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Dear Dr. Li:

I am glad to inform you that the following paper has been accepted for publication in the Journal of Electronic Commerce Research:

Dysfunctional customer behavior in cross-border e-commerce: A justice-affect-behavior model

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Thank you for contributing your work to JECR.

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2016	702	1.386	0.931	2.777	0.364	22	6.7	>10.0	0.00059	0.364	86.36	0.06728	33.471
2015	433	1.255	0.744	1.687	0.200	20	7.2	>10.0	0.00053	0.305	100.00	0.06038	44.583
2014	346	1.229	0.729	1.306	0.125	24	7.0	9.3	0.00047	0.275	95.83	0.05291	42.174
2013	336	1.111	0.422	1.226	0.174	23	6.8	9.3	0.00055	0.313	100.00	0.06096	42.793
2012	288	0.977	0.302	Not A...	0.440	25	6.8	8.2	0.00050	Not A...	100.00	Not A...	37.500

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Dysfunctional customer behavior in cross-border e-commerce: A justice-affect-behavior model

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Dysfunctional customer behavior in cross-border e-commerce: A justice-affect-behavior model

Abstract

E-commerce has become one of the major consumption patterns currently. Understanding consumer e-commerce shopping behavior helps to improve the competitiveness of enterprises. The purpose of this study is to examine service justice as the antecedent factor of dysfunctional customer behavior (DCB) and how it interacts with negative emotion and service dissatisfaction, which in turn, affect DCB.

The study utilizes an online survey to obtain data from 490 Taobao.com users after the well known whistle-blowing incident against Taobao counterfeits. The partial least square method of structure equation modeling is employed to test the proposed research model. The results indicate that service justice has a negative significant correlation with negative emotion, and negative emotion significantly induces service dissatisfaction. Finally, both negative emotion and service dissatisfaction are positively correlated with DCB.

Knowledge about cross-border e-commerce DCB is scarce. This study is based on customer justice theory to provide empirical evidence about the factors influencing DCB perpetrated on Taobao's shopping website. Implications and future research are further discussed.

Keywords: cross-border e-commerce; dysfunctional customer behavior; online shopping; service justice; dissatisfaction; negative emotion; word-of-mouth.

1. Introduction

In recent years, the rapid global development of the Internet and mobile technology has brought about a new trend of consumer shopping. The growth of traditional trading has stagnated, while e-tailing businesses have escalated annually. According to the Ecommerce Foundation [2014], global B2C e-commerce in 2013 has reached 1.552 billion U.S. dollars and the annual growth rate surpassed 23.6%. This trend continued in 2014, and the annual volume reached 1.943 billion with over 24% annual growth rate [Ecommerce Foundation, 2015]. While B2C e-commerce has been increasingly dramatically over the past two years, annual global GDP growth has been much slower with 2.63% in 2013 and 2.466% in 2014 [World Bank Group, 2015]. Both China and the U.S. are the current leaders in the B2C and C2C e-commerce race. The annual gross merchandise volume (GMV) of e-commerce in China grew from 328 billion to 538 billion during 2013-2014; the GMV in the U.S. increased from 419 billion to 483 billion. Together, their turnover accounts for 48.13% of the global GMV in 2013, and for 52.55% in 2014. Therefore, e-commerce has clearly become a mainstream business activity in worldwide economies.

Under the traditional business context, consumers are able to touch and see products physically; but the total purchase cost is high and the variety of the products is limited. Furthermore, it does not allow cross-border buying; consumers can only purchase overseas goods through agents who import the goods. In addition, the prices of the imported goods are relatively high and the variety is even worse. In contrast, the e-commerce context facilitates sellers to minimize operational costs and lower the costs of goods sold. Consumers are also able to purchase anytime and anywhere from the e-tailing website with a wide variety of products to choose from. The products are also shipped directly to the desired locations, and returns within a certain grace period are accepted and full refunds are given. However, there is a limited selection of overseas goods under the domestic e-commerce setting. Nevertheless, this constraint has been overcome by cross-border websites that transcend boundaries and allow consumers to buy directly from overseas with an immense selection of products from which to choose. Because of the small quantity of each product, consumers are able to enjoy favorable tariffs and taxes, and the product prices are lower than those imported by business agents. Therefore, cross-border online shopping is increasingly popular among e-commerce consumers. It is important to understand the behaviors of these cross-border consumers in order to offer better services and attract more customers.

E-commerce often encounters problems, including delivery (no goods received, delayed delivery, sent goods, damage to the goods caused by the delivery process), security (credit card theft, personal leakage), customer service (poor after-sales service, unfair refund policy, unclear refund policy), website design (website navigation questions, wrong product links, lack of information), etc. [Holloway & Beatty 2003]. These problems can be classified into three categories: financial flow, logistics, and information flows. The significant difference between cross-border e-commerce and domestic e-commerce is that cross-border e-commerce customers have a stronger sense of insecurity (anxiety) than domestic e-commerce customers in the following three aspects: (1) financial flow: in addition to currency exchange losses, cross-border e-commerce customers experience more threat of credit card theft, personal information leakage, and other

security issues, especially in developing countries. In addition, if there is a need for cross-border refunds, the application process will be more complicated and have a higher chance of errors. (2) Logistics flow: the delivery of goods in cross-border e-commerce takes a relatively long time; it must clear customs, and often freight needs to be consolidated in order to save fees and charges. Furthermore, the order or return of goods is relatively more complicated and often requires a longer processing time. (3) Information flow: although cross-border e-commerce will also provide after-sales service, the foreign location of the seller can make customers anxious and afraid about the after-sales service because of unfamiliarity with the seller. Moreover, customers will experience different cultural and living conditions, product packaging, advertising media application, and market-orientation. Such differences trigger a sense of insecurity that is relatively stronger than that experienced by domestic e-commerce customers.

Because a shopping process entails frequent interaction with customers, service failure resulting from an actual or perceived service-related incident that leads customers to perceive a loss is common [Namkung & Jang, 2010]. Such an incident occurs during the online shopping process, as well. Service failure is one of the important causes of customer dissatisfaction [Bitner *et al.*, 1990], and negative information about service failure usually attracts more attention than positive information [Lutz, 1975, Wright, 1974]. When customers receive negative information, they often express their opinion by means of negative behaviors [Richin, 1983; Scott and Tybout, 1981]. Therefore, the topic of service failure is worthy of exploration by the academic and business community. Studies on service failure over the past two decades have examined the role of perceived justice in service recovery [McCollough *et al.*, 2000; Smith *et al.*, 1999; Tax *et al.*, 1998; Blodgett *et al.*, 1997], and the relationships between customer satisfaction [Smith *et al.*, 1999; Maxham, 2001; Goodwin & Ross, 1992], trust, commitment [Tax *et al.*, 1998], and repurchasing intention [Blodgett *et al.*, 1997]. Although these previous studies have provided a theoretical framework for service failure and service recovery, there is little extant literature focusing customers' perceived negative effects and dysfunctional customer behavior (DCB) which occurs in negative incidents. DCB is an aberrant customer behavior in exchange settings that violates the generally accepted norms of conduct in such a way that it is held in disrepute by marketers and most customers, and deviates from normal customer behavior [Fullerton & Punj 1993]. In this vein, this study attempts to explore DCB from the perspective of service justice in the context of service failure.

Since 2014, China has surpassed the U.S. to become the leader in total B2C and C2C e-sales of goods and services [Ecommerce Foundation, 2015]. Among the various e-commerce services, Taobao.com stands out today as the largest online retailer in China that offers cross-border shopping services. Its annual GMV accounts for 55% (181.86 billion US\$) of the global GMV in 2013, and 45% (243.45 billion) in 2014 [Statista, 2016b]. Recently, it suffered from a counterfeit report issued by China's State Administration for Industry and Commerce (SAIC) on January 23, 2015 [Alibaba Group, 2015]. The report revealed that the state agency spot-checked goods sold on Taobao and found that 62.75% of the samples were counterfeits. The retailing giant suffered a significant drop in sales because of the report [Wikipedia, 2015; Statista, 2016b]. Soon after the damaging report was released, it began a large-scale service recovery effort by assigning over 2,000 full-time employees to inspect its 1.2 billion pieces of merchandise posted on its website for counterfeits. This resulted in over 400 sellers being convicted and sent to prison in 2014 alone. In December 2015, the e-commerce giant hired Matthew Bassiur to serve as vice-president and head of

global intellectual property enforcement. Bassiur was previously a federal prosecutor for the U.S. Department of Justice and later oversaw anti-counterfeiting efforts for Pfizer Inc. and Apple Inc. [Dou and Beilfuss, 2015]. From 2013 to 2016, Alibaba (the parent company of Taobao and Tmall) and IACC (International AntiCounterfeiting Coalition) together have permanently banished nearly 5000 sellers and removed more than 160,000 infringing product listings [Business Wire, 2016]. Since August 14, 2015, Taobao has been refunding merchandise without the need for returning it physically once it is confirmed to be a counterfeit [Hongzhou Daily News, 2015]. Through all these efforts, Taobao soon regained sales and continued to grow after the January 2015 incident [Statista, 2016b].

Service failure often results in perceived injustice. It gives rise to customer anger or complaints [Folkes, 1984], negative emotions [Laros & Steenkamp, 2005; Nyer, 2000; Richins, 1997], and in turn engenders dissatisfaction with service encounters [Smith *et al.*, 1999; Bagozzi *et al.*, 1999; Huang, 2001; Knowles *et al.*, 1993]. Furthermore, the state of dissatisfaction is known to trigger a person's DCB [Mattila & Ro, 2008; Yi & Baumgartner, 2004; Zeelenberg & Pieters, 2004], such as expressing the mistakes by helping or warning others [Xia *et al.*, 2004], retaliating against the offending organization [Bechwati & Morrin, 2003; Grégoire & Fisher, 2006, 2008], or even sabotaging the organization [Folkes, 1984]. The purpose of this study is to investigate the relationships among justice, affect, and behavior of customers. Specific research questions are as follows.

RQ1: What are the levels of justice perceived by Taobao cross-border customers?

RQ2: How does perceived justice influence the emotion and satisfaction of Taobao cross-border customers?

RQ3: Do the negative emotion and dissatisfaction result in DCB of Taobao cross-border customers?

2. Literature Review

2.1 Perceived justice

Equity theory as proposed by Adams [1965] states that the motivation level of employees is proportional to the inputs and outputs using comparison relative to other people. Under relationships of social exchange, the feeling of being treated equally arises from people's realization of equal economic input and output. Social comparison will produce three results: cognition, affect, and behavior [McColl-Kennedy & Sparks 2003]; thus, equity is one of the results from social comparison.

Equity theory was first used by Huppertz *et al.*, [1978] in the marketing realms. They believe that customers will compare the money spent and the value acquired from consumption, and only produce the feeling of equity when the two inputs are equal, being that the perceived value generated and the price of the goods are equal, and hence are satisfied. But once the comparison is disproportionate, then inequity arises. Researchers have acknowledged this concept, and attempts to analyze service recovery attributes through equity theory, which means when the service failure occurs, perceived justice should be considered as a measure of satisfaction for customers when attempting service recovery [Goodwin & Ross, 1992; Tax & Brown, 1998; Tax *et al.*, 1998].

Although Kumar *et al.* [1995] identified distributive justice and procedural justice between resellers and suppliers, Tax and Brown [1998] examined service recovery between resellers and customers from the perspectives of distributive justice, procedural justice, and interactional justice. Subsequently, these three types of justice have been widely used in various studies [Tax & Brown, 1998; Tax *et al.*, 1998; Maxham & Netemeyer, 2002; Sabharwal *et al.*, 2010; Colquit *et al.*, 2001]. Therefore, this study adopts distributive justice, procedural justice, and interactional justice as the three justice constructs, and examines their effects on dissatisfaction and negative emotion.

2.1.1 Distributive justice

Distributive justice is the earliest assessment dimension in the justice theory. It is based on Adams's [1965] equity theory. It can be referred to as the perceived fairness of obtainable outcome of a decision, dispute, or negotiation involving two or more parties [Blodgett *et al.*, 1997]. Individuals often compare the costs and gains received to evaluate the fairness of an exchange [Greenberg 1987, 1990]. When a customer feels that the ratio of input to output is fair, the service is considered as having distributive justice [Maxham & Netemeyer, 2002]. Some scholars have pointed out three principles of distributive justice: cost, quantity of service, and excellence, all of which the customer considers as distributive justice toward services [Bowen *et al.*, 2000; Martínez-tur *et al.*, 2006]. As a result, in the study of social sciences, particularly at the economic level, during the exchange process, people generally focus on an equitable result [Yilmaz *et al.*, 2004]. In this vein, this study focuses on distributive justice that causes customer service dissatisfaction and DCB in the context of Taobao. For example, when the picture on Taobao's homepage does not match the product it is selling or the product sold is a counterfeit, distributive injustice arises and dissatisfaction is bound to occur, leading to the manifestation of DCB.

When distributive justice is violated, Adams [1963] reveals that most individuals will attempt to achieve equity by adjusting their own inputs and outcomes, or attempting to change the inputs or outcomes of the referents. Individuals can use behavioral processes or cognitive processes in order to attempt to restore equity. Examples include reducing productivity at work, finding a new job, asking for a wage increase, changing the comparative other, or attempting to distort or justify changes in their perceptions of inputs and/or outcomes. The means of reducing inequity will vary depending on the situation, and will not all be equally satisfying to an individual.

2.1.2 Procedural justice

Procedural justice refers to the perceived fairness of a process and method by which the equity of proportion in input to output is accomplished. [Goodwin & Ross, 1992; Smith *et al.*, 1999]. Under procedural justice, the service exchange process must have consistent and equitable policies, rules, processes, and standards [Martínez-tur *et al.*, 2006; Voorhees & Brady, 2005; Chen & Chou, 2012]. Cropanzano *et al.* [2002] suggest that a company or organization should provide customer service in a way that every customer in the program can feel fairly treated. Procedural justice can be divided into five aspects: (1) wait time for the service; (2) efficiency of service; (3) service error rate; (4) service transparency; and (5) quick response

to a special request [Bowen *et al.*, 2000]. This study centers on procedural justice causing customer dissatisfaction and DCB in Taobao, e.g., issues of handling transactions with and services to the customers.

2.1.3 Interactional justice

Bies and Moag [1986] assert that traditional researchers on organizational justice have neglected the importance of relational interactions between people, and focused only on distributive justice and procedural justice. They separate the interpersonal aspect of procedural justice and propose interactional justice. Interactional justice is the perceived fairness of treatment on a personal level that an individual receives during the process of purchase decision-making [Martínez-tur *et al.*, 2006]. It often refers to the customer's perceived fairness when interacting with service providers who attempt to salvage with service recovery [Maxham & Netemeyer, 2002]. Greenberg [1993] points out that there are interpersonal and intrapersonal determinants of reactions to inequity reactions. Colquit *et al.*, [2001] use confirmatory factor analysis and meta-analysis to verify the existence of two different dimensions: informational justice and interpersonal justice. Informational justice reflects the explanations provided to people that convey information about why procedures are used in a certain way or why outcomes are distributed in a certain fashion. Interpersonal justice refers to the degree to which people are treated with politeness, dignity, and respect by authorities or third parties who are involved in executing procedures or determining outcomes. Chen and Chou [2012] regard interactional justice as interpersonal justice and define it as consumers' perceptions of the interaction with the online vendor during their transactions. Wu [2013] argues that interactional justice simply reflects the perceived fairness of communications between the system interface and online consumers. This study follows Wu's definition and examines interactional justice causing customer dissatisfaction and DCB in Taobao, e.g., buyer's evaluation, seller's message boards, Aliwangwang trade manager (Taobao's communication software), etc.

2.2 Negative emotion

Emotion refers to an individual's evaluation toward a specific incident or thoughts, the state of feeling generated from the evaluated referent and result of evaluation, within a relatively short time span [Bagozzi *et al.*, 1999]. It is not merely the foundation of cognition, but also acts as a signal for judgments, reasoning, and decision-making [Pescosolido, 2002]. It is different from mood, which does not have a specific referent and is generally unintentional. Moreover, mood tends to be lower in intensity and action tendency than emotion [Bagozzi *et al.*, 1999]. Customers' evaluation towards perceived justice will stimulate emotional signals, which influence satisfaction level. Therefore, perceived justice acting as a cognitive assessment can effectively explain the generation of positive or negative feelings [Schoefer & Ennew, 2005]. Many studies of customer emotion have pointed out that customers in the consumption process will produce positive and negative emotions, and impact customer behavior [Kuo & Wu, 2012; Laros & Steenkamp, 2005; Lii & Sy, 2009].

Grégoire and Fisher [2008] assert that as relationship quality increases, customers experience a greater sense of betrayal when they perceive a low level of perceived justice (i.e., a fairness violation) in outcome

and process. This leads to negative emotion, or even anger or retaliation behavior. Xia *et al.*, [2004] believe that strong negative emotion acts as the basis of justice and injustice. This study also contends that perceived injustice and negative emotions are directly correlated, and perceived price injustice will generate different magnitudes and types of negative emotions. Romani *et al.* [2012] believe that consumers will trigger negative emotions, such as anger, sadness, worry, embarrassment, dislike, and discontent when they experience injustice. In this study, we adopt these six dimensions to measure negative emotion.

2.3 Service dissatisfaction

Service dissatisfaction denotes negative disconfirmation of expectations pertaining to service received [Oliver, 1980]. It often occurs during service exchange [Bitner 1992]. When customers experience service injustice or their expectations are not met during the service exchange process, resentment will be generated, resulting in DCB [Fisk *et al.*, 2010]. Ho *et al.* [2017] point out that online consumers who experience negative disconfirmation not only are more likely to post online product reviews, but also reflect negative emotion in numeric ratings. Mills [1981] confirms that customer dissatisfaction and DCB are inextricable; the perpetrators of different types of dysfunctional customer behaviors will experience significantly different levels of service dissatisfaction [Daunt & Harris, 2012a]. Customers' negative interpretations of and reactions to a given situation constitute the key antecedents of dysfunctional behavior [Lee & Allen 2002]. The primary reason for them to be dissatisfied with the service provider is having negative perceptions toward the overall service [Reynolds & Harris, 2009], rather than an individual employee's performance. In this study, perceived justice is the composite of three dimensions: distributive justice, procedural justice, and interactional justice. These together impact dissatisfaction with customer service, and result in DCB.

2.4 Dysfunctional customer behavior (DCB)

DCB (also known as deviant behavior) has drawn increasing attention in recent years because it significantly impacts the performance of a business. Harris and Reynolds [2003] report that DCB results in not only economic impacts, but also psychological impacts, on individuals or organizations. This study focuses on DCB occurring in Taobao (virtual store), and how it affects the operations and benefits of the enterprises. Berry and Seider [2008] divide DCB into verbal abuse, blaming, rule breaking, opportunism, and returnaholism. Rule breaking refers to conduct that is illegitimate or unethical. Since this is not possible to prevail in today's online social network environment, we have excluded this type of DCB from this study. In addition, we substitute verbal abuse with negative word of mouth (NWOM) as one dimension of DCB following the literature [Tuzovic, 2010; Gebauer *et al.*, 2013]. Below are definitions of the four dimensions of DCB in this study.

- (1) Negative Word of Mouth: Fisk *et al.* [2010] define NWOM as unflattering, uncomplimentary, or critical comments that customers make about employees, products, or services. It is a retaliatory behavior in which an individual speaks poorly of the firm to others and recommends others to avoid using the firm [Bonifield & Cole, 2007; Grégoire & Fisher, 2008]. Customer NWOM is a mechanism

used to release tension, regain control over distressing situations, and attract sympathy from others [Nyer, 2000]. Dissatisfied customers often post NWOM about the products that they purchased [Ho *et al.*, 2017].

- (2) **Blame:** Blaming defines the degree to which customers perceive a firm to be accountable for causing a failed recovery [Zourrig *et al.*, 2009]. Customers may indict a company product, policy, and employee at any level for any perceived shortfall. With blamers, "the company is always wrong" [Berry & Seiders, 2008]. They never see themselves in any way responsible for the outcome, regardless of the scenario. Based on the locus of blame and whether or not the incident could have been controlled, individuals use causal inferences or attributions to assess the performance of a product or service [Sheppard *et al.*, 1992].
- (3) **Opportunism:** Perceived opportunity is essential to the evaluation of retail outlet vulnerability [Fullerton & Punj, 1993]. Tonglet [2002] highlights the role of perceived opportunity in episodes of shoplifting behaviors. In addition, a customer may demand compensation by fabricating or exaggerating problems or flaws in a product or service [Berry & Seiders, 2008; Daunt & Harris, 2012b]. Therefore, opportunism is an important variable in understanding financially-driven episodes of shoplifting and illegitimate complaining [Wirtz & McColl-Kennedy, 2010; Hsieh, 2013].
- (4) **Returnaholism:** Customers often exploit retailer return policies for their own benefit [Berry & Seider, 2008]. They frequently do not adhere to the terms of the return policies, whereby returns are accepted for defective products, a post-purchase change of mind, and gift exchange [Hsieh, 2013]. The perceived ease of the return process is a significant factor in driving the act of customer de-shopping [King & Dennis, 2006].

3. Research Hypotheses

3.1 The effects of distributive justice on negative emotion and service dissatisfaction

In addition, distributive justice and emotion are closely linked, i.e., when customers feel that there is distributive justice, positive emotion will be generated naturally [Chebat & Slusarczyk, 2005]. On the other hand, when customers encounter service injustice or their expectations are not met during the service exchange process, negative emotion will be generated. Furthermore, Barclay and Kiefer [2014] confirm that distributive justice has a significant negative effect on negative emotion. Service dissatisfaction may occur during service exchange [Bitner 1992]. Many studies find that there is a consistent positive relationship between distributive justice and satisfaction [Oliver & Swan, 1989b; Tax *et al.*, 1998; De Ruyter & Wetzels, 2000; Holloway *et al.*, 2005; Chiu *et al.*, 2009; Chen & Chou, 2012; Fu *et al.*, 2015]. Based on the discourse above, we propose the following hypotheses:

H1: Distributive justice has a significant and negative effect on negative emotion.

H2: Distributive justice has a significant and negative effect on service dissatisfaction.

3.2 The effects of procedural justice on negative emotion and service dissatisfaction

Procedural justice refers to the fairness of the process by which a decision is made [Konovsky, 2000]. It is how a company or organization handles the service process so that every customer can feel fairly treated in the service delivery. Whenever there is procedural injustice, customer will be dissatisfied [Reynolds & Harris, 2009].

When a customer perceives that there is unfair treatment during the shopping process, he or she will have a negative emotion [Chebat & Slusarczyk, 2005]. Xia *et al.* [2004] point out that perceived injustice in price procedures will generate different intensities and types of negative emotions. Grégoire and Fisher [2008] show that as relationship quality increases, customers experience a greater sense of betrayal when they perceive a low level of justice in the process. This leads to negative emotion, or even anger. Hence, as a customer encounters procedural injustice, negative emotion usually arises.

Some researches indicate that procedural justice affects customer satisfaction in purchasing goods and services significantly and positively [McCollough *et al.*, 2000; Teo & Lim, 2001; Martínez-tur *et al.*, 2006]. Specifically, Oliver and Swan [1989a, 1989b] confirm that unfair price procedures lead to dissatisfaction. Moreover, Goodwin and Ross [1992] report that procedural justice, operationalized as the consumer's opportunity to present information and express feelings (i.e., a “voice” condition), affects perceptions of satisfaction positively. Thus, we propose the following hypotheses:

H3: Procedural justice has a significant and negative effect on negative emotion.

H4: Procedural justice has a significant and negative effect on service dissatisfaction.

3.3 The effects of interactional justice on negative emotion and service dissatisfaction

Schoefer and Ennew [2005] reveal that low levels of perceived interactional justice elicit higher levels of negative emotions, such as anger or rage. Barclay *et al.* [2005] also demonstrate the significant negative relationship between interactional justice and outward-focused negative emotions (i.e., anger and hostility).

The human interaction component of service delivery is essential to the determination of customer satisfaction [Bitner *et al.*, 1990]. During the online shopping process, consumers often communicate with service agents through telephone calls and email responses [Cho *et al.*, 2003], or even message boards and communication software, such as WhatsApp, WeChat, Skype, QQ, etc. In other words, online customer service representatives may use different ways to contact their customers and produce interactional justice. Interactional justice is known to affect customer satisfaction in purchasing goods and services significantly and positively [McCollough *et al.*, 2000; Teo & Lim, 2001; Martínez-tur *et al.*, 2006]. Reynolds and Harris [2009] point out that when there is interactional injustice, customer will generate dissatisfaction in service. Goodwin and Ross [1992] confirm that interactional justice, operationalized as an apology to the consumer, positively affects perceptions of satisfaction. Hence, we propose the following hypotheses:

H5: Interactional justice has a significant and negative effect on negative emotion.

H6: Interactional justice has a significant and negative effect on service dissatisfaction.

3.4 The effect of negative emotion on service dissatisfaction

Emotion constitutes a central element in understanding customer evaluations of service failure and recovery experiences [Schoefer & Diamantopoulos, 2008]. Meanwhile, dissatisfaction is a negative experience that is correlated with anger [Folkes *et al.* 1987; Storm & Storm 1987]. Westbrook and Oliver [1991] examine the negative emotion of hostility, and confirm its significant negative relationship with customer satisfaction in purchasing new or used cars. Zeelenberg and Pieters [2004] demonstrate that both regret and disappointment as negative emotions have a significant impact on dissatisfaction. Schoefer [2008] shows that affective influence as a form of emotion can create the recovery satisfaction judgement. Del Río-Lanza *et al.* [2009] also reveal that negative emotions with service recovery significantly affect customer satisfaction. Moon *et al.* [2016] show that negative emotions, such as anger, frustration, hatred, and upset significantly affect dissatisfaction. Accordingly, we propose the following hypothesis:

H7: Negative emotion has a significant and positive effect on service dissatisfaction. In other words, the more negative emotion, the higher service dissatisfaction.

3.5 The effect of negative emotion on DCB

According to social exchange theory, service is an exchange process in which customers exchange services through the consumption process. When the service provided is unfair, the customer will have a negative emotion, resulting in DCB which further influences other customers. Past studies confirm that when employees feel that their trust has been violated, negative emotion can be aggravated, leading to more severe DCB [Morrison & Robinson, 1997; Litzky *et al.*, 2006]. Since customer's emotion significantly affects customer behavior, negative emotion has a direct effect on DCB [Harris & Reynolds, 2004]. Unfair treatment often provokes perceptions of injustice and negative emotion, and in turn results in manifestations of DCB [Vardi & Weitz, 2004]. Zeelenberg and Pieters [2004] find that both regret and disappointment, being components of negative emotion, have significant impacts on DCB (especially NWOM). Moon *et al.* [2016] also reveal that negative emotion, such as anger, frustration, hatred, and upset significantly affects DCB. Therefore, we propose the following hypothesis:

H8: Negative emotion has a significant and positive effect on DCB. In other words, the higher negative emotion, the more DCB.

3.6 The effect of service dissatisfaction on DCB

Customer dissatisfaction and dysfunctional behavior are complicated. Commonly, dysfunctional behavior (or deviant behavior) is attributed to service staff [Harris & Ogbonna, 2006; Lawrence & Robinson, 2007; Wallace & de Chernatony, 2008]. For example, a disgruntled staff member in a call center may hang up on a customer, intentionally put a customer on hold for a long time, purposefully transfer a customer to the wrong department or disconnect the call, or tell a customer that he or she will fix something but never actually fix it [Skarlicki *et al.*, 2008]. In the extreme case, he or she may simply say “No, we don't provide that service” [Guerrier & Adib, 2000]. In contrast, many scholars believe that deviant behaviors also occur among customers [Mills, 1981; Harris and Reynolds, 2003, 2004; Reynolds and Harris, 2005]. Some studies confirm that service dissatisfaction is the main reason why a customer responds inappropriately [Zeelenberg & Pieters, 2004; Reynolds & Harris, 2009] and eventually exhibits DCB [Fullerton & Punj, 2004; Yi & Gong, 2008; Ho *et al.*, 2017]. Based on these studies, we propose the following hypothesis:

H9: Service dissatisfaction has a significant and positive effect on DCB. In other words, the higher service dissatisfaction, the more DCB.

3.7 Research model

Based on the aforementioned discourse, we propose a justice-affect-behavior research model, as shown in Figure 1. These three stages are borrowed from the theory of reasoned action [Ajzen & Fishbein 1980] and the theory of planned behavior [Ajzen 1991], in which behavior is the consequence of attitude, perceived justice is the belief, and emotion/dissatisfaction is the attitude. In addition, it is consistent with the stimulus-organism-response model [Mehrabian & Russell 1974], in which perceived justice is the stimulus, emotion/dissatisfaction is the organism, and DCB is the response. In this study, we model DCB as the consequence of service dissatisfaction and negative emotion. Meanwhile, both service dissatisfaction and negative emotion are influenced by distributive, procedural, and interactional justice constructs. Furthermore, DCB and negative emotion are postulated as reflective second-order constructs, while service dissatisfaction and the three justice constructs are first-order constructs.

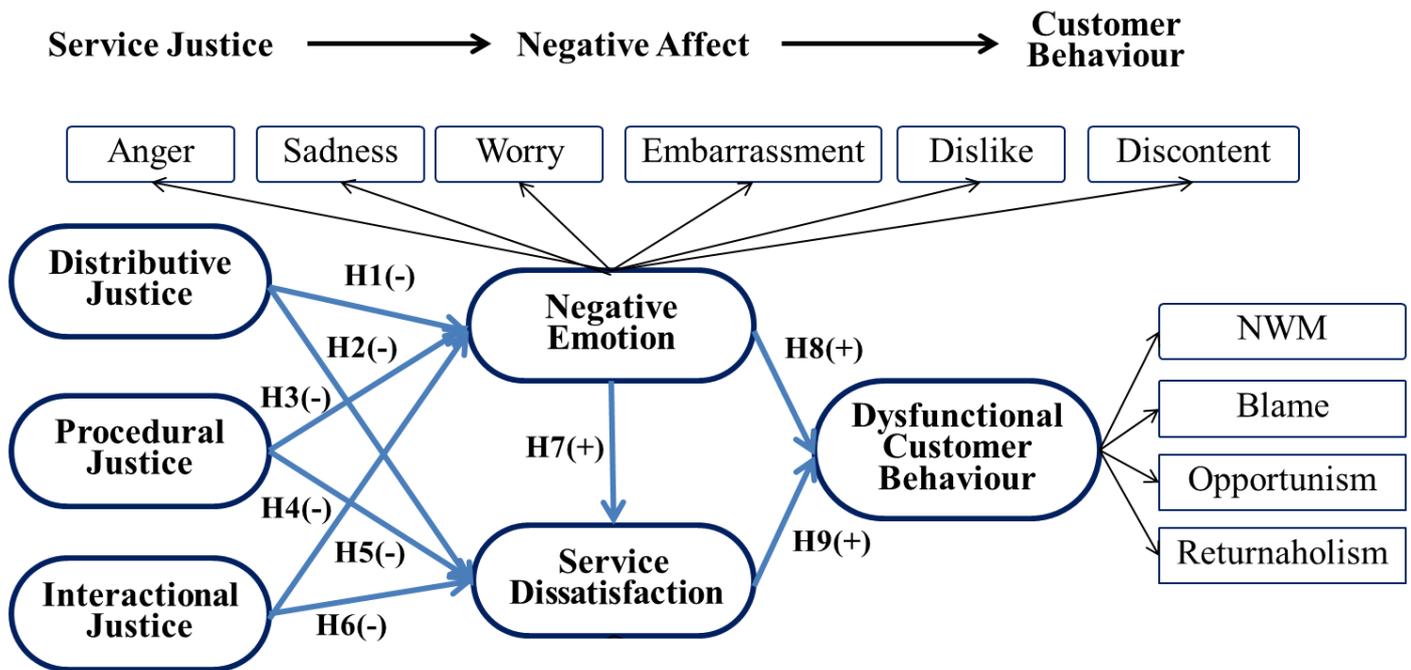


Figure 1. Conceptual framework and hypotheses.

4. Method

4.1 Study subjects

The subjects of this study are experienced customers who have been Taobao customers for at least 12 months, and purchased Taobao's products at least once in the last three months. Taobao was launched in May 2003 by Alibaba, and it has become the largest-scale B2C and C2C cross-border shopping website in Asia. Based on 2013 data from Taobao, the users of Taiwan Taobao reached an historical high of 60,000, and more than 10,000 cross-border packages were shipped daily from China to Taiwan [Wei, 2013]. One quarter of Taiwanese online sellers have procured their goods from Taobao. Moreover, one out of four online users placed their orders through the Taobao network. Taobao e-commerce stores are also diversified with low prices. For the above reasons, Taobao customers' behaviors are worth examining.

4.2 Measurement development

The purpose of this study is to explore DCB in cross-border e-commerce. For all survey items, we used a 6-point Likert scale ranging from "1 = strongly disagree" to "6 = strongly agree". We adopted an even-number scale because Asian respondents tend to value modesty, and are more likely to select a scale midpoint than their Western counterparts [Si & Cullen, 1998]. The survey questionnaire items were adapted from past studies (see Table 1). The description of survey questions was adjusted according to the context of

this study, and later reviewed by three scholars in a relative field to ensure the face validity of the survey questions. Because we administered the survey in Chinese, back and forward translation must be performed to ensure the semantic consistency of each item between English and Chinese [Brislin, 1970]. An experienced Taobao user, fluent in both English and Chinese, translated the original question items in English to Chinese. Then, another scholar who frequently purchased on Taobao and is fluent in both languages, translated these items back to English. A panel of three experienced cross-border e-commerce scholars assessed each back-translated item to make sure that the semantics of the original item were well preserved. Table 1 presents the description and the sources of each questionnaire item in this study.

A small-scale pilot test with 50 Facebook users who bought goods from Taobao was conducted. These individuals were asked to fill out the questionnaires and comment on the contents. The results confirm that all constructs have Cronbach's α values exceeding 0.7, and factor loadings of all items were over 0.5, supporting the reliability and validity of the questionnaire. This allows us to proceed with the full-scale data collection process.

Table 1. Description and sources of questionnaire items.

Construct and Measurement Items		Sources
Distributive justice (DJ)		
DJ1	The products are appropriate for the purchase process I have completed from Taobao.	Wu [2013]; Yi & Gong [2008]
DJ2	The products are considered to be a good buy from Taobao.	
DJ3	The value of the products is proportional to the price I have paid in Taobao.	
DJ4	Taking everything into consideration, the offer from Taobao is quite fair.	
Procedural justice (PJ)		
PJ1	Taobao provides explicit transaction regulations.	Wu [2013];
PJ2	Taobao provides an explicit transaction process.	Chen & Chou (2012);
PJ3	Taobao has fair policies and practices for dealing with customers.	Yi & Gong [2008]
PJ4	Taobao provides an opportunity for aggrieved customers to have their say.	
PJ5	Taobao has consistent policies and practices for dealing with customers.	
Interactional justice (IJ)		
IJ1	The system interface of Taobao is easy to operate in an interesting manner.	Chen & Chou (2012);
IJ2	The system interface of Taobao provides timely and specific explanations.	Wu [2013]
IJ3	The system interface of Taobao explains the procedures appropriately.	
IJ4	The system interface of Taobao has good communication with me.	
IJ5	I think TaoBao never ignores a mail request or a phone call.	
Negative emotion: Anger (ANG)		
ANG1	When someone mentions Taobao service, I feel indignant.	Romani <i>et al.</i> [2012]
ANG2	When someone mentions Taobao service, I feel annoyed.	
ANG3	When someone mentions Taobao service, I feel resentful.	
Negative emotion: Sadness (SAD)		
SAD1	When someone mentions Taobao service, I feel heartbroken.	Romani <i>et al.</i> [2012]
SAD2	When someone mentions Taobao service, I feel sorrowful.	
SAD3	When someone mentions Taobao service, I feel distressed.	
Negative emotion: Worry (WOR)		
WOR1	When someone mentions Taobao service, I feel threatened.	Romani <i>et al.</i> [2012]
WOR2	When someone mentions Taobao service, I feel insecure.	

WOR3 When someone mentions Taobao service, I feel worried.

Negative emotion: Embarrassment (EMB)

EMB1 When someone mentions Taobao service, I feel sheepish. Romani *et al.*

EMB2 When someone mentions Taobao service, I feel ridiculous. [2012]

EMB3 When someone mentions Taobao service, I feel embarrassed.

Negative emotion: Dislike (DLK)

DLK1 When someone mentions Taobao service, I get the feeling of contempt. Romani *et al.*

DLK2 When someone mentions Taobao service, I get the feeling of revulsion. [2012]

DLK3 When someone mentions Taobao service, I get the feeling of hate.

Negative emotion: Discontent (DCON)

DCON1 When someone mentions TaoBao service, I feel dissatisfied. Romani *et al.*

DCON2 When someone mentions TaoBao service, I feel unfulfilled. [2012]

DCON3 When someone mentions TaoBao service, I feel discontented.

Service dissatisfaction: Dissatisfaction (DST)

DST1 I was dissatisfied with the level of service that I received from Taobao. Daunt & Harris

DST2 My expectations were not met by Taobao. [2012a]

DST3 I was dissatisfied with the quality of Taobao service that I received.

DST4 I was very dissatisfied with the Taobao service overall.

Dysfunctional customer behavior: Negative Word of Mouth (NWOM)

NWOM1 I complain about Taobao's injustice and spread the word about my misadventure. Grégoire & Fisher [2008];

NWOM2 I complain about Taobao's injustice and tell my experience to other customers. Harris [2013]

NWOM3 I do not recommend Taobao to people who ask for my advice.

Dysfunctional customer behavior: Blame (BLM)

BLM1 I blame Taobao policies when I am unable to resolve my problems. Grégoire &

BLM2 Taobao was totally responsible for the failure. Fisher [2008];

BLM3 The service failure was completely Taobao's fault. Berry & Seiders [2008]

Dysfunctional customer behavior: Opportunism (OPT)

OPT1 I think customers in Taobao will display opportunistic behavior. Berry & Seiders

OPT2 Opportunistic behavior is a reaction to distrust in Taobao service warranty. [2008]; Daunt &

OPT3 If Taobao breaks formal or informal agreements to its own benefit, I will display opportunistic behavior. Harris [2012b]; Hsieh [2013]

OPT4 I thought about doing opportunistic behavior if Taobao breaks its promise again.

Dysfunctional customer behavior: Returnaholism (RET)

RET1 I take advantage of the return service from Taobao. Berry & Seiders

RET2 I make a return to Taobao using wide and loose criteria. [2008]; Hsieh

RET3 I take advantage of the refund for the return fee from Taobao. [2013]

RET4 I can easily return goods to Taobao.

4.3 Survey procedure

In order to obtain effective samples for analysis, we collected Taobao data via Facebook and PTT forums, because Facebook is the most popular social network website globally [Statista, 2016a] and PTT is

the largest BBS in Taiwan. All participants were volunteers, and their identities were well protected to reduce their reluctance in speaking honestly when they answered survey questions regarding Taobao [Koch & Emrey, 2001]. We solicited the participants by posting on Facebook and PTT forums at the beginning of March 2015, one month after the counterfeit report incident, with a message with a hyperlink connecting to a web-based survey. Before completing the survey questionnaire, the participant was presented with a cover letter explaining the recent incident of Taobao counterfeit report and the purpose of the survey, followed by the contents of the questionnaire. At the end of May 2015, 523 completed questionnaires were received, and 33 of them were discarded because their responses contained missing values or incomplete answers. The valid sample size was 490, yielding a 93.7% valid response rate. Table 2 presents the demographic characteristics of the final sample.

Table 2. Demographic characteristics of the sample (N =490).

Characteristics	Count	Percentage	Characteristics	Count	Percentage
Gender			Monthly income		
Male	228	46.4%	≤NT\$ 20, 000	178	36.30%
Female	262	53.4%	20, 001-40, 000	121	24.60%
Age			40, 001-60, 000	109	22.20%
≤20	75	15.30%	60, 001-80, 000	60	12.20%
21-30	217	44.20%	Above 80, 001	22	4.50%
31-40	140	28.50%	Education		
≥41	58	11.80%	≤Junior high school	17	3.50%
Data source			Senior high school	68	13.80%
PTT	165	33.67%	College	223	45.40%
Facebook	325	66.33%	Master/Ph.D.	182	37.10%

4.4 Software selection

For this study, we considered two approaches of structural equation modeling (SEM) to test the hypotheses, i.e., the covariance-based approach and the component-based (or variance-based) approach [Gefen *et al.*, 2000]. The former approach uses the solution process for simultaneous equations to obtain the estimates (e.g., LISREL or EQS software). In contrast, the latter approach performs a multiple regression analysis independently for each endogenous variable with a bootstrapping estimation process (e.g., partial least squares, PLS). Hair *et al.* [2012] suggest that covariance-based SEM should be applied if the research objective is theory testing and confirmation. Meanwhile, variance-based SEM is appropriate if the research objective is prediction and hypothesis development. Since this study aims to predict the influence of justice mix on customer dysfunctional behavior, we applied the PLS approach for further analysis.

5. Analyses and Results

5.1 Reliability and validity

Using PLS2.2 with the sample of 490 respondents, we found that the values of the items loaded heavily (> 0.7) on their respective factors with relatively small cross-loadings (see Table 3). We used Cronbach's α and composite reliability (CR) to judge the reliability of reflective constructs [Nunnally & Bernstein, 1994]. Table 4 presents the values of reliability coefficients. The values of Cronbach's α coefficients for all constructs ranged from 0.835 to 0.959, which are greater than 0.7 [Nunnally & Bernstein 1994]. This result indicates that all measures have adequate internal consistency.

We also calculated the values of CR of all six constructs. As shown in Table 4, the CR values of all six constructs are above 0.80. The results confirm that all constructs possess reliability and construct validity. Table 4 also shows that all values of average variance extracted (AVE) surpass the threshold of 0.5 [Fornell & Larcker, 1981], indicating that convergent validity is adequate. Furthermore, for discriminant validity, the AVE value from a construct should be greater than the variance shared between the construct and the other constructs in the model [Chin, 1998]. According to the results in Table 4, since each square-root value of AVE exceeds correlations between the construct and any other construct, discriminant validity is confirmed. Given the validity of the measurement model, we can proceed to analyzing the structural model.

Table 3. Loadings and cross-loadings of the measures.

	DJ	PJ	IJ	NE	DST	DCB
DJ1	0.845	0.537	0.549	-0.434	-0.561	-0.549
DJ2	0.807	0.494	0.458	-0.390	-0.465	-0.446
DJ3	0.864	0.490	0.496	-0.433	-0.548	-0.560
DJ4	0.856	0.605	0.534	-0.517	-0.626	-0.549
PJ1	0.491	0.783	0.521	-0.375	-0.448	-0.377
PJ2	0.569	0.809	0.634	-0.456	-0.550	-0.461
PJ3	0.431	0.751	0.497	-0.342	-0.410	-0.407
PJ4	0.452	0.735	0.498	-0.413	-0.391	-0.382
PJ5	0.501	0.800	0.623	-0.481	-0.506	-0.463
IJ1	0.389	0.471	0.737	-0.365	-0.364	-0.333
IJ2	0.508	0.666	0.892	-0.518	-0.532	-0.492
IJ3	0.537	0.663	0.873	-0.502	-0.526	-0.502
IJ4	0.547	0.571	0.816	-0.471	-0.533	-0.464
IJ5	0.475	0.554	0.763	-0.499	-0.569	-0.483
ANG	-0.507	-0.500	-0.536	0.923	0.738	0.665
SAD	-0.451	-0.462	-0.499	0.916	0.662	0.601
WOR	-0.463	-0.519	-0.543	0.900	0.666	0.641
EMB	-0.478	-0.475	-0.536	0.929	0.698	0.633
DLK	-0.517	-0.503	-0.546	0.920	0.700	0.655
DCON	-0.482	-0.481	-0.522	0.882	0.675	0.707
DST1	-0.548	-0.553	-0.552	0.659	0.889	0.636
DST2	-0.511	-0.546	-0.591	0.687	0.895	0.672
DST3	-0.661	-0.477	-0.512	0.612	0.828	0.715
DST4	-0.597	-0.544	-0.553	0.711	0.915	0.716
NWOM	-0.648	-0.487	-0.521	0.621	0.713	0.892
BLM	-0.447	-0.479	-0.467	0.641	0.651	0.859
OPT	-0.472	-0.459	-0.476	0.646	0.675	0.884
RET	-0.639	-0.488	-0.523	0.615	0.706	0.895

Table 4. Reliability and discriminant validity of the measures.

	Mean	S.D.	AVE	CR	Alpha	DJ	PJ	IJ	DST	NE	DCB
DJ	3.021	0.848	0.711	0.908	0.865	0.843					
PJ	2.924	0.866	0.603	0.883	0.835	0.634	0.777				
IJ	3.087	0.942	0.670	0.910	0.876	0.606	0.721	0.819			
DST	3.648	1.167	0.778	0.933	0.904	-0.658	-0.600	-0.626	0.882		
NE	3.627	1.109	0.831	0.967	0.959	-0.531	-0.538	-0.582	0.757	0.912	
DCB	3.996	1.042	0.779	0.934	0.905	-0.627	-0.542	-0.563	0.778	0.714	0.883

Notes: *Off-diagonal elements are the correlations among latent constructs; the values on the diagonal elements (shaded) are the square root of the AVE; CR=composite reliability; Alpha=Cronbach's alpha.*

5.2 Structural model

We used PLS to assess our structural model and R-square to evaluate the explanatory power of the model. Endogeneity has reasonably been explained by the antecedents. The R-square indices from service dissatisfaction =0.679, negative emotion =0.398, and DCB =0.642 are all acceptable. Table 5 summarizes the results of hypothesis testing for the structural model. Most of the hypotheses are supported at the $p < 0.05$ level, except that the postulated effect of procedural justice (H4) on service dissatisfaction is not supported. This finding is consistent with that of Wu [2013], in which procedural justice was not a significant antecedent to customer satisfaction.

Table 5. Path coefficients and t-values for the structural model.

Hypothesis		β	t-value	
H1:	Distributive justice → Negative emotion	-0.235	4.883	***
H2:	Distributive justice → Service dissatisfaction	-0.275	6.696	***
H3:	Procedural justice → Negative emotion	-0.149	2.431	*
H4:	Procedural justice → Service dissatisfaction	-0.073	1.290	<i>ns</i>
H5:	Interactional justice → Negative emotion	-0.332	6.105	***
H6:	Interactional justice → Service dissatisfaction	-0.111	1.938	*
H7:	Negative emotion → Service dissatisfaction	0.507	8.791	***
H8:	Negative emotion → DCB	0.294	4.806	***
H9:	Service dissatisfaction → DCB	0.555	9.815	***

Notes: *ns= not significant; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$*

6. Conclusions and Discussion

Online shopping in cross-border e-commerce has become an integral part of our daily lives. Most people look for bargains and good service during the shopping process, making provision of service justice

critical. This study confirms the significant negative effects of distributive justice on both service dissatisfaction and negative emotion. In other words, customers who receive fair services will generate positive emotion and exhibit satisfaction. From our findings, customers who are shopping at Taobao tend to value the ratio of input to output, and measure it against their expectations (distributive justice). Moreover, any disconfirmation of expectation could turn into negative emotion and service dissatisfaction. In addition, this study reveals that interactional justice exerts a significant effect on the degrees of negative emotion and service dissatisfaction. In other words, better communication between the system interface and consumers can help decrease negative emotion and service dissatisfaction. This, in turn, reduces the occurrences of DCB [Fullerton & Punj, 2004; Yi & Gong, 2008; Ho *et al.*, 2017]. These findings reveal that the absence of fairness and benevolence in the service process not only causes a negative emotional state, but also a dissatisfaction attitude. This is consistent with the finding of Wu [2013], that both distributive and interactional justice are significantly related to customer satisfaction when customers receive negative shopping experiences and are about to complain.

Regarding procedural justice, both Chiu *et al.* [2009] and Fu [2015] confirm its insignificant effect on customer satisfaction. However, this is largely unanticipated because several prior studies confirmed the significant positive effect of procedural justice on post-recovery customer satisfaction [Tax *et al.*, 1998; Smith *et al.*, 1999; McCollough *et al.*, 2000]. The finding that service dissatisfaction is significantly affected by negative emotion provides a plausible explanation that because the effect of procedural justice on service dissatisfaction is mediated by negative emotion, it is consequently insignificant.

Furthermore, both negative emotion and service dissatisfaction significantly induce DCB. The latter effect is confirmed by prior studies that the severity of DCB exacerbates as the level of service dissatisfaction increases [Reynolds & Harris, 2009], and that the perpetrators of different types of DCB often experience different levels of dissatisfaction and inequity [Daunt & Harris, 2012a]. Finally, because service dissatisfaction is significantly affected by negative emotion, it is expected that DCB should be significantly affected by negative emotion, as well. As anticipated, negative emotion is confirmed to directly and indirectly influence the severity of DCB.

In summary, justice-affect-behavior relationships on cross-border shopping websites are mostly consistent with those of domestic websites reported in the literature. Only the relationship of service dissatisfaction with procedural justice is not consistent. Therefore, distributive justice appears to be the most critical form of justice across various shopping websites, followed by interactional justice.

7. Theoretical Contributions

This study contributes to the literature in the following theoretical aspects. First, it confirms that procedural justice is not significantly related to customer satisfaction under negative cross-border e-shopping experiences. Previous studies of service encounters in the physical context reveal that all three types of justices are key determinants of service dissatisfaction [Tax *et al.*, 1998; Smith *et al.*, 1999]. This study confirms that these justices constitute key determinants of negative emotion. In contrast, studies of product shopping in online contexts offer one surprising result, in that procedural justice is not a significant

determinant of customer satisfaction [Chiu *et al.*, 2009; Wu, 2013]. Procedural justice refers to the seller's guidelines for providing services to the consumers. Such guidelines include how the sales staff should act as a window to interact with consumers in the manner of being illustrative, attentive, and inclusive. Knowing the situation where the consumers on the channel reside will make disadvantaged consumers feel that they are being respected, and the sellers can communicate with the consumers fairly to make them feel that the environment is equitable. Contrary to this expectation, our finding augments the latter studies of Chiu *et al.* [2009] and Wu [2013], and confirms that procedural justice has no significant effect on customer satisfaction in the e-commerce context, and it is fully mediated by negative emotion. Therefore, future researchers should be cautious about using procedural justice as an antecedent of customer satisfaction.

Second, previous studies have examined the relationships among emotion, satisfaction, and deviant behavior in only a pairwise manner. For example, scholars have confirmed the relationship of emotion and satisfaction (Folkes *et al.*, 1987; Storm & Storm 1987 ;Westbrook & Oliver 1991; Zeelenberg & Pieters 2004; Moon *et al.* , 2016), the effect of emotion on deviant behavior (Morrison & Robinson 1997; Litzky *et al.*, 2006; Harris & Reynolds 2004; Vardi & Weitz 2004; Zeelenberg & Pieters 2004; Moon *et al.*, 2016), and the influence of satisfaction on deviant behavior (Zeelenberg & Pieters 2004; Reynolds & Harris 2009 Fullerton & Punj 2004; Yi & Gong 2008; Ho *et al.*, 2017). This study is the first to analyze the relationships among all three constructs in the same model. It discovers that the direct effects from both negative emotion and dissatisfaction to DCB, and from negative emotion to dissatisfaction, are all significant. This finding enriches the current literature on consumer behavior research.

Finally, the study proposes a research model consisting of justice, affect, and behavior components. The model is consistent with the theory of reason action, the theory of planned behavior, and the S-O-R model. This tripartite justice-affect-behavior model explains DCB very well and can constitute a fundamental model for DCB research.

8. Practical Implications

The results of this study allow us to identify several practical implications for online sellers. First, distributive justice has a highly significant effect on both negative emotion and service dissatisfaction. This suggests that distributive justice is the most important factor, and maintaining it is critical for every online retailer. One should provide products or services that have a price-performance ratio that is acceptable for customers in order to retain them. Consumers often display DCB under negative shopping incidents, such as paying different prices for the same merchandise, or receiving inferior products different from what were advertised, etc. These negative incidents will result in negative emotion and service dissatisfaction. Online retailers must ensure consistent quality and avoid making these mistakes to maintain distributive justice.

Second, customer satisfaction depends highly on shopping emotion. Compared to distributive justice and interactional justice, negative emotion is the most important antecedent of service dissatisfaction. Therefore, making customers happy is the key to keeping them satisfied. Accordingly, one must devote sufficient effort in recovering customers from service failures. Ensuring the presence of all three types of justice can make customers happy. Prior studies have demonstrated that whenever service failure occurs, effective ways of winning back customers include refunds, apologies, repairs, free credit/vouchers, and

replacements [Kelley *et al.*, 1993]. Online retailers could utilize these alternatives to handle service-recovery processes, as well.

Third, DCB is strongly driven by both negative emotion and dissatisfaction. Keeping DCB perpetrators satisfied is the best way to prevent them from taking potentially harmful actions. To do so, the most effective methods are offering good bargains, high quality, and responsive service. Online retailers should strive to provide these aspects in order to keep DCB perpetrators happy.

9. Limitations and Future Research

Several limitations exist that should be addressed in future research. First, this study investigates the DCB of Taobao's members in Taiwan. Thereby the result cannot be the representative of the whole membership. Hence, future study can explore the DCB of Taobao members in the other regions. Second, the data collection period was the post-recovery period of Taobao's selling counterfeits event. Replication of this research during a normal period of Taobao retailing operation is needed to compare the differences and draw more generalized conclusions. Third, the research subjects of this study are Taobao members. The DCB on Taiwan's other shopping websites (e.g., PChome, Yahoo Auctions, Ruten, etc.) can be studied in the future to compare the differences. Fourth, Taobao is a cross-border e-commerce platform; DCB also exists in other industries, such as the food industry, insurance, banking, etc. Future study can probe into these industries for comparisons. Fifth, service recovery could be introduced in future studies as a moderator for service injustice, dissatisfaction, and negative emotion. Identifying what remedial response strategy (e.g., apologies, compensations, free gifts, discount coupons, etc.) in service recovery may lower dissatisfaction and improve emotion is necessary to reduce DCB and enrich repurchase intention. Sixth, the three justice constructs are assumed to be fully mediated by negative emotion and service dissatisfaction. Their direct relationships with DCB could be explored in a future study. Finally, the constructs of negative emotion and DCB comprise multiple dimensions. Future research could expand the research model and explore the relationship of each dimension of negative emotion and DCB, with the other dimension and first-order constructs.

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