EFFECTS OF PERCEIVED CONTROL ON COLLEGE STUDENTS' EVALUATION OF HIGHER EDUCATION INSTITUTIONS

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ABSTRACT

Students are known to experience significant amounts of stress and challenges during their academic pursuit at college. This study explores a way to enhance student satisfaction by incorporating a concept called perceived control to the existing service quality model. To be specific, this study proposes and tests that perceived control could be a promising factor which may enhance service quality, satisfaction, and recommendation intention among college students. Data were collected a major college in South Korea. A set of three hypotheses developed for this study were partially supported. Managerial implications are provided.

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KEYWORDS: marketing, services, perceived control, service quality, and student satisfaction

INTRODUCTION

Colleges, like other business, are under constant pressure to provide quality service and to win satisfaction among students to survive in a highly competitive arena. Administrators of colleges have adopted both business concepts and marketing orientation, regarding students as customers. A majority of higher education institutions have set student satisfaction as one of most important strategic goals. Those who score high on student satisfaction are considered to deliver quality education service and to have long-term program viability (Bailey and Dangerfield, 2000). In contrast, those who fail to deliver satisfactory services may fall into the trap of a vicious circle, composed of low satisfaction among students, weak academic performance among them, high dropout rates, reduced revenue, poorer service quality, and even lower satisfaction (Tinto, 1994).

Maintaining a high level of service quality and customer satisfaction at a higher education institution is very difficult, if not impossible. The customers (*i.e.*, students) are facing challenges from many different sources in their college lives: academic, social, interpersonal, financial, among others. For many, college is a stressful time, forcing one to deal with new educational and social environments (Towbes and Cohen, 1996). If these stressors are not dealt with effectively, negative consequences such as feelings of loneliness, nervousness, sleeplessness and excessive worrying may result (Wright, 1967). If one was under stress, it would be fairly difficult to experience satisfaction in that environment. To support this perspective, Ross, Niebling, and Heckert (1999, p. 312) have argued that "it is important that stress intervention programs be designed to address stress of college students."

Regardless of the pervasiveness of stress among college students, the literature on student satisfaction has paid limited attention to the stress. Studies on student satisfaction are mostly based upon the service quality paradigm. Many scholars, for example, have adopted either the SERVQUAL or SERVPERF perspective, and have tried to approach student satisfaction by enhancing the so-called five dimensions of service quality: tangibles, reliability, responsiveness, assurance, and empathy (Cronin and Taylor, 1993; Parasuraman et al., 1985). Albeit useful, the limitations of such approach are many (Buttle, 1996).

The purpose of this study is to explore a way to enhance student satisfaction by incorporating a concept

called perceived control to the existing service quality model.   To be specific, this study proposes that perceived control could be a promising variable which would enhance service quality, satisfaction, and recommendation intention among college students.   This study is organized as follows: it first provides a literature review on service quality and perceived control.   Based upon the review, the study introduces its hypotheses, methodology and findings. Finally, the article concludes with implications of the findings and future research directions.

LITERATURE REVIEW

Service Quality

Service quality is an elusive concept, and there has been a considerable amount of disagreements in literature about how best to conceptualize the construct.   Lewis and Booms (1983, p.10) pioneered the area and suggested a definition of service quality as a "…measure of how well the service level delivered matches the customer's expectations." This perspective was adopted by Parasuraman, Zeithaml, and Berry (1985) who developed a gap model by synthesizing (1) the expectation-disconfirmation theory concerning consumer satisfaction (Churchill and Surprenant, 1982; Lewis and Booms, 1983; Oliver, 1980), and (2) previous explorations of the dimensions of service quality (Gronroos, 1982; Sasser, Olsen, and Wyckoff, 1978).   They proposed a multiple-item scale, called SERVQUAL which measures elements of service from service customers' viewpoints (Parasuraman, Zeithaml, and Berry, 1988). According to the SERVQUAL conceptualization, service quality can be assessed by five dimensions: tangibles, reliability, responsiveness, assurance, and empathy.   Parasuraman et al. (1988) maintained that the 22-item scale and its five dimensions are reliable and valid in measuring service quality. SERVQUAL has been adopted and applied by many scholars. At the same time, the SERVQUAL scale has been criticized by many and the most notable challenge was made by Cronin and Taylor (1992). They proposed a "performance-based" service quality approach called SERVPERF by noting that a customer's perception of service quality is based upon his/her "perceived" attitude about the service. Cronin and Taylor (1992) reported that their unweighted performance-based SERVPERF scale was found as a better method than the gap model based SERVQUAL in measuring service quality.

The importance of service quality has been recognized in the field of higher education settings as well. Because service quality is reported to be closely related to the profit and other financial outcomes of service firms (Zeithaml, Bitner, and Gremler, 2006), administrators of colleges have adopted both service quality and student satisfaction as a cornerstone of their competitive strategy.   Nowadays, no colleges are free from the necessity of understanding the antecedents, determinants, and consequences of service quality.   A direct application of the service quality approach developed in other sectors to higher education contexts, however, may warrant some cautions.   Customers of colleges (*i.e.*, students) are different from customers of conventional service customers.   They have been described as customers in subordinate roles (Lee, 2010) where a majority of them perceive power inferiority to their service providers and have a higher likelihood to experience stress and frustration.   Considering such a propensity to experience negative emotions among students, there is a surprising paucity in literature on education service quality dealing with students stress.   The concept of perceived control discussed below has a high potential to incorporate that issue.

Perceived Control

The concept of perceived control has been examined in psychology in conjunction with an individual's interaction with his/her surroundings.   Perceived control has been defined as one's perceived competence, superiority, and mastery over an environment (White, 1959).   A number of studies have reported the crucial role of perceived control in determining negative consequences such as stress, helplessness, meaninglessness, and intention to abuse substances, as well as positive consequences such

as self-efficacy, competence, satisfaction, and physical and psychological well-being (Cohen, 1981; Langer and Saegert, 1977). Averill (1973) has offered a typology of control that makes one feel in charge of a situation. The three types of control proposed by Averill (1973) include behavioral, cognitive, and decisional controls. Averill (1973) maintained that each type of perceived control reduces one's stress and perceived risk in dealing with a potentially stressful event. In the following, each of these controls is reviewed.

1. Behavioral Control. The most widely accepted conceptualization of perceived control is one's belief of his/her ability to change the objective nature of an impending event. A group of researchers demonstrated that an individual's perception of control over a situation is largely affected by his/her belief regarding the ability to modify the objective nature of the situation (Litt, 1988; Thompson, 1981). A number of studies have found a positive relationship between the availability of responses one possesses and the ability to respond adaptively to a stressful event. One of the most notable research findings in that aspect was made by Langer and Rodin (1976) who found that one's ability to exert influences on one's environment had significant effects on one's well-being. In their study carried at nursing homes, residents of the institutions who had behavioral control (i.e., opportunities for choices, possibility of influencing nursing home policies, and small decisions to make and small responsibilities to fulfill) reported a higher level of happiness and satisfaction than those that did not have such behavioral control (Langer and Rodin, 1976). Several other studies involving medical settings have confirmed the effects of behavioral control on a person's well-being (Deci, 1980; Folkman and Moskowitz, 2000; Helgeson, 2003). According to Averill (1973), behavioral control is perceived in two conditions: (1) when one believes that s/he is capable of determining "such things as who administers the stimulus and how/when the stimulus will be encountered" (p. 287) and (2) when one believes that s/he has the right to modify the nature of an aversive event by using his/her behavioral response (e.g., avoidance, escape, attack, and so on). Thus, the theory of behavioral control suggests that perceived risk and stress in an environment can be reduced when one believes that one is able to make changes in that environment or when one is provided with a set of behavioral options from which s/he can freely choose.

2. Cognitive Control. A group of researchers observed that people become less averse to a potentially stressful event when they understand the nature of the event and when they are able to predict the consequences of the interaction (Seligman and Miller, 1979). The theory of cognitive control is built upon one's ability to subjectively incorporate the stressful event into one's cognitive plan. In Langer and Saegart's study (1977) involving a crowded supermarket, the shopping condition was reported to be felt more crowded among individuals who did not know about the crowded conditions until they entered the store than those who had been informed about it before. Langer and Saegart (1977, 181) explained that "anticipation of crowding does result in behavioral and attitudinal adjustment … [and] information about possible reactions to an environment not only makes a person feel better, but may actually increase the attention available for tasks." Averill (1973) described such ability to subjectively incorporate an aversive stimulus into one's cognitive plan as cognitive control. The theory of cognitive control has been elaborated in subsequent studies (Seligman and Miller, 1979; Taylor, 1989). Findings of those studies summarize that cognitive control is perceived as a person acquires both the specific information about an imminent event and the consequences of the event for that individual. Thus, a person would perceive less stress in dealing with a potentially stressful event when provided with sufficient information about the nature of that event in advance.

3. Decisional Control. Scholars founded upon action-theoretical perspectives noted that individuals perceive less stress in dealing with a potentially stressful event when they believe that they may gain personally desirable outcomes through their interactions with that event (Kelley, 1955; Skinner, Chapman, and Baltes, 1988). The theory of decisional control is founded upon a premise that human actions are goal-directed and therefore, an individual may perceive that s/he is in charge of a situation when s/he believes that s/he will eventually obtain a personally desirable outcome from that situation. For one to

feel such type of control, one does not need to have either predictability or a range of choice. Averill (1973, p. 300) made note on that form of control by explaining that "it is not the objective range of choices which determines whether or not a person experiences … control; rather it is the degree to which he agrees or identifies with the choices he does have, no matter how limited." Thus, when we are sure that we will eventually gain personally desirable outcomes from a potentially stressful situation, we become more tolerant of ambiguity, discomfort, and stress that are pertinent to the situation.

In summary, a person facing a potentially stressful event may find the situation less stressful when s/he perceives control in that environment. Perceived control, however, is not a simple concept but a complicated compound of interrelated yet different concepts (Rodin, Rennert, and Solomon, 1980). The theory in essence suggests that one may feel in command of a situation (1) when one believes that one can effectively influence an environmental event, (2) when one is fully informed about the nature and consequences of an event, and (3) when one knows that one may gain a personally desirable outcome by exercising one's influence, choice, or action in dealing with the event (Averill, 1973). This study applies the perspective of perceived control to the higher education setting and posits that the stress-reducing effects and satisfaction-enhancing effects of perceived control can also be observed among college students.

HYPOTHESES

The purpose of this paper is to examine whether the perception of control over their school life among college students affects their satisfaction with the school. Although attaining a college degree is considered an important career path by many people, the admission process for getting in can be quite demanding. Students who make it successfully through this process and get admitted into a rigorous program find themselves facing the challenges of academic life at a completely different level from their respective high school experiences. The competition for academic achievement, the need to perform, the enormous volumes of work and the time constraints of study, work and family are all the obvious stressors that come to mind when people think of college life (Ross et al. 1999). A significant number of students are found to experience frustration, stress, and dissatisfaction with their colleges (Zajacova et al., 2005). The academic pursuit in a college, indeed, is a potentially stressful event to many people. This study hypothesizes that students who perceive control in dealing with their colleges will evaluate their colleges more favorably than those who feel lack of control in dealing with them. Specifically, college programs that foster enhanced perceived control among their students would be evaluated as having higher quality. Furthermore, the students would experience higher levels of satisfaction from such college programs. Those students who see quality and experience satisfaction from their schools would have a higher intention to recommend their schools.

For a robust test of theory, this study adopts a macro perspective by incorporating a set of perceived control variables (behavioral control, cognitive control, and decisional control) into conventional SERVQUAL variables (tangibles, reliability, responsiveness, assurance, and empathy) to empirically test if the addition of perceived control variables would enhance service quality, satisfaction, and recommendation intention among college students. First, behavioral control is likely to affect the student's evaluation of their colleges. Students seem to prefer to make influences on their academic and non-academic aspects of college life. Compared to a program where students feel that they have no choice in their academic life but have to uniformly follow school-required procedures, a program that allows students to make choices with regard to their academic life (*i.e.,* behavioral control) is likely to foster a high level of student satisfaction. Second, students are likely to evaluate their college more favorably when the school provides them with sufficient information about the program, courses, requirements, and so on. Being fully informed about the nature of school life and specific aspects of the academic requirements (*i.e.,* cognitive control), students may be able to include possible future academic and non-academic challenges in their cognitive plan. After all, those ones having cognitive control are

more likely to actively deal with and overcome challenges that they may experience during their academic endeavor. Finally, students are likely to evaluate their school more positively when they believe that they will obtain the desired benefits from the program in the long run. When a student believes that s/he will eventually obtain desirable outcomes from college (*i.e.,* decisional control), the student is likely to deal with academic challenges with less stress and frustration and retain high hopes, which would make him/her evaluate the school more favorably. Based upon this reasoning, the following set of hypotheses was developed to test the effects of perceived control on program evaluation among college students.

H1 [a, b ,c]. Perception of behavioral control has positive influence on perceived quality [a], satisfaction [b], and recommendation intention [c] of education service among college students.

H2 [a, b ,c]. Perception of cognitive control has positive influence on perceived quality [a], satisfaction [b], and recommendation intention [c] of education service among college students.

H3 [a, b ,c]. Perception of decisional control has positive influence on perceived quality [a], satisfaction [b], and recommendation intention [c] of education service among college students.

METHODS

Data for this study were collected via a self-reported questionnaire administered to 155 students enrolled at a major college in South Korea. The questionnaire was composed of four sections: SERVPERF measures, perceived control measures, dependent measures (*i.e.*, service quality, satisfaction, and recommendation intention), and demographic questions. Likert scales were adopted as a response category for independent measures (both SERVPERF and perceived control). Service quality was measured by a modified version of SERVPERF proposed by Cronin and Taylor (1992). Cognitive control was measured by using a four-item scale, which includes the students' understanding, capability of predicting, familiarity with the program, and ability to tell strengths and weaknesses of the program in which they were enrolled.

Behavioral control was incorporated into the questionnaire by using a five-item scale that includes the choice availability in course selection, availability of exercising influence on school policies, and availability of auditing courses before registering. Decisional control was measured by a six-item scale, addressing the desirability of being in the program, appropriateness of requirements for graduation, and program efficiency. Three dependent measures (*i.e.*, service quality, satisfaction, and recommendation intention) were measured by using a 7-point scale ranging from 1 (very poor quality/very dissatisfied/least likely to recommend) to 7 (excellent quality/very satisfied/very likely to recommend).

A total of 131 useable responses were collected. Background characteristics of the participants are summarized in Table 1. Demographically, 45 percent of the respondents were female and 55 percent male. Almost all of them (98%) were in their twenties. As far as academic standings were concerned, about 92 percent of the students had cumulative GPA of 3.0 or above, and about 80 percent of them between 3.0 and 3.9. A review of demographic characteristics of the sample made by two college administrators confirmed that the sample represented the entire student population enrolled at the school appropriately.

Table 1: Background Characteristics of the Sample

Characteristics	Frequency	Percentage (*)
GENDER		
Male	72	55
Female	59	45
AGE		
< 20	1	1
21-29	129	98
> 30	1	1
GPA		
< 3.0	10	8
3.0 - 4.0	105	80
> 4.0	16	12

(*) Percentages are rounded.

RESULTS

Measurement properties of the scales developed for this study were evaluated using reliability, convergent validity, and nomological validity. The five scales regarding service quality, in general, had acceptable reliability. The scales of tangibles, reliability, responsiveness, assurance, and empathy had reliability coefficients of .68, .76, .77, .75, and .75 respectively. The scales of perceived control also had high levels of reliability. The scales of cognitive control, behavioral control, and decisional control had cronbach alpha coefficients of .79, .81, and .81, respectively.

All items of each construct had significant factor loadings greater than 2, thus providing evidence of significant convergent validity (Anderson and Gerbing, 1988). Constructs used in this study were found to behave consistently with pertinent theories in both marketing and psychology, as evidenced by the significant correlations among service quality constructs and among perceived control constructs. In summary, the measures used in this study were found to have adequate measurement properties for a theory testing. For the purpose of hypothesis testing, average scores of items making up the constructs (tangibles, reliability, responsiveness, assurance, empathy, cognitive control, behavioral control, and decisional control) were used.

Hypotheses were tested by using a series of regression analyses. The results of the hypothesis test are presented in Table 2. The table shows the regression estimates of the effects of both SERVPERF factors and perceived control factors on service quality, satisfaction, and recommendation intention, respectively. The figures in the table represent the standardized regression coefficients.

The hypothesis test revealed that students' evaluation of their college was affected by both service quality and perceived control variables. When it comes to the service quality of a college, the students' evaluation is significantly affected by reliability dimension of service quality and decisional control factor of perceived control. Thus, $H3_a$ is supported while $H1_a$ and $H2_a$ are not supported. On the contrary, the students' satisfaction is significantly affected by assurance and behavioral control. Thus, $H2_b$ is supported while $H1_b$ and $H3_b$ are not supported. Finally, the recommendation intention among students was found to be affected by both assurance and decisional control. Thus, $H3_c$ is supported while $H1_c$ and $H2_c$ are not supported.

Table 2: Effects of SERVPERF and Perceived Control on Dependent Measures

Independent Variables	Service Quality	Satisfaction	Recommendation Intention
SERVPERF			
Tangibles	0.012	0.09	0.297
Reliability	.287*	0.078	0.101
Responsiveness	0.079	0.059	0.178
Assurance	0.194	.482*	.338*
Empathy	0.145	0.168	0.145
Perceived Control			
Behavioral Control	0.112	.232*	0.016
Cognitive Control	0.054	0.089	0.062
Decisional Control	.215*	0.147	.295*
Adjusted R^2	0.178	0.268	0.289

: Significant at .01

DISCUSSION AND CONCLUSIONS

Findings in this study offer several insights into understanding the influence of perceived control on students' evaluation of education services rendered at higher education institutions. One of the most notable findings of this study is that perceived control variables being proposed in this study as meaningful variables in affecting students' evaluation of college services indeed contribute to the variation of the dependent variables (service quality, satisfaction, and recommendation intention) as much as those service quality variables that have been heavily studied in the literature.

Specifically, behavioral control was found to significantly affect students' satisfaction with college. Students seem to experience higher levels of satisfaction when they have the right to design their own courses for academic or non-academic activities. Decisional control exerts significant influence on both perceived service quality and recommendation intention of their colleges. When the students believe that they will obtain personally desirable outcomes through their college education, they see quality from the program and they are willing to make recommendations of their schools. Not all perceived control variables, however, were found to have significant influences on the dependent variable. Cognitive control, for example, was a variable that did not exert any significant influence on the dependent variables. In hindsight, just knowing what will happen to them may not be a sufficient condition to enhance service quality, satisfaction, and recommendation of the school.

In summary, students were found to prefer having control over their school lives. The findings of this study suggest that students want to have the ability to make influences on their academic and non-academic school lives. In addition, they prefer to have confidence that the school will offer them personally desirable outcomes. Such findings of this study should provide many managerial implications.

First, colleges should establish program diversity for their students. A college would be highly appreciated when its programs accommodate an individual's preferences and allow its students to design their course of academic and nonacademic pursuits. In addition, colleges should inform their students that they are allowed and encouraged to make suggestions that would possibly change their academic and non-academic environments. Most of all, colleges should be able to instill confidence among their

students in terms of the desirability of their efforts at the college. Those who have strong confidence that their college education will be a rewarding experience are found to not only perceive service quality but also have higher recommendation intention.

In conclusion, this article presents a perspective in enhancing student evaluation of education services rendered at colleges. Although service literature has made a notable progress over the years in enhancing our understanding of service quality and satisfaction, most of them have been guided by the service quality paradigm. The perspective of perceived control provided in this study is expected to complement our understanding on service quality and satisfaction. Future research using the perspective is highly expected.

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