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ABSTRACT

Recent research has found that fairness plays a key role in customer satisfaction. Fairness in an online context and how it influences customer satisfaction, however, has yet been investigated. This research examines satisfaction from a fairness lens and explores the mediators of fairness to satisfaction in the internet bank context. 131 surveys were analyzed and results show that in internet bank, fairness that includes distributive fairness, procedural fairness and informational fairness is positively related to customer satisfaction. Trust and value are identified as two key mediators of fairness to customer satisfaction.

Keywords

Service Fairness, Trust, Perceived Customer Value, Internet bank, and Satisfaction

INTRODUCTION

Understanding what leads to customer satisfaction is critical to firms for acquiring, retaining, and up-selling or cross-selling to their future and current customers. It also has important implications to business management and internal process as the latter need to be aligned to achieve higher customer satisfaction and ultimately, steady revenue growth.

Scholars have probed the drivers of customer satisfaction. Service quality was identified as an antecedent of satisfaction(e.g., Anderson & Fornell, 1994; Gotlieb, Grewal, & Brown, 1994). Customer satisfaction may also be influenced by service provider's performance on various service attributes(Oliva, Oliver & MacMillan, 1992; Spreng, MacKenzie & Olshavsky, 1996), customers' prior experience with the service (Bolton & Drew ,1991; Cadotte, Woodruff & Jenkins, 1987), frequency of service usage (Bolton & Lemon, 1999), and ease of obtaining information about the service (Oliva, Oliver & MacMillan, 1992). Shankar et al.(2000) found that loyalty to the service provider may impact customer satisfaction. Recently, Carr (2007) argued that in relational service contexts, consumers' perception of service fairness is also a major driver to service satisfaction. Service fairness refers to a customer's perception of the degree of justice in a service firm's behavior(Seiders & Berry, 1998). Specifically, it implies that in service encounters, service consumers compare how service resources (i.e., time, effort, expertise, and materials) are distributed among the various consumers and feel cheated if they receive fewer resources than others. Service consumers are also interested in the procedures used to distribute service resources. They want the procedures to be unbiased and consistently applied, not unduly favoring any one person or group. Service consumers also want to be treated with civility and politeness. And finally, service consumers want to be given information about the services in which they are involved (Carr, 2007). Putting fairness into the picture brings interesting questions and unique insight into our understanding of customer satisfaction. Although fairness has been widely discussed in service pricing(Bolton et al. 2003; Mattila & Choi, 2004), service failure and service recovery(McColl-Kennedy & Sparks, 2003; Mattila & Patterson 2004), as well as fair treatment of service employees(Bowen et al. 1999), empirical tests of the concept of fairness in service delivery and service evaluation is relatively few and there is much to be explored.

The proliferation of internet and e-commerce activities has received much attention. In 2008, for the first time, the Internet has surpassed brick-and-mortar stores as the preferred way for multi-channel shoppers to buy holiday gifts, according to a new survey by the E-Tailing group(E-Tailing Group, 2008). Shankar et al.(2000) have discussed the uniqueness of the online context and the differences of online and offline customer satisfaction and loyalty. Research has explored the price sensitivity of consumers online shopping (e.g., Degeratu, Rangaswamy, and Wu 2000; Lynch and Ariely 2000), the impact of brand equity (Degeratu et al. 2000), as well as loyalty of online consumers(Shankar et al. 2000). Fairness in an online context and

how it influences customer satisfaction, however, has yet been investigated. Consider an online comprehensive mutual fund brokerage affiliated with a bank which also operates multiple mutual funds, would customers feel cheated if the website purposely provides only positive information, and neglects negative news on its own fund families? How about when a customer presses the "buy" button with a slip of the hand and finds out that the process is irreversible? Previous research has shown that service fairness in real world, offline situations has a positive impact on service satisfaction (see, for example, Carr, 2007). However, in an online context, when service provider-customer interactions are replaced by computer graphic user interfaces (GUI), does fairness still play a role? If yes, through which mechanisms? These are the questions that we set out to explore.

Internet bank is selected as our sampling target as it is an important part of the online business activities. In January 2008, 10.9 million customers logged onto at least one internet bank account, representing 33 percent of the total U.K. online population(Comscore, 2008). Similarly, Forrester Research(2008) has reported that overall, 67.9 million households, or 80 percent of the estimated 85.1 million U.S. online households, use internet bank services. Because internet bank covers a wide range of services, for example, from a simple account statement view, to the more complex account management, bill payment, or even mortgage and investment management, we hope this would help increase the generalizability of our results.

The purposes of this study, thus, are twofold: first, to explore and empirically test the newly proposed FAIRSERV model(Carr, 2007) in predicting customer satisfaction in an internet bank context. The empirical study in Carr(2007)'s work concerns internal IT services of a large company, in which the sacrifice/price experiences are quite different from real service consumption where an actual amount of money and personal time is spent. This research examines fairness in a general service setting, which may have better generalizability potentials. Second, to further explore the mechanism through which fairness influence customer satisfaction, i.e., identifying the mediators. Previous work has mostly confirmed the importance of fairness yet ignored the underlying mechanism, linking fairness directly to customer satisfaction. This research tries to delineate the process from fairness to satisfaction. Two constructs: perceived customer value and trust, will be examined.

Finally, from a management perspective, we hope that this study could help managers understand customers from a different perspective. Managers are focused on providing good service, but may not fully understand what customers really think of as satisfactory service. Consumers care about their own rights and the process of service as well as the quality of service received. The concern for fairness is salient now more than ever as the internet has facilitated information sharing and searching. It takes just few clicks to get information on how others are being treated and make comparisons. By encompassing fairness in the customer satisfaction framework, we hope it would be helpful to managers in understanding how fairness affects customer perception and evaluations of services, and help them improve their service by addressing the fairness dimension.

The rest of this paper is organized as follows. The next section provides an overview of previous research on service fairness, trust, value, and customer satisfaction. Subsequently we detail the research method, report the results, and discuss their implications for research and practice.

LITERATURE REVIEW

Service Fairness

The study of fairness or justice has been widely discussed in the organization behavior field (Alexander & Ruderman, 1987; Colquitt et al. 2001; Beugre & Baron, 2001) and has been found to affect various employee attitudes and behaviors. Applying fairness concept in the service delivery context, and in the overall service satisfaction evaluation, however, has been relatively few. FAIRSERV is a model that attempts to measure service fairness(Carr, 2007). By combining theoretical perspectives from the organizational fairness (justice) and marketing literatures, FAIRSERV posits that an important set of service evaluations results from a comparison of services against norms of fairness and the treatment of similar customers. There are four dimensions of service fairness. Distributive fairness refers to the fact that consumers compare how service resources like time and expertise are distributed among them and negative feelings arise if they find that they receive fewer resources than others. Procedural fairness deals with the procedures used to distribute service resources. To be perceived as fair, procedures need to be unbiased and consistently applied, not unduly favoring any one person or group. Interpersonal fairness refers to the fact that service consumers want to be treated with civility and politeness. Finally, service consumers want to be given information about the services in which they are involved, which reflects informational fairness.

Scholars have long argued that fairness is especially exposed in service industries because of the intangibility of services heightens customers' sensitivity to fairness issues (Berry, Parasuraman & Zeithaml, 1994). In the online context, where

people can easily compare notes with each other, this issue becomes even more salient. The uniqueness of service fairness has been theoretically discussed in various research(Seiders & Berry, 1998; Carr, 2007). Empirically, service fairness and service quality have been identified as two distinct constructs (Carr, 2007). Thus, we propose fairness as a unique construct in customer's evaluation process.

The viability of service fairness, especially distributive fairness, rests on the claim that consumer reactions to services are, at least in part, based on equity theory. This means that consumers are interested in equitable as well as favorable treatment. Thus, consumer reactions to services including service satisfaction and re-patronage intention are influenced by evaluations of service fairness with an input/output calculation and comparison with others or with expectations or norms(Carr, 2007). When procedural matters are concerned, consumers will only consider the service as fair when it is consistent, free of bias, and accurate. Fairness expectations also entail dimensions like consumer's demand for information and interpersonal justice. In a fair service process, consumers need to be well informed before and along the service process, and treated with respect and courtesy.

Besides the four traditional fairness dimensions: distributive, procedural, interpersonal, and informational (Lind&Tyler, 1988; Cohen-Charash &Spector, 2001; Greenberg, 1993), a new dimension called overall fairness or systemic fairness is proposed. Systemic fairness is defined as an evaluation of overall fairness derived from the evaluation of original four dimensions of fairness (Beugre, 1998; Greenberg, 1990, 1996). In the FAIRSERV model, Carr (2007) incorporates all five dimensions of fairness as in Table 1.

Table 1. Dimensions of Fairness

Dimensions	Definition	Example
Interpersonal fairness	showing concern for individuals regarding the manner in which outcomes are distributed (Greenberg, 1993)	The employees treat everyone politely and respectfully.
Informational fairness	Provide enough information or knowledge about procedures, services, and so on. And those procedures demonstrate regard for people's concern. (Greenberg, 1993)	The employees give thorough explanations before, during, and after the service process.
Distributive fairness	the cognitive, affective, and behavioral reaction to outcome distributions from a source (Cohen-Charash & Spector, 2001)	Everyone gets virtually the same services
Procedural fairness	the fairness of the policies and processes contributing to outcomes embodying certain types of normatively acceptable principles (Lind & Tyler, 1988)	Every customer waits in the same queuing system and nobody could skip it.
Systemic/overall fairness	overall fairness/unfairness of the focal entity (Beugre, 1998)	

Customer Satisfaction

Increasing customer satisfaction and customer retention benefits the firm with improved profits, positive word-of-mouth, and lower marketing expenditures (Reichheld, 1996; Heskett et al., 1997). There has been, however, considerable debate as to whether customer satisfaction an outcome or an evaluation (Yi, 1990). A further debate has considered whether service quality is an antecedent of satisfaction (Cronin and Taylor, 1992; Parasuraman et al., 1985), or a consequence of satisfaction (Bitner, 1990; Bolton and Drew, 1991).We occur with the idea that satisfaction is primarily an affective variable(Oliver, 1997). Thus, cognitive evaluations like value and fairness will be antecedents of satisfaction following the cognition-affect causal ordering(e.g., Bagozzi, 1992; Lazarus, 1991).

Customer Value

Value is deemed as the ultimate competitive edge beyond quality and operational efficiency (Naumann 1995). Customer value can be defined as a customer's perceived preference for and evaluation of those product attributes, attribute performances, and consequences arising from use that facilitate (or block) achieving the customer's goal and purposes in use situations. It incorporates both desired and received value and emphasizes that value stems from customers' learned

perceptions, preferences, and evaluations. It also links together products with use situations and related consequences experienced by goal-oriented customers (Woodruff, 1997).

Zeithaml (1988) and Dodds et al. (1991) think that perceived customer value is a comparison between total benefit and total sacrifice. Monroe (1990) defines perceived customer value as the ratio between perceived benefits and perceived price. Woodruff (1997) defines perceived customer value as customers' perspectives or assessments of the product attributes and performance in their purchase procedure or use situation.

Although there are many different kinds of definitions, the concept of perceived customer value has appeared at various times in the marketing literatures as an independent variable used to explain consumers' behavior. For instance, Bolton and Drew (1991) claim that perceived customer value is a more powerful predictor than perceived service quality in the evaluation of service. Cronin et al. (1997) found that perceived customer value is a very important mediator to perceived service quality. Scholars have found perceived value plays a key role in customer satisfaction (McDougall & Levesque, 2000; Patterson & Spreng, 1997).

Trust

Trust has been widely discussed in various disciplines, including transaction cost economics, psychology, contractual relations theory, social science, organization management, and marketing researches (such as buyer-seller relationships, consumer markets, and so on) (e.g., Nooteboom, Berger, & Noorderhaven, 1997; Tyler & Kramer, 1995; Rousseau et al., 1998; Morgan & Hunt, 1994; Bennett, 1996; Lau & Lee, 1999).

Trust is regarded as the willingness of a party to be vulnerable to the actions of another party based on the expectation that the trustee will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party (Mayer, Davis and Schoorman, 1995).

Some scholars conceptualize trust in behavioral terms : "trusting behaviors" or "trusting intentions" (Coleman, 1990; Deutsch, 1962; Giffin, 1967;Mayer et al., 1995; Schlenker, Helm and Tedeschi, 1973). Others define trust in cognitive / evaluative terms, and they also argue that the relationship between trust evaluations and behavioral response should be empirical investigated and likely subject to the influence of other contextual factors (Doney and Cannon 1997; Morgan and Hunt 1994).

In business activities, buyers and sellers need to cope with complicated information at the process of transaction, and they cannot predict what actions the other side might take. Previous research illustrated that trust helps reduce transaction complexity and transaction cost (Gefen, 2000). Hoffman, Novak, and Peralta (1999) claimed that when decision makers do not have the ability to control risk or others' behaviors, trust plays a critical role in an uncertain situation. Moreover, scholars have regarded trust as the central construct in customer loyalty and repurchase intentions (e.g., Sirdeshmukh et al., 2002; Verhoef, Francis, & Hoekstra, 2002). In recent year, with the prosperity of online companies, trust seems to become the most prevalent issue in service evaluation models. For example, Harris and Goode (2004) propose a model incorporating trust, loyalty, perceived customer value, service quality, and satisfaction and placed trust as the central construct. Trust has also be studied in various research linking to customer satisfaction in buyer-seller relationship(e.g.,Selnes 1998; Garbarino & Johnson,1999; Hennig-Thurau & Klee, 1997).

RESEARCH DESIGN AND METHODOLOGY

Based on the literature review, we propose a fairness centric approach to the service evaluation model. Previous research showed that service fairness adds a significant new set of predictors of service satisfaction via a direct effect(Carr, 2007). To further explore the role of service fairness in an online context, we propose that service fairness as the key driver of service satisfaction. Moreover, we suspect that besides a direct effect, there are indirect effects of fairness to satisfaction. We think trust and value are key mediators in the fairness—satisfaction relationship. The importance of trust in online context has been consistently argued (Knights et al., 2001, Reynolds, 2000).Trust has been found to be significant related to customer satisfaction in a study of online services(Harris & Goode, 2004). Fairness is deemed as a necessary condition for trust(Seiders & Berry, 1998). Trust counterbalances the risk and uncertainty endemic to service transactions, and perceived unfairness can destroy trust, while perceptions of particularly fair treatment can have a positive influence on trust. Value, on the other hand, has been positioned as the central mediating construct to customer satisfaction in several research(Anderson & Fornell, 1994; Fornell et al., 1996, McDougall & Levesque, 2000). Price fairness is directly linked to perceived value. It's quite intuitive that overpriced service will diminish the perceived customer value. Other aspects of fairness, for example, informational and procedural, may also effect consumer's perceived value. Consider the case when an online shop that doesn't offer adequate

information on the product it sells, and the customers have to search for information by their own. The extra efforts spent in searching could be considered as extra sacrifice, thus negatively related to perceived value. Thus, we propose our research model as shown in figure 1. Due to the lack of direct interpersonal communication in the internet bank context, the interpersonal fairness dimension has been removed from the fairness measurements.
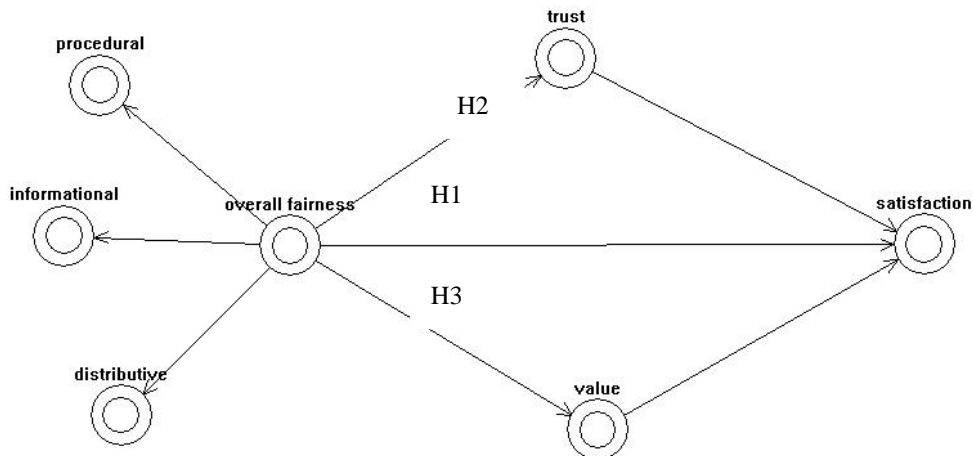

Figure 1 Conceptual Framework

When customers think they have been treated unfairly, their reactions tend to be immediate, emotional, and enduring(Seider & Berry, 1998). Previous research has substantiated that fairness has a significant impact on customer satisfaction(Oliver & Swan, 1989; Seiders & Berry 1998; Carr, 2007). Overall fairness is conceptualized as having direct influence on customer satisfaction and has been empirically validated in Carr(2007)'s work. We'd like to further verify it under an online context.

H1: Systemic fairness directly positively affects satisfaction.

We believe that systemic fairness not only directly affects satisfaction, but also indirectly affects satisfaction through trust and customer value. Prior research, both theoretical and emprical, has explored the relationship between trust—satisfaction and perceived value—satisfaction(Cronin 1997; Fornell et al. 1996; Zeithaml, 1988). The mediation effects, however, are mostly focused on quality to satisfaction. We argue that in the case of fairness, these two are also important mediators.

First, the relationship between justice and trust in the domain of business organization management has been explored (Folger and Konovsky, 1989; Konovsky & Pugh, 1994). Folger and Konovsky (1989) proposed that fair treatment will lead to the development of trust. Later research has substantiated the relationship between fairness and trust in work settings(Korsgaard et al., 1995; Brockner & Siegel, 1995; Konovsky & Pugh, 1994). In service exchanges, trust is central to exchange and is believed to influence interpersonal behavior more than any other single variable(Golembiewski & McConkie, 1975). Thus we propose:

H2: Systemic fairness indirectly positively affects customer satisfaction mediated through trust.

Second, the relationship between systmic fairness and perceived customer value has yet to be explored. We argue that fairness may effect perceived customer value through three ways. First, price fairness will have a direct impact on customer perceived value. Perceived benefits and perceived price affects perceived value via comparison or division (Monroe, 1990; Zeithaml 1988). An overpriced service directly effects the percieved price, thus reducing perceived customer value. Second, the distress caused by unfair services may also reduce customer percieved value. Fairness involves calculating the input/outcome ratio of self and others. According to Adams (1963), when the input/outcome ratio,compared to the ratio of the

comparison other, is unequal, the individual is distressed and would seek to reduce the distress. The extra effort in reliefing the distress may be considered as part of the price/sacrafice paid concerning the service, thus may reduce perceived customer value. And lastly, with respect to informational fairness, the reduced risks as a result of complete and comphensive information will lead to an increase in percived benefits, thus increasing percived customer value. In sum, a fair service is positively related to perceived customer value, which in turn affects customer satisfaction, as substaintiated by previous research. Thus, we propose:

H3: Systemic fairness indirectly positively affects satisfaction mediated through perceived customer value.

Research Model

This study adopts customers of E.Sun Commercial Bank, Taiwan as our sample. The primary reason for choosing this company is that E.Sun Commercial Bank came first on service quality in Global Vision magazine's 2005 Bank service quality evaluation and the 2nd place in 2007. We collected data from customers of E.Sun Commercial Bank, Ltd. from 10 branches in Taipei city. Questionnaires are handed out to bank customers that identify themselves as internet bank users and filled on a voluntary basis with a small gift in return. A total of 162 surveys were collected; 131 out of 162 are valid ones. Table 2 shows the structure of our sample.

Table 2: Structure of Sample

Items	Mean / Mode	Choices	
Gender (%)	Female	Male	47.0
		Female	***53.0***
		Under 20	3.0
		21-25	31.1
		26-30	***36.6***
		31-40	18.3
		41-50	7.9
		51-65	3.0
		Above 66	0.0
Education (%)	University	Below High school	4.9
		high school	5.5
		University/College	***73.6***
		Master	16.0
		Doctor	0.0

The questionnaire of this study could be separated into 3 different partitions. All questions adopt five-point Likert scales ranking from extremely disagree (1) to extremely agree (5). Pilot test was conducted by using a sample of 60 MBA students. The results of the pilot test help us further refine and modify our wording.

Fairness

Fairness measurements are adapted from Carr(2007)'s work which includes interpersonal fairness, information fairness, procedural fairness, distributive fairness and systemic fairness. Since in the online context there's little interpersonal

interaction, this dimension is removed. Systemic fairness is defined as an overall fairness / unfairness of focal entity (Beugre, 1998).

Perceived Customer Value

Many scholars (e.g. Zeithaml, 1988 & Dodds et al., 1991) identify perceived customer value as a comparison between total benefit and total sacrifice. In this study we follow the identification and questionnaire items that Harris and Goode proposed (2004). Harris and Goode define customer perceived value as customers' overall assessments of product and service utility based on what is exchanged (Zeithaml, 1988).

Trust

Trust is viewed as the willingness of a party to be vulnerable to the actions of another party based on the expectation that the trustee will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party (Mayer et al. 1995). In our study, the construct of trust is adapted based on Harris and Goode's work (2004).

Satisfaction

There are several different definitions of satisfaction. Yi (1990) regards satisfaction as an attitude-like judgment based on one or a series of consumer service interactions. Consumers will compare pre-consumption and then evaluate how they feel about services. In this study, we will measure satisfaction by adapting and modifying 4 questionnaire items based on the research of Carr (2007).

ANALYSIS AND RESULTS

Confirmatory factor analysis is performed and items with factor loading under 0.5 are deleted. Reliability gauged by bottom alpha coefficient and item-to-total is examined. Items with Cronbach's alpha less than 0.7, and item-to-total less than 0.3 are deleted. In our questionnaire, all items score in Cronbach's alpha above 0.745; most of them are above 0.8. And all item-to-total are all above 0.487. There is no item deleted in our reliability analysis. All constructs achieve an average variance extracted(AVE) of above 0.50, and composite reliability of above 0.80. Table 3 summarizes the item loadings, mean of subsamples, standard error, and t-statistics for the constructs in our model.

Table 3: Construct loading and t-statistics

	Original sample estimate	Mean of subsamples	Standard error	T-Statistic
Informational fairness: (Composite Reliability = 0.817 , AVE = 0.535)				
FI_1	0.6808	0.6652	0.0594	11.4575
FI_2	0.8307	0.8355	0.0347	23.9629
FI_3	0.8375	0.8343	0.0312	26.8839
FI_4	0.5328	0.5363	0.1159	4.5970

	Original sample estimate	Mean of subsamples	Standard error	T-Statistic
Procedural fairness: (Composite Reliability = 0.805 , AVE = 0.520)				
FP_1	0.6675	0.6605	0.0631	10.5716
FP_2	0.8542	0.8543	0.0190	44.9360
FP_3	0.4592	0.4672	0.1101	4.1697
FP_4	0.8322	0.8270	0.0285	29.2100
Distribution fairness: (Composite Reliability = 0.890 , AVE = 0.729)				
FD_1	0.8310	0.8288	0.0402	20.6944
FD_2	0.8735	0.8727	0.0260	33.6429
FD_4	0.8572	0.8577	0.0301	28.5090
Systemic fairness: (Composite Reliability = 0.899 , AVE = 0.691)				
FS_1	0.8529	0.8502	0.0312	27.3152
FS_2	0.8661	0.8655	0.0298	29.0758
FS_3	0.7762	0.7695	0.0593	13.0913
FS_4	0.8265	0.8217	0.0293	28.1975
Trust : (Composite Reliability = 0.804 , AVE = 0.538)				
T_1	0.7480	0.7436	0.0650	11.5028
T_3	0.8644	0.8607	0.0252	34.2539
T_4	0.8793	0.8722	0.0234	37.5578
T_5	0.2653	0.2411	0.1362	1.9483
Perceive value: (Composite Reliability = 0.876 , AVE = 0.703)				
PV_1	0.8424	0.8374	0.0251	33.5350
PV_2	0.8398	0.8387	0.0524	16.0323
PV_4	0.8328	0.8309	0.0348	23.9565
Satisfaction: (Composite Reliability = 0.929, AVE = 0.767)				
SA_1	0.8586	0.8666	0.0417	20.5917
SA_2	0.8600	0.8637	0.0305	28.2252
SA_3	0.8955	0.8989	0.0241	37.0889
SA_4	0.8876	0.8923	0.0210	42.2182

Inter-correlations among key study variables were examined. The intercorrelations among the full set of variables were sufficiently low to preclude the problem of unstable coefficients in the regression procedures. The lack of high correlations ($r >= 0.90$) between any of the independent indicates that multicollinearity did not cause a problem in these data (Hair, Anderson and Tatham, 1998).

We test our hypotheses with partial least squares (PLS) technique. PLS is similar to LISREL in that both structural relationships among latent variables and relationships between latent variables and observed variables may be modeled. The results of the PLS analysis of the model are presented in Figure 2. For this analysis, the sample is composed of 131 responses from customers of E.Sun Commercial bank. Because PLS does not generate an overall goodness-of-fit index, one primarily assesses validity by examining the R^2 and the structural paths, as one would with a regression model.

The findings support all our hypotheses. Specifically, service fairness has a direct effect on customer satisfaction (coefficient 0.204). The direct effect, however, was much stronger in a separate model without the two moderators(coefficient 0.574), confirming the mediating effects of trust and perceived customer value. Together more than 50% of the effect of fairness to satisfaction is mediated through these two constructs. Approximately 59.3% of the variance in customer satisfaction is accounted for by the three constructs in the model(R^2 =.593). The standardized path coefficients range from 0.203 to 0.462, with all paths exceeding the suggested minimum standard of significance at 0.20(Chin, 1998). Thus, the fit of the overall model is good.
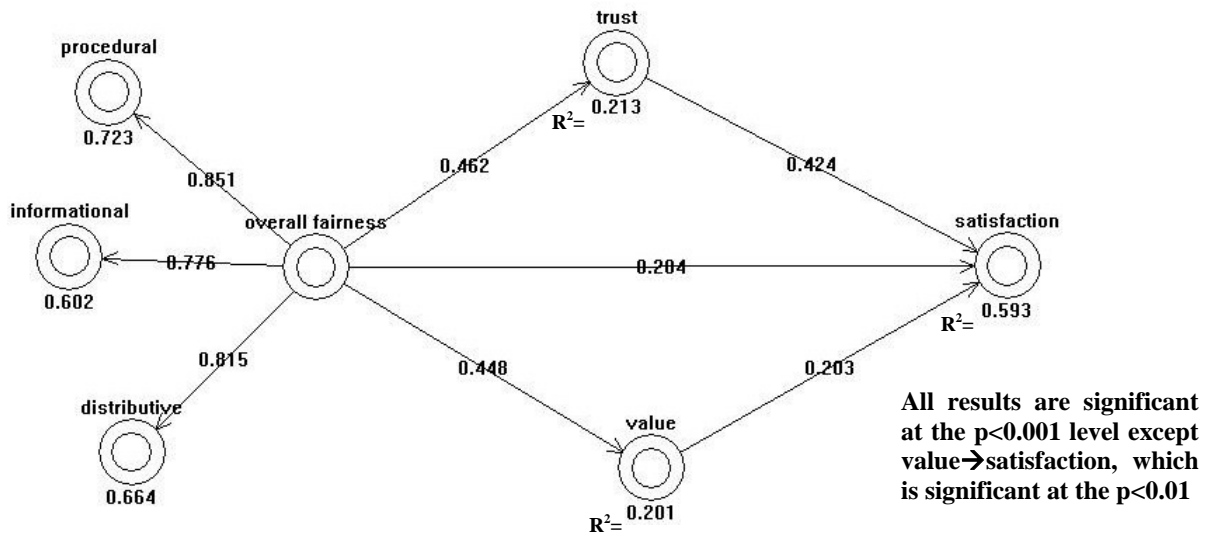
Figure 2: Results of the model

The relatively high R^2 value of customer satisfaction explained by service fairness, trust and perceived customer value signifies the importance of service fairness in customer's service evaluation process. The concept of fairness, or justice, is not only a relative term depending on comparison with other people, but also an absolute term where norms and expectations are checked with service experience. Thus, even in an environment where service provider-customer interaction is minimum like the online environment, the importance of fairness is still not to be overlooked.

CONCLUSION

This study aims to explore the role of fairness in customer service satisfaction in the internet bank context, and to examine possible mediators, namely trust and perceived customer value, between service fairness and consumers' satisfaction. The empirical analyses provided unique contributions to our knowledge in the domain of service evaluation.

First, our study provides the first empirical study of fairness under internet bank context. From our results, we can see that despite the lack of service provider-customer personal interaction in internet bank, customer perceived fairness still has positive effects on customer satisfaction mediated through trust and perceived value. This confirmation opens new areas of improvements for service management. Service providers need to incorporate the concept of fairness in their service process design so that not only good quality is achieved, but also it is delivered via a fair and reasonable process and with ample information along the way.

Second, our research provides insights into the mechanisms through which fairness influences customer satisfaction, which was previously assumed to be only a direct effect. Besides a direct effect, fairness also indirectly influences satisfaction through trust and customer perceived value. This new finding enriches our understanding of how fairness actually works. The positive relationships of fairness and trust, fairness and perceive value open new research possibilities of the indirect effect of fairness mediated through these constructs, for example, customer loyalty and re-patronage intentions.

These results have important implication for service managers. Fairness is decomposed into three dimensions under the online context: distributive, procedural, and informational. Results show that all three dimensions have high loadings to overall fairness, which means to present a fair service, managers need to pay attention to all three dimensions.

First, distributive fairness implies that service providers can't favor any one, or groups of their customers, at least openly, because consumers will care about whether they get service equally. Distributive fairness is based on input/output ratio calculations. However, inputs(when customer consider their inputs, not only money but also emotion and affect are included)

are subject to strong self-enhancing perceptual biases that cause people to give themselves more credit than is deserved, and others less(Cook & Yamagishi, 1983), as a result, people usually consider themselves more worthy customers than they actually are and what service providers deem as fair treatment of customers according to their revenue contribution may not work well with the customers' own understanding. Thus, it is probably more appropriate not to advertise differential service favors targeted for VIP customers to the whole customer group in order to avoid negative feelings of being unfairly treated. It is probably wise to only advertise to the chosen group that will enjoy the VIP services instead of broadcasting to the whole customer base. This can be easily achieved with IT technologies that manage different customer groups.

Second, procedural fairness requires the service procedures to be of consistency, non-biased to any group, accuracy(free of error), correctability(allowing appeals and reversals), representativeness of all groups and ethicality (Seider & Berry, 1998). The end no longer justifies the means. Service providers should work on providing a consistent, reasonable, and bias-free procedure in order to create fair perceptions. It is important to be both consistent, and correctable, thus, in designing the procedures, the attitude should be do it right the first time so that no major changes will be needed along the way(consistency); however, in further revisions, once appeals are confirmed to be reasonable, the response should be quick and flexible(corretability). In the online context, since customers usually interact with GUI, it is very important to provide ways of appeals, for example, links to send a comment or talk to an agent online. For reversals, it is advised that each step in decision making should have a "back" button so that decisions can be undo before it's finalized. Also it's important to present a "confirm" screen before processing the final decision for procedural fairness.

Third, informational fairness requires that service providers supply information or knowledge about procedures that demonstrate regard for people's concerns(Greenberg, 1993). This means that brochures, how-to's and FAQ's, as well as support services when complex questions arise. For online services, building a sterling website is only part of the story, the rest lies in the support of the website. When online customers face questions, the website should have ample channels to answer their questions. First, detailed explanations should be available and easily accessible from the websites. Second, help of various forms, for example, text files, video, or audio, should be available for different people's needs. Finally, live support in the form of voice call or online chat, should be available for more complex issues.

Several limitations of the study need to be noted. First, our data was collected from the customers of E.Sun Commercial Bank, Ltd. in Taipei. Customers from a more diverse background, i.e., location and bank affiliation, on a random sampling basis, would be preferred for better generalizability. Second, we concentrated the effects of fairness in customer satisfaction and have neglected several other well known constructs that has been identified to be related to customer satisfaction, for example, service quality. This may undermine our model estimation accuracy. However, since the overall results indicate that the model fitting is good, this concern should be minimized.

Future research can proceed in several directions. We believe that the fairness model has general applicability to other forms of e-commerce. Online shopping is of particular interest since there're numerous forms of promotions and discounts to different groups of shoppers, and whether perceived fairness or unfairness of promotions and discounts affects customer satisfaction would be an interesting topic. Second, outcomes other than customer satisfaction should be investigated. Specifically, adding loyalty and re-patronage into the framework would provide a better picture of how fairness affects various aspects of customer reactions. Last, of the three fairness dimension, further research could investigate which dimension explains more variances in different outcomes besides customer satisfaction. Prior research in organizational behavior has found that procedural justice is likely to exert greater influence on more general evaluations of systems(Greenberg 1990); while distributive justice was a more important predictor of what they termed "personal outcomes" like satisfaction (McFarlin & Sweeney, 1992). Will the dimensions of perceived fairness have different strength of prediction in different customer outcomes and evaluations? This could be further investigated as a next step in service fairness.

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Questionnaire

Service Fairness

Extremely ⟷ Extremely
Disagree   Agree

Please based on the service you received from the bank to answer the ensuing questions :					
Informational Fairness					
1. This Internet banking gives timely and specific explanations	□1	□2	□3	□4	□5
2. This Internet banking gives thorough explanations	□1	□2	□3	□4	□5
3. This Internet banking provides reasonable explanations	□1	□2	□3	□4	□5
4. This Internet banking tailors their explanations to user needs	□1	□2	□3	□4	□5
Procedural Fairness					
5. The Process of wording with this Internet banking is generally fair	□1	□2	□3	□4	□5
6. The activities of this Internet banking are conducted without bias	□1	□2	□3	□4	□5
7. The processes involving this Internet banking attempt to meet all user needs	□1	□2	□3	□4	□5
8. The procedures used by this Internet banking are consistent across users	□1	□2	□3	□4	□5
Distributive Fairness					
9. This Internet banking help all users get the outcomes they need without favoring any one group	□1	□2	□3	□4	□5
10. This Internet banking produce desired results for all users without bias of any kind	□1	□2	□3	□4	□5
11. This Internet banking deliver good outcomes for all users regardless of who they are	□1	□2	□3	□4	□5
12. In general, this Internet banking deliver reasonable results for all users	□1	□2	□3	□4	□5
Systemic Fairness					
13. In general, this Internet banking are consistent in their dealings with all users	□1	□2	□3	□4	□5
14. Generally, this Internet banking treats all users in a fair and balanced way	□1	□2	□3	□4	□5
15. The assistance this Internet banking provides to users is unbiased	□1	□2	□3	□4	□5
16. Overall, this Internet banking try to meet their user's needs fairly	□1	□2	□3	□4	□5

Extremely ⟷ Extremely
Disagree   Agree

Section 1-2. Satisfaction, Trust, and Perceived Customer Value

Satisfaction	

1.	I am satisfied with my interactions with this Internet banking	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
2.	My encounters with this Internet banking have satisfied me	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
3.	I am satisfied with assistance I have received from this Internet banking	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
4.	The level of support I receive from this Internet banking is satisfactory to me	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
Perceived customer value						
5.	Products of this Internet banking are excellent value for money	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
6.	Services of this Internet banking are excellent value	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
7.	I am happy with the value for money I get at this Internet banking	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
8.	The goods I purchase from this Internet banking are worth every cent	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
Trust						
9.	This Internet banking is interested in more than just selling me goods and making a profit	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
10.	There are no limits to how far this Internet banking will go to solve a service problem I may have	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
11.	This Internet banking is genuinely committed to my satisfaction	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
12.	Most of what this Internet banking says about its products is true	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
13.	I think some of this Internet banking claims about its service are exaggerated	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
14.	If this Internet banking makes a claim or promise about its product, it's probably true	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
15.	In my experience this Internet banking is very reliable	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$
16.	I feel I know what to expect from this Internet banking	$\square_1$	$\square_2$	$\square_3$	$\square_4$	$\square_5$