

Service Recovery in Transition Economies: Russia and China

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While processes for transition from planned to market economy vary, there is one common outcome from the transition process – more discriminating customers. Growing customer expectations increase the possibility of failing to meet those expectations. In competitive market economies service failures are accompanied by new consequences of lost customer loyalty. These potential losses to service providers that can result from service failures necessitate the implementation of service recovery. In this study researchers investigated the role of service recovery in two major economies that are currently in transition from a planned to a market economy: Russia and China. Four recovery systems were examined within the context of two levels of service failure criticality. Service recovery system design was found to matter in customer recovery in both Russia and China, but Chinese respondents reported higher levels of recovery success. Interaction effects also suggest that the common experience of transition from planned to market economy did not produce exactly the same response to service recovery efforts.

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Introduction

Free market economies are driven by customer needs and interests. In contrast, firms in command economies concentrate on producing man-

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dated quantities of goods and services that are specified by central planners. Because customer needs are not always the primary focus of central planners, customer expectations for service quality are minimized.

All economies in transition to market systems face some common elements of marketization. Service firms in such economies must alter their focus from expected output quantity to include market demanded output quality in order to meet intensifying customer demands.

Rising customer expectations will be accompanied by increased consequences for service failures. Growing competition should amplify the need for service firms to address these failures, providing appropriate remedies to recover the loyalty of failed customers. The transition to a market-based economy is expected to include design of service delivery systems that provide service recovery.

The purpose of this research is to examine the role of service recovery in two major economies that are in transition from planned to market economies: Russia and China. This research answers two important questions: (1) do recovery efforts make a difference in retaining customer satisfaction and loyalty as market forces grow in importance in these countries, and (2) do service criticality and/or nationality influence service recovery success? The first section of this article presents background on the process of transition from a planned to a market economy, followed by a discussion of service recovery research. An examination of service recovery in the Chinese and Russian economies includes a look at the service sectors in those countries. The research methodology and results of data analysis are then explained. The article concludes with a discussion of the results, including implications for research and practice.

Transition From Planned to Market Economy

The focal point of firms operating in planned economies differs dramatically from that of firms in market systems. The firm in a planned economy must satisfy the demands of central planners, while the market-driven firm must satisfy needs of customers. Thus, transition of the macroeconomy requires the microeconomic transition of the focus of providers of goods and services.

PLANNED ECONOMIES

In command economies, firms focus on production of a specific amount of goods or services that are sold at pre-established prices (Golden et al. 1994). These prices and quantities are generally fixed by central plan-

ners (Chikan and Demeter 1995). Thus, in planned economies, output quantity generally exceeds output quality in importance. Customer satisfaction is not a primary decision criterion in service and production planning.

The planned economies in both China and Russia were dominated by large firms that produced few consumer goods and services (McMillan and Woodruff 2002). Customer (especially consumer) information rarely found its way into planning decisions. Even though customer needs were not addressed, scarcity of supply created an environment of excess demand. The limited assortment of outputs encouraged customers to buy what was available rather than what was desired.

Service failures occur when customer needs and desires are not met. In the planned economies of Russia and China customers – especially consumers – regularly experienced disappointment in their efforts to obtain high-quality goods and services. But these service failures did not result in severe negative consequences for the producing or selling companies; thus, service providers rarely perceived a need to rectify the failure.

TRANSITION TO A MARKET ECONOMY

All transitions from planned to market economies go through three generic steps (Gungor and Yamak 2002). These steps include (1) political and civic reform, (2) legal reform, and (3) economic liberalization. While political and legal reforms are essential to economic transition, they tend to take place at the macro level. Economic reform is also implemented at the micro level as firms begin to focus on customer interests to achieve market survival (Golden et al. 1994). These changes in the microeconomic sphere are often prompted by political and legal adjustments. For instance, profit incentives are encouraged by decreased government subsidies (Fogel and Zapalski 2001). However, managers in firms make the decisions that lead to marketplace success.

While all transition economies go through similar transition processes, implementation of each step varies (Mueller and Goic 2002; Fogel and Zapalska 2001). In Russia markets opened rapidly. This transition method created a setting where increased imports quickly decreased demand for locally produced goods. Hyperinflation was accompanied by expropriation of profits through official and entrepreneurial corruption. In contrast, China experienced state planned and controlled privatization and foreign direct investment (FDI) to minimize negative social costs. A small- to medium-size enterprise sector also emerged as rural businesses run by local governments supplemented FDI and imports.

Regardless of the transition implementation process, there is one common outcome from the transition process: more discriminating customers. Increased supply – especially of consumer goods – brings increased customer expectations and demands. Firms providing quality products that exhibit reliability and durability, combined with high levels of customer service, become the marketplace survivors as competition increases (Golden et al. 1994).

Growing customer expectations increase the consequences of service failures for service providers. A marketplace-orientated manager who actively focuses on customer interests will realize that rising customer expectations increase the possibility of failing to meet those expectations. As competition intensifies in transition economies, the need to retain customer satisfaction and loyalty becomes apparent to service providers. Thus, the increased costs of lost customers due to service failures necessitate implementation of service recovery.

Service Recovery Research

In service industries, service failures unavoidably occur (Boshoff 1997). Such failures vary in consistency and severity depending on the situation, service, and stakeholders. Accepting this truth, service providers use service recovery systems to intercept and amend service failures, and to retain previously dissatisfied customers. Aside from retaining dissatisfied customers for future business, effective service recovery minimizes potential future losses of negative word-of-mouth to current and potential customers (Forrester and Maute 2001; Rondeau 1994). Service recovery, therefore, is vital to successful service systems.

Since service recovery scholarship was first introduced into academic circles, scholars have found conflicting results in efforts to discern how to achieve effective service recovery performance (Boshoff and Leong 1998; Johnston and Fern 1999; Ranaweera and Prabhu 2003). Variations in service recovery system design, customer perception of service criticality, and research design may explain some of the discrepancies in reported research results.

SERVICE RECOVERY DESIGN: PSYCHOLOGICAL AND TANGIBLE ELEMENTS

Service providers use a combination of two types of system elements in recovery strategy: tangible and psychological (Miller et al. 2000; Schweikhart et al. 1993). Psychological actions employed in service re-

covery efforts are verbal and emotional responses to service failure that appease dissatisfied customers (Carson and Carson 1998). Such actions typically entail apologizing for the failure and expressing empathy (Bell and Ridge 1992; Zemke 1994). Tangible actions involve physical steps that appease dissatisfied customers for real and perceived damages (Bell and Ridge 1992; Carson and Carson 1998; Chebat and Slusarczyk 2005; Zemke 1994). Service firms may complete the service contract correctly or cover the costs incurred by the customer (Clark et al. 1992; Hoffman et al. 1995).

Some post-failure costs incurred by customers are psychological rather than economic. Lost time, concern, and inconvenience are among the sacrifices experienced by failed customers. Providing compensation for these psychological costs by offering payments that exceed customers' out-of-pocket losses can increase recovery success. This act of covering psychological costs – termed value-added atonement – has been shown to be effective in increasing customer satisfaction and loyalty (Hocutt, Bowers, and Donovan 2006).

SERVICE CRITICALITY

In addition to psychological and tangible elements of recovery design, criticality impacts the effectiveness of the recovery efforts (Levesque and McDougall 2000). Criticality is defined as how important the service is to the customer (Ostrom and Iacobucci 1995). This importance may be due to cost, sacrifices to obtain the service or caused by failure, customer need for the service, or any number of issues that deepen the customer's perception of a service's importance. The more involved the customer is in obtaining the service, the more critical or severe the impact that a service failure has on that customer's service recovery expectations (Hoffman and Kelley 2000).

A high potential for customer dissatisfaction comes with failures in high-criticality service (Verma 2001). Although the cost to compensate dissatisfied customers varies from situation to situation (Miller et al. 2000), the criticality of the failed service is found to influence the customer's recovery expectations (Bitner et al. 1990; Hoffman et al. 1995; Hoffman and Kelley 2000).

UTILIZED RESEARCH METHODOLOGIES

There is a wide array of approaches available to researchers studying service recovery. Many empirical studies thus far have used an ex-post facto

survey method called critical incident technique (Stauss 1993). CIT is a powerful tool because information regarding both the server's and the customer's perceptions of the service encounter is obtained via qualitative surveys (Bitner et al. 1990; 1994; Chung and Hoffman 1998). This methodology has been used to establish many of the key constructs in service recovery research.

However, Johnston (1995) suggests that CIT is limited in two aspects: (1) survey respondents' perceptions of the service failure may be reshaped due to an extended lapse of time between the failure and the research report, and (2) respondents commonly report extreme service failures, thus skewing collected data. Regardless of these challenges, the richness of CIT has been very effective in establishing the foundation of service recovery research.

Other empirical research methodologies that control and manipulate some of the important intervening variables can allow for testing of hypotheses. In recent years, scholars have begun using written scenarios as the treatments in service recovery research based upon controlled experimental design (Bitner 1990; Larsen 1987; Maxham 2001; Ogden and Turner 1997). These scenarios can control the design of the service failure, recovery effort, and potentially confounding variables – such as criticality. After research subjects read the failure and recovery scenarios, they provide data on their responses – primarily satisfaction and loyalty – as a measure of recovery effectiveness. Extension of these studies can assist in the exploration of service recovery efforts in countries in transition from planned to market economies.

Russia and China

Service industries are becoming more global in operations (Dicken 1991; McLaughlin and Fitzsimmons 1996), and becoming a large and growing portion of the Gross Domestic Product (GDP) for many developing and developed economies (Zhu et al. 2004). The expansion of service firms across national borders (Patterson and Cicic 1995) and the growth of service sectors of most economies have led to greater emphasis on service system design – especially for emerging markets (Bartlett and Ghoshal 2003; Thompson et al. 1998).

The majority of the current service recovery literature analyzes process design through western perspectives (Aaker and Maheswaran 1997; Donthu and Yoo 1998; Maheswaran and Shavitt 2000). Yet, countries in transition to a market economy exhibit a growing focus on customer needs in

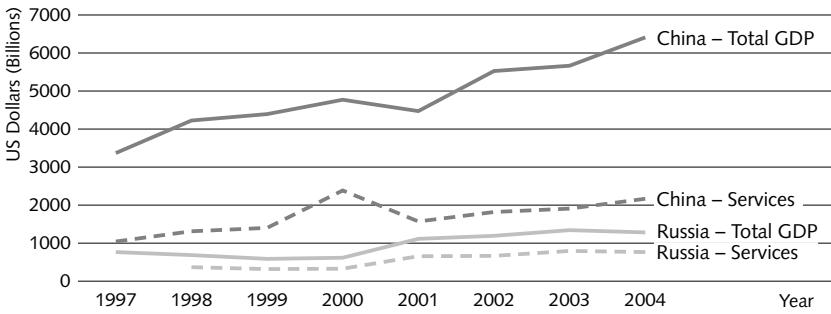


FIGURE 1 Gross domestic product in Russia and China (*World facts book* 1997; 1998; 1999; 2000; 2001; 2002; 2003; 2004)

service delivery (Chikan and Demeter 1995). Therefore, these countries should be of particular interest to service recovery researchers. The two largest economies in transition from a planned to a market economy are Russia and China.

SERVICE SECTORS IN RUSSIA AND CHINA

The Federal Republic of Russia and The People's Republic of China are two emerging economies that fit this model of economic system transition. Russia's service industries represent an average of 55.83% of GDP over a recent nine-year period for an average estimate of US\$ 523 billion (figure 1). The transition of the Russian economy has accelerated quickly since the collapse of the Soviet Union in 1991. In contrast, economic transition in China has been more gradual. Although China's service sector has only averaged 32.61% of GDP over the same nine-year timeframe, the value of the sector represents an average estimate of US\$ 1.63 trillion (figure 1).

As demand for Russian and Chinese services increase, so will service competitors from within and outside the nations' boundaries. Because service recovery is an essential part of the service delivery system, managers must understand the needs and expectations (Bartlett and Ghoshal 2003) in these new market economies.

SERVICE RECOVERY IN RUSSIA AND CHINA

Since service delivery design research rarely examines issues in transition economies, it is no surprise that studies of service recovery are lacking in Russia and China. Thus, this research was initiated based upon findings in Western research; this study is needed to determine if previ-

ous findings would apply to these newly-marketizing countries. The first two research propositions suggest that consumers in Russia and China will recognize the role of service recovery system design and criticality as established in Western research studies. Once that is established, an examination of potential differences between consumers in Russia and China is studied in Research Proposition 3. Also examined are the interaction effects between sets of variables in this study.

Service Recovery Design

Service recovery systems vary across companies and industries. A recent research observation suggests that effective service recovery design should be affected by the unique needs and expectations of the customer (Goldstein et al. 2002). As customer expectations increase in transition economies, service recovery design should grow in importance. Thus, varying the combinations of recovery elements should affect the success of the service recovery effort in Russia and China. As service recovery efforts increase through additional psychological and tangible elements, service recovery success is expected to improve, regardless of the level of criticality of the primary service or nationality of the consumers.

RESEARCH PROPOSITION 1 *Increased service recovery efforts will result in increased customer recovery success.*

Service Criticality

In service encounters, customers have different expectations in relation to the service's criticality (Webster and Sundaram 1998). A service that is highly critical typically is more likely to have customers that see a service failure as more serious (Ostrom and Iacobucci 1995). This is expected to become important in transition economies. We expect that increases in service criticality will be accompanied by decreased service recovery effectiveness, regardless of recovery system design or nationality of the consumer.

RESEARCH PROPOSITION 2 *Service recovery success will decrease as service criticality increases.*

Nationality of the Respondents

Consumers in both Russia and China have experienced economies in which customer needs and desires were not primary considerations in service delivery. As these economies transition from planned to market economies, customer expectations increase. Yet, the differences in

implementation of economic transition to market systems may contribute to dissimilar evolutions of customer expectations. Variations in national environments – such as political climates, economic stability, and cultural tendencies – may also influence the perceptions of consumers. These differences may shape expectations that lead to variations in customer satisfaction and loyalty with service encounters and recovery efforts. The third research proposal captures these issues and recognizes no a priori expectation for direction of the hypothesized differences:

RESEARCH PROPOSITION 3 *Service recovery success differs according to the nationality of consumers.*

Interaction of Variables

The literature suggests that recovery system design, service criticality, and consumer nationality influence the effectiveness of service recovery efforts. Because service criticality and consumer national origin have in some studies been found to impact recovery effectiveness, there is reason to suspect that they may interact with the service recovery system design to impact effectiveness of the recovery effort. Thus, the fourth and fifth research propositions are stated as follows:

RESEARCH PROPOSITION 4 *Level of service criticality interacts with service recovery design in recovering customer satisfaction and loyalty following a service failure.*

RESEARCH PROPOSITION 5 *Nationality interacts with service recovery design in recovering customer satisfaction and loyalty following a service failure.*

Since national environment and service criticality are expected to influence customer expectations regarding service recovery design, it is possible that these two variables influence each other. As the fourth and fifth hypotheses examine the interaction of criticality and nationality with service recovery design, it is important to determine if these variables interact. This suggestion is captured in the sixth research proposal:

RESEARCH PROPOSITION 6 *Service criticality and consumer nationality interact when examining service recovery success.*

Research Methodology and Results

Data were collected via a paper and pencil survey instrument that presented respondents with a service failure and a recovery scenario, followed by questions that evaluated the success of the recovery effort. The

TABLE 1 Establishment of Criticality levels

Criticality	Purchased item	Cost	Performance expectation	Inconvenience
Low	Clothing (trousers)	Low	Will wear the item for a short to medium length of time.	Travel to the store, exchange the item, return home.
High	Electronics (television)	High	Will use the item for an extended period of time.	Must arrange for transportation to the retailer, leave the television for several days and arrange for return transportation to retrieve the television set. This is an item that cannot be transported on public transportation.

first step in this research process was the selection of the scripted service and the variations in criticality and recovery system design of that service. We decided to study a consumer-oriented service to best align this study with previous research in the field of service recovery. Since both countries in this study – Russia and China – are extremely large, with numerous regional cultures and environments, the populations were limited to one major city in each country: Tianjin, China and St. Petersburg, Russia.

DESIGN OF SERVICE FAILURE SCENARIOS

To identify a consumer service that is common in both countries, with similarities in criticality levels, we formed a focus group with participants that were native to the selected regions of China and Russia. In a one-hour meeting the group identified retail sales as a service that was common in both environments. They also identified two products that would be sold by different retail service providers in their countries: (1) clothing (a pair of trousers) and (2) electronics (a television set). These items were identified as merchandise that consumers could realistically purchase, but that were perceived as different levels of criticality. Table 1 presents information developed by focus group members that explains the importance of the two products that led to identification of these scenarios as low and high criticality.

Criticality levels in the experiment are categorized in four ways: (1) the purchasing cost for the customer, (2) the customer's expectation of the product's performance, and (3) the customer's inconvenience of notify-

ing the service provider of the failure. The focus group considered the purchase of trousers to be of low criticality due to the frequent purchase of clothing, low monetary cost, and expectation of wearing the clothing item for a relatively short period of time. To replace the trousers typically takes an hour or two to travel to the store, exchange the item, and return home. The television purchase, in contrast, was considered to be of high criticality because it is a less frequent purchase, has a relatively high monetary cost, and there is an expectation of service performance over many years. To repair a television may take several days; thus inconvenience was considered higher. Contributing to the inconvenience is the common use of public transportation by many consumers. It is far easier to return a clothing item to a retailer than to transport a television set, especially for those using public transportation.

Focus group participants highlighted increasing awareness of customer needs in the new assumption that faulty products could be returned to the retailer. The planned economic systems of these countries often supported the adage of 'buyer beware'. Consumers seldom expected retailers to replace or repair defective merchandise. This report supports the assumption that customer experience precluded expectations of appropriate service delivery – at least in retail services.

SERVICE RECOVERY DESIGN TREATMENTS

This research is designed based upon scenario descriptions of scripted service failure and recovery activities. All experimental treatment scenarios designed for this study began with a service failure. Two retail failure scenarios were scripted to reflect the focus group's identification of a common failure for each product: (1) the zipper is broken on the trousers, and (2) the television set malfunctions. These failure scenarios reflect the two levels of criticality that were identified in the focus group.

Once the failure scenarios were scripted, the scenarios relating variations in service recovery system design were prepared according to recommendations from focus group participants. These participants suggested that a typical recovery scenario experienced during times of the planned economy would include no recovery effort accompanied by service provider belligerence. They also described typical scenarios as (1) psychological elements with no tangible recovery effort and (2) tangible recovery effort with no psychological effort. The psychological elements were defined as honest, respectful communication with the customer. Tangible activities were defined as compensating the customer for their

TABLE 2 Service recovery design: description of the treatments

Recovery design	Treatment			
	(1)	(2)	(3)	(4)
Psychological	–	0	+	+
Tangible	0	0	+	+
Value-added atonement	0	0	0	+

NOTES Column headings are as follows: (1) no recovery effort, with belligerence, (2) no recovery effort, (3) standard recovery effort, (4) value-added atonement recovery effort.

loss through replacement of the defective item. These scenarios constituted the experimental treatments administered to the research subjects.

An additional treatment that included valued-added atonement (15% return of the defective item's price) was also scripted. This scenario was suggested to focus group members; all participants agreed that this was a scenario that exceeded their expectations.

Through the vehicle of the written scenario treatments, the customer communicated the failure to the service provider. The customer then received one of the following recovery treatments:

TREATMENT 1 The service provider responds negatively to the customer and provides no tangible recovery.

TREATMENT 2 The service provider does not take any psychological or tangible recovery action toward the customer.

TREATMENT 3 The service provider enacts a standard recovery effort that provides both psychological and tangible recovery elements: acknowledging the service failure (psychological), then offering to replace the product (tangible).

TREATMENT 4 The service provider acknowledges the service failure (psychological), offers to replace the product (tangible), and finally offers a 15% discount on the item (value-added atonement).

These service recovery elements that constituted each of the treatments are summarized in table 2.

Measurement of service recovery success

For this study the dependent variable is service recovery effectiveness or success. Since the purpose of service recovery is the recapture or maintenance of customer satisfaction and loyalty following a service failure (Hart et al. 1990), we developed a composite measure of the service re-

covery success construct by evaluating customers' post-recovery satisfaction and loyalty.

Two questions each were designed to measure customer satisfaction and loyalty (Reichheld 2001; Zeithaml et al. 1990). These questions provided a five-point scale for participant response. Satisfaction was measured as: (1) an assessment of how the service performance aligned with customer expectations, and (2) a respondent rating of the service quality. Participants provided their perceptions of their own loyalty in response to questions assessing: (1) likelihood of repeat patronization of the business, and (2) probability of recommending this business to another.

Once the service failure scenarios, recovery treatment scenarios, and post-treatment questions were written, the materials were translated and back-translated into Chinese and Russian. Native speakers of the two languages, working closely with one of the researchers to discuss meaning in all of the text, translated the materials into the target languages. Then, native English speakers that are fluent in Chinese and Russian translated the Russian and Chinese translations back to English. Both translators then met with one of the researchers to adjust any translation discrepancies to best reflect the original meaning of the work.

DATA COLLECTION

Given the difficulty of identifying populations and accessing sampling frames for probability samples in social science research (Pedhazur and Schmelkin 1991), we used a purposeful sampling approach. Trained professionals – a university professor in Tianjin, China and an instructor with research training in St. Petersburg, Russia – thoughtfully selected potential respondents. Consumers in major marketplace locations throughout the cities were approached to request their participation in the study. The survey reading materials and response instrument were kept simple and short to encourage the resulting participation rate that was in excess of 80 percent.

Once subjects agreed to participate in the research they were randomly assigned to a group representing a failure scenario and a subsequent recovery treatment scenario. This quasi-experimental research design obviously does not allow for random assignment of nationality; yet, the random assignment of subjects to treatment groups helps eliminate some spurious interpretations that can result from personal variation in participants. The demographics of the research subjects are presented in table 3.

TABLE 3 Demographics of subjects

	Tianjin, China	St. Petersburg, Russia	Total
<i>Sample size</i>	360	381	741
<i>Gender</i>			
Male	173	158	331
Female	175	223	398
<i>Age</i>			
18–28	66	180	246
29–39	96	142	238
40–50	90	39	129
51–61	64	18	82
62–72	43	1	44
73+	0	1	1
Non-response	1	0	1
<i>Education</i>			
Elementary	1	4	5
Middle school	22	24	46
High school	68	52	120
Some college	33	83	116
College degree	66	122	188
Some grad study	80	81	161
Graduate degree	89	15	104

Results of Data Analysis

The dependent variable – service recovery success – is measured based upon the two sub-constructs of post-recovery customer satisfaction and customer loyalty. Subjects responded to two questions regarding their level of satisfaction with the service operation, and two questions regarding their level of loyalty to the service provider.

The four responses were combined in one scale to measure service recovery success as the combination of satisfaction and loyalty. The reliability of this scale, Cronbach's $\alpha = 0.9269$, indicates a likelihood that these are measures of the same construct. Due to the strong correlations among all four of the variables, the dependent variable – service recovery success – was measured as the additive function of the four responses to questions regarding customer post-recovery satisfaction and loyalty.

TABLE 4 Analysis of variance results

(1)	(2)	(3)	(4)	(5)	(6)
Corrected Model	8513.427	15	567.562	55.201	0.0000
Intercept	45306.435	1	45306.435	4406.485	0.0000
Treatment (T)	7625.427	3	2541.809	247.215	0.0000
Criticality (C)	12.665	1	12.665	1.232	0.2680
Nationality (N)	103.205	1	103.205	10.038	0.0020
C*T	95.489	3	31.830	3.096	0.0270
N*T	211.008	3	70.336	6.841	0.0000
N*C	345.029	1	345.029	33.557	0.0000
N*C*T	120.918	3	40.306	3.920	0.0090
Error	4976.373	484	10.282		
Total	59378.000	500			
Corrected Total	13489.800	499			

NOTES $\alpha = 0.05$. Column headings are as follows: (1) source, (2) type III sum of squares, (3) *df*, (4) mean square, (5) *F*, (6) *p*-value.

Since each question was based upon a five-point scale with responses from 1 to 5, the combined scale had possible response ranges of 4 (minimum) to 20 (maximum).

EVALUATION OF THE RESEARCH PROPOSITIONS

The research propositions suggest the need to examine differences among groups based upon three variables: service recovery system design (treatments), criticality, and nationality. Thus, a three-way factorial Analysis of Variance (ANOVA) was used to examine these differences. Over 40 respondents from each nation were assigned to each cell. The ANOVA results are presented in table 4.

ANOVA results were interpreted at a significance level of $\alpha = 0.05$. Significant differences in service recovery success were discovered for two of the three main effects, providing support for two of the first three research propositions. Proposition 1 was supported, as significant differences were found among the treatments that represent the various levels of service recovery design ($p < 0.001$). As service recovery design (treatments) included more recovery efforts, recovery success scores increased. Differences were not found in service recovery success based upon criticality alone ($p < 0.2680$); thus, Research Proposition 2 was not supported. Significant differences in service recovery success were identi-

TABLE 5 Descriptive statistics

(1)	(2)	(3)	(4)	(5)	(6)
Russia	Low	1	5.9687	3.2872	32
		2	5.0323	2.4561	31
		3	11.1333	3.3086	30
		4	11.5000	5.3702	32
		Total	8.3920	4.7517	125
	High	1	4.7879	1.4088	33
		2	6.4375	3.0047	32
		3	12.8438	3.9604	32
		4	14.9474	3.6977	38
		Total	9.9481	5.3439	135
Total	1	5.3692	2.5652	65	
	2	5.7460	2.8168	63	
	3	12.0161	3.7307	62	
	4	13.3714	4.8250	70	
	Total	9.2000	5.1178	260	

Continued on the next page

fied between the two nationality groups of Russia and China ($p < 0.001$), with recovery success scores higher for Chinese respondents than for Russian respondents. This result was found across all treatments and both criticality levels, providing support for Proposition 3.

Analysis of the interaction effects of the ANOVA was required to evaluate Research Propositions four through six. Each of these results was also examined at the significance level of $\alpha = 0.05$. All three interaction effects were found to be significant. Descriptive statistics for each of the factorial cells were calculated to allow for further evaluation of the interaction effects. Table 5 contains these descriptive statistics.

Figures that present the graphical plot of the descriptive statistics presented in table 5 have been prepared to illustrate these interactions. The y -axis of the graphs in figures 2 and 3 represents the service recovery success measurement. The service recovery design treatment is represented on the x -axis, with the intervening variable of interest plotted against those axes. Figure 4, which illustrates the interaction between Nationality and Criticality, contains Nationality plotted against the x -axis of Criticality and the y -axis of service recovery success.

TABLE 5 *Continued*

(1)	(2)	(3)	(4)	(5)	(6)
China	Low	1	6.6333	3.0567	30
		2	7.1333	3.0596	30
		3	13.2667	4.3226	30
		4	16.9000	2.5100	30
		Total	10.9833	5.4124	120
	High	1	5.4333	1.9061	30
		2	4.8667	1.1958	30
		3	10.0333	2.6325	30
		4	15.6667	3.2092	30
		Total	9.0000	4.9417	120
	Total	1	6.0333	2.5970	60
		2	6.0000	2.5710	60
		3	11.6500	3.9049	60
		4	16.2833	2.9233	60
Total		9.9917	5.2661	240	

NOTES Column headings are as follows: (1) nationality, (2) criticality, (3) treatment, (4) mean, (5) std. deviation, (6) *N*.

Research Proposition 4 suggests that the level of service criticality influences the effectiveness of service recovery design. The interaction effect of Criticality and Treatment was significant ($p < 0.05$), providing support for this proposition. This interaction is demonstrated in figure 2. A significant difference ($p < 0.01$) in service recovery success between low and high criticality services was found at service recovery design treatment level 1.

The nationality of research subjects has also been found to influence the effectiveness of service recovery system design. Research Proposition 5 was supported by the significance of the interaction effect of Nationality and Treatment ($p < 0.001$). Figure 3 illustrates this interaction effect. The divergence in service recovery success occurs at the highest level of service recovery system design treatment with respondents from China exhibiting significantly ($p < 0.001$) higher levels of recovery success.

Analysis of the differences between nationalities showed significant differences ($p < 0.001$) at the low level of criticality, but not at the high level. Of particular note are the differences in the direction of change

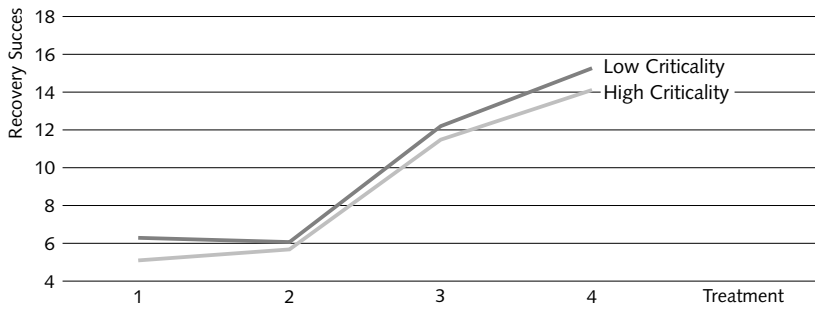


FIGURE 2 Interaction of Treatment and Criticality

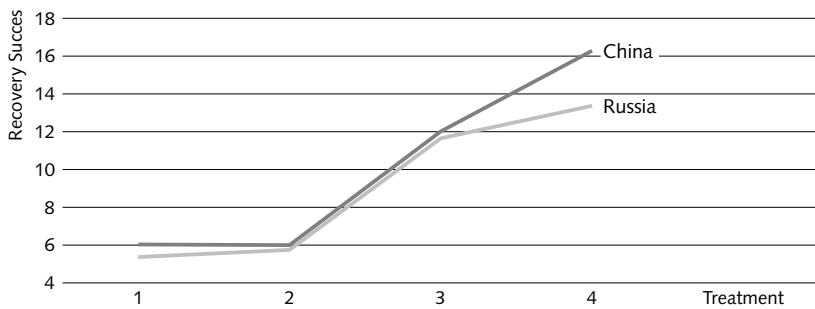


FIGURE 3 Interaction of Treatment and Nationality

in recovery success for the two countries. Service recovery success increased for Russian subjects as criticality increased, while Chinese respondents reported decreases in service recovery success scores as criticality strengthened. This difference in direction likely contributes to the lack of significant differences on the main effect of criticality.

Although the direction of change in the recovery success mean score varied by nationality, both groups produced significant differences in criticality. The Russian group showed significant differences ($p < 0.05$) in recovery success between low and high criticality. Significant differences between criticality levels ($p < 0.01$) were also found in the group of Chinese respondents. The interaction between Nationality and Criticality is demonstrated in figure 4.

Discussion

In this study researchers investigated the role of service recovery in two major economies that are currently in transition from a planned to a market economy. Four recovery systems (treatments) were examined

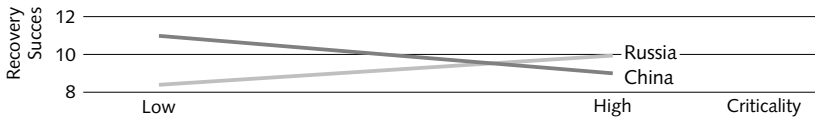


FIGURE 4 Interaction of Criticality and Nationality

within the context of two levels of service criticality (table 1 and table 2). A controlled quasi-experimental research design was used to eliminate alternative explanations for research results that can emerge from studies that lack control and random assignment of subjects to treatments.

Our first finding is that service recovery system design matters in customer satisfaction and loyalty in Russia and China. As service recovery design (treatments) included more recovery effort, recovery success improved. While this result is certainly expected, it was important to initially establish that results in transition economies correspond to research findings in Western studies.

Another research result of interest to service researchers is the finding that service recovery success differed across the two sampled nationalities. When all service recovery treatments and service failure criticality levels were considered concurrently, Chinese respondents in this study reported higher levels of satisfaction and loyalty overall than did Russian respondents. The common experience of transition from planned to market economy did not produce the same service recovery success.

One finding that helps explain this country difference is produced by the analysis of an interaction effect. The difference in service recovery success identified between the two studied countries may not be as discrete as would appear in the results of the main effect only. Figure 3, illustrating the interaction between treatment (recovery design) and nationality, shows that patterns of recovery success are related. Both countries exhibit increasing recovery success as the service recovery effort improves. There is no significant difference in recovery success between Russian and Chinese respondents at Treatment levels one through three. The difference is shown only at the highest level of recovery (Treatment 4) where the recovery effort that included value-added atonement produced higher satisfaction and loyalty in Chinese respondents than in Russian respondents.

This raises an important question: why did Chinese consumers respond more positively to value-added atonement than their Russian counterparts? This query indicates a need for further research.

Surprisingly, variations in criticality of service failure, when examined across service recovery design treatments and nationalities, did not produce different levels of service recovery success. Respondents that vicariously (through written scenario) experienced a service failure of higher criticality did not report differences in their post-recovery satisfaction and loyalty from the respondents that experienced the failure of a less critical service. An equally unexpected result is the limited interaction between treatment and criticality. While differences in recovery success based upon criticality were reported for Treatment 1, no differences were reported at any of the other treatment levels.

These unexpected results are likely explained by the final finding: the interaction of nationality and criticality. When looking at each nationality group separately, both groups reported different levels of recovery success depending upon the criticality of the service failure. However, the two groups reported changes in the opposite direction. As criticality moved from low to high, the service recovery success for Chinese respondents decreased, as expected. Under the same circumstances the Russian subjects experienced an increase in service recovery success, contrary to expectation. This interaction confounded the expected result of overall differences in recovery success depending on criticality.

IMPLICATIONS FOR RESEARCH

In countries in transition to a market economy, understanding appropriate service delivery systems is a relatively new field of inquiry. This study builds upon a growing stream of research examining service recovery and the design of the service recovery system in Western contexts. This research has provided empirical evidence supporting some previously suggested relationships in service recovery success. The body of knowledge has been extended in the realm of economies in transition. Yet this theoretical contribution represents the tip of the iceberg of needed study in the field. The opportunity and need for further exploratory and confirmatory research in the field is extensive.

This research provides empirical evidence supporting conclusions that the type of service recovery system design impacts resulting customer satisfaction and loyalty. However, the findings of Webster and Sundaram (1998), who found that service criticality impacts both customer satisfaction and loyalty, were not upheld. This failure to find significant differences based on service criticality is likely a result of the interaction between nationality and criticality, which confounds the general finding.

Criticality was found to be important, but in differing manners across the two countries.

These unexpected results suggest an important avenue for future inquiry. Researchers and practitioners in the field need to better understand how criticality of the failed service influences the success of service recovery efforts in different populations. What differing aspects of the transition process influence consumer perceptions of service criticality? Are there other environmental elements that need to be considered? How does the criticality of a service influence service recovery success? Since there is no current explanation for these results, further research is indicated.

Another obvious question that arises from this research is the need to understand the reason why recovery success with value-added atonement was higher among Chinese consumers than Russian consumers. Why did Chinese consumers respond to value-added atonement recovery efforts more than Russian consumers? The answer to this question may be important to other economies in transition from planned to market economic systems.

While Russia and China are two of the largest countries undergoing transition of economic systems, there are numerous other economies currently experiencing such a transition. There are also several economies that may potentially transition at a future time. Thus, an important extension of this research would be replication of this study in other transition economies, primarily Central and Eastern Europe. As noted above, regional differences were found in service recovery success in the matters of criticality and the impact of value-added atonement. Additional data points from other transition economies will strengthen understanding of these, and other, service recovery issues while enlarging our ability to generalize findings to other economies in transition from planned to market economy.

IMPLICATIONS FOR PRACTICE

This study establishes some important considerations for service providers and service recovery system designers in two major countries with economies in transition. The primary consideration is that service recovery matters in countries in transition to market economies. As customer expectations increase, service providers can increase customer satisfaction and loyalty by making efforts to compensate for service failures. Managers in service firms operating in economies in transition need to

give additional attention to recovering customers that experience service failures.

Service recovery system design is complex. While the level of recovery effort makes a difference in a service provider's ability to succeed in recovering failed customers, there are numerous variables that can influence – or even alter – the outcomes. In this study we identified two such variables that are associated with varying levels of service recovery success: response to value-added atonement efforts and recovery success in conjunction with criticality of the failed service.

When a service failure occurs, service recovery success is expected to increase when the service provider compensates for customer psychological costs, such as inconvenience and additional time investment to receive the anticipated quality of service. Yet, these value-added atonement efforts are often costly. This research found that value-added atonement efforts produced different levels of recovery success in the two countries studied. The resulting recommendation from this finding is the need for managers in transition economies to understand the role that value-added atonement plays in encouraging recovery success in their environment. Service providers need to cost-effectively recover the satisfaction and loyalty of customers without incurring unnecessary expenses that do not contribute to recovery success.

Differences in consumer response to varying levels of service criticality also resulted in dissimilar recovery success outcomes. The responses of consumers in China were the opposite of responses in Russia. Thus, service providers in transition economies need to understand consumer perceptions regarding service criticality in the environment in which they operate.

Findings in this study should encourage service operations managers in transition economies to evaluate the environments in which their service recovery systems are put into practice. This is also important for multinational firms that are expanding service operations across national borders. The service recovery system that is effective in one environment may need adaptation to achieve appropriate levels of success when exported.

LIMITATIONS OF THE STUDY

While this research has established some important theoretical relationships in the design of service recovery systems, it would not be appropriate to generalize these findings across environments, products, or even

recovery system designs. Specific implementation recommendations are beyond the scope of this study.

It is not possible to generalize the results of this study across countries, or even to the entire populations of each of the nations studied. The populations studied were consumers residing in one city in each of the two countries. These samples were examined to provide a context within transition economies rather than to provide results typical of the entire nations from which the samples were drawn. Likewise the products selected to represent retail service failure were selected to represent variation in levels of service criticality rather than product-specific marketing research. Conclusions drawn concerning each of these products would not be supported by this study.

In this study the researchers have examined various levels of service recovery system design. However, they did not exhaust all design possibilities nor identify optimal combinations of service recovery elements in the system. As scholars identify new elements of service recovery system design, and test combinations of these elements within realistic environments, the body of knowledge in the field will continue to expand. Unlike critical incident technique, written scenarios do not allow respondents to describe personal recovery failures and their service provider's recovery efforts (Goldstein et al. 2002). However, the controlled, quasi-experimental research design of this study encourages reliable establishment of theory rather than results that can be generalized beyond the studied populations and questions. Further research is needed to build upon the findings of this study in exploring the salient issues and principal relationships in service recovery efforts.

CONCLUSION

Growing customer expectations are an important hallmark of progress in transition to a market economy. This expansion of customer desires, enhanced by greater quantity and improved quality of consumer goods and services, increases the consequences resulting from service failure – the failure of a service provider to meet the expectations of one or more customers. The competition fostered by a market system amplifies the need for service providers to find a way to recover these customers that have been failed.

This research highlights the effectiveness of well-designed service recovery systems in retaining customer satisfaction and loyalty in two economies in transition to a market economy. While recovery success

was not identical in the two countries studied – Russia and China – recovery efforts were found to assist in customer retention. It is not surprising that research outcomes in these marketizing economies closely reflected results of studies conducted in established market economies. Thus, service providers in transition economies must include recovery in their service system design in order to regain the satisfaction and loyalty of customers that have experienced service failure.

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Appendix: Survey Instrument

FAILURE SCENARIO AND RECOVERY PROCESS TREATMENT SCENARIOS: LOW CRITICALITY

Failure Scenario

You hear that a store close to your home is having a sale on pants. You think you could use another pair of pants, so you take a few minutes to go to the store and buy them. When you return home, you notice that the zipper does not work.

Recovery System Design Treatment Scenarios

1. You return to the store that sold you the pants and tell the owner about your problem. The owner says that the problem is the manufacturer's fault and the store cannot do anything about it. He acts angry with you for approaching him.
2. You return to the store that sold you the pants and tell the owner about your problem. The owner says that the problem is the manufacturer's fault and the store cannot do anything about it.

3. You return to the store that sold you the pants and tell the owner about your problem. The owner replaces your defective pants with a new pair.
4. You return to the store that sold you the pants and tell the owner about your problem. The owner replaces your defective pants with a new pair and returns 15% of your money to repay you for the inconvenience.

FAILURE SCENARIO AND RECOVERY PROCESS TREATMENT
SCENARIOS: HIGH CRITICALITY

Failure Scenario

Your old television has broken and you want to buy a new one. You spend an entire week shopping in many different stores looking for a television. Finally, in a store far from your home, you find a very expensive television. You purchase it after the proprietor demonstrates that it works. The television does not have a warranty but the owner assures you that it is in very good condition. You take it home and discover that it doesn't work.

Recovery System Design Treatment Scenarios

1. You call the store that sold you the television and tell the owner about your problem. The owner says that the problem is the manufacturer's fault and the store cannot do anything about it. He acts angry with you for approaching him.
2. You call the store that sold you the television and tell the owner about your problem. The owner says that the problem is the manufacturer's fault and the store cannot do anything about it.
3. You call the store that sold you the television and tell the owner about your problem. The owner offers to replace your defective television with a new one.
4. You call the store that sold you the television and tell the owner about your problem. The owner offers to replace your defective television with a new one and return 15% of your money to repay you for the inconvenience.

SURVEY QUESTIONS

Please answer the following questions about this service:

1. How was the performance of this service, with regard to your expectations?
 - a) Greatly exceeded your expectations.
 - b) Somewhat exceeded your expectations.
 - c) Met your expectations.
 - d) Somewhat short of your expectations.
 - e) Far short of your expectations.

2. What is the likelihood that you will again patronize this service provider?
 - a) No chance.
 - b) About a 25% chance.
 - c) About a 50% chance.
 - d) About a 75% chance.
 - e) Will definitely patronize this business again.
3. How do you rate the quality of this service?
 - a) Extremely high.
 - b) Somewhat high.
 - c) Average.
 - d) Somewhat low.
 - e) Extremely low.
4. Would you recommend this business to your friends or associates?
 - a) No chance.
 - b) About a 25% chance.
 - c) About a 50% chance.
 - d) About a 75% chance.
 - e) Will definitely recommend this business to others.