BUSINESS CONTINUITY / DISASTER RECOVERY READINESS OF NONPROFIT ARTS ORGANIZATIONS

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ABSTRACT

This qualitative and quantitative research project stream is the first of its kind designed to explore and assess an important topic - business continuity / disaster recovery readiness of nonprofit arts organizations as perceived by their executive directors and operating officers. While the concept and implementation of business continuity planning are quite robust in the for-profit and large non-profit arenas, this academic study is the first to explore and analyze the concept of perceived organizational business continuity readiness in the context of arts organizations. Its overall goal is to develop a measurement scale for the construct of perceived organizational business continuity readiness for arts organizations. The initial stages of the research will utilize both qualitative information provided by U.S. arts organizations via both in-depth interviews and a quantitative data obtained using a survey questionnaire to develop an initial version of a scale of the construct of business continuity readiness of nonprofit arts organizations and a practical assessment tool which arts organization managers can use to evaluate the business continuity readiness of their organizations.

Keywords: Business Continuity Planning, Disaster Recovery, Strategic Planning/Management, Tactical Planning/Management, Arts Organizations

INTRODUCTION

The fall season of 2012 was a difficult one for many U.S. arts organizations. For example, most of the stored sets and costumes of the Martha Graham Center of Contemporary Dance, housed in a New York City West Village basement, were submerged under 6 feet of water in Hurricane Sandy flooding. Numerous art galleries, artists, and theaters also experienced physical damage and loss of irreplaceable artwork and archival documentation, which are projected to result in $500 million in insurance claims, the largest arts-related set of claims in history. In Rotterdam, thieves broke into the Kunthsal museum and stole paintings by Picasso, Monet, Matisse, Gauguin, Meyer de Haan, and Lucien Freud, which would be valued in the hundreds of millions of euros if sold legally at auction. Stalled negotiations, strikes and lockouts affected symphony orchestras in Chicago, Atlanta,
Indianapolis, Minnesota, Spokane, Seattle, St. Paul, Jacksonville, and other major cities, causing some organizations to delay or cancel portions of their seasons and leaving some in precarious financial positions.

These situations have one thing in common – they are disasters for the affected arts organizations, artists, and their stakeholders. Table 1 summarizes natural and man-made disaster and severe outage situations which have the potential to impact arts organizations and their stakeholders.

TABLE 1
TYPES OF DISASTERS WITH POTENTIAL TO AFFECT ARTS ORGANIZATIONS

Arts organizations which are fortunate enough to avoid the kinds of severe damages outlined above may still

Natural Disasters	Man-Made Disasters
Hurricane / Typhoon	Information Systems Outage
Cyclone / Tornado	Infrastructure Failure (e.g. Telecom, Energy, Power, Transportation)
Storm / Thunderstorm	Cyber Attack / Hacking
Snowstorm / Blizzard / Avalanche	Industrial / Personal Accident
Earthquake / Tsunami	Terrorism / Community Crime
Flood	Economic Crisis / Severe Downturn
Landslide / Mudslide	Fraud / Embezzlement
Windstorm	Theft of Asset(s)
Volcanic Activity	Strike / Lockout
Fire	Loss of Key Leader(s) / Employee(s) / Artist(s)
Heat / Cold Wave	Debt / Deficit / Insolvency / Bankruptcy
Drought	Public Relations Disaster
Epidemic / Pandemic	Withdrawal of Stakeholder Support
	Severe Competition – Arts Sector and/or Other Sector
	Poor Financial Management
	Legal Action / Lawsuit

suffer secondary effects related to a disaster which can stall their operations. The following email (slightly paraphrased), from the National Executive Director of a major arts national arts organization headquartered in New York City, which did not experience actual flooding, illustrates that point:

... we have a webinar scheduled for tomorrow afternoon. I would like to postpone that webinar. Our offices have been without power since yesterday, and we're not sure when it will be turned back on. As a consequence, we

do not have access to the files on our server, which includes the materials for the upcoming webinar. We're all working from home since it is difficult to get around, and even if we could, there is not much to do if we could get there. We have varied services at home (I have power but no Internet; my assistant has no utilities, but no flood water either). As a group, we've fared quite well compared to others. Looking forward to getting back to a modicum of normal ...

In today's technology-oriented and customer-centric environments, stakeholders of both for-profit and non-profit organizations want availability and accessibility of products and services, and long-term impacts on an arts organization, including its survivability, may depend on its readiness to respond to, and mitigate, the effects of disasters that affect its core functions and offerings. Arts organizations, which rely on scarce resources, technology, and the ability to work creatively and entrepreneurially to satisfy obligations to stakeholders and leverage opportunities as they arise may find themselves unable to act as nimbly as they need to in order to continue to keep their fragile organizations functioning when the unexpected occurs. While stakeholders of arts organizations may tend to be understanding of interruption of programs, services, and other effects of disasters, the impacts of disasters often leave them vulnerable, sometimes for many years.

As an example, in 1966, Tropical Storm Allison caused destruction in the Jones Performing Arts Center in Houston that left the Houston Symphony, the Houston Grand Opera, and the Alley Theatre with millions of losses, including instruments, costumes, archives, and thousands of music library scores, sheet music, and related reference materials. The organizations' efforts to replace those assets continue to this day, decades later, at enormous cost. What could have been done proactively to anticipate the potential disaster, mitigate the risk, safeguard the assets of the affected organizations and minimize the potential for loss? First, the organizations should have conducted a risk assessment, which would have highlighted the potential for disaster related to flooding. That should have led them to relocate significant assets above flood level. Second, a business impact analysis would have identified significant assets which required protection. In the case of the music library, making and maintaining digitized copies of all materials would have created a repository which preserved replicas of irreplaceable items. Beyond those obvious steps, the organizations should have invested in development of business continuity plans for all critical organizational processes and assets.

The lesson of previous disasters, for boards of directors, executive directors and managers, is that they must ensure that organizational processes and supporting systems continue to function in the event of disasters or severe outages and that loss of assets is minimized (Herbane et al., 2010). Failure to do so can threaten the very survivability of the organization.

Overview of Business Continuity

Business continuity planning and management, as defined by the Disaster Recovery Journal (DRJ), is "a program which develops, exercises and maintains plans to enable the organization to: (1) respond to a disruption with minimum harm to life and resources, (2) recover, resume and restore functions within time frames which ensure continuing viability, and (3) provide crisis communications to all stakeholders" (Disaster Recovery Journal, 2013).

The Disaster Recovery Institute International (DRII) and the Business Continuity Institute (BCI), the world's primary certification bodies for business continuity and disaster recovery, promote a set of professional practices for the business continuity planning process, with the following components:

- Business Continuity Management Program Initiation
- Risk Evaluation and Control

- Business Impact Analysis
- Business Continuity Strategies Development
- Business Continuity Plan Development
- Emergency Response and Operations Planning
- Awareness and Training Program Implementation
- Business Continuity Plan Exercise, Audit and Maintenance
- Crisis Communications Action Plan Development
- Development of Policies/Procedures for Coordination With External Agencies

Done well, this planning process results in development of a written business continuity/disaster recovery plan, which, in turn, contributes to business continuity readiness, or the readiness of an organization to respond to, recover from, and continue to operate in a disaster or severe outage situation with minimal impact (Kirchner and Karande, 2005). Although, worldwide, the business continuity / disaster recovery sector constitutes a multi-billion-dollar industry, it is relatively rare for an arts organization to have a formal business continuity planning process and a published business continuity plan.

Research Objectives and Questions

This multi-stage scale development project is designed to follow the guidelines proposed by Churchill (1979) for such studies. This first stage of the comprehensive research project develops a construct of perceived organizational business continuity readiness for arts organizations by proposing and answering the related research questions:

(1) How can perceived organizational business continuity readiness be measured in arts organizations?

(2) Does that perceived organizational business continuity readiness vary by proposed moderating variables (e.g. demographic factors)?

The first steps of that research process, which comprise the scope of this initial stage of the project, are outlined in Table 2.

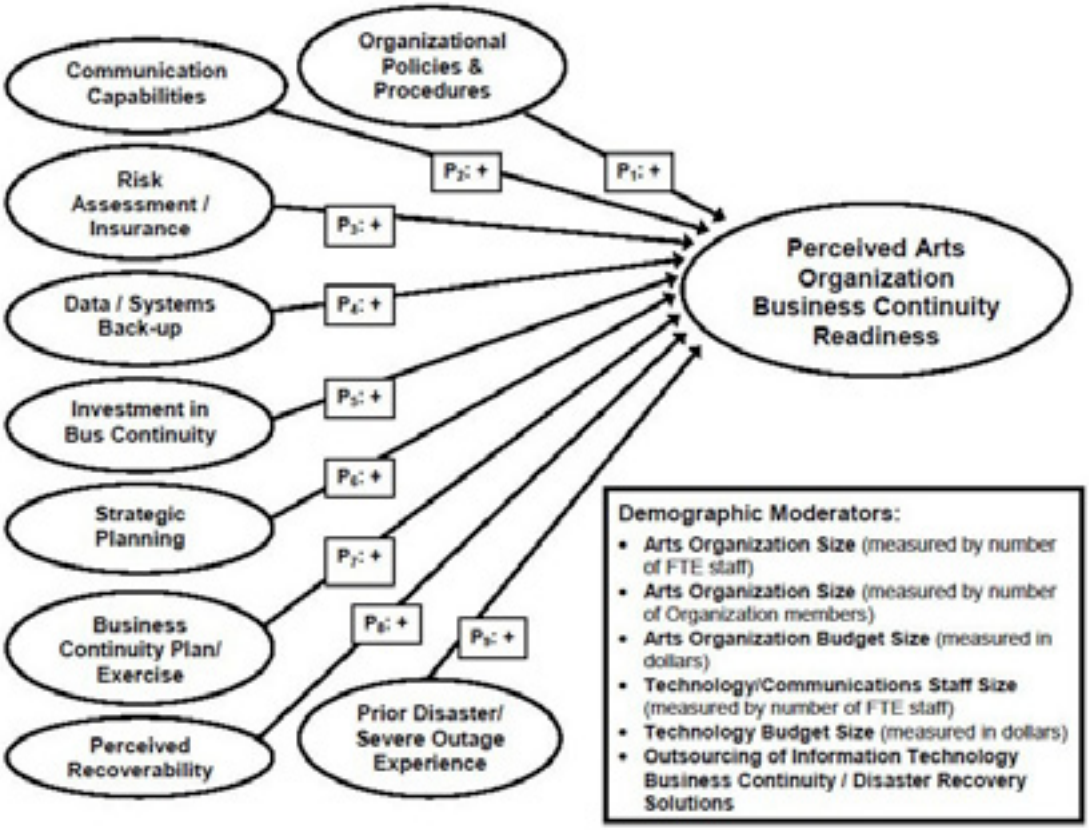
TABLE 2
INITIAL QUALITATIVE / QUANTITATIVE ANALYSIS (FOLLOWING CHURCHILL 1979)

Step 1:	Based on previous literature and interviews with arts organization executive directors and operating officers, define the concept of perceived organizational business continuity readiness for arts organizations, and develop a related model / propositions.
Step 2:	Generate a list of questionnaire items which are proposed to measure the concept of perceived organizational business continuity readiness for arts organizations.
Step 3:	Collect data using the initial survey questionnaire.
Step 4:	Reduce the number of questionnaire items, based on reliability analysis and factor analysis of the data from the initial survey.
Step 5:	Develop norms (mean average scores) based on proposed demographic moderators.
Step 6:	Develop research proposal for second, confirmatory study, using a refined questionnaire.

Research Model and Related Propositions

Since no prior research on arts organization business continuity readiness exists, and because, based on qualitative work to date, the operationalization of business continuity readiness in the arts sector appears to differ substantially that of for-profit organizations, the model, propositions, and list of initial survey items outlined in this abstract are preliminary and likely to change as the research progresses. Correlating existing literature (e.g. (Herbane et al., 2010, Kirchner and Karande, 2005) with preliminary arts sector input, a preliminary draft model of Perceived Arts Organization Business Continuity Readiness and related propositions is displayed in Figure 1. A draft list of items proposed as measurements of the model constructs, based on the work of Kirchner and Karande (2005) and interviews with five arts organization executive directors, is contained in Appendix A.

FIGURE 1
PRELIMINARY MODEL OF PERCEIVED BUSINESS CONTINUITY READINESS OF ARTS ORGANIZATIONS



The following propositions related to the conceptual model are posited:

P1: There is a positive and direct effect of existence of documented policies and procedures on perceived arts organization business continuity readiness.

P2: There is a positive and direct effect of organizational communications capabilities on perceived arts organization business continuity readiness.

P3: There is a positive and direct effect of organizational risk assessment and appropriate insurance on perceived arts organization business continuity readiness.

P4: There is a positive and direct effect of frequency of information systems and data off-site back-ups on perceived arts organization business continuity readiness.

P5: There is a positive and direct effect of appropriate investment of financial and human resources in business continuity-related capabilities on perceived arts organization business continuity readiness.

P6: There is a positive and direct effect of existence of a strategic planning committee and current strategic plan on perceived arts organization business continuity readiness.

P7: There is a positive and direct effect of existence of a documented organization-wide business continuity plan and regular exercise (testing) of that plan on perceived arts organization business continuity readiness.

P8: There is a positive and direct effect of perceived recoverability of critical functions and data on perceived arts organization business continuity readiness.

P9: There is a positive and direct effect of an organization's previous experience with an organization's previous experience with disaster / severe outage situations on perceived arts organization business continuity readiness.

Each of the above proposed relationships is proposed to be affected by each of the following moderating variables as proposed below:

- **Arts Organization Size** (measured by number of FTE staff)
- **Arts Organization Size** (measured by number of Organization members)
- **Arts Organization Budget Size** (measured in dollars)
- **Technology/Communications Staff Size** (measured by number of FTE staff)
- **Technology Budget Size** (measured in dollars)
- **Outsourcing of Information Technology Business Continuity / Disaster Recovery Solutions**
- **Geographic Location** (measured by state and region)
- **Arts Sub-Sector (e.g. symphony orchestra, opera dance, theater, museum)**
- **Size of Board of Directors** (number of voting Board members)

METHODOLOGY – EXPLORATORY QUALITATIVE ASSESSMENT

The scale is being developed using established procedures (Churchill 1979), with specific attention to the reliability, convergent and discriminant validity of the construct. The initial survey has been finalized by adapting a scale of business continuity readiness of for-profit organizations established by a previous study (Kirchner and Karande 2005), based on input from interviews with five U.S. arts organization executive directors and operating officers on the topics of disaster preparedness and business continuity planning.

Those organizations of those interviewed included a large regional symphony orchestra, a regional opera company, a museum of modern art, a presenting organization of chamber music ensembles, and a regional arts support group. Since some of those interviewed asked, given the subject matter and the nature of their answers, that their remarks not be linked in any way to their organizations, given the subject matter and the nature of their answers, they are summarized here without being linked to the organization type.

Since this study is exploratory, in a sector in which it has not been previously studied, the interview questions were structured, but the participants were encouraged to speak at length about the topics.
At this stage of the interview, the interviewer just listened, and didn't attempt to correct what was said or make suggestions. First, the interviewees tended to be somewhat guarded when discussing the possibility that

disasters or severe outages might affect their organizations, how prepared they would be to respond to them, and what the consequences might be. However, as they continued to talk, all five interviewees began to do so more expansively. While the interviews are still being assessed, the four open-ended questions that were asked, and a brief summary of the answers, follow.

1. What kinds of disasters or severe outages have the potential to affect your arts organization, or other arts organizations, in a significant way?

A Category 3 or higher hurricane is our biggest fear, since we're in a flood zone. Look at what happened with Hurricane Sandy. Other than that, probably a fire.

Weather-related disasters are particularly bad, because even if we're not affected, our audiences are.

We've experienced a variety of disasters and outages with a variety of consequences. The worst ones affected our people or our patrons. When you come right down to it, we don't function without them.

Anything that brings down our computer systems brings us down. If our ticketing and (fund) development systems or our website are down, we're losing a lot of money. People will just move on to something else.

Rather than focus on specific types of disasters or outages, it's easier to identify the results that hurt us. We rely heavily on phones and computer hardware and software, and there are lots of things that can cause those to go down.

2. Has your organization taken measures to minimize the effects of a potential disaster or severe outage on your operations, employees, and assets? If so, what are they?

Sure. We back up our data weekly, and I take it home. Our people can work from anyplace as long as they have power. We have excellent security personnel and procedures to protect our assets.

Not per se, but we've survived some pretty bad situations, and every time, we've learned from them and made changes so that the same problems wouldn't occur again.

We don't have much in the way of physical assets, so that's not really an issue for us.

Our ticketing and (fund) development systems absolutely have to be operational, and we use vendor systems. They've assured us that they have everything under control, and we've never had anything but minor problems with availability.
All of us have cell phones and know how to communicate with each other if there's a problem. And, we're all good at working with each other to solve problems. Beyond that, that's something we need to work on.

3. Has your organization developed a formal disaster recovery and/or business continuity plan? If not, do your policies and procedures include elements of such plans?

Someday, when we have time, that would be a good thing to do.

That hasn't been a focus for us – we're just trying to make next week's payroll.
We have no idea what's involved to do that. If we wanted to do that, could you help us? We don't have formal policies and procedures (or a disaster recovery plan), but I'm pretty confident that we have the pieces in place to survive a disaster.

Not yet. That is something that we need to do, but the problem is finding the time to do it.

4. To what extent is your organization prepared to continue to function in a disaster or severe outage situation?

It wouldn't be pretty, but I think that we would survive and work through issues as they arise.

I really don't know. It's sort of scary to think about, after the kinds of disasters that we've heard about lately.

Our people are the key to being able to continue to function, and they're devoted to us and the cause. They'll come through for us and deal with whatever's facing us.

I'm cautiously optimistic that we'd be O.K. We really need to look at our weak points and proactively work on how to address them.

While there are notable exceptions (for example, some of the major U.S. museums) to the typical lack of emphasis on business continuity planning in arts organizations, as compared with for-profit organizations, the results of these interviews highlight several commonplace issues. First, the interviewees showed a lack of clarity about the potential threats associated with the wide range of potential disasters that are highlighted in Table 1. Second, the interviewees appeared not to have a clear understanding of the numerous potential impacts of those disasters on their organizations. Third, the organizations do not appear to engage in proactive business continuity planning which
could identify and mitigate those impacts. Fourth, there appears to be no specificity and pre-planning in these organizations about how to react in a disaster situation. Finally, the interviewees appeared to have little confidence about the ability of their organizations to continue normal operations without serious impacts once a disaster has occurred. The general consensus seemed to be that they would address issues as they arose, in an ad hoc way, and "muddle through" the crisis.

Finally, the participants were shown the list of types of disasters with the potential to affect arts organizations that appears in Table 1, as well as the list of draft survey items that appears in Appendix A. Both lists were refined into their current form based on input given by the interviewees.

Methodology – Quantitative Assessment

For the quantitative study, four hundred arts organization executive directors and operating officers will be surveyed, representing a full spectrum of arts organization types. On-line questionnaires will be emailed to the potential participants. The questionnaire will contain the items listed in Appendix A as well as the demographic questions identified earlier.

The resulting survey data will be analyzed using SPSS statistical analysis software to perform factor analysis. As suggested by Churchill (1979), the survey items representing exogenous variables in the conceptual model will be purified by analyzing the data using a cycle of reliability analysis and exploratory factor analysis (EFA). Item-total correlations analysis and Cronbach's alpha will be used to assess reliability and identify items with low internal consistency. Exploratory factor analysis will be used to determine whether a small number of underlying dimensions could summarize the information contained in all of the items being analyzed. If the analysis indicates that individual survey items are not shown to be neatly summarized by an underlying factor (those with low loadings and cross-loadings), we will assess them for potential deletion. The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) will be used to confirm that the resulting correlations are large enough to perform factor analysis. Measures of sampling adequacy (MSA) will be used to confirm that all remaining variables have MSA scores that indicate sufficient common variance. Assessment of after- rotation eigenvalues will be used to determine the percentage of total variance explained by those factors.

Factors identified through the above factor analysis will be named by analyzing the nature of the survey items loading on each factor, and revisions will be made, as necessary, to the conceptual model. A series of confirmatory factor analyses (CFA), using AMOS Structural Equation Modeling software, will be conducted to assess reliability and convergent, discriminant, and nomological validity of that revised model and refine it as necessary. Model fit will be assessed using AMOS SEM fit indices to evaluate the level of fit for the overall model, with the factors correlated. Evaluation of variables proposed to moderate the model relationships will be evaluated using multigroup analysis.

CONCLUSION

The results of the initial qualitative phase of this research clearly identify the need for development and promotion of practical, sensible, low-cost options that organizations can use to mitigate the effects of a variety of disasters and severe outages. Although this initial phase of the research concentrates on U.S. arts organizations, the authors plan to expand the scope to the international arts sector.

Current work by regional and national arts associations, often with government support, tends to focus on how to react to disasters, not how to plan proactively for achievement of resiliency and continuity of arts organizations. While such work is needed, especially to assist small to medium-sized arts organizations which might not otherwise consider business continuity planning, this is a case in which the arts sector could profitably follow the direction of the for-profit domain, which has established effective and widely-used business continuity professional practices.

The results of this research stream will be used to develop several useful outputs. First, business continuity-related information from organizations in a variety of arts sectors will be summarized to provide important insight into the degree to which they engage in business continuity planning efforts to prepare themselves to survive and continue to function as normally as possible in disaster and severe outage situations. Second, this study will create a formal model of arts organization business continuity readiness which will be assessed for reliability and validity. Third, it will provide a valuable tool, in the form of a scale of generally accepted business continuity planning activities and best practices that can assist arts organizations in ensuring that they are prepared for, and can recover from, events which have the potential to damage their financial health, relationships with stakeholders, reputations, and, in some cases, their survivability.

REFERENCES

Churchill, G. 1979. "A Paradigm for Developing Better Measures of Marketing Constructs." Journal of Marketing Research, Vol. 16, no 1, p. 64-73.

Disaster Recovery Institute International Professional Practices, https://www.drii.org/certification/professionalprac.php, accessed April 14, 2013.

Disaster Recovery Journal Glossary, http://www.drj.com/tools/tools/glossary-2.html, accessed April 5, 2013.

Herbane, B., D. Elliott and E. Swartz. 2010. Business Continuity Management: A Crisis Management Approach. New York: Routledge.

Kirchner, T. and K. Karande. 2005. "Measuring Business Continuity Readiness of an Organization." Disaster Recovery Journal, Vol. 18, no 4, p. 24-28.

APPENDIX A

PRELIMINARY LIST OF INITIAL SURVEY ITEMS – ASSESSED WITH A 7-POINT SCALE

1.	My arts organization has a formal set of policies and procedures in place, which cover all aspects of the organization.
2.	My arts organization has a formal system of checks and balances to prevent fraud, embezzlement, or other illegal activity from taking place within the organization.
3.	My arts organization has a well-organized human resources function.
4.	My arts organization has a detailed plan that outlines how to communicate with its employees in the event of a disaster.
5.	My arts organization provides a mechanism for employees to contact it during a disaster or severe outage situation.
6.	My arts organization has a detailed public relations plan for interacting with the media and key stakeholders on an ongoing basis.
7.	My arts organization has a crisis plan to deal with emergency communications and/or the media.
8.	My arts organization allows telecommuting from home or another site.
9.	My arts organization has conducted a physical site assessment to identify risks.
10.	My arts organization has conducted a risk assessment of its core operations.
11.	My arts organization has conducted a risk assessment of its financial operations.
12.	My arts organization has adequate insurance of all types that are pertinent for the organization and the potential risks that it faces.
13.	My arts organization's data is mirrored at another site or backed up on a daily basis.
14.	My arts organization's backups of data and systems reside off-site (more than 5 miles away)
15.	Data on my arts organization's PCs and laptops are backed up at least once per week.
16.	I believe that my arts organization invests enough financial resources in business continuity planning and related capabilities to enable the organization to recover quickly and effectively in the event of a disaster or severe outage situation.
17.	I believe that my arts organization invests enough human resources in business continuity planning and related capabilities to enable it to recover quickly and effectively in the event of a disaster or severe outage situation.
18.	My organization has succession/contingency strategies for key positions in the organization.
19.	My organization has a strategic plan which has been updated during the last three years.
20.	My arts organization has a strategic planning committee.
21.	My arts organization currently has a completed organization-wide business continuity plan(s).
22.	My arts organization's business continuity plan(s) are exercised (tested) on a regularly scheduled basis.
23.	My arts organization's business continuity plans are exercised (tested) at least once per year.
24.	My arts organization can recover its critical business functions within one week if a disaster destroys its administrative and operational facilities.
25.	My arts organization can recover its critical data within one week if a disaster destroys its administrative and operational facilities.
26.	My arts organization has experienced a disaster, severe outage during the last three years.
27.	My arts organization has experienced a media crisis during the last three years.