

Financial Intermingling and Predicting Business Sustainability after a Natural Disaster

Yoon G. Lee, Utah State University¹
Cynthia Jasper, University of Wisconsin-Madison²
Diane Masuo, University of Hawaii-Manoa³
Virginia S. Zuiker, University of Minnesota⁴

Using data from the 2013 Small Business Survival and Demise after a Natural Disaster Project (SBSD), this study investigated factors predicting business sustainability after a natural disaster. The dataset included information about small businesses, in southeastern Mississippi, operating in 2004 before Hurricane Katrina hit in 2005. The current study focused on whether financial intermingling of resources influences survival of a family firm after a disaster. To examine the association between financial intermingling and business sustainability after Hurricane Katrina, 497 small businesses were compared by operating status at the time of the interview in 2013. There were three types of small businesses: (1) closed after Katrina (n=45), (2) reopened after Katrina but closed by 2013 (n=81), and (3) still operating in 2013 (n=371). To examine how financial intermingling of resources in small family firms influenced operating status after a natural disaster, a binary variable (1 if businesses were still operating in 2013; 0 if otherwise) was created to use in the logit model. Financial intermingling variables included the following four items: 1) sold a household asset prior to disaster; 2) dipped into household savings; 3) borrowed money from the businesses; and 4) had a personal loan using business assets as collateral. The results of the logit model indicate that dipped into household savings was negatively associated with businesses survival. As expected, physical damage was a significant predictor of business sustainability after a natural disaster. The findings imply that financial intermingling of resources in a family firm was not associated with immediate demise, but it could have a negative impact on business recovery and survival over a longer period of time. The logit results also show that pre-disaster revenue and being in the service industry increased the likelihood that the businesses would be operating 8 years later after Hurricane Katrina.

¹Associate professor, Department of Family, Consumer, and Human Development, Utah State University, 2905 Old Main Hill, Logan, UT 84322. Phone: 435-797-1555. Email: yoon.lee@usu.edu.

²Professor and Chair, Civil Society and Community Studies, University of Wisconsin-Madison, 4220 Nancy Nicholas Hall, 1300 Linden Drive, Madison WI 53706. Phone: 608-262-2384. Email: crjasper@wisc.edu.

³Associate professor, Department of Family and Consumer Sciences, University of Hawaii at Manoa, 2515 Campus Road, Honolulu, HI 96822. Phone: 808-956-2231. Email: masuo@hawaii.edu.

⁴Associate professor, Family Social Science, 290 McNeal Hall 1985 Buford Avenue, St. Paul, MN 55108. Phone: 612-625-1900. Email: vzuiker@umn.edu.