Procedural Fairness and Small Business Owner Satisfaction with Grants during Post-Hurricane Katrina Recovery

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ABSTRACT

Small businesses in New Orleans have been one of the biggest casualties of Hurricane Katrina. However, small business recovery efforts face a number of challenges, including a lack of inadequate access to capital for recovery, difficulties related to federal government aid, devastated infrastructure, etc. It is critical for government to deploy necessary resources for a smooth and speedy recovery of small business. Based on justice theory research, this study attempts to examine the impacts of procedural fairness on small business owner satisfaction with government grants. To investigate the proposed relationships, data was collected from 200 small businesses in New Orleans. The findings showed that interactional justice (interpersonal treatment), not procedural justice (formal procedure), had a significant positive effect on small business owner satisfaction.

BACKGROUND PERSPECTIVES

Hurricane Katrina further exacerbated the serious economic challenges faced by New Orleans even before Katrina. The flooding, wind, rain, and unfortunate looting and arson associated with the storm, destroyed or damaged thousands of businesses. Commerce was seriously interrupted in industries such as entertainment, hospitality and tourism, finance and transportation. Small businesses and entrepreneurial efforts suffered extensive damages/losses. The city's sales tax (base) plummeted. The labor force declined considerably, particularly in the health and education industries. Unemployment increased, and the city faced significant population losses due to out-migration, particularly of the African-American community. Use of mainly Hispanic workers from outside the state in the huge construction business, while the African-American residents in New Orleans remained without jobs, has raised labor issues (Entertainment, Tourism and Hospitality, U.S. Chamber of Commerce; November 8, 2005).

The severity of Katrina's destruction makes redevelopment of New Orleans, including promoting investments, small businesses and entrepreneurs, job creation and economic growth a herculean task. The incredible extent of damages due to the disaster should be a matter of great concern to residents, businesses, policy makers, and politicians for the purpose of acquiring and deploying necessary resources for a smooth and speedy recovery. In particular, it must be kept in mind that Hurricane Katrina led to small businesses lacking in planning, susceptible to cash flow reductions, a lack of inadequate access to capital for recovery, difficulties related to federal government aid, and devastated infrastructure, slowing early recovery (Runyun, March, 2006). Also, it is important that the government agencies take interest and assist affected businesses to survive, and motivate new entrepreneurs to start fresh businesses (Zolin & Kropp, January, 2007). However, previous study shows a high level of dissatisfaction with government aids among New Orleans business owners (Mancuso, June, 2006). This dissatisfaction, in turn may discourage small business owners from applying government grants, which can speed up the recovery.

JUSTICE THEORY

Justice theory has been successful in explaining attitudes and behaviors in such diverse domains as resource allocation, conflict resolution, personnel selection, and layoffs. Justice, as a perception of fairness of the decision process and decision outcomes, has been shown to influence attitudes (e.g., satisfaction) and behavior (e.g., turnover) (Greenberg, 1990).

Researchers have developed conceptual models of justice theory that explain the role of fairness in organizations, by identifying factors (e.g., Bies, 1987) that account for different dimensions of justice and their effects on attitudes and behaviors (e.g., Andrews, Baker, & Hunt, 2008; Hershcovi, et.al., 2007, and McFarlin & Sweeney, 1992). These dimensions include procedural justice, interactional justice, and distributive justice. Procedural justice refers to the fairness of the formal procedures through which outcomes are achieved (Greenberg, 1990). A number of researches demonstrated that procedural justice affects attitudes toward the organization and its operations (e.g., Korsgaard, Schweiger, & Spienza, 1995). Interactional justice deals with the interpersonal treatment people receive from the decision maker and the adequacy with which formal decision-making procedures are explained (Bies, 1987). The empirical evidence showed that perceptions of fairness may also be affected by the interpersonal treatment received from the decision-maker which causes affective and behavioral reactions (Donovan, Drasgow, & Munson, 1998). Distributive justice refers to the perceived fairness of the resulting distribution of outcomes of decision-making. The fairness of outcomes is evaluated based on some distributive rules that include equity, equality, and needs (Deutsch, 1975).

Based on the preceding discussion of justice theory, this study attempts to examine the impacts of procedural fairness on small business owner satisfaction with government grants. This study focuses on procedural justice and do not consider effects of distributive justice. The following hypotheses were developed for this study, as illustrated in Figure 1:

Hypotheses

H1:   Procedural Justice has a positive effect on satisfaction with government grant for small businesses.

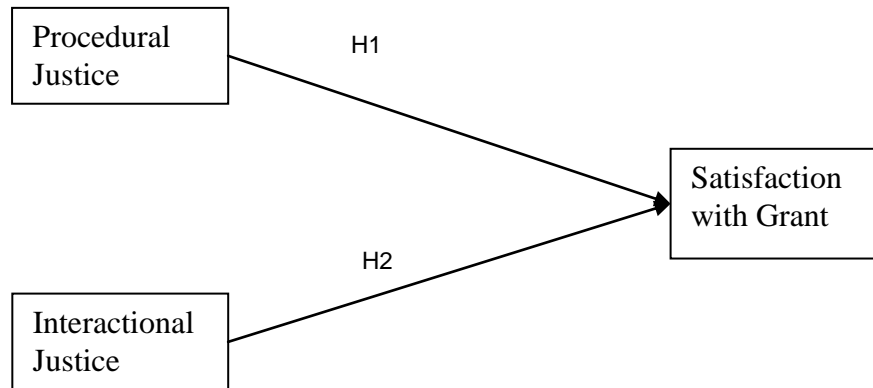H2:   Interactional Justice has a positive effect on satisfaction with government grants for small business.

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┌──────────────┐
│ Procedural   │           H1
│ Justice      │─────────────────┐
└──────────────┘                 │
                                 ▼
                          ┌──────────────┐
                          │ Satisfaction │
                          │ with Grant   │
                          └──────────────┘
                                 ▲
┌──────────────┐    H2           │
│ Interactional│─────────────────┘
│ Justice      │
└──────────────┘
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Figure 1. Research Model

RESEARCH METHOD

Data Collection

For this study, owners/managers of small businesses were targeted throughout Orleans Parish (New Orleans). Seniors from Southern University in New Orleans were asked to divide the city into neighborhood districts and randomly select businesses in that neighborhood. The survey was given to the owner of the business and the owner was asked to complete the questionnaire. Different agencies and businesses use different criteria to determine whether a business is small, such as the number of employees, annual income earned and relative dominance in their industry. Different ranges of employee size (size standard) for small businesses are encountered in the literature. For the purpose of this study, the number of employees was used as the determining factor for classification as a small business: firms that employed 100 or less individuals were considered as small businesses.

A survey questionnaire was developed by adapting the items from existing justice literature (e.g., Moorman, 1991). Data was gathered by visiting small businesses and asking the owners/managers to complete the questionnaires.

Characteristics of the Sample

There were 200 respondents in this study (see Table 1). Of the 200 respondents, 50 percent are male. The majority of the respondents were in service and merchandising (63.5% and 29%, respectively). And most respondents (98.5%) are from businesses with less than 50 employees. More than 70% of the respondents reported that their knowledge level in government grants are average or above. While 84% agreed that government grants would help their businesses, 60% of the respondents have applied for a government grant at least once. And only 36% of the respondents have ever received a government grant.

Sample Characteristics	N=200	%
Gender		
Male	100	50
Female	97	48.5
Familiarity with Grants		
Very High	5	2.5
High	55	27.5
Average	83	41.5
Low	30	15
Very Low	10	10
Type of Business		
Manufacturing	9	4.5
Service	127	63.5
Merchandising	58	29
Other	0	0
Number of Employees		
Less than 5	43	21.5
5-10	55	27.5
11-50	93	46.5
More than 50	3	1.5
Grant would help business		
Strongly Agree	113	56.5
Agree	55	27.5
Neutral	21	10.5
Disagree	6	3
Strongly Disagree	3	1.5
Have Applied for Grant		
Yes	120	60
No	80	40
Have Received Grant		
Yes	72	36
No	128	64

Table 1: Characteristics of the Sample

DATA ANALYSIS

Partial Least Squares (PLS) analysis was used to test the proposed research model. PLS is a multiple regression-based technique for testing a research model with multiple-item constructs and direct and indirect paths. PLS, as a structural equation modeling technique, recognizes two parts of model testing: a measurement model and a structural model (e.g., Barclay et al., 1995; Fornell & Larcker, 1981). In order to test a research model, the measurement model first has to be evaluated, and then the structural model has to be tested. The assessment of both models was conducted using SmartPLS 2.0.

The measurement model addresses the relationship between the constructs and the items used to measure them. The test of the measurement model consists of the estimation of the convergent and discriminant validities of the measurement instrument. However, reflective and formative measures should be treated differently. Formative items are considered to form or cause the construct to measure. Thus, these items are not expected to correlate or show internal

consistency unlike items for reflective constructs (Chin, 1998). For this reason, the item weights for formative measures have been used to test the relevance of the items to the constructs (Barclay et al., 1995; Wixom and Watson, 2001). Table 2 shows the relationship between the constructs and the items in this study.

Constructs	Relationship
Procedural Justice (PJ)	Formative
Interactional Justice (IJ)	Formative
Satisfaction with Grant (SG)	Reflective

Table 2. Measurement Model

RESULTS

Measurement Model

Although formative and reflective constructs are treated differently, the loadings are used for interpretive purpose and for the calculation of reliabilities. However, it has been suggested that an absolute value of factor loadings of 0.30 is considered to meet the minimal level, loadings of 0.40 are considered more significant, and loadings of 0.50 or greater are considered very significant (Hair et. al., 1998). Average variance extracted (AVE) of 0.50 or above has also been used to support the convergent validity of the constructs (Fornell & Larcker, 1981).

Table 3 shows individual item loadings and associated weights for the related construct. All of the Cranach's Alphas exceed 0.70 suggested by Nunnally (1978). For the reflective construct of satisfaction with grant (SG), all of the loadings are above 0.90, which is considered very strong. Also, the AVE for SG (0.95) is found to be well above the acceptance level of 0.50 (see Table 4).

Variables	Weights	Loadings
Procedural Justice	Cronbach's Alpha = 0.88	
PJ1	-0.24	0.59
PJ2	0.83	0.95
PJ3	0.25	0.85
PJ4	0.08	0.73
PJ5	-0.08	0.62
PJ6	0.21	0.59
Interactional Justice	Cronbach's Alpha = 0.90	
IJ1	0.25	0.78
IJ2	-0.05	0.72
IJ3	0.26	0.83
IJ4	-0.15	0.19
IJ5	0.41	0.92
IJ6	0.29	0.92
Satisfaction with Grant	Composite Reliability = 0.95	
SG1		0.98
SG2		0.98

Table 3. Weights or Loadings

	PJ	IJ	AVE (SQRT)
SG	0.51	0.81	0.95 (0.98)

Table 4. Average Variance Extracted and Correlations

	PJ	IJ	SG
PJ1	**0.59**	0.50	0.30
PJ2	**0.95**	0.61	0.49
PJ3	**0.85**	0.56	0.44
PJ4	**0.73**	0.52	0.38
PJ5	**0.62**	0.39	0.32
PJ6	**0.59**	0.39	0.30
IJ1	0.55	**0.78**	0.63
IJ2	0.43	**0.72**	0.58
IJ3	0.61	**0.83**	0.67
IJ4	0.22	**0.19**	0.16
IJ5	0.52	**0.92**	0.74
IJ6	0.57	**0.92**	0.74
SG1	0.50	0.78	**0.98**
SG2	0.50	0.79	**0.98**

Table 5. Cross Loadings

Discriminant validity is adequate when the average variance extracted from the construct is greater than the variance shared between the construct and other constructs. Table 4 shows correlations between constructs and square root of AVE. The square root of AVE for the SG is greater than the correlations with other constructs. Also, the cross loadings in Table 5 show that items for SG are loaded higher on SG than on other constructs. This indicates some evidence for discriminant validity.

For the formative constructs, some of the items show negative weights. Formative items are considered to form or contribute to the construct. The negative weights indicate a contradiction to the original expectation supported by justice theory. The items with negative weights are PJ1, PJ5, IJ2, and IJ4.

Structural Model

In order to improve the validity of the results, the items with negative weights were removed when the structural model was tested. As a result, PJ1, PJ5, IJ2, and IJ4 were dropped to estimate the structural model. Figure 2 shows the significance and the strength of the relationships between the constructs and R^2, which indicates the explanatory power of the model. Procedural justice is not a significant factor with a path coefficient of -0.02, while interactional justice shows strong impact, with a path coefficient of 0.81, on satisfaction with grant as

hypothesized. Sixty-four percent of the variance of satisfaction with grant was explained by the proposed model. Table 6 summarizes the results of the hypotheses in this study.
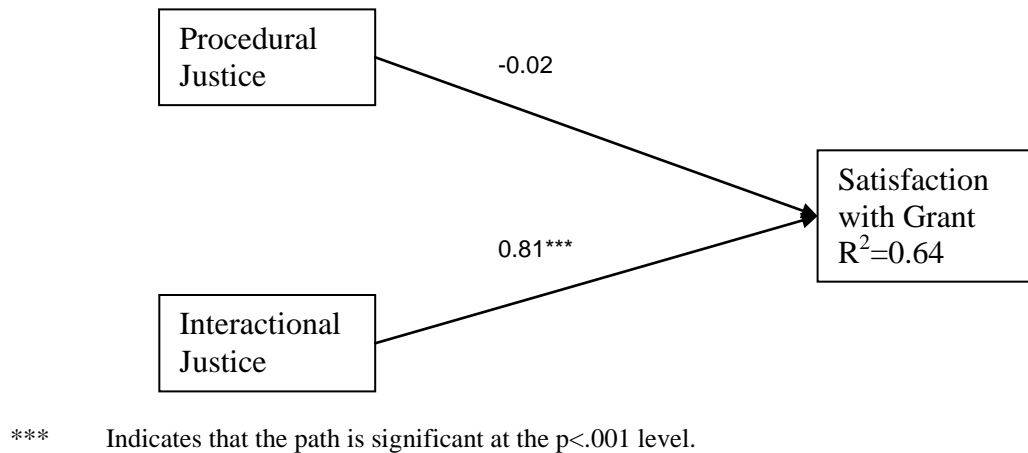

*** Indicates that the path is significant at the p<.001 level.

Figure 2. Results

Hypotheses	t-Statistic	Results
H1: Procedural Justice has a positive effect on satisfaction with government grant for small businesses.	0.21	Not Supported
H2: Interactional Justice has a positive effect on satisfaction with government grants for small business.	8.24	Supported

Table 6. Hypotheses Tests

CONCLUSIONS

This study examined the impact of procedural fairness on small business owner satisfaction with government grants during the post-Hurricane Katrina crisis in New Orleans. The results suggest that interpersonal treatment and the way that formal procedures are implemented are very important to improve the satisfaction with government grants. As the demographic data suggests, considering the fact that small business owners are familiar with government grants and understand the importance of the grants for their success, a small number of small business owners applied for the grants, and the majority of the applicants failed to win the desired grants. The main issue is not the procedure to go through to win the grant. It is more about how the small business owners are treated by the granting agency during the grant application. In order to improve small business owner satisfaction, the grant agents should properly treat the business owners with trustfulness, kindness, justification, respect, etc. This is an important conclusion if and when another natural disaster strikes the United States. Government representatives should be trained in all aspects of the aid to be given and also trained to show kindness, respect, trust, and justification for their actions to the small and middle

sized business owners. One way to improve small business owner perception of these interpersonal treatments can be impression management (Bies, 1987). Impression management has been known to influence people's subjective judgment in social and political interaction. Therefore, impression management skill of the government agents may play a major role in influencing the fairness perception.

However, the results should be interpreted with some caution. As justice theory suggests, items that contribute to each dimensions of justice may be different, depending on the context. The questionnaire was developed based on the previous studies where measuring items were validated in different contexts. Thus, there can be further study to investigate items that can form each dimensions of justice in government grants award context. Also, respondents are from New Orleans metropolitan area only. Because of the unique situation created by the natural disaster, the respondents' attitudes may be drastically different from that of small business owners from the rest of the country.

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Appendix A: List of Items

Construct	Item	Description
Procedural Justice	PJ1	The process for grant award is designed to collect accurate information necessary for making decisions.
	PJ2	The process for grant award is designed to provide opportunities to appeal or challenge the decision made.
	PJ3	The process for grant award promote standards so that decisions can be made with consistency.
	PJ4	The process for grant award is designed to hear the concerns of all those affected by the decision.
	PJ5	The process for grant award is designed to provide useful feedback regarding the decision and its implementation.
	PJ6	The process for award is designed to allow for requests for clarification or additional information about the decision.
Interactional Justice	IJ1	The granting agent considered your view point.
	IJ2	The granting agent was able to avoid any personal bias.
	IJ3	The granting agent provided you with timely feedback about the decision and its implications.
	IJ4	The granting agent treated you with kindness and consideration.
	IJ5	The granting agent showed concern for your rights as a small business owner.
	IJ6	The granting agent took steps to deal with you as a small business owner in a truthful manner.
Satisfaction with Grant	SG1	How would you rate the grant amount?
	SG2	How would rate the timeliness of the grant?