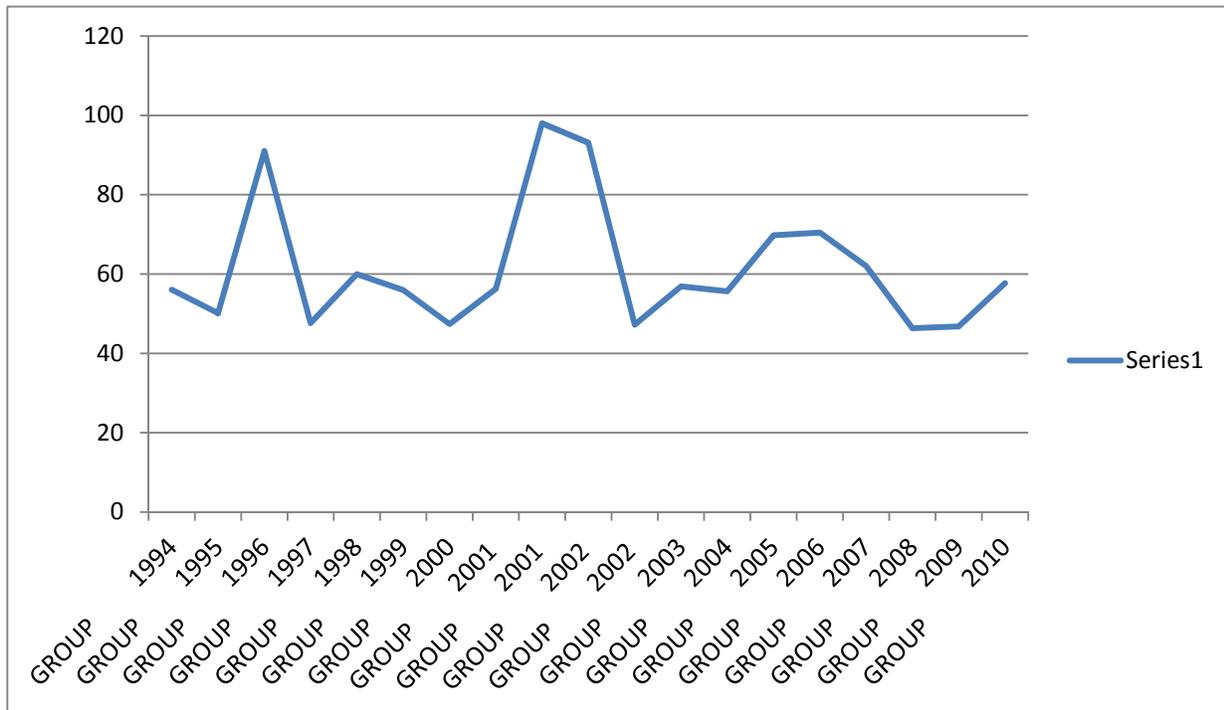
The results of this study should be viewed in light of the convenience sample of students. Some researchers have found that student samples may suffer from a lack of external validity (e.g., Sears, 1996) although external validity concerns have been found to require more attention in theoretical research studies (Winer, 1999; Lynch, 1999). It is possible that different samples of the population may have higher or lower CETSCALE Scale scores than the students sampled. However, the use of student samples in this study can be plausibly rationalized since the 9/11 event was also experienced by the students.

## **ANALYSIS**

*Research Question 1: Do CETSCALE scores in the U.S. remain stable with little variation over time?*

In order to answer this question, the mean CETSCALE score for each group (i.e., year) was calculated. Figure 1 graphically shows the mean CETSCALE score by year. Table 1 presents the specific sample data for each of the year's in the study.

Figure 1: Mean CETSCALE Score



In order to determine if CETSCALE scores remain stable with little variation over time, a t test between the mean CETSCALE score for successive years was conducted. The results of the t tests indicate that there are statistically significant differences between many of the successive years. A statistically significant difference for the CETSCALE scores was not found for the following samples: 1994-1995; 1998-1999; 2001 Fall -2002 Spring; 2003-2004; 2005-2006; 2008-2009; 2009-2010.

It seems important at this point to remember that statistical significance is not the same as practical significance. Strategists recognize that attitudinal adjustments are always occurring within the population; but, they also recognize that not all adjustments are significant shifts. A visual examination of Figure 1 indicates that although t tests indicate some statistically significant differences between the CETSCALE scores for a number of successive years, there are only two dramatic spikes during the time period of the current study. Otherwise, scores appear to the naked eye to be actually quite stable outside of those two spikes. One spike can be, as we anticipated, attributed to the 9/11 terrorist attack. The other spike, similar in scale to that found following the attacks on 9/11, occurs in 1996. Statistically speaking, it may be that this one data point is simply a random outlier. But, the other possibility is that some other 'patriotic' event(s) in 1996 may have occurred that contributed to the spike. While no event in recent American history compares with 9/11, it is interesting that 1996 did have two acts of terrorism

that affected U.S. civilians. On June 27<sup>th</sup> of that year a truck bomb exploded outside the U.S. military barracks in Saudi Arabia killing 19. The Atlanta Olympic Games began July 20<sup>th</sup> and on July 27<sup>th</sup> a bomb exploded at Atlanta Olympic Park killing 1 and injuring 110.

Year	Mean	Std Dev	Cases
1994	56.043	16.7461	93
1995	50.1212	14.1989	33
1996	91.025	13.9734	40
1997	47.6316	13.6232	38
1998	59.9792	12.5774	48
1999	55.9574	13.2697	47
2000	47.3793	11.9719	58
2001 Spring	56.2692	13.6599	52
2001 Fall	98	10.3971	21
2002 Spring	93.1136	16.8788	44
2002 Fall	47.2195	11.976	41
2003	56.871	14.5275	31
2004	55.641	15.0618	78
2005	69.775	21.7792	40
2006	70.4568	23.2943	81
2007	62	24.0596	52
2008	46.322	17.1056	59
2009	46.7647	21.839	17
2010	57.7097	14.3369	31
Total Cases = 949			
Missing Cases = 45 (4.7%)			

It is impossible to know if either of these events contributed to the 1996 spike, but it is certainly very reasonable to consider that they might have. However, we cannot know for sure which types of events or what specific aspects of the events might contribute to spikes. While 1996 did witness two terrorist attacks which were prominently covered by the news media, it was not the only year where terrorist attacks happened (e.g., 1995 Oklahoma City car bombing outside a federal office building; attack of the U.S. Navy destroyer USS Cole in 2002; attacks on Western targets in Saudi Arabia in 2003 and 2004). It is not clear what is exactly unique about the events in 1996 that would have made them more like 9/11 but still different from any of the other events. Some have argued that because of the constant television coverage and the

opportunity for people to continually reminded of the horrific experience by the media, “this event [9/11 attacks] was unique in the number of people exposed and the degree to which it was perceived as personal (Meisenhelder, 2002:771).” Maybe the extensive television coverage associated with the Olympics is the common thread.

*Research Question 2: Consistent with heightened levels of patriotism felt by Americans following the 9/11 attacks, did CETSCALE scores in the U.S. increase immediately following the 9/11 attacks?*

In order to answer this research question, two statistical procedures were conducted. First, to determine if there are statistically significant differences between respondents’ CETSCALE scores in the years before and after 9/11, the sample was divided into two groups, pre and post 9/11. The data were analyzed using Analysis of Variance (ANOVA). The results of the ANOVA ( $F=15.5743$ ,  $df = 1,902$ ,  $prob. = .0001$ ) indicate that there is a statistically significance difference in the CETSCALE scores between the pre 9/11 and post 9/11 groups. Second, to determine if the CETSCALE scores increased immediately following the 9/11 attacks, Spring 2001 and Fall 2001 samples were subjected to a Student’s T-Test for a comparison of the means. The results, which are presented in Table 2, indicate that CETSCALE scores in the U.S. did increase immediately following the 9/11 attacks. This suggests that Americans became more ethnocentric in the year immediately following the attacks and, as previously stated, this may be in large part because of an enhanced sense of patriotism and a greater sense of collective belonging.

		Number of Cases	Mean	Std Deviation	Std Error		
Group 1		52	56.2692	13.660	1.894		
Group 2		21	98.0000	10.397	2.269		
		Pooled Variance Estimate			Separate Variance Estimate		
F Value	2-Tail Prob	T Value	Degrees of Freedom	2 Tail Prob	T Value	Degrees of Freedom	2 Tail Prob
1.73	182	-12.58	71	.000	-14.12	48.38	.000

*Research Question 3: If they changed following 9/11, did CETSCALE scores following the 9/11 attacks return to pre-attack levels?*

In order to answer this research question, t tests between successive yearly means were performed. The results of the t tests indicate a significant difference between the means for the 2002 Spring and 2002 Fall samples ( $t = 14.53$ ,  $df = 77.65$ ,  $prob = .000$ ). As indicated in Table

1, the Mean CETSCALE score of 93.11 for the 2002 Spring sample is significantly higher than the Mean CETSCALE score of 47.21 for the 2002 Fall sample. It is possible that in the spring of 2002 people were still recovering from 9/11 and by fall the recovery process had started. The t test between the 2002 Fall and 2003 samples ( $t = -3.01$ ,  $df = 57.39$ ,  $prob = .004$ ) indicates a significant difference between the CETSCALE score for the two years. For the years between 2003 – 2005, there is not a significant difference in the CETSCALE score between the 2003-2004 samples ( $t = 0.39$ ,  $df = 57.05$ ,  $prob = .695$ ) while and between the 2004 and 2005 samples there is again a statistically significant difference between the CETSCALE scores ( $t = -3.68$ ,  $df = 58.69$ ,  $prob. = .001$ ). It appears that CETSCALE scores following the 9/11 attacks did return to pre-attack levels. As indicated in Figure 1, the CETSCALE scores then increased for a few years, although they did not come close to reaching the spikes present in 1996 or 2001.

### CONCLUSION

The larger implications of this study for business strategy is to reinforce in the context of a large Western economy, the U.S., that even though ethnocentrism levels do fluctuate year to year, they are basically stable within a range over longer periods of time. People did, as expected, react strongly to the attacks on 9/11; still, the reactions were very short-lived suggesting that fundamental underlying attitudes were probably unaffected by the event and people needed just a short amount of time to cope and adjust. While the 1996 spike is harder to evaluate in terms of its causes, it also had a very short-term effect that was quickly dissipated. We cannot know without further investigation if fundamental attitudes in other Western developed economies are similarly stable, but it certainly is a reasonable hypothesis to think so. Foreign companies that sell their products in these markets should obviously be aware of the ethnocentrism variable and plan for it. But, the encouraging news for business that comes from this study is that they can count on the stability of attitudes over time as they compete in these markets over the long-term.

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# ATTITUDE TOWARD BRAND: AN INTEGRATIVE LOOK AT MEDIATORS AND MODERATORS

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## ABSTRACT

*Exploring the effects of advertisement on attitude toward a brand has been a major concern to marketing scholars for decades. However, the literature on brand attitudes is so broad and the areas of focus of researchers are so fragmented that cognitive and affective elements and processes involved are often studied in isolation, neglecting the joint effects of these variables and resulting in a disconnected literature. In this paper, an integrative model of determinants and moderators of attitude toward the brand is provided along with a brief literature review of its formation and change. Key features of the model are: 1) comprehensive discussions on antecedents and moderators of brand attitude including new and traditional viewpoints, 2) inclusion of affect in the model, 3) distinction between positive and negative affect and their different paths of influence on attitude, 4) recognition of the role of brand familiarity especially in moderating affective impacts on brand attitude, 5) inclusion of irrelevant thoughts and their role on cognitions, 6) a more updated discussion of cognitive capacity theory and its implications on the model, and 7) distinction between informational ads and emotional ads in the formation of attitude toward the brand.*

## INTRODUCTION

Delving into the processes through which advertising efforts stimulate consumers to buy a particular brand has been an area of interest among marketing researchers for a long time (MacKenzie, Lutz, & Belch, 1986). In this way, attitude, the cynosure of social psychologists, has been a cornerstone of consumer research as well. In most studies in this area, attitudes have served as dependent variables and the impact of different ads, their repetition, and other factors on attitude formation and change have been studied (Berger & Mitchell, 1989). Cognitive perspective of attitude was the dominant viewpoint in the years when consumer behavior was a fledgling body of knowledge, owing much to Fishbeinian theories and multi-attribute models (e.g. Fishbein, 1963). However, the pioneering works of Mitchell and Olson (1981) and others (such as Zajonc, 1980; Shimp, 1981) gave rise to a new stream of research in which alternative paths to persuasion were explored. The influential Elaboration Likelihood Model (Petty, Cacioppo, & Schumann, 1983) and the series of studies by Lutz, MacKenzie, and Belch (1983),

MacKenzie, Lutz, and Belch (1986), and MacKenzie and Lutz (1989) further expanded our knowledge of attitude formation and change to include peripheral paths, especially through attitude toward the ad. While some studies were carried out to probe into the nature of this new construct (e.g. Gresham & Shimp, 1985), purely affective influences of advertisements on attitudes also came to light (Batra & Ray, 1986; Edell & Burke, 1987).

However, attitude researchers have focused on selected areas developing the now voluminous attitude literature in different and even disconnected directions. Along with a need for integration, current theories include relationships between some constructs that do not effectively explain the nature of effects or neglect the role of moderator variables. Argument quality, for example, has been noted in many studies (e.g. Petty, Cacioppo, & Schumann, 1983; Lord, Lee, & Sauer, 1995) in terms of its direct effect on brand attitudes; however the mediating role of brand cognitions has not received worthy attention. The moderating role of irrelevant thoughts on Arg-C<sub>b</sub> relationship and the importance of availability of cognitive resources in moderating that relationship are also less accentuated. Our study aims at providing an integrative framework that encompasses both cognitive and affective determinants of brand attitudes in the field of advertising effectiveness. This framework also includes the different processes and constructs that become activated as a result of emotional versus informational ads, a comparison neglected in previous studies. We developed our framework from a more detailed model which we propose later in the paper and provided several propositions for future validation.

In the following sections of this paper, first, we will discuss attitude formation and change by distinguishing between attitude toward the ad and attitude toward the brand. Antecedents and moderators of these two constructs will be explained in depth. Subsequently, we will discuss the relationship between attitude toward the ad and attitude toward the brand, and finally, we will propose an integrative model uncovering the processes which underlie the formation and change of these two constructs.

## ATTITUDE FORMATION AND CHANGE

There are two major perspectives with regards to attitude structure. First, we can view attitudes as evaluative responses influenced merely by beliefs (e.g., Wyer, 1970). This view of attitude reached its pinnacle with the famous expectancy-value models of which theory of reasoned action (Fishbein & Ajzen, 1975) is of paramount importance. The well-known formula ( $A = \sum b_i e_i$ ) indicates that the attitude is the sum of all evaluative beliefs regarding the attitude object where  $b_i$  is the consumer's belief defined as the extent to which the object possesses attribute  $i$ , and  $e_i$  is the evaluation of attribute  $i$ .

Second, the three-component model of attitudes asserts that along with beliefs (cognitive component), affective and behavioral components also underlie attitudes (Maio, Esses, Arnold, & Olson, 2004). For example, one might form a positive attitude towards classic music, in that one believes that listening to this type of music will enhance one's appreciation and

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understanding of music (cognitive part), it reminds one's fond memories of the past (affective part), and he/she remembers that he/she was an avid fan of (or at least used to listen to) classic music in his/her youth (behavioral part).

Moreover, researchers discriminate between consumers' response to marketing stimuli such as advertisement and their response to the brand (Kirmani & Campbell, 2009). Shimp (1981) posits that audiences of a particular ad have different degrees of involvement with advertisement based on the degree of attention and the processing strategy. Therefore, four types of attitude formation possibly arise from processing of an ad (Shimp, 1981): (1) if both brand and non-brand information of an ad are processed, both attitude toward the ad ( $A_{ad}$ ) and attitude toward the brand ( $A_b$ ) will be formed; (2) if merely brand information of an ad is processed, only  $A_b$ , and (3) if merely non-brand information of an ad is processed, only  $A_{ad}$ , will be shaped; (4) if neither brand information nor non-brand information is processed, no attitude will be formed.

Two kinds of appeals can be used to form the content of an ad message (Keller, 2001; Belch & Belch, 2004): (1) Rational appeals which focus on tangible aspects of brand such as physical product attributes and benefits; (2) Emotional appeals which emphasize social and psychological needs of customers and also focus on intangible aspects of product such as user imagery, usage imagery, and brand personality. Creating favorable attitudes toward the brand ( $A_b$ ) can be done by designing ads that influence beliefs and evaluations regarding the desired outcomes of consuming the brand (Shimp, 1981). Formation of favorable attitude toward the brand increases the probability of trial or repetition of purchasing the advertised brand (Shimp, 1981).

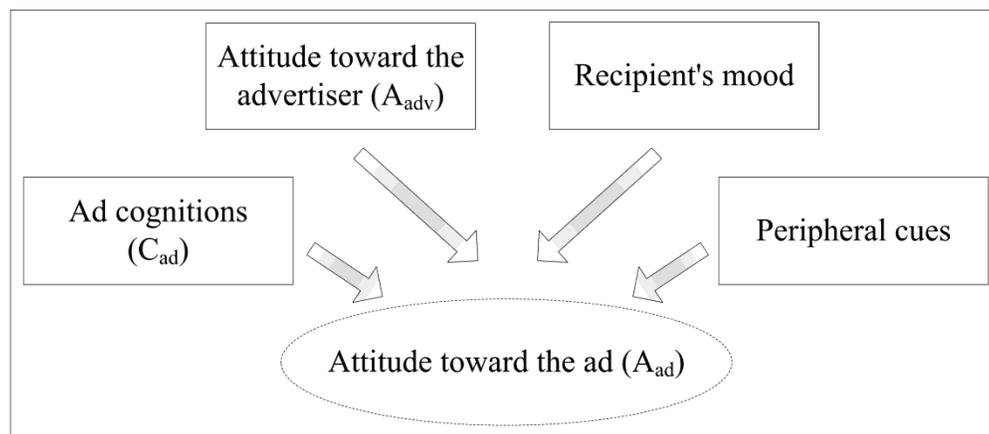
The objective of advertising is not to exert influence on consumers' beliefs toward the attributes or benefits of a specific brand per se. Instead, marketers are more fervently trying to create a favorable attitude toward the advertisement in order to induce a positive feeling in the consumers after processing the ad (Shimp, 1981). It is widely accepted that feelings evoked by marketing communications (e.g. advertisements) have important effects on consumers' response to the brand (Kirmani & Campbell, 2009). We can, accordingly, assume that the audience exposed to an advertising message builds up an *attitude toward the ad* ( $A_{ad}$ ) which influences attitude toward the brand ( $A_b$ ), purchase intentions (Lutz, MacKenzie, & Belch, 1983), and consumers' buying behavior (Gresham & Shimp, 1985).

### ATTITUDE TOWARD THE AD

"Attitude toward the ad" can be defined as the set of thoughts and feelings consumers have about an ad (Kirmani & Campbell, 2009); however, some researchers define it as consumer's affective responses (such as likable-dislikable, favorable-unfavorable, and interesting-uninteresting) to the ad itself (Lutz, MacKenzie, & Belch, 1983; MacKenzie, Lutz, & Belch, 1986) during a particular exposure time (MacKenzie & Lutz, 1989). Also, two different aspects of attitude toward the ad, cognitive and emotional, can be recognized (Shimp, 1981).

At least four potential antecedents of *attitude toward the ad* ( $A_{ad}$ ) have been identified (Lutz, MacKenzie, & Belch, 1983): (1) *ad cognitions* ( $C_{ad}$ ), (2) *attitude toward the advertiser* ( $A_{adv}$ ), (3) the *recipient's mood* during the exposure, and (4) *peripheral cues* (PC) (Lord, Lee, & Sauer, 1995). It was also postulated in previous studies that attitude toward advertising in general ( $A_{ag}$ ) exerts an automatic effect on  $A_{ad}$  (Lutz, MacKenzie, & Belch, 1983), whereas empirical data showed that  $A_{ag}$  has no effect on  $A_{ad}$  (MacKenzie & Lutz, 1989). Contrary to ad cognitions which affect  $A_{ad}$  via central processing route and require the consumer's elaborated cognitive processing of the ad, the three remaining antecedents of  $A_{ad}$  (i.e.  $A_{adv}$ , PC, and mood) affect  $A_{ad}$  via peripheral processing route by the simple transfer of affect instead of elaborated cognitive processing (Lutz, MacKenzie, & Belch, 1983; MacKenzie & Lutz, 1989).

**Figure 1: Antecedents of attitude toward the ad**



### AD COGNITIONS

It is widely accepted that *ad cognitions*, also called *ad perceptions*, have a direct positive effect on attitude toward the ad (Lutz, MacKenzie, & Belch, 1983; MacKenzie, Lutz, & Belch, 1986; MacKenzie & Lutz, 1989; Brown & Stayman, Antecedents and Consequences of Attitude toward the Ad: A Meta-analysis, 1992). *Ad cognitions* ( $C_{ad}$ ) can be defined as “a multidimensional array of consumer perceptions of the advertising stimulus” (MacKenzie & Lutz, 1989, p. 51)—i.e. the audiences' beliefs and perceptions of the ad (Lutz, MacKenzie, & Belch, 1983).

The determining factors of ad cognitions are (1) the ad characteristics, (2) the consumer's attitude toward the advertiser (MacKenzie & Lutz, 1989), and (3) conscious processing of *executional elements* (Shimp, 1981). Moreover, it is observed that consumer's attitude toward the advertiser is a positive, strong, and reliable mediator of ad cognitions (MacKenzie & Lutz,

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1989). This attitudinal determinant of ad cognitions implies that affect can potentially influence the perceptual process (MacKenzie & Lutz, 1989).

After being exposed to an advertisement, audiences form a perception about weakness or strength of arguments presented in the ad; accordingly, quality of *message argument* (Arg) is one example of ad cognitions. Lord et al revealed that the quality of message arguments (Arg) exerts significant impact on both consumers'  $A_{ad}$  and  $A_b$  (Lord, Lee, & Sauer, 1995). As the opportunity for processing the ad message is enhanced, the impact of message arguments (Arg) on  $A_{ad}$  is considerably strengthened (Lord, Lee, & Sauer, 1995). Also it is discovered that informative contents of an SMS ad (i.e. rational appeals), focusing on factual information such as product features and benefits, exert positive influence on consumers' attitude toward the ad (Drossos, Giaglis, Lekakos, Kokkinaki, & Stavradi, 2007; Tsang, Ho, & Liang, 2004; Mirbagheri, 2010).

Another example of ad cognitions is *ad credibility* which received some attention in many previous studies (e.g. Lutz, MacKenzie, & Belch, 1983). Ad credibility affects weakly both  $A_{ad}$  and  $A_b$  (MacKenzie & Lutz, 1989). Lutz and his colleagues define *ad credibility* as the extent to which recipients perceive brand-related claims in the ad to be honest and convincing (Lutz, MacKenzie, & Belch, 1983; MacKenzie & Lutz, 1989). It is hypothesized that consumers evaluate credibility of a given ad based on three independent determinants (Lutz, MacKenzie, & Belch, 1983; MacKenzie & Lutz, 1989): perceived ad claim discrepancy, advertiser credibility, and credibility of advertising in general. In addition, an empirical study revealed that credibility of advertising in general has also an indirect influence on ad credibility through the advertiser credibility (MacKenzie & Lutz, 1989). *Perceived ad claim discrepancy* is defined as the extent to which brand-related claims in the ad are in conflict with the consumer's existing brand perceptions (Lutz, MacKenzie, & Belch, 1983). The more ad claims are discrepant, the more ad credibility will hurt. *Advertiser credibility* is the degree to which a consumer perceives that the sponsor of the ad is truthful or honest (MacKenzie & Lutz, 1989). This construct is based on customer's prior information and experience often across numerous different ads (MacKenzie & Lutz, 1989). *Credibility of advertising* "indicates consumers' perceptions of the truthfulness and believability of advertising in general, not simply the particular ad in question" (MacKenzie & Lutz, 1989, p. 51). In addition to these three determinants, medium type is another determinant of ad credibility. Interactive media (such as Internet and mobile) can facilitate the trust building through mutual communication, while one-way traditional advertising media have limited capacity to reinforce the consumers' trust (Stewart, Pavlou, & Ward, 2002).

In general, it is proposed that there is a considerable positive relationship between  $C_{ad}$  and  $A_{ad}$  (P1); in addition, *message argument* (Arg) and *ad credibility* are examples of ad cognitions that have a direct influence on  $A_{ad}$  (P2 & P3 respectively). Opportunity for processing the ad message moderates the Arg-  $A_{ad}$  relationship. The higher the opportunity to process, the stronger the Arg-  $A_{ad}$  relationship (P2a).

## ATTITUDE TOWARD THE ADVERTISER

Although some theoretical studies claim that *attitude toward the advertiser* ( $A_{adv}$ ) is a weak mediator of attitude toward the ad ( $A_{ad}$ ) (Lutz, MacKenzie, & Belch, 1983; MacKenzie & Lutz, 1989), some empirical studies hold the view that  $A_{adv}$  is a strong predictor of  $A_{ad}$  (MacKenzie & Lutz, 1989). We propose that the relationship between  $A_{adv}$  and  $A_{ad}$  is significant enough to be considered (P4). Attitude toward the advertiser ( $A_{adv}$ ) can be defined as recipient's acquired tendency to respond favorably (or unfavorably) and approvingly (or disapprovingly) to the advertiser company (MacKenzie & Lutz, 1989). Attitude toward the advertiser influences  $A_{ad}$  roughly automatically and with almost no cognitive thought (Lutz, MacKenzie, & Belch, 1983; MacKenzie & Lutz, 1989). Consumers' perceptions of the advertiser, formed based on their previous knowledge and experience of the advertiser, are the underlying sources of  $A_{adv}$  (Lutz, MacKenzie, & Belch, 1983).

### Recipient's mood

Mood is defined as "the consumer's affective state at the time of exposure to the ad stimulus" (Lutz, MacKenzie, & Belch, 1983, p. 538; MacKenzie & Lutz, 1989, p. 54). These positive or negative feelings transfer to  $A_{ad}$  (Lutz, MacKenzie, & Belch, 1983). It is also revealed that one in a good mood has a tendency to not only interpret a stimulus optimistically but also respond positively to it; in addition, it is more probable that one in a good mood retrieves positive than negative thoughts and feelings from memory (Shimp, 1981). A well designed advertisement can also put a recipient in a good mood, which can affect his decision for choosing the advertised brand in the future (Shimp, 1981). As a result, we propose that recipient's mood has a direct and positive effect on  $A_{ad}$  (P5).

The three determinants of mood are *ad characteristics*, *individual differences*, and *context of reception* (MacKenzie & Lutz, 1989). *Individual differences* refer to the consumer's tendency to evaluate situations positively or negatively (MacKenzie & Lutz, 1989). Individual differences also refer to differences in consumers' fields of interest. For instance, it is revealed that sending SMS ads relevant to consumers' fields of interest can have a significant influence on attitude toward SMS ad (Xu, Liao, & Li, 2008; Mirbagheri, 2010).

Moreover, the context of reception includes all the factors external to the communication that influence marketing communication effectiveness (Keller, 2001). Context of reception is comprised of several dimensions such as (1) time, (2) location and condition of physical surroundings (e.g. lighting, clatter, and temperature), and (3) task, that is, what the consumer is doing while receiving communication message (Park, Shenoy, & Salvendy, 2008). For example, if SMS ad is sent at the appropriate time and location such as a lunch suggestion while recipient is near a restaurant at noon, it will affect recipient's attitude positively (Carroll, Barnes, Scornavacca, & Fletcher, 2007; Xu, Liao, & Li, 2008; Mirbagheri, 2010). Two remaining

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dimensions of context are (4) surrounding ad clutters and (5) the nature of the exposure to ads — i.e. consumer-unsolicited exposure (e.g. TV commercials) versus consumer-solicited exposure (for information search) (Lutz, MacKenzie, & Belch, 1983). If audiences of a mass medium (e.g. TV, radio, and magazine) are exposed to ads that are inconsistent and incompatible with their interests and predilections, these ads may spoil the recipient's mood (Stewart, Pavlou, & Ward, 2002).

### **Peripheral cues**

An attitude toward an ad may develop merely because the ad evokes an emotional response, such as a feeling of love, joy, nostalgia, or sorrow, without any conscious processing of executional elements (Shimp, 1981). Peripheral cues (PC) are sources of information unrelated to the actual message—e.g. the source attractiveness (based on physical appearance, personality, or social status) or context of reception (Solomon, 2009). Peripheral cues (PC) exert a significant direct impact on consumers'  $A_{ad}$  and  $A_b$  (Lord, Lee, & Sauer, 1995). As a case in point, consumers may like a specific advertisement because it uses an attractive endorser (e.g. a celebrity), a humorous appeal (Shimp, 1981), or likable background music (Lord, Lee, & Sauer, 1995). Also, entertainments such as funny contents and interactive games sent via an SMS ad have influence on  $A_{ad}$  (Tsang, Ho, & Liang, 2004; Xu, Liao, & Li, 2008; Mirbagheri, 2010).

Furthermore, as the opportunity for processing the ad message is enhanced, the impact of peripheral cues (PC) on  $A_{ad}$  is considerably weakened (Lord, Lee, & Sauer, 1995). Increasing the number of exposures to an ad (e.g. from one to three exposures) can enhance the opportunity for processing and learning the ad message (Lord, Lee, & Sauer, 1995). It is thus proposed that peripheral cues (PC) significantly affect  $A_{ad}$  (P6); moreover, the higher the opportunity to process, the weaker the PC-  $A_{ad}$  relationship (P6a).

### **Attitude toward the Brand**

Attitude toward the Brand ( $A_b$ ) can be defined as audiences' affective reaction to the advertised brand (Lutz, MacKenzie, & Belch, 1983). That is, to what extent audiences feel purchasing the brand is good-bad, favorable-unfavorable, and wise-foolish (Lutz, MacKenzie, & Belch, 1983). In contrast with this affective definition of attitude, Martin Fishbein and his colleagues have given a more important role to cognitive processes in attitude formation and change, while by cognition, belief structures are meant (Fishbein M., An investigation of the relationship between beliefs about an object and the attitude toward that object, 1963). So attitude toward the brand is mediated by recipients' brand related *cognitive structures* (Lutz, MacKenzie, & Belch, 1983; Gresham & Shimp, 1985; MacKenzie, Lutz, & Belch, 1986). *Brand Cognitions* ( $C_b$ ) can be defined as the audiences' perceptions of the advertised brand (Lutz, MacKenzie, & Belch, 1983)—e.g. perceived brand attributes and benefits.

In addition to cognition, affect is also another element widely studied in terms of its effect on attitude. Affect can be defined as “evaluative reactions that can be embodied” (Clore & Schnall, 2005, p. 438). There has long been a debate over the way attitudes are influenced by affect (Bodur, Brinberg, & Coupey, 2000; Homer, 2006). While some theorists held cognitive structure fully responsible for attitude formation and change and considered the influence of affect on attitude to be mediated by cognitive structure, others have posited that affect has also a direct independent influence on attitude (Bodur, Brinberg, & Coupey, 2000).

Furthermore, the way affect impacts attitude is said to stem from the focus of attitude – whether attitude is toward an action or it is toward an object (Clore & Schnall, 2005). If an object is the center of evaluation, then the positive or negative affect can be transferred to the object; however, when the focus is on tasks and actions, affect influences information processing approach (Clore & Schnall, 2005). We proceed by shedding more light on determinants of these two elements ( $C_b$  and affect).

### **BRAND COGNITIONS**

Since the beginning of attitude research, cognitive processes have been at the heart of the focus (Wegener & Carlston, 2005). Three types of cognitions have been recognized and studied so far in attitude research in terms of their role in attitude formation and change: brand cognitions, ad cognitions, and irrelevant thoughts (Lutz, MacKenzie, & Belch, 1983; Gresham & Shimp, 1985; Homer, 1990; Coulter & Punj, 2007). We defined brand and ad cognitions earlier. We define irrelevant (idiosyncratic) thoughts as non-message or non-brand-related thoughts generated in response to a persuasive message (Coulter & Punj, 2007).

As previously defined, brand cognitions are the set of thoughts and salient beliefs regarding the advertised brand. Persuasive messages prompt the receiver to relate the new information to the existing brand-related information, knowledge, attitude, etc., and this juxtaposition generates brand cognitions (Greenwald, 1968). The net result of these brand cognitions determines the new attitude toward the brand. Another perspective (information integration theory (see Frey & Kinnear, 1980)) proposes that new information about a brand is integrated with those brand beliefs already held in memory after attributes of that brand have been evaluated and weighted. This view appears like a variation of the popular expectancy-value model of Fishbein and Ajzen (1975) discussed earlier. In the expectancy-value framework, brand cognitions consist of beliefs that the considered brand possesses certain attributes ( $b_i$ ) and the values attached to those attributes ( $e_i$ ) (Fishbein & Ajzen, 1975). The sum of these cognitions shapes the overall attitude toward the object. Thus, to change the attitude towards a brand, either the beliefs of brand attribute possession should be altered, or the values attached to those attributes should be modified (Lutz, 1975). While applying the first strategy seems straightforward (e.g. Volvo is safe), the second strategy requires more endeavor. For instance, drawing more attention to certain attributes has proved beneficial for increasing the perceived

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value (“importance”) of those attributes (MacKenzie, 1986; MacInnis & Jaworski, 1989). Moreover, MacKenzie (1986) found that ad characteristics (concrete versus abstract copy) affect the amount of attention absorbed to the advertisement. Thus, we propose that attention drawn to certain features mediates brand cognitions via increasing the value attached to those attributes (P7).

Surprisingly, the  $C_b - A_b$  relationship has shown to be weak or unsubstantiated in a number of studies (Lutz, MacKenzie, & Belch, 1983), especially when  $A_{ad}$  was included in the model (Batra & Ray, 1986). Some explanations of this poor relation allude to flaws in the research design (Homer, 1990) and some indicate that the measurement of  $C_b$  maybe a possible source (MacKenzie, Lutz, & Belch, 1986). But the most compelling explanation is the domination of peripheral route through  $A_{ad}$  over the central route through  $C_b$  (MacKenzie, Lutz, & Belch, 1986; Rose, Miniard, & Bhatla, 1990). There is ample literature providing comparison between two different paths to information processing—central, systematic, effortful, etc versus peripheral, heuristic, less effortful, etc (Petty, Cacioppo, & Schumann, 1983; MacKenzie, Lutz, & Belch, 1986; Chen, Duckworth, & Chaiken, 1999) much of which stem from the Elaboration Likelihood Model (Petty, Cacioppo, & Schumann, 1983) and Dual Mediation Hypothesis (MacKenzie, Lutz, & Belch, 1986). The gist of all these models is that in the absence of motivation to process or low involvement condition, brand attitude is more likely to be formed or changed by heuristic processing and  $A_{ad}$  is more predictive of  $A_b$ . Most researchers define consumer's involvement as consumer's motivation to process the message (Celsi & Olson, 1988). The strong relationship between  $A_{ad}$  and  $A_b$  in the studies which  $C_b - A_b$  was not supported indicates that peripheral processing was in charge of attitude change (MacKenzie, Lutz, & Belch, 1986). Even those studies demonstrating supportive evidence for  $C_b - A_b$  lacked peripheral cues such as music and were processed with high cognitive involvement (Rose, Miniard, & Bhatla, 1990). In brief, though less pronounced in emotional ad settings, the  $C_b - A_b$  relation cannot be neglected especially in informational contexts where cognitions exert their impact on  $A_b$ . It is thus proposed that the  $C_b - A_b$  relation is considerable (P8).

Argument quality is another concept worth of further attention. We defined message argument as one of the components of  $C_{ad}$ . *Strong argument* (Arg) in an ad has shown to have positive effect on  $A_b$  under both high and low involvement conditions (Petty, Cacioppo, & Schumann, 1983). Moreover, influence of Arg on  $A_b$  becomes significantly stronger by moving from low to high involvement conditions (Petty, Cacioppo, & Schumann, 1983; Lord, Lee, & Sauer, 1995). However, there are some ideas that lead us to revise the aforementioned hypotheses.

The first important point here is that in neither of these studies  $C_b$  is present in the model—herein, we restate the definition of brand cognition as the set of perceptions and brand-related thoughts (including attribute beliefs and value—the cognitive elements of Fishbein formula). In addition, consumers hold previously formed cognitions for familiar brands. According to cognitive response theory (Greenwald, 1968) and information integration theory

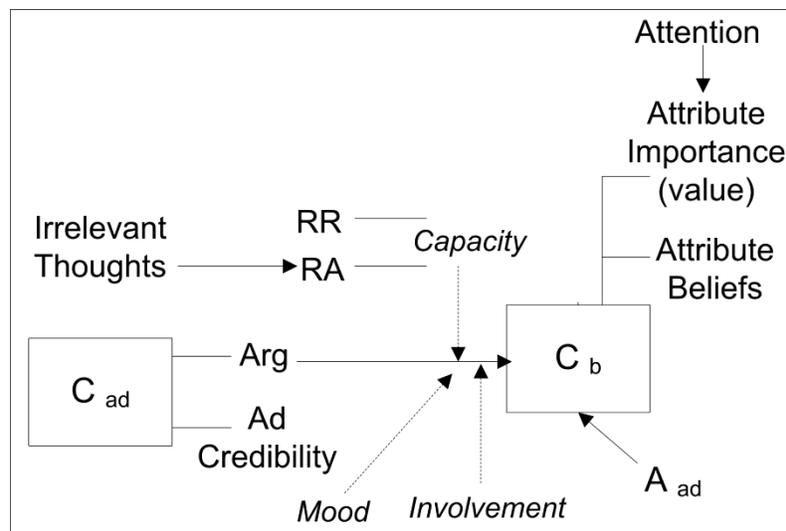
(Anderson, 1971), new information should be compared with previous beliefs in order to develop brand cognitions. In other words, information processing to which argument quality is a major input, is a cognitive process that impacts attitude through renewing brand cognitions and perceptions. Therefore we propose that argument quality mediates  $C_b$  (P9). We also propose that the effect of strong argument on brand cognitions is strengthened under high involvement rather than low involvement (P9a). The mediation effect of  $C_{ad}$  on  $C_b$  has been previously supported (Praxmarer & Gierl, 2009) but further work should be done on the Arg –  $C_b$  relationship to prove whether this component of  $C_{ad}$  influences  $C_b$  directly.

The extent to which argument quality mediates  $C_b$  differs substantially under different involvement conditions and recipient's moods. Batra & Stayman (1990) demonstrated that positive mood decreases the amount of required elaboration giving rise to a more heuristic processing and biasing the evaluation of the argument quality (which generates a more favorable evaluation of the argument) (Batra & Stayman, 1990). They also found that positive moods seem to reduce counterarguments when the subjects are exposed to weak messages (Batra & Stayman, 1990). Also, this moderation role of positive mood has shown to be most decisive under low involvement conditions (Batra & Stephens, 1994). In another study, the level of information processing (deep vs. shallow) as well as the type of information processing (schema based vs. data driven) with regards to the effect of mood on them has been explored (Shapiro, MacInnis, & Park, 2002). The findings indicate that positive mood is in charge of activating prior schemas by signaling that there is no need for a detailed information processing, leading to broader categorization and confidently use of accessible cognitions such as stereotypes (Shapiro, MacInnis, & Park, 2002; Clore & Schnall, 2005). The interesting point here is that brand names can also operate like stereotypes (Clore & Schnall, 2005) thus applying an advertising strategy which evokes positive moods can be a powerful tool for established brands. All these studies suggest that positive mood negatively moderates the Arg- $C_b$  relationship by impeding thorough evaluation of argument quality (P9b).

The notion that the argument quality is the primary driver of message acceptance has not been supported in a number of studies (Coulter & Punj, 2004). Instead, the integral role of cognitive resources required (RR) and those available for processing (RA) have been a subject of attention in cognitive resource matching (CRM) hypothesis (Coulter & Punj, 2004). According to this hypothesis, regardless of the quality of the argument, the persuasiveness of any message entails a match between resources required and those available for processing. In other words, although according to ELM, higher levels of elaboration will enhance (decrease) persuasion when the argument is strong (weak), increasing elaboration beyond the level where RR equals RA will negatively moderate that effect (Coulter & Punj, 2004). It is therefore proposed that when the RR is greater than RA, lack of consumer's cognitive capacity to process an argument hampers the Arg- $C_b$  relationship; on the other hand when  $RR=RA$  the Arg- $C_b$  relationship is strengthened (P9c).

Furthermore, since irrelevant thoughts also occupy a proportion of cognitive capacity, their role has proved to be detrimental to persuasiveness when the message has a strong argument under low involvement condition (Coulter & Punj, 2007). These irrelevant thoughts take over support arguments, thus negatively moderate Arg – C<sub>b</sub>. On the contrary, when the message has weak argument, they supplant counterarguments, thus negatively moderate Arg – C<sub>b</sub> resulting in a more positive brand attitude (Coulter & Punj, 2007). We propose that irrelevant thoughts indirectly by limiting available cognitive resources adversely affect Arg-C<sub>b</sub> (P10). The summary of these discussions can be illustrated as in Figure 2:

**Figure 2: Antecedents of brand cognitions**



### AFFECT

Non-cognitive regard to attitude can be traced back to the '80s when the mounting importance of attitude toward the ad and its peripheral role in determining A<sub>b</sub> abounded a plethora of studies (e.g. Mitchell & Olson, 1981). Zajonc's influential work (Zajonc, 1980) in which affect and cognition were concluded to be separate and independent systems was maybe the fountainhead of this separation from purely cognitive literature of attitude and the embarking on dual-path and affect-laden attitude research. Further research (Lutz, MacKenzie, & Belch, 1983; MacKenzie, Lutz, & Belch, 1986; MacKenzie & Lutz, 1989) attested to the significant impact of A<sub>ad</sub> on A<sub>b</sub> and de-emphasized a purely cognitive process in attitude formation and change, notwithstanding the fact that some other researchers called these findings into question by naming them "methodological artifacts" stemming from flawed use of criteria or invalid predictors (Fishbein & Middlestadt, 1995). Such criticisms were also replied by others (for more details on the series of responses to this issue see Haugtvedt & Kasmer, 2008). However, the

rising wave of affect research in the late '80s (Batra & Ray, 1986; Edell & Burke, 1987; Stayman & Aaker, 1988) highlighted the independent path of persuasion through ad-induced affect, and ushered in a new perspective in which affect and cognition were both inextricable mediators of attitude.

Several types of affective states have been studied. Here, we are interested in those triggered by the ad and distinguish them from moods, which can exist before the recipient is exposed to the ad (Burke & Edell, 1989) and are not focused on a specific object (Clore & Schnall, 2005).

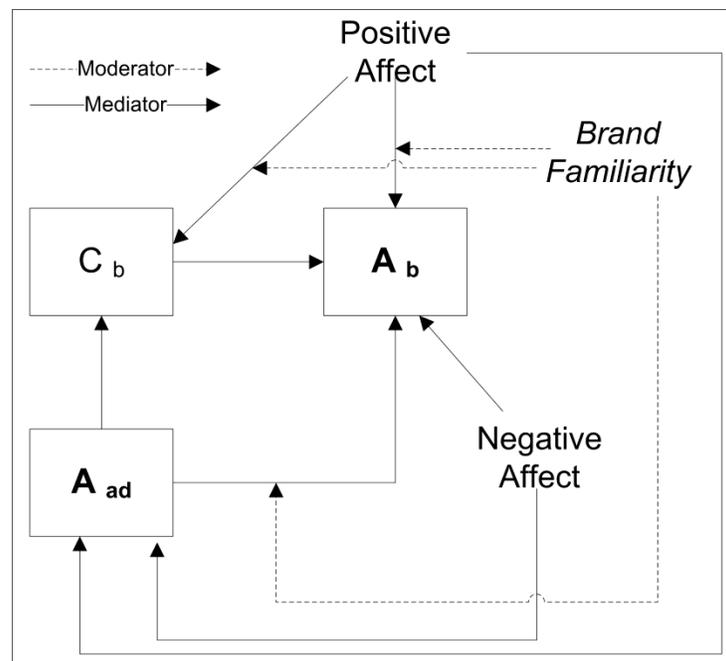
There is evidence that ad-evoked feelings influence  $A_b$  through indirect path by  $A_{ad}$  (Batra & Ray, 1986; Burke & Edell, 1989). Burke & Edell (1989) suggest that feelings have both a direct and an indirect effect (via judgments of ad's characteristics) on  $A_{ad}$ .

Furthermore, in recent years researchers have been more inclined to distinguish between positive and negative affect. Edell and Burke (1987) find that positive and negative feelings co-occur while according to Brown et al (1998) they are bi-dimensional not bipolar ("different constructs not merely opposite poles of the same construct") and the way they influence attitude is different (Burke & Edell, 1989; Brown, Homer, & Inman, 1998; Homer, 2006). Negative affect directly inflicts unfavorable effects upon attitude toward the brand (Burke & Edell, 1989), whereas positive affect mediates  $A_b$  both directly and indirectly not only through brand cognitions (Homer, 2006) but also via attitude toward the ad (Stayman & Aaker, 1988). As Burke and Edell (1989) importantly remark, although eliciting negative effects (such as fear) may have positive effects on consumer purchase intentions, they act to the detriment of attitude toward the ad and attitude toward the brand. Therefore, it is proposed that negative affect directly influences  $A_b$  (P11), while positive affect both directly (P12) and indirectly via  $C_b$  (P13) exerts its effect on brand attitudes. In addition, both positive and negative affect influence  $A_{ad}$  (P14, P15).

Another concept primarily studied in decision making and brand preference literature is brand familiarity. Brand familiarity can be defined as " a uni-dimensional construct directly related to the amount of time that has been spent processing information about the brand, regardless of the type or content of the processing that has occurred" (Baker, Hutchinson, Moore, & Nedungadi, 1986, p. 637). As to attitudes, brand familiarity is posited to moderate the influence of  $A_{ad}$  on  $A_b$  (Derbaix, 1995; Brown, Homer, & Inman, 1998; Campbell & Keller, 2003). In other words, consumers with prior brand familiarity will rely more on their existing knowledge about the brand than on  $A_{ad}$  in forming their  $A_b$  (Derbaix, 1995; Campbell & Keller, 2003). Moreover, Derbaix (1995) found that affect had stronger impact on  $A_b$  for novel brands, but this moderating role of brand familiarity was later found to hold true only for positive affect (Brown, Homer, & Inman, 1998; Homer, 2006). This means that negative affect has a direct and strong impact on brand attitude under both familiar and unfamiliar brand conditions, but positive affect influences  $A_b$  through  $C_b$  for familiar brands and directly for novel brands (Homer, 2006). Homer's study (2006) indicates that even facing a completely emotional ad devoid of any

product attribute information, the receiver's attitude toward a familiar brand is changed mainly via brand cognitions when positive feelings are evoked (consumers "update" their existing evaluations), but negative affect directly ruins attitude even toward a familiar brand. All in all, brand familiarity acts as a moderator in all mentioned relationships except that between negative affect and brand attitudes. For familiar brands, the strength of positive-affect –  $A_b$  is reduced while the effect of positive affect on brand cognitions are intensified; for novel brand vice versa happens. Thus brand familiarity negatively moderates positive-affect –  $A_b$  relationship (P12a) and positively moderates positive-affect –  $C_b$  relationship (P13a).

**Figure 3: The Role of affect**



As it is shown in Figure 3, brand familiarity does not moderate the direct effect of negative affect on  $A_b$ , on the grounds that regardless of the level of brand familiarity, this direct influence dominates other indirect routes (Homer, 2006). In contrast, for all other mediations of affect and  $A_{ad}$ , familiarity acts as a moderator. For unfamiliar brands, (positive and negative) affect directly and indirectly through  $A_{ad}$  mediates  $A_b$  (Homer, 2006), but for familiar products, the cognitions play the major role (Campbell & Keller, 2003; Derbaix, 1995) except for negative affect whose destructive effect on  $A_b$  is straight and direct (Homer, 2006).

## The Relationship between attitude toward the ad and attitude toward the brand

The relationship between attitude toward the ad and attitude toward the brand is a controversial issue (Gresham & Shimp, 1985). Based on prior theoretical and empirical research, three possible explanations for relationship between attitude toward the ad ( $A_{ad}$ ) and attitude toward the brand ( $A_b$ ) are identified (Lutz, MacKenzie, & Belch, 1983; MacKenzie, Lutz, & Belch, 1986).

First, the *affect transfer hypothesis* (ATH) supposes a unidirectional causation from  $A_{ad}$  to  $A_b$  (MacKenzie, Lutz, & Belch, 1986). In other words, it has been hypothesized that affective reactions toward an advertisement of a brand (i.e.  $A_{ad}$ ) should have impacts on audiences' attitudes toward the brand without changing their brand cognitions ( $C_b$ ) (Gresham & Shimp, 1985). Affect transfer hypothesis has been supported by some past studies (Mitchell & Olson, 1981); some empirical data (Gresham & Shimp, 1985), however, have not completely supported this hypothesis. Gresham and Shimp (1985) also found that potential effect of negative attitudes toward the ad on weakening the consumers' attitudes toward the brand is much bigger than influence of positive attitudes toward the ad on strengthening the consumers' attitudes toward the brand (Gresham & Shimp, 1985). Recently, a research for *online environment* found that for consumers who are less motivated to consider a lot of information (i.e. low need for cognition), and have little contact with cyberspace, affect transfer hypothesis is the superior model in explaining the relationship between attitude toward the ad and attitude toward the brand (Sicilia, Ruiz, & Reynolds, 2006).

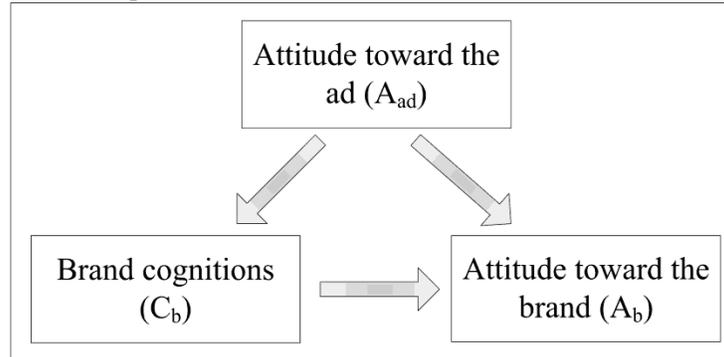
Second, the *reciprocal mediation hypothesis* (RMH) which can be inferred from Balance theory, asserts that there is a mutual causal relationship between  $A_{ad}$  and  $A_b$  (Gresham & Shimp, 1985; MacKenzie, Lutz, & Belch, 1986). Because the correlation between the ad and the advertised brand is clearly positive, balance theory predicts that a recipient of an ad promoting a specific brand will attempt to obtain a balanced relationship by either liking both the ad and the brand or disliking both (MacKenzie, Lutz, & Belch, 1986). In addition, for a recently introduced brand, the influence of  $A_{ad}$  on  $A_b$  should be stronger than the opposite direction; in contrast, for a mature brand with which consumers have more experience, the flow from  $A_b$  to  $A_{ad}$  would govern (Lutz, MacKenzie, & Belch, 1983; MacKenzie, Lutz, & Belch, 1986). Gresham and Shimp implicitly presented the evidences supporting above statement about new and mature brands (Gresham & Shimp, 1985).

Finally, the *dual mediation hypothesis* (DMH) supposes that  $A_{ad}$  affects  $A_b$  not only directly but also indirectly through its impact on brand cognitions ( $C_b$ ) (MacKenzie, Lutz, & Belch, 1986). We can compare this hypothesis with Elaboration Likelihood Model (ELM) presented by Petty and Cacioppo (1981). According to ELM, attitude can be changed via one of two routes: *central route* via which a recipient's extensive thought about content of an advertisement leads to attitude change; and *peripheral route* via which a recipient's attitude is shaped by positive and negative cues (e.g. an expert source) associated with advertisement or

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inferences based on simple cues in the context of the ad (Petty, Cacioppo, & Schumann, 1983). Accordingly,  $A_b$  changes via peripheral route when it is directly influenced by  $A_{ad}$ ; besides,  $A_b$  changes via central route when  $A_{ad}$  affects  $C_b$  then  $C_b$  influences on  $A_b$  (Lutz, MacKenzie, & Belch, 1983). It is also stated that high involvement ad messages, having greater personal relevance and outcomes than low involvement messages, affect the attitude via central route, but low involvement ad messages influence on attitude via peripheral route (Petty, Cacioppo, & Schumann, 1983). We can, therefore, hypothesize that under high involvement condition, there is a relatively weak influence of  $A_{ad}$  on  $A_b$  as well as a relatively strong influence of  $C_b$  on  $A_b$  (Lutz, MacKenzie, & Belch, 1983). Unlike our expectations, empirical data show that influence of  $A_{ad}$  on  $A_b$  dominates the influence of  $C_b$  on  $A_b$ , irrespective of involvement condition (Lutz, MacKenzie, & Belch, 1983; Muehling & Laczniak, 1988; Homer, 1990; Brown & Stayman, 1992). Hence, the major difference between DMH and ELM is that DMH views central and peripheral processes as *intertwined processes* instead of substitutes for each other (MacKenzie, Lutz, & Belch, 1986).

Two structural equations analyses (one for TV commercials and the other for print ads) showed that the dual mediation hypothesis (DMH) is superior to the other two hypotheses (MacKenzie, Lutz, & Belch, 1986; Homer, 1990). Although MacKenzie et al hold the view that there are some limitation for generalization of their finding, the generalizability of these findings were checked in a meta-analysis by Brown and Stayman, and dual mediation model was strongly supported (Brown & Stayman, 1992). Recently, a research for *online environment* discovered DMH is the superior model, especially for consumers willing to deepen their understanding of each phenomenon (i.e. high need for cognition) (Sicilia, Ruiz, & Reynolds, 2006). Accordingly, it is proposed that  $A_{ad}$  directly mediates  $A_b$  (P16); moreover,  $A_{ad}$  indirectly mediates  $A_b$  through its impact on brand cognitions ( $C_b$ ) (P17). That is, consumer's attitude toward the ad has an impact on their attitude toward the brand, through either a simple affect transfer (i.e., the recipient likes the brand since the ad appeals to him or her) or a more intricate cognitive processing (i.e., one likes the brand due to effective tactics used by advertiser) (Kirmani & Campbell, 2009). Furthermore, under situations benefiting from high amount of message elaboration (e.g. print ads),  $A_{ad}$ - $C_b$  relation is greater than that under situations not having this advantage (e.g. TV commercials) (Brown & Stayman, 1992). In addition, when the advertised brand is novel and less familiar, the correlation between  $A_{ad}$  and  $A_b$  becomes stronger (Brown & Stayman, 1992). Therefore, it is proposed that brand familiarity negatively moderate the  $A_{ad}$  -  $A_b$  relationship (P16a).

**Figure 4: Relationship between attitude toward the ad and attitude toward the brand**

### CONCLUSION

After in depth reviewing of literature, we proposed several propositions that show not only the relationship between each two constructs but also the most important moderators of each relationship. These relationships and moderators are summarized in Table 1.

Table 1: Summary of relationships and moderators					
Relationship	Moderators				
	Brand Familiarity	Opportunity to Process	Involvement	Mood	Capacity
P1: $C_{ad}$ on $A_{ad}$ (+)					
P2: Arg on $A_{ad}$ (+)		P2a (+)			
P3: ad credibility on $A_{ad}$ (+)					
P4: $A_{adv}$ on $A_{ad}$ (+)					
P5: mood on $A_{ad}$ (+)					
P6: PC on $A_{ad}$ (+)		P6a (-)			
P7: attention on $C_b$ (+)					
P8: $C_b$ on $A_b$ (+)					
P9: Arg on $C_b$ (+)			P9a(+)	P9b(-)	P9c(+)
P10: Irrelevant thoughts on RA (-)					
P11: Negative affect on $A_b$ (-)					
P12: Positive affect on $A_b$ (+)	P12a(-)				
P13: Positive affect on $C_b$ (+)	P13a(+)				
P14: Positive affect on $A_{ad}$ (+)					
P15: Negative affect on $A_{ad}$ (-)					
P16: $A_{ad}$ on $A_b$ (+)	P16a (-)				
P17: $A_{ad}$ on $C_b$ (+)					

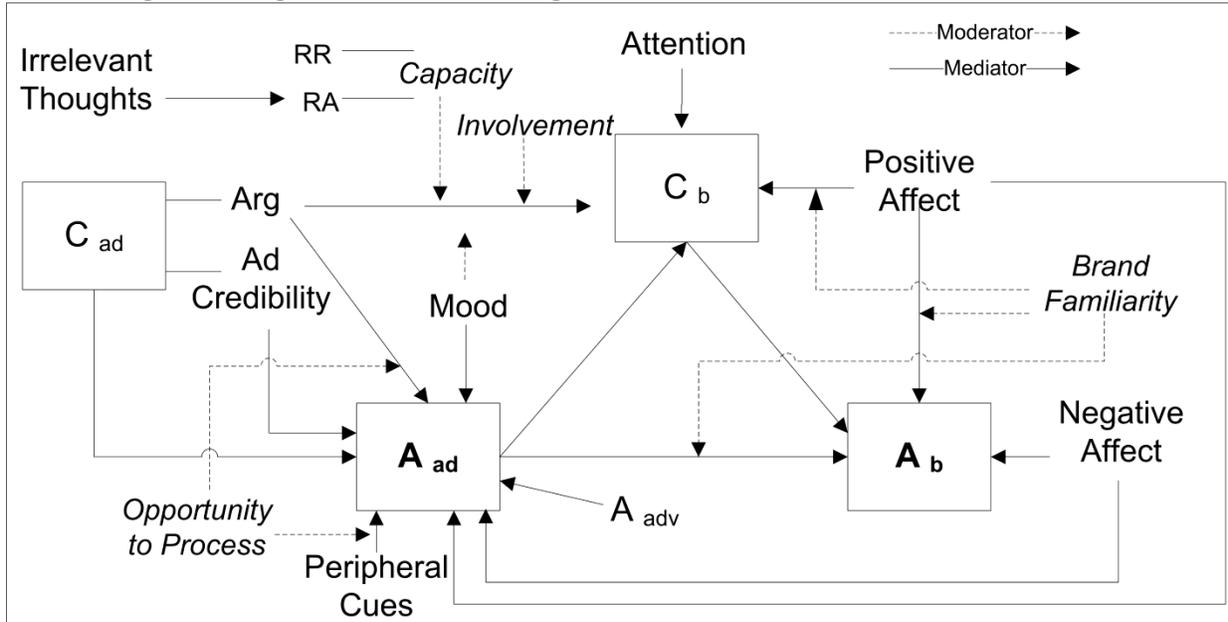
According to our propositions,  $A_{ad}$  influences  $A_b$  not only directly but also indirectly through its impact on brand cognitions ( $C_b$ ); besides, when the advertised brand is novel and less familiar, the correlation between  $A_{ad}$  and  $A_b$  strengthens.

Major antecedents of attitude toward the ad ( $A_{ad}$ ) are ad cognitions, attitude toward the advertiser, mood, and peripheral cues. Ad cognitions have a direct impact on attitude toward the ad; two examples of these cognitions are quality of *message argument* (Arg) and *ad credibility*. As the opportunity for processing the ad message is increased, the impact of message arguments (Arg) on  $A_{ad}$  is considerably strengthened. In addition, both *attitude toward the advertiser* ( $A_{adv}$ ) and peripheral cues (PC) as well as consumer's mood are strong mediators of attitude toward the ad ( $A_{ad}$ ). As the opportunity for processing the ad message is increased, the influence of PC on  $A_{ad}$  is weakened.

Brand cognitions were the first elements in the attitude literature to be studied in terms of their effect on  $A_b$ . Attention drawn to certain product attributes holds the value (importance) of those attributes; hence, we propose that attention influences  $C_b$ . A match between cognitive resources required for message processing and those available along with the level of involvement and recipient's mood moderates the effect of argument quality on generation or modification of favorable brand-related thoughts and perceptions. The irrelevant thoughts produced during the exposure to the ad, indirectly by restricting resources available for processing, influence brand cognitions. Negative affect directly and adversely affects  $A_b$ . However, the path through which positive affects impact  $A_b$  is subject to brand familiarity. For novel brands positive affect (together with  $A_{ad}$ ) is the major determinant of attitude, while for familiar brands, the indirect path through brand cognitions dominates all other routes.

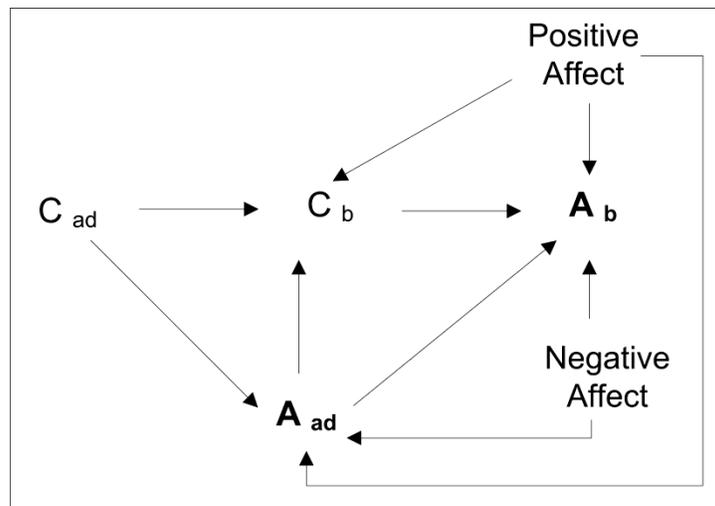
Figure 5 joints several parts of our model each of which described earlier:

**Figure 5: Integrative model uncovering antecedents and moderators of both Aad and Ab**



Removing moderators from Figure 5 leaves the simplified model shown in Figure 6:

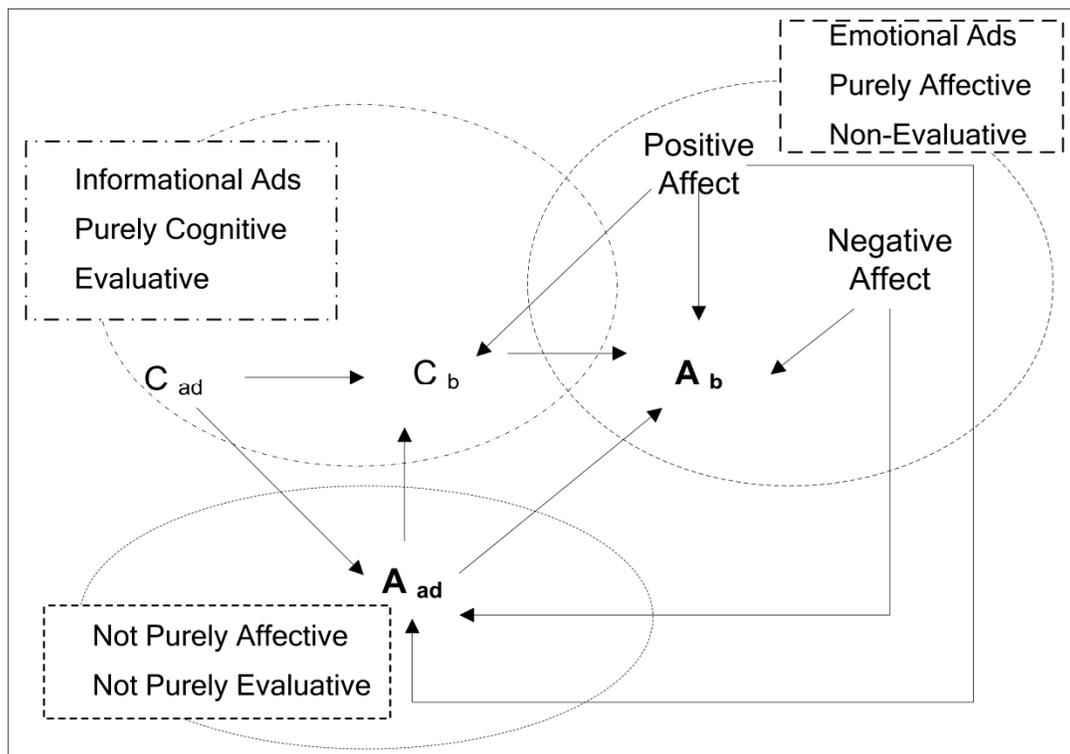
**Figure 6: Simplified integrative model**



The attitude literature is fraught with studies and frameworks which focus either on the information processing paradigms (e.g. MacInnis & Jaworski, 1989) or on affective perspectives (e.g. Batra & Ray, 1986). Also, there are a number of experiments that either discriminate between informational and emotional ads or set only one of the two types above (affect vs.

cognition) as the context of their study (e.g. Yoo & MacInnis, 2005; Homer, 2006). By emotional ads, those “designed to appeal to the receiver’s emotions by using drama, mood, music, and other emotion-eliciting strategies” and by informational ads, those “designed to appeal to the rationality of the receiver by using objective information describing a brand’s attributes or benefits” are meant (Yoo & MacInnis, 2005, p. 1397). The rationale for such classification is somehow clear; with respect to the level of involvement (motivation), according to the above definition, each type calls for either cognitive or affective ways of attitude formation and change. Although these may seem two extremes of the real advertising world, they effectively depict conditions under which one of the routes would be dominant over the other. We, therefore, use this typology to show where information processing is more involved and where an affect-laden process is in work. By this strategy as it is shown in Figure 7, we distinguish between the evaluative section of the model (including brand cognition) and the non-evaluative section (affect). Furthermore, it is noteworthy that although affective responses are non-evaluative (Batra & Ray, 1986),  $A_{ad}$  is neither purely evaluative nor purely non-evaluative (MacKenzie & Lutz, 1989).

Figure 7: integrative framework



## Implications and Further Research

Whatever the prime goal of marketers is (boosting sales, forming long-term profitable relationships, attracting support and membership for nonprofit businesses, etc), customer persuasion is an integral step towards that goal and both  $A_b$  and  $A_{ad}$  play major roles in persuading prospects to buy a particular brand or support a not-for-profit organization. There are substantial empirical evidences that support existence of a direct causal relationship from attitude toward the brand ( $A_b$ ) to purchase intention (PI) (Lutz, MacKenzie, & Belch, 1983; MacKenzie, Lutz, & Belch, 1986). Furthermore, some other researchers have identified that  $A_{ad}$  has a moderate direct influence on purchase intention (PI) (Brown & Stayman, 1992; Lord, Lee, & Sauer, 1995).

Lord et al also found that under low (high) involvement conditions, correlation between  $A_{ad}$  and PI is considerably greater (lower) than correlation between  $A_b$  and PI (Lord, Lee, & Sauer, 1995). In other words,  $A_b$  can be a superior predictor of consumer's intention to buy a brand under high than under low involvement conditions (Petty, Cacioppo, & Schumann, 1983). Also, for novel or less familiar brands, the positive correlation between  $A_{ad}$  and PI becomes stronger (Brown & Stayman, 1992). Thus,  $A_{ad}$  influences purchase intention not only directly but also indirectly via  $A_b$  (Lord, Lee, & Sauer, 1995).

Our proposed model can provide marketers with a framework to understand how their marketing plans, especially advertising and branding plans, influence their consumers. Marketers can use our model both to justify the effectiveness of their plans and to employ its variables as indices for assessing those plans. For example, our model implies that different advertising practices should be applied to brands with different brand familiarity. Marketers of novel brands should focus more on emotional ads to make positive affective reactions transfer to  $A_{ad}$  and consequently enhance PI. Also ads for these products should be designed in such ways as to create a positive attitude toward the ad itself. Advertisements for familiar brands, however, should maintain a balance between emotional and informational approaches. Although the cognitive path is dominant for familiar brands, a highly informative ad under low involvement can even hurt the attitude in some circumstances (Coulter & Punj, 2007). In addition, marketers of a familiar brand should not neglect the importance of emotional ads, in that emotional ads put a recipient in a positive mood which decreases the amount of required elaboration and generates a more favorable evaluation of the argument quality.

Our research has some limitations. First, although we relied on the research from the last 30 years to develop our propositions, further research is required to validate the generalizability of these propositions by a series of empirical studies. Second, the advent of new advertising media such as mobile and internet may bring evolutionary changes in the hypotheses on which our model is built. Thus, further research should be conducted to unveil whether differences in media type can influence our integrative model. Finally, future studies are needed to address cross-cultural differences that can alter some of the propositions and relationships.

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