COVID-19 and Mental Health Concerns Among Business Owners: a Cross-Sectional Study from India

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Abstract
The study examines the relationship between pandemic-induced financial distress and mental health of entrepreneurs in India. A cross-sectional research design was used, and a survey was conducted among 816 small-scale entrepreneurs of diverse business entities. Structural equation modeling was performed to analyze the data. Both economic hardship and financial threat reported significant positive relationships with depression, anxiety, and stress. Financial wellbeing was found to be negatively related with depression, anxiety, and stress. The study stands among pioneers who have investigated the mental health issues among entrepreneurs during the COVID-19 pandemic. The study provides holistic implications by recommending a collective mechanism that involves individuals, governments, and institutions, for helping small business entrepreneurs cope with the situation, avoid trauma, and have a positive mental health. Future studies can focus on longitudinal data collection to provide better accuracy and consistency.

Keyword COVID-19 · Mental health · Small business · India · Stress · Entrepreneurs

The novel coronavirus-19 has affected public health and mental health of people around the world (Stănculescu, 2022). Government restrictions such as lockdowns and quarantines have impacted all sectors including business, resulting in a slowdown of economic activities (Donthu & Gustafsson, 2020). Governmental policy norms like shutting borders and restrictions on mass gatherings and movement have severely affected small businesses in developing economies (Sandeep Kumar et al., 2020). The financial impacts have been particularly severe in developing countries like India due to high population, financial vulnerabilities, and economic inequality (Andrade, 2020). This COVID-19 pandemic outbreak has forced many businesses to shut down, causing an unusual disruption of commerce in most industry sectors in India (Debata et al., 2020).

As per the official data, the overall industrial growth rate in India reduced by 18%, wherein certain specific categories saw more than 30% drop in their growth (Government of India, 2020). Business owners have faced many specific challenges, such as those related to health and safety, workforce participation, supply chain disruptions, cash flow...
bottlenecks, sales drop, consumer demands, and marketing issues (Andrade, 2020; Gopalan & Misra, 2020). Such financial problems affect small-scale business more than established business firms and affect the mental health of the small business entrepreneurs.

In this context, the current study investigated the effects of financial distress on the mental health of small business entrepreneurs in India. For this, the research question was framed as follows:

RQ: How do financial concerns affect mental health outcomes of businesses owners during the pandemic?

The theoretical framework followed in this study was conservation of resources (COR) theory (Hobfoll, 2001). COR theory describes stress as a process centered on the loss of important resources. According to this theory, increasing resources is a basic human drive. Actual or anticipated resource loss is expected to lead to psychological distress. People with rich or excessive resources are expected to be better able to use effective strategies than people who possess fewer (inadequate) resources, and hence the latter group is expected to be more vulnerable to stressful consequences and faces more psychological distress. Small business owners belong to such vulnerable groups as financial resources might not be sufficient to help sustain across longer setback periods, and this leads to psychological distress among them (Gorgievski et al., 2010).

The COVID-19 pandemic has severely affected global economy, and the adverse financial impacts especially during the period of lockdown restrictions were clearly seen among small business owners in developing countries like India (Lathabhavan, 2021c). Therefore, the study considered three financial aspects—economic hardship, financial threat, and financial wellbeing—to understand the effects of the pandemic on small business owners.

Economic hardship can be described as the nature and extent of deprivation that a person is experiencing due to a lack of financial resources in relation to their own needs (Frankham et al., 2020). Financial threat is defined as a mixture of fear, uncertainty, and cognitive preoccupation about the security and stability of their personal finances (Marjanovic et al., 2013). Financial wellbeing is the feeling of personal financial confidence and security, rather than attitudes toward using money, which comprises current financial concern and future expectations (Norvilitis et al., 2003). Financial issues raise concerns and lead psychological problems across different groups in society (Lange & Byrd, 1998; Oskrochi et al., 2018). For small business owners, the financial concerns would be competitively higher and hence result in higher level of psychological distress (Gorgievski et al., 2010).

The study considered depression, anxiety, and stress as mental health aspects. Depression is characterized by sadness, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, feelings of tiredness, and poor concentration, and in its most severe form, it can lead to suicide (Lim et al., 2018). Anxiety is a feeling of tension, worry, and physical changes such as increased blood pressure, sweating, trembling, dizziness, or a rapid heartbeat (Moghanibashi-Mansourieh, 2020). Stress can be described as individuals perceiving events as threatening or harmful while simultaneously not being equipped with sufficient resources for coping (Lathabhavan, 2021b). Financial issues seem to affect people adversely and induce depression, anxiety, and stress in difficult times (Mamun et al., 2020). During the pandemic, the financial distress has been shown to affect the mental health of people (Lathabhavan, Barami.A, et al., 2021; Lathabhavan, et al., 2021).

The study used a cross-sectional survey-based research methodology to understand the effects of various factors on the issue considered. A survey was conducted among small
business owners, including retail business owners. The study explored the effects of economic hardship, financial threat, and financial wellbeing on different mental health factors. Toward the above goal, the present study investigated the following:

a. The role of financial threat on depression, anxiety, and stress
b. The role of economic hardship on depression, anxiety, and stress
c. The role of financial wellbeing on depression, anxiety, and stress

The proposed research model is depicted in Fig. 1.

**Methods**

**Participants and Procedures**

The sample consisted of 816 entrepreneurs who run small-scale businesses in India, mostly from the states of Kerala, Tamil Nadu, and Karnataka. The data were collected using an English questionnaire on Google forms. The questionnaire was prepared after brainstorming about the different variables required to analyze the situation. Snowball sampling was used for the study. The participants were asked to provide responses considering the COVID-19 scenario. Although around 890 participants responded to the survey, after removing those with unsuitable responses (e.g., those who were not employers), data from 816 entrepreneurs from random business categories were recorded (16.2% women; age range 22 to 65 years). The final response rate was 91.68%.

For conducting the survey, a Google form was created and communicated with the entrepreneurs. The questionnaires were adopted from the existing scales, and the respondents were asked to answer the questions considering the pandemic scenario. The questionnaire was sent through email and social media networks such as WhatsApp groups and Instagram. All responses were recorded. For selecting the participants, the study used the following criteria: (i) entrepreneurs who started their business in 2019 or before, (ii)
entrepreneurs whose business activities were consistent or favorable until the outbreak of COVID-19 pandemic, and (iii) entrepreneurs who were fully dependent on the business activities, with no alternate income sources. The study also had some exclusion criteria. It excluded participants who satisfied the following criteria: (i) participants who were part of any full-time employment and partly supported business and (ii) participants who had full-time employment and were engaged in business activities as a passion or hobby. The responses of those who were not entrepreneurs were removed. The responses recorded were transferred to an excel sheet and converted to values based on the five-point Likert scale (i.e., the value given for the response of each item in the questionnaire) for the purpose of analysis.

Measures

Socio-demographics Questions concerning socio-demographics factors included in the survey were name, age, gender, and the business type. The items age and gender were kept mandatory in the survey for determining the age range and the gender ratio of the entrepreneurs.

Economic Hardship Scale Economic hardship was assessed using the Economic Hardship Questionnaire (EHQ) (Lempers et al., 1989). The EHQ comprised seven items (e.g., “During the COVID-19 pandemic, how often you cut back on social activities and entertainment expenses?”). The participants responded to the questions on a five-point Likert scale from 1 (never) to 5 (very often), where higher scores reflected higher financial hardship. The cut-off value for the economic hardship scale was 17. In the present study, the Cronbach’s alpha was good (0.81).

Financial Threat Scale Financial threat was assessed using the Financial Threat Scale (FTS) (Marjanovic et al., 2013). The FTS comprised five items (e.g., “During this COVID-19 pandemic situation, how uncertain do you feel?”). The participants responded to them on a five-point Likert scale from 1 (not at all) to 5 (completely). These items assessed the perceptions of the entrepreneurs regarding their financial situation. The cut-off value for the Financial Threat Scale was 18. The scale showed excellent reliability with Cronbach’s alpha value of 0.89.

Financial Wellbeing Scale Financial wellbeing was assessed using the Financial Wellbeing Scale (FWBS) (Norvilitis et al., 2003). The FWBS comprised seven items (e.g., “During this COVID-19 pandemic situation, I am uncomfortable with the amount of debt I am in.”). The participants responded to them on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The FWBS assessed wellbeing concerning financial status, where higher scores reflected higher levels of perceived financial wellbeing. Among the seven items of FWBS, two of the items were scored reversely (e.g., “During this COVID-19 pandemic situation, 1 year from now, I will not be in debt.”) on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree), and lower scores reflected higher levels of perceived financial wellbeing. The cut-off value for the financial wellbeing was 16. The scale had excellent reliability with Cronbach’s alpha value of 0.95.

Depression Anxiety Stress Scale Depression, anxiety, and stress were assessed using the Depression Anxiety Stress Scale (DASS-21) (Lovibond & Lovibond, 1996). DASS-21
comprised 21 items and three dimensions (seven items per dimension) (e.g., “I could not seem to experience any positive feeling at all” for depression; “I was worried about situations in which I might panic” for anxiety; and “I found it difficult to relax” for stress). The participants responded to on a five-point Likert scale from 1 (did not apply to me at all) to 5 (most of the time). Higher scores on each dimension reflected higher levels of depression, anxiety, and stress, respectively. Scoring of the sub-scales was as follows: depression: normal 0–9, mild 10–13, moderate 14–20, severe 21–27, and extremely severe + 28; anxiety: normal 0–7, mild 8–9, moderate 10–14, severe 15–19, and extremely severe + 20; and stress: normal 0–14, mild 15–18, moderate 19–25, severe 26–33, and extremely severe + 34). The overall reliability of the scale was 0.92.

Data Analysis Structural equation modeling (SEM) method implemented using AMOS 24.0 (Arbuckle, 2016) was used to test the research model. Confirmatory factor analysis was performed with maximum likelihood estimation to examine the goodness of the model (Jackson, 2001). The model’s goodness of fit was evaluated using the criteria: relative $\chi^2$: ($\chi^2$/df) < 3, root mean square error of approximation (RMSEA): $\leq$0.08, standardized root mean square residual (SRMR): ≤0.06, goodness of fit index (GFI) ≥0.90, comparative fit index (CFI) ≥0.90, and Tucker-Lewis index (TLI) ≥0.90 (Byrne, 2013; Hu & Bentler, 1998). Cronbach’s $\alpha$, average variance extracted (AVE), composite reliability (CR), and average loadings (AL) were also used to check the reliability and validity of the instruments.

Results

Sample Characteristics

Sample characteristics of this study are shown in Table 1.

Reliability and Validity

Psychometric properties of all measures of the study are shown in Table 2. The values of average loadings and the average variance extracted (AVE) values were above 0.60 and 0.50 respectively, indicating excellent convergent validity of all the measures (Bagozzi & Yi, 1988; Fornell & Larcker, 1981). The item loadings varied from 0.62 to 0.94, also supporting the validity. Moreover, the AVE values were found to be higher than MSV

| Table 1 | Sample characteristics |
|---------|------------------------|
| Characteristics | Value | Frequency $(N=816)$ | Percentage (%) |
| Gender | Male | 684 | 83.8 |
| | Female | 132 | 16.2 |
| Age | <25 yrs | 180 | 22.1 |
| | 25–35yrs | 240 | 29.4 |
| | 35–45yrs | 84 | 10.3 |
| | 45–55yrs | 204 | 25.0 |
| | >55yrs | 108 | 13.2 |
(maximum shared variance), and this shows the strength of AVE and confirms the threshold for discriminant validity (Hew & Syed Abdul Kadir, 2016). The composite reliability of all latent variables were above 0.75 and were deemed adequate. The values of Cronbach’s alpha exceeded the threshold value of 0.70 (Nunnally, 1994). Table 3 shows the discriminant validity details. Discriminant validity was established as the square roots of all AVE scores were higher than their corresponding inter-correlations. Based on the above findings, it can be inferred that the measurement model exhibited an adequate level of reliability and validity.

Path Analysis Results

The results of path analysis showed that the proposed model (Fig. 1) fit the data adequately with $\chi^2/df = 1.96$, $p < 0.01$, $GFI = 0.92$, $CFI = 0.94$, $TLI = 0.91$, $RMSEA = 0.05$, and $SRMR = 0.05$. The relationships of economic hardship with depression ($\beta = 0.27$, $p < 0.05$), anxiety ($\beta = 0.14$, $p < 0.05$), and stress ($\beta = 0.17$, $p < 0.05$) was found to be significant. The relationships of financial threat with depression and stress were significant with $\beta = 0.34$ and $\beta = 0.49$, respectively, with significant level $p < 0.05$. The financial threat and anxiety relationship was also found to be significant at $p < 0.01$ with $\beta = 0.47$. The financial wellbeing had significant negative relationship with all the exogenous variables. At a significant level of $p < 0.05$, the relationships of financial wellbeing with anxiety and stress were found to be accepted with $\beta = -0.17$ and $\beta = -0.22$, respectively. The relationship of financial wellbeing and depression is also reported significant with $\beta = -0.38$, $p < 0.001$ (refer to Fig. 2).

Table 2  Reliability and validity results

| Variable               | CR   | AL   | AVE  | MSV  | Cronbach’s $\alpha$ |
|------------------------|------|------|------|------|----------------------|
| Economic hardships     | 0.963| 0.895| 0.791| 0.120| 0.814                |
| Financial threat       | 0.897| 0.801| 0.648| 0.479| 0.897                |
| Financial wellbeing    | 0.955| 0.879| 0.757| 0.276| 0.955                |
| Depression             | 0.972| 0.924| 0.834| 0.463| 0.942                |
| Anxiety                | 0.919| 0.724| 0.620| 0.508| 0.919                |
| Stress                 | 0.945| 0.813| 0.723| 0.508| 0.945                |

$CR$ composite reliability, $AL$ average loading, $AVE$ average variance extracted, $MSV$ maximum shared variance

$N = 816$. $\sqrt{AVE}$ on diagonal (bold entries); $EH$ economic hardships, $FT$ financial threat, $FW$ financial wellbeing, $DEP$ depression, $ANX$ anxiety, $STR$ stress

Table 3  Discriminant validity and descriptive statistics of measures

| Variable | Mean | SD  | ANX | DEP | FW  | EH  | STR | FT  |
|----------|------|-----|-----|-----|-----|-----|-----|-----|
| ANX      | 2.268| 1.029|     |     |     |     |     | 0.787|
| DEP      | 2.115| 1.080| 0.681|     |     |     |     | 0.913|
| FW       | 2.727| 1.087| −0.472| −0.316|     |     |     | 0.870|
| EH       | 2.307| 1.135| 0.346| 0.323| −0.222|     |     | 0.890|
| STR      | 1.953| 1.038| 0.712| 0.501| −0.367| 0.036|     | 0.850|
| FT       | 3.101| 0.952| 0.692| 0.382| −0.526| 0.263| 0.592| 0.805|
Discussion

The theoretical contributions of the study are numerous. First, the study is among the pioneer studies that discuss the mental health issues of entrepreneurs in developing economies during the pandemic. With the support of COR theory, the study showed that small business entrepreneurs in India faced difficulties during the pandemic with reduced or nil financial support as a resource. Thus, the study reinforces the views and findings of the previous studies that projected the business impacts of the pandemic (Donthu & Gustafsson, 2020; Lathabhavan, Barami.A, et al., 2021; Lathabhavan, et al., 2021). Second, the study found significant positive relationships of economic hardship with anxiety, depression, and stress. This implies that deprivation of financial resources can lead to depressed state and enhance anxiety. This also induces high levels of stress among the entrepreneurs. Thus, this study supports earlier studies done on the area (Economou et al., 2019; Moore et al., 2021). Third, the study contributed to the literature of financial threat by finding its positive relationships with different mental health outcomes such as depression, anxiety, and stress. This implies that uncertainties on personal finance security enhance depression, anxiety, and stress among business owners. This reinforced the relationships seen in different work categories and among unemployed people (Furey et al., 2016; Mamun et al., 2020). Fourth, the study found the significant negative relationship of financial wellbeing with stress, anxiety, and depression among the entrepreneurs in India. This implies that the personal finance confidence can reduce the mental health issues. This also supports the observations of earlier investigations both in research and practice (Cha et al., 2011; Comerton-forde et al., 2018; Lathabhavan, 2021a). Last, the study contributes to the literature on mental health during the pandemic. The study found that during turbulent times, there are many mental health issues among people at various levels, especially in developing countries. This reinforces the findings of the previous studies in this field (Lathabhavan & Sudevan, 2022).

The practical and societal implications of the study are significant as the research is connected to mental health of people during the pandemic (Lathabhavan, 2021b; Tandon, 2020). As the business world faces an unprecedented and unexpected situation, trauma
and mental health issues that stakeholders face will be higher (El-Bardan & Lathabhavan, 2021; Stephan, 2017). In a developing economy like India, the lockdown and related destruction caused high financial hardships to small entrepreneurs as they are not as financially secure as big firms and long closures resulted in considerable losses. To infuse the entrepreneurs with confidence and hope, different supporting mechanisms such as positive quotes and meditation techniques can be provided apart from structural measures (Matiz et al., 2020). A collective mechanism for coping with the situation is necessary from individuals, governments, and institutions, and such concerted efforts would result in positive mental health in all sectors (Lathabhavan et al., 2017; Lathabhavan, 2021c). Training and coping mechanisms like counseling must be arranged for enhancing good mental health among individuals (Lathabhavan & Vispute, 2021). Media in any form can also play an important role in preserving the mental health of people by spreading pleasant and optimistic information (Naslund et al., 2020).

Some limitations of the study need to be addressed. First, as the study is cross-sectional and the data is self-reported, there may be common method bias issues associated with it (Podsakoff et al., 2003). We used multi-item scales with high reliability to reduce the effects of common method bias on our results (Spector, 1987). We also included the methods recommended by experts to solve the issue (Podsakoff et al., 2003). Future studies can focus on longitudinal data to provide better accuracy on results. Second, the data were restricted to one geographical region and a particular group. Responses from different levels and regions also can work better in ensuring the accuracy of data and researchers can focus on the same. Finally, the study used only a few factors to check for mental health concerns. Further studies can include more factors to understand their varying effects on mental health problems.

Conclusion

The impact of COVID-19 on the mental health of small business entrepreneurs in developing countries warrants better understanding, especially in terms financial distress. This cross-sectional survey-based study reported severe mental health impacts due to financial problems. On a positive note, the study found that financial wellbeing attitude can reduce the severity of such issues. A collective approach focusing on enhancement of financial wellbeing attitude can support a healthy entrepreneurial environment and society.

Declarations

Conflict of interest The author declares no competing interests.

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