

# The Role of Social Responsibility of the Egyptian Private Hospitals in Overcoming the COVID-19 Pandemic

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## ABSTRACT

With the increased risks associated to COVID-19 all over the world, many firms in different sectors have participated by providing immediate assistance to relief the pandemic's negative effects. This paper explores the role of Egyptian private hospitals' social responsibilities in alleviating the undesirable impacts of the COVID-19. Based on the collected data from 303 workers in private hospitals (doctors, nursing staff, and administrative staff), the results show that Egyptian private hospitals that are socially committed to their employees are likely to apply the activities of overcoming COVID-19 compared with those activities applied to their patients and the external parties (government, community, and the environment). This requires increasing private hospitals' attention to their societal role towards patients and other external parties that deal with them.

## KEYWORDS

Community, COVID-19, Egyptian Private Hospitals, Employees, Government, Patients, Social Responsibility

## INTRODUCTION

The observed behavior of firms operating in markets will vary between economies due to increased risks associated with COVID-19. Firms' behaviors also vary across sectors (e.g., industrial, commercial, and service) in their response to threats. Authorities might impose rules to monitor such behaviors. For example, the Competition and Market Authority (CMA) in the United States conducted monitoring campaigns on firms that would benefit by raising their prices during the pandemic. During the oversight, firms were observed to force their adherence to ethical work and prices.

Furthermore, during the pandemic, many firms participated in social activities and provided immediate assistance to fight the virus or its effects. Many banks waived overdraft rates during a specific period to strengthen relationships with their customers. Governments around the world provided economic assistance to relieve pressures on organizations affected by COVID-19, including the tourism and aviation industries (He & Harris, 2020).

The crisis was a significant imposition on the management of organizations, especially service-based organizations. Those affected included workers, customers, owners, suppliers, and all categories of internal and external audiences (Suhanti et al., 2020). Social responsibility has

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become a major challenge for organizations. For example, during the pandemic, medical institutions aimed to continue to provide integrated health services with high levels of satisfaction (Pino et al., 2016). Consequently, hospitals have struggled to satisfy all parties in the application of socially responsible efforts (Khan et al., 2018).

Interest has increased regarding the importance of creating a climate that incorporates social responsibility into the values and culture of an institution. Many methods have been proposed to understand how to apply the concept of social responsibility within organizations. To promote social responsibility, Cochius (2006) and Zhu and Zhang (2015) recommended that organizations focus on the creation and enhancement of stakeholder benefits and values.

Social responsibility, or ethical culture, is the behavior of an entire society, especially evident in times of crises and disaster. The COVID-19 crisis required the unification of state institutions to mitigate and overcome negative effects (LoGiudice et al., 2020). This research evaluates the role of Egyptian private hospitals in facing the pandemic by adhering to the controls and rules set by the Egyptian government during the pandemic.

The Egyptian Ministry of Health emphasized the need to serve COVID-19 patients by unifying the state's efforts with private sector hospitals. Private hospitals were required to adhere to the following costs when treating these patients: (1) internal isolation room from 1,500 to 3,000 LE per day; (2) intensive care with a respirator from 7,500 to 10,000 LE per day; and (3) intensive care without a respirator from 5,000 to 7,500 LE per day (Saied et al., 2021). However, it was announced that the Providers Chamber of the Federation of Egyptian Industries rejected the prices announced by the Egyptian Ministry of Health, explaining that most of the hospitals felt that providing care for these patients was expensive and, therefore, did not produce a profit. The Egyptian Ministry of Health denounced how some private sector hospitals would exaggerate their provided medical services to COVID-19 patients, calling on all private hospitals to adhere to the roles set by the state.

This example motivated the authors to explore the following question: What is the social role of private hospitals toward patients, employees, and external parties (e.g., government, society, and environment)? This article contributes to the extant literature by verifying the extent to which Egyptian private hospitals' social responsibility toward internal and external partners (employees and patients) can strengthen their ability to overcome the COVID-19 crisis and support its societal role. In doing so, hospitals can support the Egyptian government in minimizing the negative consequences of the pandemic.

The article is structured as follows. The next section discusses a literature review and hypothesis development. Then, the article introduces the methodology and empirical results. The final section offers a conclusion and implications.

## **LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

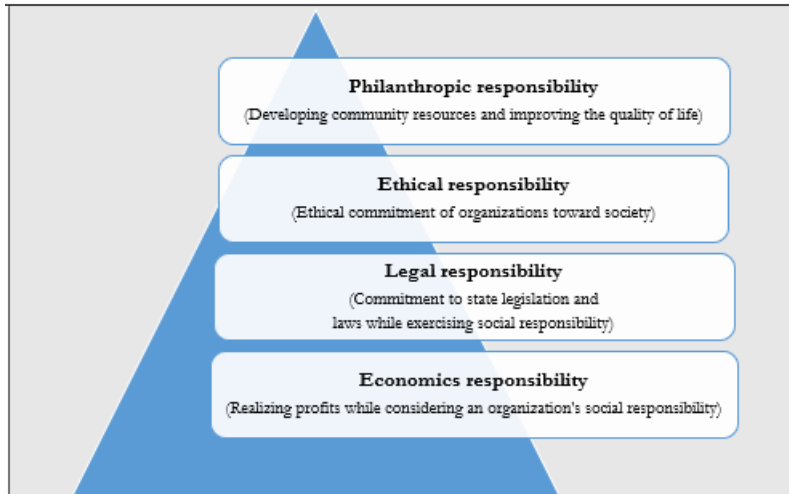
### **Literature Review**

Carroll (1991) defined social responsibility as the ethical and voluntary processes and commitment of institutions to legislation and laws with the aim of participating in social activities, respecting moral values, and developing the quality of life in society. Social responsibility is not only measured by meeting the legal needs of an institution. It is also about investing in human capital, the external environment, and relationships with stakeholders (Johan, 2021; Lee, 2018; Mensah et al., 2017; Muhammad, 2020; Voegtlin & Greenwood, 2016).

To achieve the objectives and desired benefits of social responsibility, Rohini and Mahadevappa (2010), Morales (2015), and Nave and Ferreira (2019) identified specific responsibilities within four dimensions: (1) economic; (2) legal; (3) ethical; and (4) discretionary (philanthropic).

According to Figure 1, the first level, economic responsibility, is the commitment of an organization to provide goods or services that meet the desires of customers within society while

Figure 1. Carroll's CSR



achieving their goals (whether profit or morals like positive image), respecting the rules of competition, and meeting the goals and solving the problems of society. Throughout the pandemic, hospitals had to provide high-level treatment and customer service at prices commensurate with patients' ability to pay (without overpricing services). Hospitals had to preserve their economic objectives (achieving profits and market distinction) while considering their social responsibility to support the government in this historic time.

The second level, legal responsibility, addresses legislation enacted by the state, such as consumer protection laws, adherence to occupational safety and security standards, regulatory fairness, participation in solutions to social problems and environmental protection, and other laws to achieve legal and social responsibility. During the pandemic, hospitals followed legal responsibilities to provide all standards of professional security and safety for doctors, nursing staff, and hospital workers, as well as protect clients from fraud or exaggerated medical services (the right price and required level of quality at the right time).

The third level, ethical responsibility, is the respect of ethical and behavioral aspects and values within the organization. In addition, it is the regard for an organization's relationship with its external community, recognizing and honoring customs or traditions and dealing with clients with respect and appreciation. Private hospitals' vital services must consider ethical aspects when dealing with patients as they provide honest and credible information and honor their own ethical, social responsibility.

The fourth level, philanthropic responsibility, is achieved through institutions' contributions to improving the quality of life for surrounding communities. The organization should provide voluntary initiatives that contribute to the development of society and improvement of an individual's life.

Carroll (1979, 1991) developed the corporate social responsibility (CSR) pyramid to demonstrate the extent to which these four levels correlate to institutions' commitment. Thus, social responsibility is represented in the social, economic, and ethical activities and contributions implemented by an institution toward those they deal with both internally and externally. Examples include employees, patients, and external parties in the government, society, and environment.

All government and private institutions were asked to make cooperative international efforts to slow or overcome the pandemic after the Ministry of World Health declared COVID-19 a global threat (WHO, 2020). The transmission and spread of infection were mitigated through quarantines (Fraenkel & Cho, 2020; WHO, 2020). Considering the worsening crisis, the private sector's participation increased its commitment to social responsibility toward its internal and external parties (Brammer et

al., 2007). This sector aimed to reduce its negative effects by preserving the lives of individuals and limiting the spread of the virus without disturbing economic stability, work, or production (Wilder-Smith, 2020). This required an alignment between the government and private sector to ensure public health and preserve the safety of citizens. At the same time, it was a goal to return economic activities to a normal state (Wilder-Smith & Freedman, 2020).

## **HYPOTHESIS DEVELOPMENT**

### **Employee-Oriented CSR Activities**

Investing in a company's human resources program is a proactive and rewarding long-term decision. Socially responsible employee services must improve the quality of workers' lives through job skills and training programs, healthcare systems, occupational safety and security systems, rewards and incentive programs, and other benefits that improve working conditions and achieve maximum satisfaction (Fiori et al., 2007; Longo et al., 2005; Molnár et al., 2021; Skudiene & Auraskeviciene, 2012). Hospitals must pay full wages to physicians and their assistants, with an increase in infection allowance and material/moral benefits (John, 2009). These factors play a pivotal role in gaining full medical support as hospitals stand on the front lines of the pandemic (Wilder-Smith, 2020). Other employee benefits should include (WHO, 2020):

- Paid vacation if infected with the virus.
- All means of medical and material care for the employee and their family.
- Suitable, well-equipped housing for expatriate workers in case of difficult travel conditions.
- Various means of transportation to ensure a continuous, on-time presence for medical services to patients.
- Protective uniforms and free supplies like sanitizers and protective masks.

Based on the above aspects, the researcher studied the relationship between the commitment of hospitals, their social responsibility toward employees, and their ability to overcome the pandemic.

**H1:** There is a significant relationship between private hospitals' commitment to social responsibility toward employees and their ability to overcome the pandemic.

### **Customer-Oriented CSR Activities**

Hospitals aim for high levels of customer satisfaction while meeting economic objectives and improving their reputation in the market (Sontaite, 2015). To achieve customer loyalty, some of a hospital's most important activities include providing specific goods and services to customers at a price commensurate with the level of income, providing honest and reliable advertisements about corporate products, and having a permanent response to solving customer problems and responding to inquiries and complaints (Turker, 2009).

As noted, hospitals should provide medical services, medicines, and facilities to patients at the right price rather than exaggerate the price of treatment or health care (Turyakira et al., 2014). Follow-up care after discharge is also imperative.

In addition, healthcare organizations should acquire support and funding for medical research to provide appropriate vaccines to eradicate COVID-19. To address psychological effects from the fear of contracting the virus, hospitals should offer support programs to patients.

Based on the above aspects, this article studies the relationship between hospitals' commitment to their social responsibility toward patients and their ability to overcome the pandemic.

**H2:** There is a significant relationship between the commitment of private hospitals to social responsibility toward patients and their ability to overcome the pandemic.

### External Party-Oriented CSR Activities

External-party activities include services aimed at serving/developing society and assisting the government in solving societal problems. Examples include donating to charitable institutions to provide job opportunities for youth, developing informal areas, and contributing to solving education and health disparities through the establishment of educational and technical institutes. Another example is national assistance in facing future disasters or crises.

It is the hospital's role to provide free or affordable treatment to low-income people. Community members should have access to free COVID-19 testing. Alternately, testing should be available at affordable costs and supported by each state.

Institutions should concern themselves with preserving the environment. Therefore, they should aim to balance the costs of production and pollution with social benefits and awareness campaigns. They should work to beautify or preserve areas and maintain pollution-free environments (Voegtlin & Greenwood, 2016). Hospitals endorse green environments, disease prevention, and the responsible use of resources. They support workers' environmentally friendly behaviors. Hospitals use professional performance standards to identify and solve problems that arise from natural disasters (Khan et al., 2018).

Hospitals' social responsibility toward the government is represented in their adherence to state laws in pricing medical services (for example, to combat COVID-19). In addition, hospitals adhere to precautionary measures to prevent the spread of infection and cooperate with government hospitals in spending on scientific research and vaccination efforts.

Based on the above aspects, this article studied the relationship between hospitals' commitment to their social responsibility toward external parties and their ability to confront the pandemic.

**H3:** There is a significant relationship between the commitment of private hospitals to social responsibility toward external parties (e.g., society, environment, and government) and their ability to overcome the pandemic.

## RESEARCH METHODOLOGY

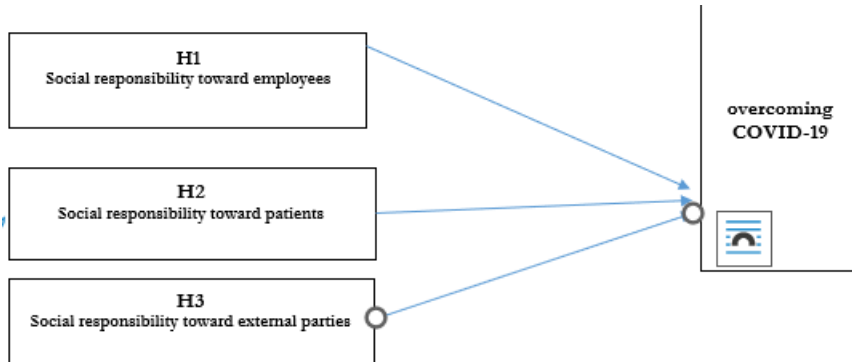
### Research Model

This research developed the following model to study the role of CSR and Egyptian private hospitals in overcoming the pandemic. It assumed that private hospitals' social responsibility activities with internal and external parties (i.e., employees, patients, society, environment, and government) have a role in increasing their ability to overcome the pandemic. See Figure 2.

### Sample Selection

To test this study's hypotheses, the sample represented the population with a given confidence level of 95% based on the Yates rule (Dean & Voss, 1999). The population consisted of employees in private hospitals. According to the Annual Bulletin of Health Services Statistics (2020), it is represented by physicians (29,290), nursing staff (22,766), and administrative staff (17,574). A simple random sample was selected (Smith et al., 2016), which was calculated by the following formula:  $n = N / (N - 1) * e^2 + 1$ , where  $n$  = sample size,  $N$  = population size, and  $e$  = standard permitted error. It is adopted as 5% based on this equation. The sample size required should be at least 398. Thus, the study distributed 398 questionnaires; it received 318 returned documents (80% response rate). It excluded 15 incomplete questionnaires, leaving 303 (76%) complete responses.

Figure 2. Model of CSR activities that affect the fight against COVID-19 in Egypt



### Data Collection

The research survey was designed to capture the opinions of respondents regarding study variables established in the literature review section. A five-point Likert scale and Google Forms were used. The questionnaire was divided into the following three parts: (1) measurement of employee-oriented social responsibility activities of private hospitals (questions from 1-16); (2) measurement of customer-oriented (patients) social responsibility activities (questions from 17-25); and (3) measurement of external party-oriented social responsibility activities in government (questions from 26-28), society, and the environment (29-41).

### Data Analysis Techniques

A statistical package for social sciences (SPSS) was used to analyze the data. First, the study used Cronbach's alpha coefficient and self-validity factor to address validity and reliability characteristics. A Cronbach's alpha greater than 0.70 signifies good reliability. Second, factor analysis was used to describe variability among observed, correlated variables to reduce variables into fewer factors. This technique extracts maximum common variance from all variables and puts them into a common score (Hair et al., 2010). The correlation matrix was used to determine the correlation coefficient between the independent variables. It used the Kaisar-Meyer-Oklin (KMO) and Bartlett's tests to measure the proportion of variance among variables that might be common variance. In addition, it used Spearman correlation coefficients to evaluate relationships involving ordinal variables, specifically whether the order in which overcoming COVID-19 activities related to social responsibility activities.

### Categorization and Operationalization for Questionnaire

Table 1 shows the classification of research variables (X1 to X41) according to whether they follow the social responsibility of private hospitals or the societal role of hospitals to overcome COVID-19. It is directed toward employees, patients, or external parties (government, society, and environment).

## RESULTS AND DISCUSSION

### Reliability Statistics

Reliability analysis and scale analysis are applied through Cronbach's alpha to confirm if the sample is representative of the population and measure the internal consistency between responses. Table 2 suggests that the internal reliability, as measured by Cronbach's alpha, is highly acceptable (ranging from 90% to 95%) as compared with similar research in the social sciences (Hair et al., 2010). The overall reliability is 97%.

**Table 1. Categorization and questions**

Questions	Variable	Content/dimension keywords	Category	Stakeholders
1	X1	Employees' protection supplies	COVID-19	Employees
2	X2	Protection uniform	COVID-19	Employees
3	X3	Medical care	SR	Employees
4	X4	Periodic medical examination	SR	Employees
5	X5	Sterilize workplace and equipment	COVID-19	Employees
6	X6	Safe and secure environment	SR	Employees
7	X7	Infection allowance	SR	Employees
8	X8	Raise workers' morale	SR	Employees
9	X9	Fair and rewarding pay	SR	Employees
10	X10	Training and skills development	SR	Employees
11	X11	Participative decision making	SSR	Employees
12	X12	Internal communication	SR	Employees
13	X13	Adequate and equipped housing	SR	Employees
14	X14	Paid leave to care for family / COVID-19 patients	COVID-19	Employees
15	X15	Affordable prices to treat COVID-19	COVID-19	Employees
16	X16	Low-cost medical services for low-income individuals	SR	Employees
17	X17	Authentic announcement about hospital medical service	SR	Patients
18	X18	Reasonable prices for medical care	COVID-19	Patients
19	X19	Reduction in the spread of infection	SR	Patients
20	X20	Specific procedures to deal with patients' complaints	SR	Patients
21	X21	Patient satisfaction	SSR	Patients
22	X22	Immediate medical service to treat COVID-19	COVID-19	Patients
23	X23	Continuous development of medical services	SR	Patients
24	X24	Honest and complete information for patients	SSR	Patients
25	X25	COVID-19 hotline	COVID-19	Patients
26	X26	Commitment to state pricing policy for treating COVID-19	SR	Government
27	X27	Cooperation with government in vaccine research to fight COVID-19	COVID-19	Government
28	X28	Daily report to Ministry of Health on number of people infected with COVID-19	COVID-19	Government
29	X29	Electronic platform for COVID-19 awareness, prevention, and treatment	COVID-19	Society
30	X30	Reduced prices or free medical services to treat COVID-19	COVID-19	Society
31	X31	Training on COVID -19 prevention methods	COVID-19	Society
32	X32	Community infrastructure support	SR	Society
33	X33	Job opportunities for special needs	SSR	Society
34	X34	Raising health awareness about COVID-19	COVID-19	Society
35	X35	Participation in environmental conservation activities	SR	Environment
36	X36	Online platform for environmental awareness	SSR	Environment
37	X37	Safe method for disposal of waste	SSR	Environment
38	X38	Participation in environmental conferences	SR	Environment
39	X39	Environmental system compliant with ISO14000	SR	Environment
40	X40	Department for sustainable development	SR	Environment
41	X41	Recycling and separation system	SR	Environment

**Table 2. Reliability and validity test**

Study Variables	Number of Items/Questions	Cronbach's Alpha
Overall	41	97.1%
Social Responsibility Toward Employees	16	94.6%
Social Responsibility Toward Patients	9	90.1%
Social Responsibility Toward External Parties	13	93.2%

## Correlation Analysis

### *Social Responsibility Toward Employees*

Table 3 shows the coefficients (using Spearman's Rho correlation matrix) on variables that indicate social responsibilities (X3, X4, X6, X7, X8, X9, X10, X11, X12, X13, X16) in relation to activities to overcome COVID-19 (X1, X2, X5, X14, X15) toward employees. The keywords for all X's are indicated in Table 1. Overall, social responsibility activities are significantly associated with activities of overcoming COVID-19. This suggests that private hospitals that are socially committed to their employees are likely to comply with a high level of activities for overcoming COVID-19. Therefore, these findings support H1.

Regarding the level of significance and magnitude of coefficients, this study found that a safe and secure environment (X6), fair and rewarding pay (X9), raise workers' morale (X8), periodic medical examination (X4), and infection allowance (X7) were strongly and positively associated with paying more attention to workplace and equipment sterilization (X5). Coefficients were 0.823, 0.751, 0.722, 0.722, 0.721, respectively, all at p-values of 0.000 (with a significant level of 99%).

### *Social Responsibility Toward Customers (Patients)*

Table 4 shows correlation coefficients (using Spearman's Rho) that indicate social responsibility activities (X17, X19, X20, X21, X23, and X24) in relation to activities to overcome COVID-19 (X18, X22, and X25) and patients. The results indicate that social responsibility activities toward patients are significantly associated with activities of overcoming COVID-19. This suggests that private hospitals that are socially committed to their patients are likely to comply with a moderate level of activities to overcome COVID-19. Therefore, these findings support H2.

Additionally, the study found that a COVID-19 hotline (X25) is the most significant activity related to other social responsibilities. Factors that have weaker instances of activities to overcome COVID-19 include reasonable prices for medical care (X18). This result suggests that private hospitals paid less attention to their social responsibilities about their pricing policies.

### *Social Responsibility Toward External Parties (Government, Society, and Environment)*

Table 5 shows significant associations between social responsibility activities (X26, X32, X33, X35, X36, X37, X38, X39, X40, and X41) related to external parties (government, society, and environment) and activities to overcome COVID-19 (X27, X28, X29, X30, X31, and X34). The keywords for all X variables are indicated in Table 1. The results indicate that socially responsible activities toward external parties are significantly associated with COVID-19 activities. This suggests that private hospitals that are socially committed to their external parties are likely to comply with a high level of activities to overcome COVID-19. Therefore, these findings support H3.

Regarding the level of significance and magnitude of coefficients, X29 (electronic platform for awareness of COVID-19, prevention, and treatment) is the most significant of the COVID-19 overcoming activities related to other social responsibilities. This is compared to the less-associated factors of COVID-19, including reduced prices or free medical services to treat COVID-19 (X30).



Table 3. Spearman correlation coefficients

Variable	Overcoming COVID-19 Activities					Social Responsibility Activities										
	X1	X2	X5	X14	X15	X3	X4	X6	X7	X8	X9	X10	X11	X12	X13	X16
X1	1.000	.678**	.634**	.449**	.117*	.601**	.651**	.564**	.629**	.541**	.635**	.233**	.491**	.324**	.203**	-.126*
		(0.000)	(0.000)	(0.000)	.041	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	.028
X2		1.000	.664**	.425**	.285**	.682**	.689**	.669**	.661**	.656**	.663**	.584**	.630**	.577**	.349**	.254**
			(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
X5				.458**	.345**	.657**	.722**	.823**	.722**	.721**	.751**	.503**	.531**	.580**	.190**	.206**
				(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	.001	(0.000)
X14					.427**	.536**	.527**	.502**	.582**	.521**	.560**	.331**	.542**	.507**	.630**	.327**
					(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
X15						.371**	.316**	.389**	.291**	.418**	.343**	.488**	.329**	.468**	.288**	.716**
						(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
X3							.725**	.690**	.715**	.688**	.710**	.501**	.634**	.590**	.387**	.255**
							(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
X4								.778**	.720**	.794**	.742**	.435**	.643**	.478**	.333**	.099
								(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	.086
X6									.764**	.789**	.758**	.452**	.524**	.598**	.236**	.204**
									(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	.000
X7										.799**	.853**	.545**	.717**	.622**	.422**	.207**
										(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
X8											.868**	.649**	.729**	.640**	.408**	.227**
											(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
X9												.604**	.760**	.669**	.396**	.208**
												(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
X10													.658**	.624**	.374**	.586**
													(0.000)	(0.000)	(0.000)	(0.000)
X11														.649**	.467**	.294**
														(0.000)	(0.000)	(0.000)
X12															.447**	.493**
															(0.000)	(0.000)
X13																.427**
																(0.000)

This result confirms the previous findings that private hospitals are paying less attention to their social responsibilities in relation to pricing COVID-19 medical services.

### Confirmatory Factor Analysis

This study aimed to identify the underlying factors that explain the pattern of correlation between variables in the conceptual model. A confirmatory factor analysis was used to explore the number of factors at which each social and a COVID-19 activity would be best represented in the original data in this study.

Factor analysis was used to define the constructs or dimensions that underlie the observed variables and determine the degree to which the components derived describe the original data in this study. KMO and Bartlett's test of sphericity were used. (A null hypothesis for Bartlett's test shows no homogeneity between the dimensions of each of the main variables.) The three panels

Table 4. Spearman correlation coefficients

Variable	Overcoming COVID-19 Activities			Social Responsibility Activities					
	X18	X22	X25	X17	X19	X20	X21	X23	X24
X18	1.000	.544**	.286**	.362**	.488**	.304**	.190**	.369**	.274**
	.	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
X22		1.000	.542**	.434**	.412**	.405**	.198**	.447**	.274**
		.	(0.000)	(0.000)	(0.000)	(0.000)	.001	(0.000)	(0.000)
X25			1.000	.559**	.574**	.465**	.475**	.679**	.373**
			.	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
X17					.789**	.679**	.631**	.774**	.760**
					(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
X19					1.000	.621**	.642**	.739**	.596**
					.	(0.000)	(0.000)	(0.000)	(0.000)
X20						1.000	.753**	.653**	.697**
						.	(0.000)	(0.000)	(0.000)
X21							1.000	.665**	.596**
							.	(0.000)	(0.000)
X23								1.000	.693**
								.	(0.000)

in Table 6 (A, B, and C) show that the generated factors are reliable and valid. This is indicated by KMO and Bartlett's test, in which the values of KMO are greater than the widely accepted value of .65 for further statistical use (which is widely used in social science research). Bartlett's test also indicates a significant coefficient in the three panels. This study employed the output factors of the analysis to confirm the findings of the previous analyses in testing the study's hypotheses.

### Testing Research Hypotheses on the Aggregate Level Following Factor Analysis

Per Table 7 and Figure 3, the results confirm the previous findings. However, on an aggregate level, after conducting factor analysis, the private hospitals in Egypt that paid more attention to their social activities were likely to be associated with activities that overcome COVID-19. In particular, the study found that strength of association is more pronounced toward employees as compared with patients and external parties. These findings, therefore, support H1 (Egyptian private hospitals that are socially committed to their employees are likely to comply with a high level of COVID-19 confronting activities). Additionally, the results support H2 (Egyptian private hospitals that are socially committed to their patients are likely to comply with activities that overcome COVID-19). Finally, the results indicate that Egyptian private hospitals that are socially committed to external parties (government, society, and environment) are likely to comply with activities to overcome COVID-19, which supports H3.

### CONCLUSION AND IMPLICATIONS

This article studies the societal role and social responsibility of Egyptian private hospitals in overcoming the COVID-19 pandemic. The findings show that private hospitals' social responsibilities

Table 5. Spearman correlation coefficients

Variable	Overcoming COVID-19 Activities						Social Responsibility Activities									
	X27	X28	X29	X30	X31	X34	X26	X32	X33	X35	X36	X37	X38	X39	X40	X41
X27	1.000	.432**	.556**	.308**	.524**	.481**	.568**	.477**	.600**	.388**	.535**	.520**	.578**	.256**	.434**	.284**
		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
X28		1.000	.518**	.637**	.374**	.301**	.512**	.468**	.477**	.466**	.511**	.550**	.421**	.618**	.350**	.437**
			.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
X29			1.000	.625**	.653**	.591**	.519**	.621**	.599**	.397**	.637**	.601**	.613**	.549**	.577**	.503**
				.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
X30				1.000	.461**	.337**	.426**	.438**	.475**	.614**	.600**	.587**	.372**	.684**	.439**	.448**
					.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
X31					1.000	.643**	.421**	.469**	.603**	.533**	.612**	.678**	.668**	.386**	.551**	.427**
						.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
X34						1.000	.205**	.242**	.465**	.490**	.431**	.552**	.658**	.344**	.548**	.499**
							.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
X26							1.000	.691**	.581**	.401**	.649**	.416**	.395**	.353**	.218**	.121*
								.000	.000	.000	.000	.000	.000	.000	.000	.035
X32								1.000	.671**	.410**	.739**	.363**	.352**	.338**	.335**	.182**
									.000	.000	.000	.000	.000	.000	.000	.001
X33									1.000	.470**	.698**	.562**	.632**	.431**	.510**	.394**
										.000	.000	.000	.000	.000	.000	.000
X35										1.000	.563**	.708**	.400**	.455**	.264**	.283**
											.000	.000	.000	.000	.000	.000
X36											1.000	.634**	.542**	.467**	.510**	.427**
												.000	.000	.000	.000	.000
X37												1.000	.713**	.605**	.575**	.519**
													.000	.000	.000	.000
X38													1.000	.582**	.619**	.522**
														.000	.000	.000
X39														1.000	.397**	.505**
															.000	.000
X40															1.000	.642**
																.000

toward their employees are significantly and highly associated with activities to overcome COVID-19. Similarly, private hospitals are socially committed to their patients, demonstrating a high level for most activities to overcome COVID-19. This suggests the importance for the Egyptian government to oblige private hospitals to set reasonable prices for the treatment of COVID-19 with the provisions of their control. The results also showed that Egyptian private hospitals have a social responsibility toward external parties in overcoming the pandemic, suggesting the importance for Egyptian health authorities to establish a pricing package to consider stakeholders' social aspects.

This article highlights a shortcoming in the Egyptian private hospitals' application of social responsibility activities. It is represented in failures in private hospitals' societal role in providing COVID-19 treatment services at satisfactory prices to support the Egyptian government to overcome the pandemic. This action requires hospitals to be under strict government control in setting reasonable prices to treat (and limit the spread of) COVID-19. It is important that hospitals provide protective

**Table 6. Confirmatory factor analysis for COVID-19 and social responsibility activities**

**Panel A: Social responsibility toward employees**

Variable	Overcoming COVID-19 Activities					Social Responsibility Activities										
	X1	X2	X5	X14	X15	X3	X4	X6	X7	X8	X9	X10	X11	X12	X13	X16
1 factor					2 factors											
<b>KMO and Bartlett's Test</b>					<b>KMO and Bartlett's Test</b>											
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.					.908	Kaiser-Meyer-Olkin Measure of Sampling Adequacy										.891
Bartlett's Test of Sphericity					Approx. Chi-Square	2766.286	Bartlett's Test of Sphericity									
					Df	45										
					Sig.	.000										
							Approx. Chi-Square									
							Df									
							Sig.									

**Panel B: Social responsibility toward customers (patients)**

Variable	Overcoming COVID-19 activities					Social responsibility activities				
	X18	X22	X25	X17	X19	X20	X21	X23	X24	
1 factor					1 factor					
<b>KMO and Bartlett's Test</b>					<b>KMO and Bartlett's Test</b>					
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.					.606	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.				.877
Bartlett's Test of Sphericity					Approx. Chi-Square	210.155	Bartlett's Test of Sphericity			
					Df	3	Approx. Chi-Square			
					Sig.	.000	Df			
							Sig.			

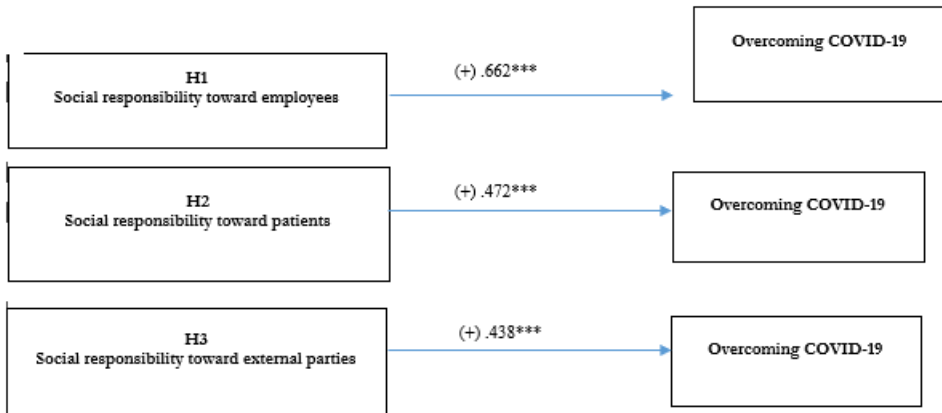
**Panel C: Social responsibility toward external parties**

Variable	Overcoming COVID-19 activities						Social responsibility activities									
	X27	X28	X29	X30	X31	X34	X26	X32	X33	X35	X36	X37	X38	X39	X40	
1 factor						2 factors										
<b>KMO and Bartlett's Test</b>						<b>KMO and Bartlett's Test</b>										
Kaiser-Meyer-Olkin Measure of Sampling Adequacy						.827	Kaiser-Meyer-Olkin Measure of Sampling Adequacy								.839	
Bartlett's Test of Sphericity						Approx. Chi-Square	1006.563	Bartlett's Test of Sphericity								
						Df	15	Approx. Chi-Square								1971.638
						Sig.	.000	Df								45
								Sig.								.000

**Table 7. Spearman correlation coefficients**

Variable	Overcoming COVID-19 Activities			Social Responsibility Activities		
	1	2	3	1	2	3
Overcoming COVID-19 activities related to employees	1.000	<b>.782**</b>	<b>.447**</b>	<b>.662**</b>	<b>.464**</b>	<b>.617**</b>
	.	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Overcoming COVID-19 activities related to patients		1.000	<b>.423**</b>	<b>.700**</b>	<b>.472</b>	<b>.603**</b>
		.	(0.000)	(0.000)	(0.000)	(0.000)
Overcoming COVID-19 activities related to external parties			1.000	<b>.392**</b>	<b>.741**</b>	<b>.438**</b>
			.	(0.000)	(0.000)	(0.000)
Social responsibility activities related to employees					<b>.492**</b>	<b>.649**</b>
					(0.000)	(0.000)
Social responsibility activities related to patients					1.000	<b>.695**</b>
					.	(0.000)
Social responsibility activities related to external parties						1.000

Figure 3. Model of CSR activities that affect the confrontation of COVID-19 in Egypt



supplies and equipment for employees, as well as conduct awareness campaigns on hospital electronic platforms or audiovisual advertisings. These campaigns can be used to educate society and mitigate the spread of COVID-19.

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