

# The Impact of Graduates' Soft Skills and Awareness on the Marketability of Terengganu Graduates

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## ABSTRACT

This study aims to analyze the influence of soft skills and graduates' awareness on the marketability of Terengganu graduates. The soft skills studied include communication skills, critical thinking and problem-solving skills, entrepreneurial skills, leadership skills, information management skills, and professional ethics and morals. This study uses a quantitative approach through questionnaires distributed to Terengganu graduates from various institutions of higher learning. The data is analyzed using descriptive and inferential statistical analysis to identify the relationship and level of influence between variables. The study findings show that communication skills and critical thinking skills are dominant factors that contribute to increasing the marketability of graduates. In addition, entrepreneurial and leadership skills also play an important role in increasing the competitiveness of graduates, especially in the context of a dynamic and challenging job market. Information management skills and appreciation of professional ethics and morals are also found to strengthen the credibility and integrity of graduates in the eyes of employers. This study also found that the level of awareness of graduates towards the requirements of the job market acts as a reinforcing factor that increases the effectiveness of soft skills on marketability. Overall, this study emphasizes that holistic soft skills development and building high career awareness are important elements in strengthening the marketability of Terengganu graduates at the national level.

**Keywords:** Graduate Marketability, Soft Skills, Graduate Awareness, Structural Equation Modeling (SEM).

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## Introduction

The issue of graduate marketability is one of the main agendas for human capital development in Malaysia, in line with the country's aspiration to produce a highly skilled and competitive workforce. Although the rate of participation in higher education is increasing, the main challenge faced is ensuring that graduates not only have academic qualifications, but also master soft skills that are relevant to current industry needs. A report by the Malaysian Ministry of Higher Education shows that among the main factors influencing the marketability of graduates are the mastery of communication skills, critical thinking, problem solving, leadership and professional ethics. In the context of the state of Terengganu, the issue of marketability of local graduates has become increasingly significant due to the state's economic structure which still depends on traditional sectors such as petroleum, fisheries

and public services. The economic transition towards knowledge-based industries, tourism and entrepreneurship requires graduates who are not only technically competent, but also have solid soft skills and a high awareness of the needs of the job market. However, there are graduates who still face difficulties in obtaining jobs that are equivalent to their academic qualifications, thus raising questions about the level of readiness of graduates in meeting employer expectations.

Soft skills such as communication skills, critical thinking and problem-solving, entrepreneurship, leadership, information management and professional ethics and morals are important elements that support marketability. In addition, the factors of graduates' awareness of the realities of the job market, the need for self-improvement and the willingness to adapt to economic changes also play an important role in

determining the success of the transition from the world of study to the world of work. In this regard, this study was conducted to empirically examine the relationship between soft skills and graduates' awareness with the marketability of Terengganu graduates. This study is expected to provide a clearer picture of the factors that influence marketability and help higher education institutions, government agencies and policymakers formulate more holistic and high-impact graduate development strategies.

**Research Methodology**

The research method used is quantitative and uses research instruments that have been adapted according to the suitability of the soft skills factor based on communication skills, critical thinking and problem solving, entrepreneurship, leadership, information management, professional ethics and morals as well as graduate awareness of the awareness of Terengganu graduates. Data were analyzed using Structural Equation Modeling (SEM) with the help of the IBM-SPSS-AMOS version 24.0 program. SEM is formed with two (2) main models namely Measurement Model and Structural Model. Before the SEM test is performed, an adaptation test should be conducted to ensure that the indicators tested truly represent the construct being measured (Chik, Abdullah, Ismail & Mohd Noor, 2024; 2022; Hair et al., 2006; Schumacker & Lomax, 2004).

**Findings**

There are two (2) types of output when running the SEM (Structural Equation Modeling) procedure, namely graphic output and text output. The graphical output produces standardized regression values and unstandardized regression values between constructs. Running the SEM procedure produces standardized regression values and unstandardized regression values.

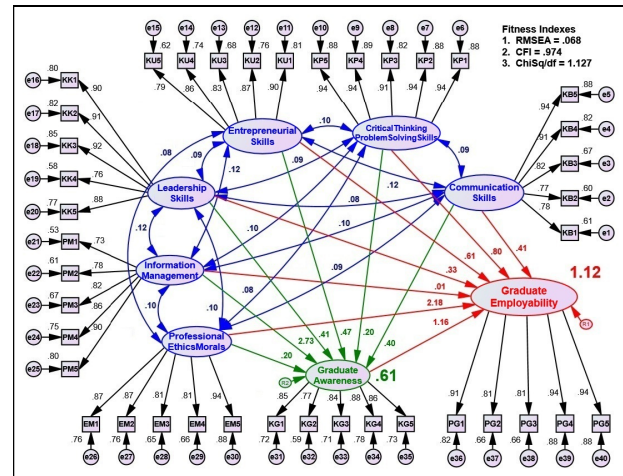


Figure 1. Standardized Regression Values

Summary of SEM study results for Figure 1 (standard regression values):

- 1) The  $R^2$  value for Graduate Employability (GE) is 1.12. This indicates that the seven (7) predictor constructs in the model (single-headed arrows) namely Communication Skills (CS), Critical Thinking and Problem Solving Skills (CTPSS), Entrepreneurial Skills (ES), Leadership Skills (LS), Information Management (IM), Professional Ethics and Morals (PEM) and Graduate Awareness (GA) contribute 112 percent (%) to Graduate Employability (GE) among the population in this study.
- 2) The  $R^2$  value for Graduate Awareness (GA) is 0.61. This indicates that the six (6) predictor constructs in the model (single-headed arrows) namely Communication Skills (CS), Critical Thinking and Problem Solving Skills (CTPSS), Entrepreneurial Skills (ES), Leadership Skills (LS), Information Management (IM) and Professional Ethics and Morals (PEM) contribute 61 percent (%) to Graduate Awareness (GA) among the population in this study.

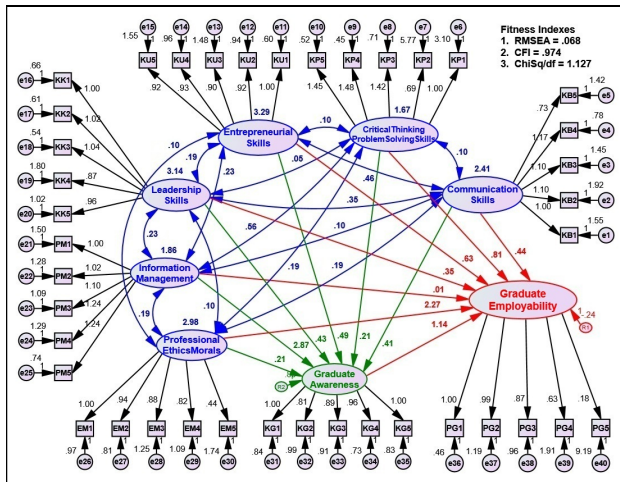


Figure 2. Unstandardized Regression Values

The regression equation for Graduate Employability (GE) and Graduate Awareness (GA) is:

$$GE = 0.44CS + 0.81CTPSS + 0.63ES + 0.35LS + 0.01IM + 2.27PEM + 1.14GA$$

( $R^2 = 1.12 = 112\%$ ).

$$GA = 0.41CS + 0.21CTPSS + 0.49ES + 0.43LS + 2.87IM + 0.21PEM$$

( $R^2 = 0.61 = 61\%$ ).

Based on Figure 2 above, the double-headed arrow is the correlation value between two independent variables and the result of this correlation value indicates that the Structural Equation Modeling (SEM) model that was built is valid based on the construct, because there is no multicollinearity problem. The correlation between two independent, namely the correlation between Communication Skills (CS) with Critical Thinking and Problem Solving Skills (CTPSS) results in a value of 0.09, with Entrepreneurial Skills (ES) results in a value of 0.12, with Leadership Skills (LS) results in a value of 0.08, with Information Management (IM) results in a value of 0.10 and with Professional Ethics and Morals (PEM) results in a value of 0.09. Correlation between Critical Thinking and Problem Solving Skills (CTPSS) with Entrepreneurial Skills (ES) results in a value of 0.10, with Leadership Skills (LS) results in a value of 0.09, with Information Management (IM) results in a value of 0.10 and with Professional Ethics and Morals (PEM) results in a value of 0.08. Correlation between

Entrepreneurial Skills (ES) with Leadership Skills (LS) results in a value of 0.09, with Information Management (IM) results in a value of 0.12 and with Professional Ethics and Morals (PEM) results in a value of 0.08. Correlation between Leadership Skills (LS) with Information Management (IM) results in a value of 0.12 and with Professional Ethics and Morals (PEM) results in a value of 0.10. Correlation between Information Management (IM) with Professional Ethics and Morals (PEM) results in a value of 0.10.

Table 1 from Figure 2 above, shows the results of direct effect hypothesis testing for Communication Skills (CS), Critical Thinking and Problem Solving Skills (CTPSS), Entrepreneurial Skills (ES), Leadership Skills (LS), Information Management (IM), Professional Ethics and Morals (PEM) and Graduate Awareness (GA) (independent variable) on Graduate Employability (GE) (dependent variable).

Table 1 Hypothesis of Direct Effect Between Constructs

Direct Effects Hypothesis	P	Decision
H <sub>1</sub> : Communication Skills (CS) has a significant effect on Graduate Employability (GE).	***	Supported
H <sub>2</sub> : Critical Thinking and Problem Solving Skills (CTPSS) has a significant effect on Graduate Employability (GE).	***	Supported
H <sub>3</sub> : Entrepreneurial Skills (ES) has a significant impact on Graduate Employability (GE).	***	Supported
H <sub>4</sub> : Leadership Skills (LS) has a significant effect on Graduate Employability (GE).	***	Supported
H <sub>5</sub> : Information Management (IM) has a significant effect on Graduate Employability (GE).	***	Supported
H <sub>6</sub> : Professional Ethics and Morals (PEM) has a	***	Supported

significant effect on Graduate Employability (GE).

H <sub>7</sub> : Graduate Awareness (GA) has a significant effect on Graduate Employability (GE).	***	Supported
H <sub>8</sub> : Communication Skills (CS) has a significant effect on Graduate Awareness (GA).	***	Supported
H <sub>9</sub> : Critical Thinking and Problem Solving Skills (CTPSS) has a significant effect on Graduate Awareness (GA).	***	Supported
H <sub>10</sub> : Entrepreneurial Skills (ES) has a significant impact on Graduate Awareness (GA).	***	Supported
H <sub>11</sub> : Leadership Skills (LS) has a significant effect on Graduate Awareness (GA).	***	Supported
H <sub>12</sub> : Information Management (IM) has a significant effect on Graduate Awareness (GA).	***	Supported
H <sub>13</sub> : Professional Ethics and Morals (PEM) has a significant effect on Graduate Awareness (GA).	***	Supported

*Analysis Effect of Communication Skills (CS) on Graduate Employability (GE)*

Based on the analysis of Figure 2 above and Table 2 below shows the results of this study show that Communication Skills (CS) has a positive and significant effect on Graduate Employability (GE). The estimated regression weight ( $\beta$ ) is 0.441, the significance level is 0.000 (Estimate = 0.441, S. E. = 0.039, C. R. = 11.324, Label = Significant). Therefore, when Communication Skills (CS) increases by 1 unit, an increase also occurs by 0.441 units on Graduate Employability (GE). Therefore, the testing of hypothesis **H<sub>1</sub>** in this study is supported based on the observed data.

*Table 2 Regression Coefficient Value, Probability (p) Communication Skills (CS) on Graduate Employability (GE)*

Con	Con	Esti	S.	C.	P	Lab
stru	stru	mate	E.	R.		el
ct	ct					
GE <-	CS	0.441	0.039	11.324	* * *	Significant

*Analysis Effect of Critical Thinking and Problem Solving Skills (CTPSS) on Graduate Employability (GE)*

Based on the analysis of Figure 2 above and Table 3 below shows the results of this study show that Critical Thinking and Problem Solving Skills (CTPSS) has a positive and significant effect on Graduate Employability (GE). The estimated regression weight ( $\beta$ ) is 0.807, the significance level is 0.000 (Estimate = 0.807, S. E. = 0.043, C. R. = 18.946, Label = Significant). Therefore, when Critical Thinking and Problem Solving Skills (CTPSS) increases by 1 unit, an increase also occurs by 0.807 units on Graduate Employability (GE). Therefore, the testing of hypothesis **H<sub>2</sub>** in this study is supported based on the observed data.

*Table 3 Regression Coefficient Value, Probability (p) Critical Thinking and Problem Solving Skills (CTPSS) on Graduate Employability (GE)*

Con	Con	Esti	S.	C.	P	Lab
stru	stru	mate	E.	R.		el
ct	ct					
GE <-	CTPSS	0.807	0.043	18.946	* * *	Significant

*Analysis Effect of Entrepreneurial Skills (ES) on Graduate Employability (GE)*

Based on the analysis of Figure 2 above and Table 4 below shows the results of this study show that Entrepreneurial Skills (ES) has a positive and significant effect on Graduate Employability (GE). The estimated regression weight ( $\beta$ ) is 0.632, the significance level is 0.000 (Estimate = 0.632, S. E. = 0.050, C. R. = 12.516, Label = Significant). Therefore, when

Entrepreneurial Skills (ES) increases by 1 unit, an increase also occurs by 0.632 units on Graduate Employability (GE). Therefore, the testing of hypothesis **H<sub>3</sub>** in this study is supported based on the observed data.

*Table 4 Regression Coefficient Value, Probability (p) Entrepreneurial Skills (ES) on Graduate Employability (GE)*

Con stru ct	Con stru ct	Esti mate	S. E.	C. R.	P	Lab el
GE <-	ES	0.6 32	0.0 50	12 .5 16	* * *	Sign ifica nt

*Analysis Effect of Leadership Skills (LS) on Graduate Employability (GE)*

Based on the analysis of Figure 2 above and Table 5 below shows the results of this study show that Leadership Skills (LS) has a positive and significant effect on Graduate Employability (GE). The estimated regression weight ( $\beta$ ) is 0.351, the significance level is 0.034 (Estimate = 0.351, S. E. = 0.166, C. R. = 2.119, Label = Significant). Therefore, when Leadership Skills (LS) increases by 1 unit, an increase also occurs by 0.351 units on Graduate Employability (GE). Therefore, the testing of hypothesis **H<sub>4</sub>** in this study is supported based on the observed data.

*Table 5 Regression Coefficient Value, Probability (p) Leadership Skills (LS) on Graduate Employability (GE)*

Con stru ct	Con stru ct	Esti mate	S. E.	C. R.	P	Lab el
GE <-	LS	0. 35 1	0.16 6	2. 11 9	0. 03 4	Sign ifica nt

*Analysis Effect of Information Management (IM) on Graduate Employability (GE)*

Based on the analysis of Figure 2 above and Table 6 below shows the results of this study show that Information Management (IM) has a positive and significant effect on Graduate Employability (GE). The estimated regression

weight ( $\beta$ ) is 0.014, the significance level is 0.000 (Estimate = 0.014, S. E. = 0.035, C. R. = 0.412, Label = Significant). Therefore, when Information Management (IM) increases by 1 unit, an increase also occurs by 0.014 units on Graduate Employability (GE). Therefore, the testing of hypothesis **H<sub>5</sub>** in this study is supported based on the observed data.

*Table 6 Regression Coefficient Value, Probability (p) Information Management (IM) on Graduate Employability (GE)*

Con stru ct	Con stru ct	Esti mate	S. E.	C. R.	P	Lab el
GE <-	IM	0.0 14	0.0 35	0. 41 2	* * *	Sign ifica nt

*Analysis Effect of Professional Ethics and Morals (PEM) on Graduate Employability (GE)*

Based on the analysis of Figure 2 above and Table 7 below shows the results of this study show that Professional Ethics and Morals (PEM) has a positive and significant effect on Graduate Employability (GE). The estimated regression weight ( $\beta$ ) is 2.268, the significance level is 0.046 (Estimate = 2.268, S. E. = 1.139, C. R. = 1.992, Label = Significant). Therefore, when Professional Ethics and Morals (PEM) increases by 1 unit, an increase also occurs by 2.268 units on Graduate Employability (GE). Therefore, the testing of hypothesis **H<sub>6</sub>** in this study is supported based on the observed data.

*Table 7 Regression Coefficient Value, Probability (p) Professional Ethics and Morals (PEM) on Graduate Employability (GE)*

Con stru ct	Con stru ct	Esti mate	S. E.	C. R.	P	Lab el
GE <-	PE M	2.2 68	1.1 39	1. 9 9 2	0. 0 4 6	Sign ifica nt

*Analysis Effect of Graduate Awareness (GA) on Graduate Employability (GE)*

Based on the analysis of Figure 2 above and Table 8 below shows the results of this study show that Graduate Awareness (GA) has a positive and significant effect on Graduate Employability (GE). The estimated regression weight ( $\beta$ ) is 1.136, the significance level is 0.000 (Estimate = 1.136, S. E. = 0.071, C. R. = 15.935, Label = Significant). Therefore, when Graduate Awareness (GA) increases by 1 unit, an increase also occurs by 1.136 units on Graduate Employability (GE). Therefore, the testing of hypothesis  $H_7$  in this study is supported based on the observed data.

Table 8 Regression Coefficient Value, Probability (p) Graduate Awareness (GA) on Graduate Employability (GE)

Construct	Construct	Estimate	S. E.	C. R.	P	Label
GE <-	GA	1.136	0.071	15.935	*	Significant

*Analysis Effect of Communication Skills (CS) on Graduate Awareness (GA)*

Based on the analysis of Figure 2 above and Table 9 below shows the results of this study show that Communication Skills (CS) has a positive and significant effect on Graduate Awareness (GA). The estimated regression weight ( $\beta$ ) is 0.405, the significance level is 0.000 (Estimate = 0.405, S. E. = 0.040, C. R. = 10.084, Label = Significant). Therefore, when Communication Skills (CS) increases by 1 unit, an increase also occurs by 0.405 units on Graduate Awareness (GA). Therefore, the testing of hypothesis  $H_8$  in this study is supported based on the observed data.

Table 9 Regression Coefficient Value, Probability (p) Communication Skills (CS) on Graduate Awareness (GA)

Construct	Construct	Estimate	S. E.	C. R.	P	Label
GA <-	CS	0.405	0.040	10.084	*	Significant

Construct	Construct	Estimate	S. E.	C. R.	P	Label
				84	*	Significant

*Analysis Effect of Critical Thinking and Problem Solving Skills (CTPSS) on Graduate Awareness (GA)*

Based on the analysis of Figure 2 above and Table 10 below shows the results of this study show that Critical Thinking and Problem Solving Skills (CTPSS) has a positive and significant effect on Graduate Awareness (GA). The estimated regression weight ( $\beta$ ) is 0.212, the significance level is 0.000 (Estimate = 0.212, S. E. = 0.034, C. R. = 6.282, Label = Significant). Therefore, when Critical Thinking and Problem Solving Skills (CTPSS) increases by 1 unit, an increase also occurs by 0.212 units on Graduate Awareness (GA). Therefore, the testing of hypothesis  $H_9$  in this study is supported based on the observed data.

Table 10 Regression Coefficient Value, Probability (p) Critical Thinking and Problem Solving Skills (CTPSS) on Graduate Awareness (GA)

Construct	Estimate	S. E.	C. R.	P	Label
CTPSS <-	0.212	0.034	6.282	***	Significant

*Analysis Effect of Entrepreneurial Skills (ES) on Graduate Awareness (GA)*

Based on the analysis of Figure 2 above and Table 11 below shows the results of this study show that Entrepreneurial Skills (ES) has a positive and significant effect on Graduate Awareness (GA). The estimated regression weight ( $\beta$ ) is 0.491, the significance level is 0.000 (Estimate = 0.491, S. E. = 0.039, C. R. = 12.724, Label = Significant). Therefore, when Entrepreneurial Skills (ES) increases by 1 unit, an increase also occurs by 0.491 units on Graduate Awareness (GA). Therefore, the testing of hypothesis  $H_{10}$  in this study is supported based on the observed data.

Table 11 Regression Coefficient Value, Probability (p) Entrepreneurial Skills (ES) on Graduate Awareness (GA)

Con stru ct	Con stru ct	Esti mate	S. E.	C. R.	P	Lab el
GA <-	ES	0.4 91	0.0 39	12 .7 24	* * *	Sign ifica nt

*Analysis Effect of Leadership Skills (LS) on Graduate Awareness (GA)*

Based on the analysis of Figure 2 above and Table 12 below shows the results of this study show that Leadership Skills (LS) has a positive and significant effect on Graduate Awareness (GA). The estimated regression weight ( $\beta$ ) is 0.426, the significance level is 0.000 (Estimate = 0.426, S. E. = 0.059, C. R. = 7.232, Label = Significant). Therefore, when Leadership Skills (LS) increases by 1 unit, an increase also occurs by 0.426 units on Graduate Awareness (GA). Therefore, the testing of hypothesis  $H_{11}$  in this study is supported based on the observed data.

Table 12 Regression Coefficient Value, Probability (p) Leadership Skills (LS) on Graduate Awareness (GA)

Con stru ct	Con stru ct	Esti mate	S. E.	C. R.	P	Lab el
GA <-	LS	0.4 26	0.0 59	7. 23 2	* * *	Sign ifica nt

*Analysis Effect of Information Management (IM) on Graduate Awareness (GA)*

Based on the analysis of Figure 2 above and Table 13 below shows the results of this study show that Information Management (IM) has a positive and significant effect on Graduate Awareness (GA). The estimated regression weight ( $\beta$ ) is 2.874, the significance level is 0.012 (Estimate = 2.874, S. E. = 1.147, C. R. = 2.505, Label = Significant). Therefore, when Information Management (IM) increases by 1 unit, an increase also occurs by 2.874 units on Graduate Awareness (GA). Therefore, the

testing of hypothesis  $H_{12}$  in this study is supported based on the observed data.

Table 13 Regression Coefficient Value, Probability (p) Information Management (IM) on Graduate Awareness (GA)

Con stru ct	Con stru ct	Esti mate	S. E.	C. R.	P	Lab el
GA <-	IM	2.8 74	1.1 47	2. 5 0 5	0. 1 2	Sign ifica nt

*Analysis Effect of Professional Ethics and Morals (PEM) on Graduate Awareness (GA)*

Based on the analysis of Figure 2 above and Table 14 below shows the results of this study show that Professional Ethics and Morals (PEM) has a positive and significant effect on Graduate Awareness (GA). The estimated regression weight ( $\beta$ ) is 0.205, the significance level is 0.000 (Estimate = 0.205, S. E. = 0.045, C. R. = 4.568, Label = Significant). Therefore, when Professional Ethics and Morals (PEM) increases by 1 unit, an increase also occurs by 0.205 units on Graduate Awareness (GA). Therefore, the testing of hypothesis  $H_{13}$  in this study is supported based on the observed data.

Table 14 Regression Coefficient Value, Probability (p) Professional Ethics and Morals (PEM) on Graduate Awareness (GA)

Con stru ct	Con stru ct	Esti mate	S. E.	C. R.	P	Lab el
GA <-	PE M	0.2 05	0.0 45	4. 56 8	* * *	Sign ifica nt

**Conclusion**

Overall, the findings of this study prove that soft skills and awareness of graduates are important factors that influence the marketability of Terengganu graduates. Analysis shows that graduates who master good communication skills, are able to think critically and are able to solve problems effectively have a competitive advantage in the job market. These skills enable graduates to adapt to the needs of the

organization and increase employers' confidence in their abilities. In addition, entrepreneurial and leadership skills also contribute significantly to the marketability of graduates. Graduates who are proactive, take initiative and are able to lead a work team are found to be more prepared to face the challenges of the dynamic world of work. In the context of the state of Terengganu which is undergoing economic transformation, entrepreneurial skills in particular are seen as a catalyst for the creation of new job opportunities and reducing dependence on the traditional sector.

The findings of the study also show that information management skills and an appreciation of professional ethics and morals play an important role in increasing the credibility of graduates. The ability to manage information systematically and ethically helps graduates make the right decisions, while integrity and professional values increase employers' trust in the commitment and responsibility of graduates. In addition, the level of graduates' awareness of job market needs, the importance of skill development and self-preparedness act as reinforcing factors to the relationship between soft skills and marketability. Graduates with high awareness are found to be more proactive in improving their weaknesses and adding value to their competencies.

In conclusion, this study emphasizes that the marketability of Terengganu graduates requires a holistic development approach, combining comprehensive mastery of soft skills with continuous career awareness building. These findings have important implications for higher learning institutions, government agencies and industry in formulating more systematic and competitive human capital development strategies.

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**Data Availability:** The author has all the data employed in this research and is open to sharing it upon reasonable request.

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