

# Effects of Servicescape, Waiting Motivation and Conformity on Time Perception and Behavioral Intentions

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## Abstract

The purpose of this study is to explore the associations that potentially impact time perception of waiting customers. Using the constructs of servicescape, motivation, and conformity, the current study tries to figure out the definite causal relationship among variables. Survey questionnaire was administrated to collect data from 335 customers in Taiwanese food and restaurant industry. The results show that waiting motivation has significantly direct effects on servicescape, conformity, time perception, and behavioral intentions. Furthermore, servicescape has a significantly direct effect on behavioral intentions, and conformity has a significantly direct effect on time perception. The findings indicate customers' waiting motivation should be key factor to affect the full structural model, specifically reference group influence, such as word-of-mouth from friends and media coverage. Suggestions and managerial implications are discussed in the study, and would provide contribution both to the body of knowledge in the filed of marketing and mangers to improve quality of consumer relationship.

**Keywords:** conformity, food and restaurant industry, servicescape, time perception

## 1. Introduction

### 1.1 Problem Statement

Competing in the age of changing global markets, time efficiency has been one of the determinants for companies to pursuit higher standard of quality and brilliant performance. In particular, for service providers, it is necessary to demand immediate actions to manage customer relationship and endeavor to reduce dissatisfaction of customers. That is to say, managing waiting customers in lines becomes an essential concern for companies to making marketing strategy because the potential loss of revenue and dissatisfied customers might result in unpredictable consequences. With no doubt, waiting in long lines would cause customers' unpleasant consumption experiences; however, in real circumstances, customers may be willing to queuing up for hours ahead some store just for unique characteristics. The situation seems a common occurrence in food and restaurant settings, and has drawn marketers' attentions to project strategic plans to well manage customers. For academic research, previous work has put more efforts to discuss negative points of view of waiting situation (Mishalani, McCord, & Wirtz, 2006; Davis & Heineke, 1998; Taylor, 1995). Both researchers and marketers show growing interests in understanding improvement of complaining customers and fulfill requirements of customer satisfaction. In search of related literature, little attention has been paid to investigate the issue toward perceived waiting experiences of customers and how the waiting experience might influence their responses toward the phenomenon. Thus, it should be necessary to consider the cause associations of customers' waiting consumption experiences and to examine effect relationships among underlying variables.

### 1.2 Purpose of Study

A review of waiting literature has proven that time perception and emotion are critical variables that would influence customer reactions toward a service (Swartz & Iacobucci, 2000). Instead of length of time, some studies suggest there is a need to examine customer's psychological feeling of waiting, which is a kind of subjective perception (Chebat, Gelinac-Chebat, Vaninski, & Filiatrault, 1995). However, Hu, Jen, and Chen (2009) conclude that emotion has no significant effect on service evaluation, but they suggest attribution and servicescape might be latent causes toward the outcomes. For the attribution of waiting behaviors, motivation and

situation of companionship are found to be vital factors influencing customer's waiting behaviors. Moreover, Bearden, Rose, & Teel (1994) indicate consumption behaviors of young customers are usually affected by peer groups.

Upon the standpoint, the current study considers servicescape, waiting motivation, and conformity as variables that would potentially have impact on time perception, as well as using behavioral intentions as service evaluation. Moreover, this study is proposed to further discuss the causal relationship among attributions, perceptions, and behavioral intentions of customer's waiting behaviors and tries to establish the relationship between each of variables, so as to figure out the core components controlling time perception of waiting. Consequently, one of the purposes of current study is first to discuss what motivation would influence customers willing to spend time for waiting through in-depth interviews and participated observation methods. Second, reviewing the literature, measurable indices and causal relational model between each of variables are confirmed. Finally, an empirical testing is executed to investigate in advance the causal relationship discussed previously. Results of analysis would have guidance for future direction and provide insights for managers to formulate marketing strategy.

## **2. Literature Review**

### *2.1 Servicescape*

Servicescape is defined as the physical environment decorated when customers experience the services (Bintner, 1992). Research has indicated that physical environment is of vital importance toward customer's impression, and the cues of physical environment are highly correlated with the service quality (Lin, 2004; Hightower, Brady, & Baker, 2002; Rapoport, 1982). In addition, Sherry (1998) suggested servicescape has significant effects on customer's expectation forming, corporate brand differentiation, goal achievement for both customers and employees, and customer's consumption experiences. Findings of previous studies also supported the suggestions, showing that those would be the determinants for customers to evaluate the outcomes of service quality (Lin, 2004; Lucas, 2003; Hightower et al., 2002; Eroglu, Machleit, & Davis, 2001). Moreover, in the study of waiting experience, researchers have proven that servicescape has great impact on overall service quality satisfaction, perceived values, and behavioral initiations, specifically significant on dimensions of surrounding environment, signs and symbols (Jen, Tung, & Lu, 2005).

### *2.2 Waiting Motivation*

Motivation can be seen as a kind of drive that enforces individuals to do some action (Mook, 1987). Researchers often classify motivations as intrinsic and extrinsic categories (Gerstein, Wilkeson, & Anderson, 2004; Benabou & Tirole, 2003; Ryan & Deci, 2000). In studying consumer behaviors, motivational constructs have been made effort to investigate the relationship or connection between each of the dimensions that might influence customers to fulfill their psychological and social needs (Trail, Fink, & Anderson, 2000). Several studies related to consumer behaviors have addressed that those motivational factors play an essential role towards customers' decision making process (Wagner, 2007; Blackwell, Miniard, & Engel, 2000). Results of empirical research also support that customers' motivation came from various aspects based on individual's specific desire for different degree of benefits (Cox, Cox, & Anderson, 2005; Bagozzi, Bergami, & Leone, 2003; Warlop, Smeesters, & Vanden Abeele, 2000). As discussed previously, waiting in lines is usually considered as negative service experience by customers. Most of service providers are making efforts to reduce real length of waiting time during purchasing process, but the reaction of waiting is often resulted from the subjective perception of customers' minds. Therefore, time perception has become a vital consideration when customers are making evaluation of products or services (Davis & Heineke, 1998; Chebt et al., 1995; Taylor, 1994).

### *2.3 Conformity*

Individuals' behavior affected by groups or social members is called conformity. According to Maslow's hierarchy of needs, belonging is the third level of social needs, and been originally ingrained in one's mind (Fiske, 2004). Usually, people are seeking belonging for fear of loneliness from others. Mowen and Minor (1998) suggest public opinion and self-acceptance as two patterns of conformity. With public opinion, people would not change their inner thoughts, while with self-acceptance they are affected by groups and would change their belief and behaviors in accord with groups'. Therefore, based on the social influence, conformity is categorized into three levels, compliance, identity, and internalization. Research in consumer behaviors has indicated that consumption decisions can be influenced by others through their expectation to conform to a reference group (Bearden et al., 1994). In addition, empirical studies provide evidences that conformity do have significant impact on customer's consumption decisions. The most used motivations for individuals to copy group's purchasing behaviors to identify with social members are brand loyalty, possession of products or services, and

word of mouth communication (Chen & Huang, 2008; Wilkie, 1994).

#### 2.4 Time Perception

Time perception is measurement of subjective cognition toward measuring time after someone experiences an event or activity (Thomas & Weaver, 1875). In most cases, customers often have to wait during the process of acquiring and consuming products or services. Discrepancy exists between objective waiting and subjective perceived time (Seawright & Sampson, 2007). Research have indicated past waiting experiences lead to reference point of time perception in customer's mind, however, as waiting time increases, pressure and subjective time perception will raise as well (Wu, Levinson, & Liu, 2009; Seawright & Sampson, 2007; Katz, Larson & Larson, 1991). Managing these waiting experiences becomes a critical issue for companies to figure out strategies, in order to improve actual waiting duration and time perception of customers. Typically, negative reaction would be resulted from the waiting experience, and have been proven to impact on customer satisfaction (Choi & Sheel, 2012).

A number of studies in various settings have proven that customers' overall negative evaluations of service are ascribed to delays of service delivery, especially for tangible and reliability attributes of the service (Taylor, 1995; Roslow, Nicholls, and Tsalikis 1992; Katz et al., 1991; Dube-Rioux, Schmitt, & LeClerc, 1989; Clemmer & Schneider, 1989). Choi and Sheel (2012) summarize waiting service in family restaurants as five areas, human, visual media, menu, sitting, and notice service, and these factors have positive effects on satisfaction of customers. Recently, many companies have raised related strategies to recover the negative outcomes resulted from waiting customers, such as waiting information board, in order to lower the time costing. Researchers have supported this method would effectively moderate customer's attention toward time as well as shorten their waiting time perceptions (Mishalani et al., 2006). Moreover, other studies indicate that the negative responses would also influence customers' overall post-purchase evaluation, such as purchase intention, loyalty, or word of mouth communication (Choi and Sheel, 2012; Seawright & Sampson, 2007; Mishalani et al., 2006; Katz et al., 1991; Roslow et al., 1992).

#### 2.5 Behavioral Intentions

As most of discussions in service marketing literature, service evaluation is usually dependent upon quality evaluation (Chebt et al., 1995; Taylor, 1995; 1994; Dube-Rioux et al., 1989) and satisfaction evaluation (Kumar, Kalwani & Dada, 1997; Tom & Lucey, 1995; Thompson & Yarnould, 1995; Katz et al., 1991). Customers' satisfaction comes from a comparison of perceived performance with their internal desire and expectation toward a service or a product (Spreng & Olshavsky, 1996). Several studies indicate that customer satisfaction is not only the evaluation of post purchasing, but also accompanying customer's behavioral intention, such as customer loyalty, word of mouth communication (Hart & Rosenberger III, 2004; Kumar et al., 1997; Chebt et al., 1995; Fornell, 1992). The degree of satisfaction or dissatisfaction will also affect the post-purchase behavior intention of customers (Cronin & Taylor, 1994). Zeithmal et al. (1996) thought behavioral intention can be divided into positive and negative. Word of mouth communications indicate an interpersonal communication about some brand, product and service between disseminators and recipients (Swanson, Gwinner, Larson, & Swinder, 2003). Some research points out that word of mouth communication has powerful effects toward purchasing decision process of consumers (Babin, Lee, Kim, & Griffin, 2005; Brown, Barry, Dacin, & Gunst, 2005; Wirtz & Chew, 2002). Herr, Kordes, & Kim (1991) suggest that the message of word of mouth communication is delivered by face to face communication condition. When the feeling of this message increases, consumers will probably believe this message in purchasing decision process (Swanson et al., 2003; Petrick & Backman, 2002).

#### 2.6 Proposed Research Model and Hypotheses

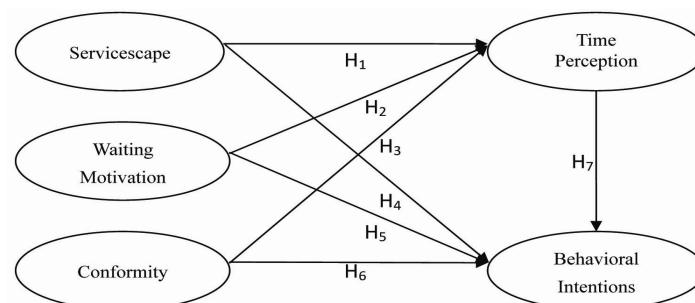


Figure 1. The proposed research model

In light of the discussions of theoretical background, the following hypotheses are proposed:

H1: Customer's perception of servicescape has direct effect on time perception.

H2: Customer's perception of waiting motivation has direct effect on time perception.

H3: Customer's perception of conformity has direct effect on time perception.

H4: Customer's perception of servicescape has direct effect on behavioral intentions.

H5: Customer's perception of waiting motivation has direct effect on behavioral intentions.

H6: Customer's perception of conformity has direct effect on behavioral intentions.

H7: Customer's waiting time perception has direct effect on behavioral intentions.

### 3. Methodology

#### 3.1 Sample

The subjects of the current study were randomly chosen from customers waiting in long lines outside a famous bakery in a southern city of Taiwan. A total of 400 questionnaires were distributed and 353 questionnaires were returned. Finally 335 questionnaires were considered effective for further analysis. The response rate was 83.75%. For the subject characteristics, about 55.2% of the respondents were female (n=185). The status of marriage indicated that 57% were married, while 43% were unmarried. With regard to age distribution, the age ranged from 16 to 45 years old accounted for about 83.8% (n=281). The majority of occupation rated was students, accounted for 31.9%, following by businessmen (20.3%) and self-employed (17.9%). Over 78% of the respondents held college degrees or above and the income level distributed from 20~50 thousand dollars was about 53.7%.

#### 3.2 Questionnaire Design and Measurement of Variables

A multi-item scale was used to obtain the data from the waiting customers. Upon the basis of previous research, the survey questionnaire was developed, and split into two portions. The first portion used nominal scale to measure respondent's background, by using demographic statistics variable "socioeconomic characteristics" and "consumption characteristics." items. The second portion was divided into five parts, "servicescape", "waiting motivation", "conformity", "time perception", and "behavioral intentions" items. A total of fifty-seven items were composed of the questionnaire. The servicescape scale was modified from studies of Bintner (1992) and Jen et al. (2005), containing indices of "ambient conditions", "space and functions", "signs and symbols", and "socialization" facets. The waiting motivation was adopted from in-depth interviews with subjects highly involved in the process of the consumption. After reliability and validity tests, items were finally categorized into "intrinsic demand", "extrinsic drive", and "product attributes" facets. The variables of conformity was modified from Bearden et al.'s (2000) work, using "compliance", "identification" and "internalization" three facets as measuring indices. Time perception items were adopted from the study of Taylor (1994) and Hu et al. (2009) included "expected delay", "caused delay", "long waiting", and "importance of punctuality". The behavioral intentions items were modified from Fomell (1992) and Zeithaml et al. (1996) studies. Items were "overall satisfaction", "intent to recommend", "intent to repurchase", and "intent to extra purchase". Respondents were required to evaluate the degree of agreement based on a seven-point scoring Likert-type scale, with 7= strongly agree, 4= neutral, 1= strongly disagree.

### 4. Results

#### 4.1 Data Analysis

Data was analyzed by using descriptive statistics and structural equation model (SEM). Descriptive statistics was used to analyze the distribution characteristics of sample background, such as socioeconomic and consumption characteristic variables. To test the proposed hypotheses, structural equation model (SEM) was performed to examine the cause and effect relationship among variables. The analysis process was referred to the procedures proposed by Anderson and Gerbing (1988). Confirmatory factor analysis was first conducted to test the goodness of fit of the measurement model. Then, the theoretical model of constructs was tested to examine path analysis and evaluate goodness-of-fit test. To ensure the reliability and validity of constructs, Cronbach's alpha estimates and average variance extracted (AVE) coefficients were also calculated and provided in Table 1.

#### 4.2 The Measurement Model

To ensure the reliability and validity of the whole constructs, Confirmatory Factor Analysis (CFA) was employed to examine goodness of fit of the measurement model. Table 1 showed the component reliability (CR) of each factor, "servicescape", "waiting motivation", "conformity", "time perception", and "behavioral intentions",

ranged from 0.711 to 0.862. The results indicated a highly internal consistency, which was over suggested value of 0.7. With regard to convergent validity, the AVE of "servicescape", "waiting motivation", "conformity", "time perception", and "behavioral intentions" were 0.517, 0.785, 0.598, 0.394, 0.397 respectively. The values of "servicescape", "waiting motivation", and "conformity" were above the suggested value of 0.5, which met the least requirement and had convergent validity. However, the facets of "time perception" and "behavioral intentions" were slightly lower than 0.5. Overall, the scale was considered as well convergent.

Table 1. Component reliability, factor weight value and AVE

Factors	Facets (Items)	Factor Loading	Reliability	Component Reliability	AVE	AVE Square Root
Servicescape	Ambient Conditions	0.672	0.548	0.810	0.517	0.719
	Space and Functions	0.674	0.546			
	Signs and Symbols	0.806	0.350			
	Socialization	0.717	0.486			
Waiting Motivation	Intrinsic Demand	1.489	-1.217	0.862	0.785	0.886
	Extrinsic Drive	0.270	0.927			
	Product Attributes	0.252	0.936			
Conformity	Compliance	0.768	0.410	0.816	0.598	0.773
	Identification	0.842	0.291			
	Internalization	0.703	0.506			
Time Perception	Expected Delay	0.636	0.596	0.715	0.394	0.628
	Caused Delay	0.793	0.371			
	Long Waiting	0.575	0.669			
	Importance of Punctuality	0.460	0.788			
Behavioral Intentions	Overall Satisfaction	0.602	0.638	0.711	0.397	0.630
	Intent to Recommend	0.837	0.299			
	Intent to Repurchase	0.619	0.617			
	Intent to Extra Purchase	0.379	0.856			

## 5. Discussion and Conclusion

The results of goodness of fit towards the full structural model were shown as following. The significant level of basic fit index, chi-square value reached 326.449, degree of freedom 109,  $p < 0.00$ , which mean  $\chi^2/df$  was 2.995, lower than suggested value 3.0 by Segars and Grover (1993). Goodness-of-fit (GFI) value was 0.907, higher than the suggested value 0.8 by Sharma (1996). Adjusted Goodness-of-fit (AGFI) was 0.855, higher than the suggested value 0.7 by Scott (1994). Root mean-square residual (RMR) value was 0.079, lower than the suggested value 0.08 by Jarvenpaa and Staples (2000). Comparative fit index (CFI) value was 0.904, higher than the suggested value 0.9 by Bentler and Bonett (1980). However, Root mean square error of approximations (RMSEA) was 0.077, slightly higher than suggested value 0.05 by Hair, Anderson, Tatham, & Black (1998). And, normed fit index (NFI) values was 0.866, which was slightly lower than suggested value 0.9 by Bentler and Bonett (1980). Hair, et al. (1998) argued that, there was not yet any consensus among scholars regarding the standard of those goodness of fit indices. Researchers could only pick one or two indices to evaluate the goodness of fit toward the model. In the case of current research, overall the results showed significant values of good fit, and had reasonable fit to the structural model.

Figure 1 illustrated standardized path coefficients of the proposed structural model. Waiting motivation had significantly direct effects on all four facets,  $\beta = 1.97$  ( $p < 0.001$ ) to servicescape,  $\beta = 1.02$  ( $p < 0.05$ ) to conformity,  $\beta = 2.51$  ( $p < 0.01$ ) to time perception, and  $\beta = 1.11$  ( $p < 0.05$ ) to behavioral intentions. Consequently, hypothesis 2 and hypothesis 5 were supported. Servicescape had also a significantly directly effect on behavioral intentions, which the loading was  $\beta = 0.86$  ( $p < 0.001$ ), supporting hypothesis 4. Conformity had a significantly direct effect on time perception with loading of 0.18 ( $p < 0.05$ ), which hypothesis 3 was supported as a result. However, no significantly direct effect was found between servicescape and time perception, conformity and behavioral intentions, as well as time perception and behavioral intentions. Thus, hypothesis 1, hypothesis 6, and hypothesis 7 would not be supported.

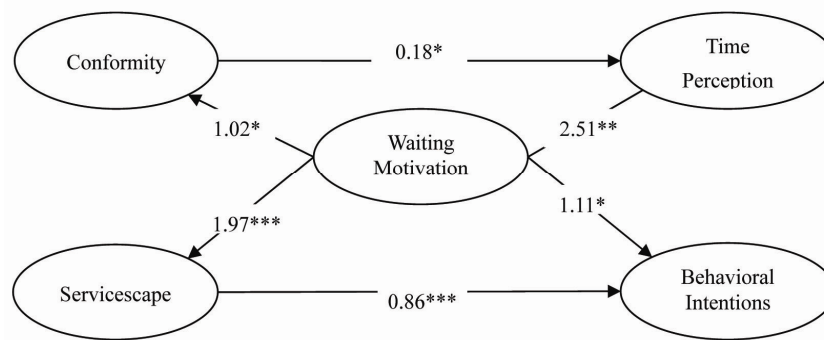


Figure 2. Regression path analysis model

## 6. Managerial Implication

Overall, the waiting motivation would be key factor to affect the full structural model, such as customers' attitude toward individual preferences, word of mouth from friends and relatives, media coverage, and understanding of product features. Results of testing indicated that time perception would be affected by waiting motivation and conformity. That means the perception of time waiting would be affected by the degree of conformity as well as at the time of being aware of starting waiting in line. For management implication, to find out the product characteristics of why customers chose to be waiting in lines could effectively reduce customers' negative emotions, which might be the important elements of manipulating how customers evaluate their perception of waiting time. Furthermore, behavioral intentions were affected by waiting motivation and servicescape. That is to say, the degree of customers chose to wait in line and the feeling of service they obtained would have a direct effect upon the final evaluation toward overall experiences. That is, when dealing with waiting situation, marketers should make sure that surrounding environment is well managed; in the meantime, taking the initiative to provide persuasive waiting information could also reduce customer's complaints and negative feelings.

## 7. Suggestion and Future Direction

For future research direction, the target subjects used in this study were those customers waiting for purchasing bread in a famous bakery, by executing survey questionnaire to examine effect of customer's waiting motivation, conformity, and servicescape on their time perception and behavioral intentions. Nevertheless, from the interview of pilot study, it was found that the major motivations of waiting for purchasing bread in the store were individual preferences, word of mouth from peers or reference groups, as well as media communication. Previous research has indicated a direct relationship was found between customers' future intention to purchase, loyalty, brand image, brand awareness, attitude toward the brand (Fornell, 1992; Aaker & Keller, 1990). Research directions could be paid more attention to relevant factors and investigate the relationships among each of the variables. Moreover, future research could also examine differences of customer's time perception and conformity between groups of first-time and returning customers, and investigate whether the conformity behavior and time perception would be affected by consumption experience and word of mouth communication.

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