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Mediating Affect of COVID-19 Panic on Comprehensive Universities Students Entrepreneurial Behavior through Structural Equation Modeling (SEM): A Perspective of Higher Education

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Abstract

Purpose –Sudden occurrence of uncertainty because of COVID-19 pandemic altered the teaching and learning practices and leads to changes in entrepreneurial intentions among students that are going be become future entrepreneurs. Thus, rational behind present paper is to investigate student's intentions about Entrepreneurship behavior in case of Bule Hora University, Ethiopia students with mediating role of COVID-19 panic.

Design/ approach/methodology – Primary data about student entrepreneurs' learning experiences during the COVID-19 was through survey questionnaire from 350 respondents. Confirmatory factor analysis was employed to check uni-dimensionality, validity of construct and model reliability. SEM with help of STATA-14 software employed to measure the mediating role of covid-19 panic on comprehensive university student's entrepreneurial behavioral intentions.

Findings – Outcomes of the study show that covid-19 panic has the mediating and indirect effect on comprehensive university student's entrepreneurial behavior intentions.

Practical implications – Study results have indications for educational policymakers and practitioners to adjust the distorted entrepreneurship learning environment which is based on face to face practical incubation based learning, during the COVID-19 panic.

Originality/value –The research add value in literature on education by unique contribution by investigate the COVID-19 panic affect on incident of learning in comprehensive university students of Ethiopia. The findings of present research will help in expanding the policy maker's insights about nurturing of entrepreneurship spirit among students to cope with the poverty and unemployment situation during post COVID-19 period.

Keywords - Comprehensive University**,** COVID-19 panic, Entrepreneurial intentions, Learning environment.

Paper type Research paper

1. Introduction:

Business success depends on strategic decision making which is the core of any entrepreneurial startup (Burgelman, R.A, 2018). Inclusion of entrepreneurial intention is based on the formal learning substructure (Politis, 2005). Higher education institutes are the harbinger of providing learning environment to nurture the student entrepreneurial behaviour (Welter, F., 2020).

But, Entrepreneurial learning affected by COVID-19, as it make the physical gap between the learner and the educator. Results in increase in stress level and reduction in risk taking ability (Xiong et al., 2020). University based entrepreneurial courses help the nascent entrepreneurs to create an entrepreneurial

innovative ecosystem (Khurana and Dutta, 2021). This ecosystem helps the student to nurture the risk taking and self efficacy (Lattacher and Wdowiak, 2020). But COVID-19 disturbs the learning environment in both contexts of learning formal and informal and thus affected directly the Entrepreneurial intention. Side by side these challenges paved the way forward for new ways of learning's and adaptations because of creating an uncertain environment that is the breeding ground of entrepreneurship (Katper et al., Cho et al., Noor & Isa, 2020).

2. Literature review

At present time effect of COVID-19 on learning environment is the key concern for all universities around the world. Present research investigates the connection among core elements of practical learning of entrepreneurial intention and Risk taking, innovativeness and self efficacy with the mediating function of COVID-19 Panic. Adjoining theory used for this study is "Resource-Based View". Resource-Based View pioneered with VRIO framework that is "valuable, rare, inimitable and organization" (Barney, 1991). Entrepreneurship intention dimensions and COVID-19 panic are global concern. Resource-Based View will be applicable in perspective of COVID-19 panic that creates the fear as well as entrepreneurial intention competencies (Tehseen & Ramayah, 2015)

2.1. Entrepreneurial intention dimensions

2.1.1. Risk taking propensity and Entrepreneurial intention.

Affinity in performing on uncertain projects is known as propensity to take risk so as to get a desired outcome (Yusoff, M. N., 2021). Students are considered as potential entrepreneurs when they have propensity of taking risk (Afthanorhan et al., 2020). Showing unique behavior to get a calculated return is considered as the propensity of taking risk (Babad, S, 2021). Propensity of captivating risk has a significant association in relation to entrepreneurial intention (Abdul et al., 2018).

Halberstadt (2021) and Ribeiro (2021) in their study of entrepreneurship intention found that propensity of taking risk have a negative relation with entrepreneurship intention. In his critical investigation, Antoncic (2018) clarify that relation of propensity of taking risk with entrepreneurship learning can be moderated dependent on power distance. Munandar et al., (2021) in their study evident that in COIVID-19 period student's intention of entrepreneurship triggered on propensity of taking risk was unaffected. Also, education oriented on entrepreneurship had no association with intention of entrepreneurial. In this view of above contradictory evidences researchers framed the followings hypothesis to fill the evidence gap.

H_1: Risk taking propensity has significant relation with Entrepreneurial intention.

H_2: Risk taking propensity has significant relation with COVID-19 Panic.

H_3: COVID-19 Panic has mediated the relation among entrepreneurial intention and propensity of Risk.

2.1.2 Self-efficacy along with Intention of Entrepreneurship

Inference of person evaluation based on past performance is known as self-efficacy (Chung et al., 2021). According to Vattøy (2020) a student aptitude to perform a creative task is considered as self-efficacy. In his study Ferguson (2021) manifested that university learning ecosystem based on trained teachers improves the self-efficacy of the student. In contrast, Nowiński (2019) study shows a negative influence of entrepreneurial learning on self-efficacy of university learners. St-Jean (2018) research manifested that entrepreneurial mentoring programs not reinforced the mentees' self-efficacy. Student week self believe leads to a week intention towards the entrepreneurship nurturing (Schmutzler et al., 2019)

The pandemic panic is a mediating variable in form of COVID-19 panic for the measurement of person efficacy (Hernández, 2020). Mental status of students during pandemic outbreak helped the learners in improving their self-efficacy (Xiong et al., 2020). Pandemic panic has a direct relationship with person efficacy (Cataudella et al., 2021). Is was found a increase in self-efficacy among Italy medial students in post COVID-19 panic (Simonetti et al., 2021)

H_4: Significant association will exist between Self-Efficacy and Entrepreneurship Intention.

H_5: Significant association will exist between Self-Efficacy and COVID-19 Panic.

H_6: COVID-19 Panic has mediated the relation among Self-Efficacy and Intention of Entrepreneurship.

2.1.3 Innovativeness and Entrepreneurial Intention

Alhakimi & Mahmoud (2020) indicated that innovativeness directly affected the intention of entrepreneurship. But with contrast, it is evident that innovativeness is negatively related with entrepreneurship intention (Ali, 2019). The relation between intention to become a entrepreneur and innovative ability become more visible in the post COVID-19 panic period (Utomo et al., 2021). COVID-19 panic situation affected the innovativeness in the form of increasing the non profitable performances of the businesses (Cho et al., 2018). Panic of COVID-19 moderated the association of behavioral intentions with perceived innovativeness (Kim et al., 2021). There is a significant increase in innovators founded after COVID-19 panic (Yamamoto et al., 2020). Furthermore, comparatively innovativeness and entrepreneurial intention bondage found more compact in the shadow of insecurity of life (Ali, 2021).

H_7: Innovativeness has significant relationship with Entrepreneurial intention.

H_8: Innovativeness has significant relationship with COVID-19 Panic.

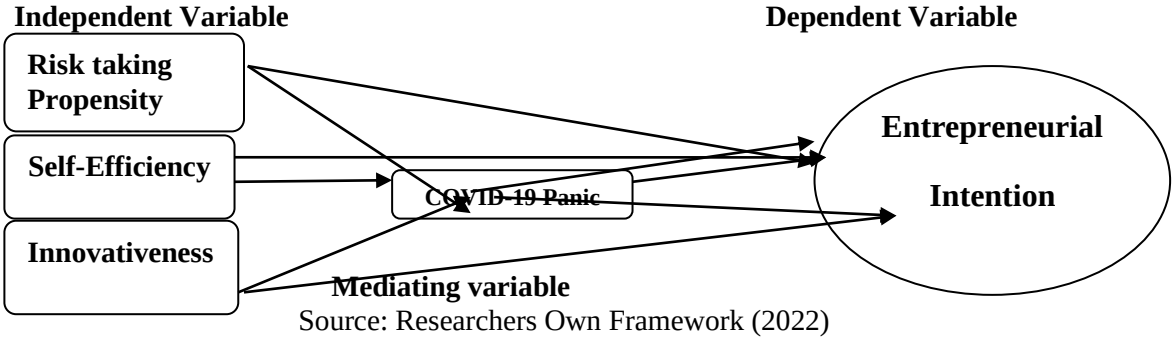
H_9: Entrepreneurship Intention has significant relationship with COVID-19 Panic.

H_{10}: COVID-19 Panic has mediated the relation between Innovativeness and Entrepreneurship Intention

2.2. Conceptual framework

On the bases of reviewed related researchers, intention of entrepreneurship has three determinants that are risk taking propensity, innovativeness and self efficacy. COVID-19 panic is considered as mediating variable.

Figure 1: Model of Research



Source: Researchers Own Framework (2022)

3. Materials and methods

Mixed approach of research and cross sectional study plan was adopted to test the research framework. likert scale have been employed to measured the three latent constructs of entrepreneurship intention and mediating role of COVID-19 panic. Primary data was collected from 350 students of comprehensive Bule Hora University, Ethiopia with help of structured questionnaire. Bule Hora University was established in 2012 G.C. From capital city Addis Ababa it has a distance 467 km. it is the youngest comprehensive universities in Ethiopia (Wikipedia, 2021).

4. Data analysis

Analysis of data included the both descriptive and inferential statics. Composite reliability, convergent and discriminant validity, model fitness indices was checked during CFA. After that SEM was developed.

Table 1: Descriptive Statics

Variables	Mean	Std. Deviation
Risk-taking Propensity	3.12	1.19
Innovativeness	3.06	1.12
Self-efficacy	3.13	1.21
COVID-19 Panic	3.41	1.35
Entrepreneurship Intention	3.17	1.24

In Table no. one ,Range of means values was from 3.06 to 3.41 shows a healthy relation between variables.

4.1. Confirmatory Factor Analysis

CFA is used as a model testing tool for analysis of factors. Uni-dimensionality, reliability and validity will be checked for all constructs before running the CFA (Afthanorhan et al., 2020). Assessment of Fitness of Final Model was shown in Figure 2.

4.2. Goodness of fit

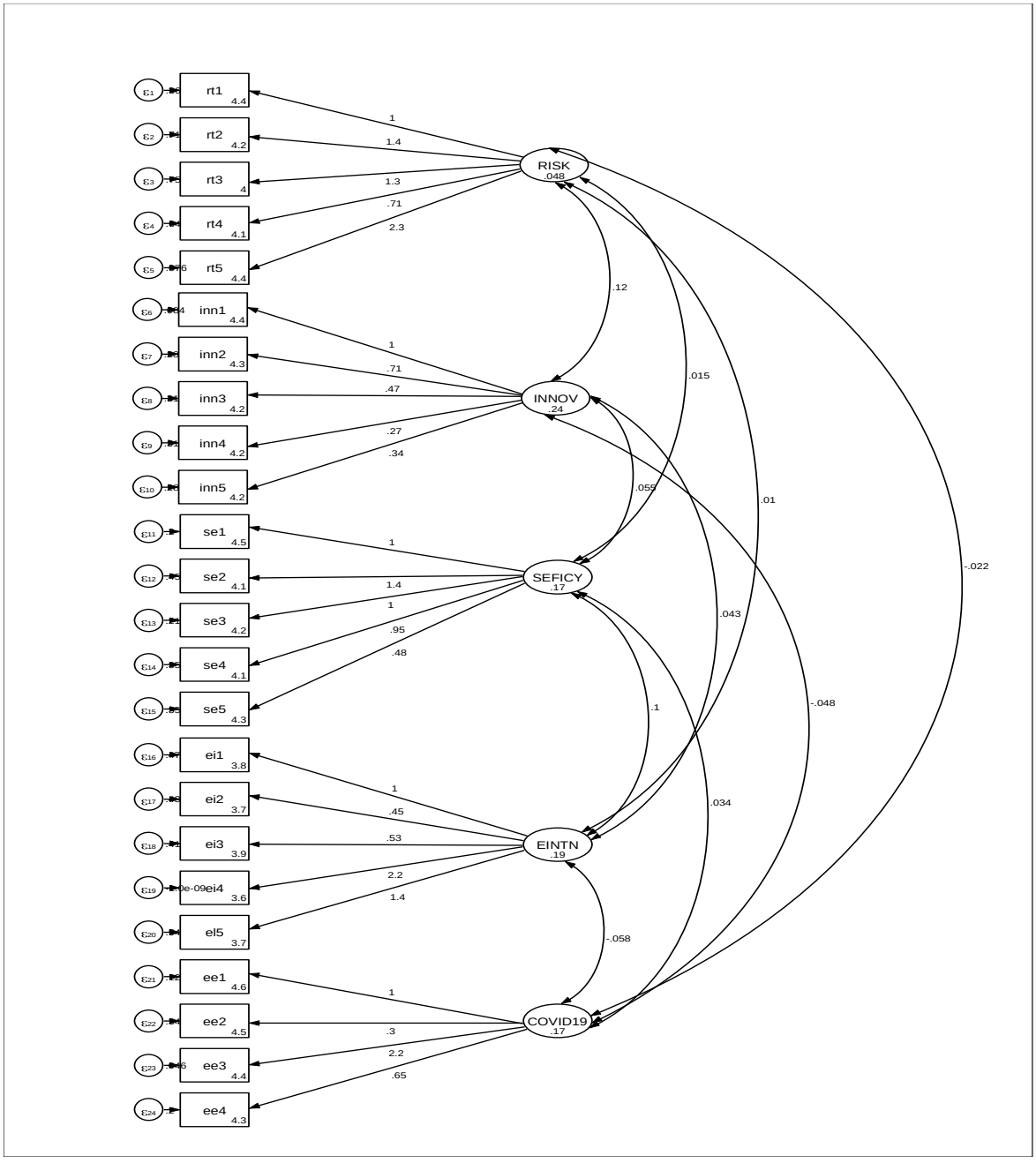


Figure 2: Final Fit Model

Table 2: Fitness of "Final Fit Model" Assessment based on Figure 2

Category	Indicator	Gained Value	Acceptance Point	Decision
1. Absolute fit	RMSEA	0.044	< 0.05	Accepted
2. Incremental fit	CFI	0.916	Close to 1	Accepted
3.Tucker-Lewis index	TLI	0.912	Close to 1	Accepted
4. Parsimonious fit	$\chi 2$/df	2.382	< 5.0	Accepted

Note: Level of Acceptance is based on Hair et al. (2012).

As in table 2, the $\chi 2$/df value for parsimonious fit was 2.382 which is less than 5.0 were higher than 0.90, CFI value for Incremental fit indexes was 0.916 and TLI had value of 0.912, which were close to one. RMSEA value for absolute fit was 0.044 that was lower than value of 0.05. All these values under acceptance level showed the confirmation of goodness of fit (GOF).

4.3. Hypothesis Testing

Table 3: Hypothesis Outcomes

Structural equation model **Number of obs = 350**
Estimation method = ml
Log likelihood = -7977.2316

	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
cov(RISK,EINTN)	.0103724	.0051559	2.01	0.044	.000267	.0204778
cov(RISK,COVID 19)	-.0217126	.0055797	-3.89	0.000	-.0326486	-.0107766
cov(INNOV,EINTN)	.042626	.0119094	3.58	0.000	.0192839	.065968
cov(INNOV,COVID 19)	-.0475269	.012271	-3.87	0.000	-.0715777	-.0234762
cov(SEFICY,EINTN)	.1011646	.0149003	6.79	0.000	.0719606	.1303686
cov(SEFICY,COVID 19)	.0340234	.0115186	2.95	0.003	.0114474	.0565993
cov(EINTN,COVID 19)	-.0582304	.010335	-5.63	0.000	-.0784866	-.0379742

LR test of model vs. saturated: chi2(242) = 3262.98, Prob > chi2 = 0.0065

As per the table 3, risk taking propensity has significant positive relation with entrepreneurship intention with p-value (0.044) is less than 0.05. But risk taking propensity has significant but negative correlation coefficient with COVID-19 panic because p-value is 0.000; which is less than 0.05 and coefficient was of -.0217126. Innovativeness has significant positive relation (coef. =0.042626) with entrepreneurship intention with p-value (0.000) is less than 0.05. Innovativeness has significant but negative correlation coefficient (coef. =-.0475269) with COVID-19 panic with p-value (0.000) is less than 0.05. Self efficacy has significant positive relation (coef. =.1011646) with entrepreneurship intention with p-value (0.000) is less than 0.05. Self efficacy has significant and positive relation (coef. =.0340234) with entrepreneurship intention with p-value (0.003) is less than 0.05. Similarly, has entrepreneurship intention significant but negative correlation coefficient (coef. =-.0582304) with p-value (0.000) is less than 0.05.Also chi-square is also significant because Prob > chi2 = 0.0065, which is more than 0.005. But with COVID-19 panic only Self efficacy has a positive correlation coefficient.

So, it is interrelated that all latent variables have significant relations and H1, H2, H4, H5, H7 and H8 are considered as true.

Below figure 3 shows mediating role of entrepreneurship education was tested with help of path diagram.

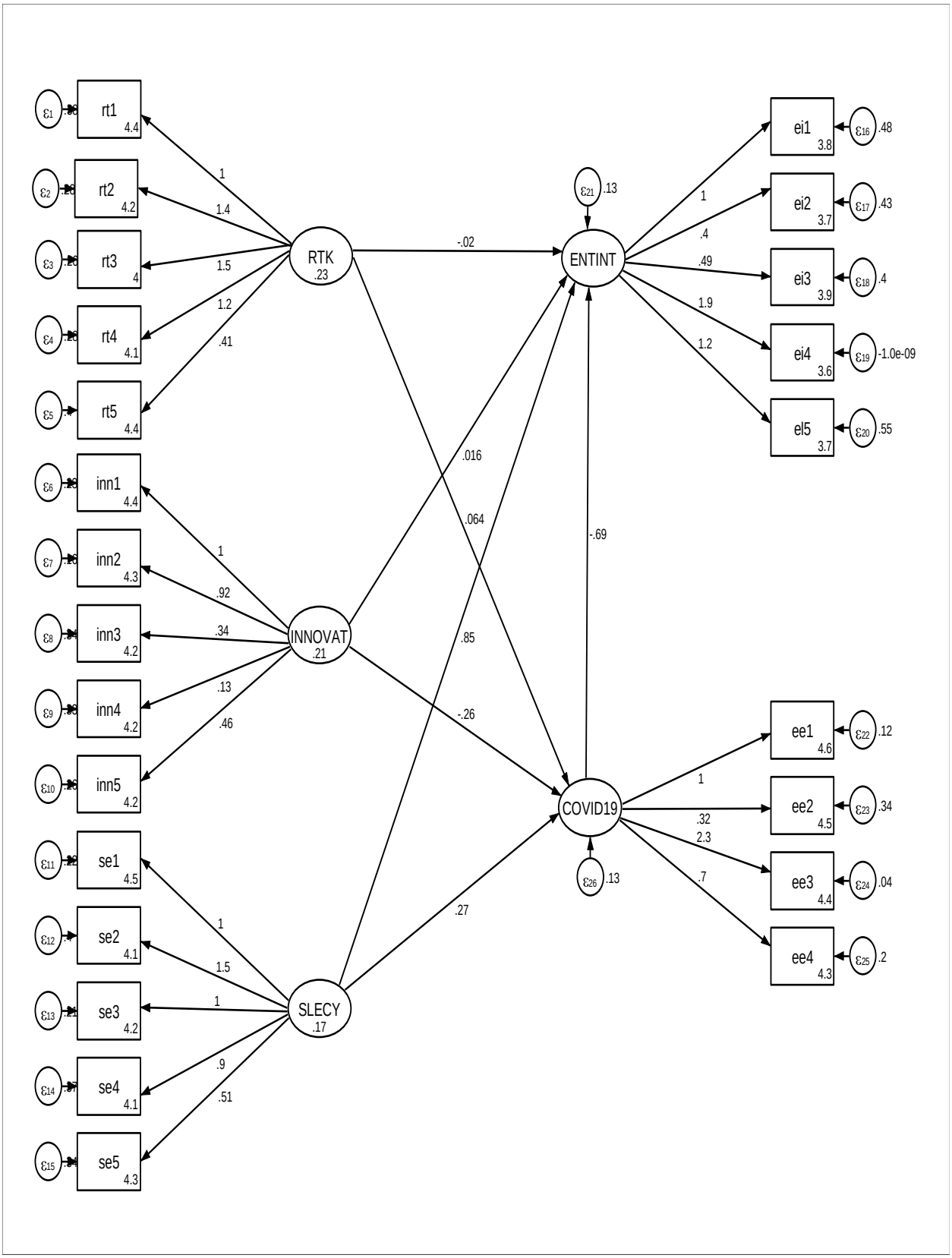


Figure 3: SEM MODEL

4.4 Mediation Effect of COVID-19 Panic

The study hypothesized the hypothesis number ten (H_{10}) that COVID-19 panic meditates the relationship between the determinants of entrepreneurship and the student's behavior of entrepreneurial intention. Table 4 depicted the indirect effect of entrepreneurial constructs on the student's behavior of entrepreneurial intention when the relationship is mediated by COVID-19 panic.

Table 4: Effect of determinants of entrepreneurship on student's behavior of entrepreneurial intention mediated by COVID-19 panic

Direction	Direct effect	Indirect effect	Total effect	Two tailed Significance (indirect effect)
Risk taking Propensity-Entrepreneurship Intention	.010	.023	.033	.000
Self Efficacy-Entrepreneurship Intention	.101	.034	.135	.003
Innovativeness-Entrepreneurship Intention	.042	.007	.049	.000
COVID-19 Panic- Entrepreneurship Intention	-.058	.015	-.043	

5. Result and Discussion:

The results presented in Table 4 show that all the three determinants of entrepreneurship have affirmative and considerable direct influence on the student's behavior of entrepreneurial intention. In investigating the indirect influence of determinants of entrepreneurship on the student's behavior of entrepreneurial intention, the findings show that the Risk taking Propensity, Self Efficacy and Innovativeness determinants are fully mediated by having the indirect influences of $\beta = .023$, $\beta = .034$ and $\beta = .007$ with $p<0.01$, respectively. Indirect path is more momentous than direct path. Maximum evidence for mediation is found. The influence of COVID-19 panic as a middle variable on the association among this determinants and the student's behavior of entrepreneurial intention was found to be significant. Thus, outcomes manifested that COVID-19 panic mediates the association among determinants of entrepreneurship and student's behavior of entrepreneurial intention.

6. Limitations

Study is limited to geographical setting of the Ethiopia. Also it is centered towards the comprehensive universities of the Ethiopia. Internal validity of data is under question because student's responses may be affected by the anxiety of COVID-19 panic.

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