Table 1

Research Instrument

Variable type	Variable name	Question heading (SDG No.)	Question statement	Likert scale description
Dependent	Sustainable agripreneurial innovation adoption	Contribution to SDG 2	The agripreneurial innovations I adopt contribute to achieving food security.	1 (strongly disagree) to 7 (strongly agree)
Dependent	Sustainable agripreneurial innovation adoption	Contribution to SDG 12	My agripreneurial practices ensure efficient and sustainable resource use.	1 (strongly disagree) to 7 (strongly agree)
Dependent	Sustainable agripreneurial innovation adoption	Impact on sustainability goals (SDG 2, 12)	The innovations I adopt significantly reduce environmental impact while improving agricultural outcomes.	1 (strongly disagree) to 7 (strongly agree)
Dependent	Sustainable agripreneurial innovation adoption	SDG awareness and practice alignment (SDG 13)	My practices align with climate-smart agriculture for sustainability.	1 (strongly disagree) to 7 (strongly agree)
Dependent	Sustainable agripreneurial innovation adoption	SDG 15 impact assessment	My innovations contribute to sustainable use of land and preservation of ecosystems.	1 (strongly disagree) to 7 (strongly agree)
Independent	Access to ICT infrastructure	Availability (SDG 9)	ICT infrastructure is easily accessible in my area for agricultural purposes.	1 (strongly disagree) to 7 (strongly agree)
Independent	Access to ICT infrastructure	Reliability (SDG 9)	The ICT infrastructure I use is reliable and consistent.	1 (strongly disagree) to 7 (strongly agree)
Independent	Access to ICT infrastructure	Cost effectiveness (SDG 17)	The cost of using ICT tools and infrastructure is affordable for my agricultural needs.	1 (strongly disagree) to 7 (strongly agree)
Independent	Access to ICT infrastructure	Technical support availability (SDG 17)	I have access to technical support for ICT-related issues.	1 (strongly disagree) to 7 (strongly agree)
Independent	ICT literacy	Basic ICT skills (SDG 4)	I have the necessary skills to operate ICT tools effectively.	1 (strongly disagree) to 7 (strongly agree)

Independent	ICT literacy	Advanced ICT skills (SDG 4)	I am comfortable using advanced features of ICT tools.	1 (strongly disagree) to 7 (strongly agree)
Independent	ICT literacy	Training opportunities (SDG 8)	I have access to training programs to enhance my ICT skills.	1 (strongly disagree) to 7 (strongly agree)
Independent	ICT literacy	Ease of learning (SDG 4)	I find it easy to learn and adapt to new ICT tools.	1 (strongly disagree) to 7 (strongly agree)
Independent	ICT literacy	Self-efficacy in ICT (SDG 4)	I feel confident in my ability to use ICT for agricultural purposes.	1 (strongly disagree) to 7 (strongly agree)
Independent	ICT literacy	Peer support (SDG 17)	My peers support me in using ICT tools effectively.	1 (strongly disagree) to 7 (strongly agree)
Mediating	Knowledge acquisition for sustainable practices	Access to knowledge resources (SDG 4, SDG 13)	ICT provides me with access to knowledge about sustainable agricultural practices.	1 (strongly disagree) to 7 (strongly agree)
Mediating	Knowledge acquisition for sustainable practices	Relevance of information (SDG 2)	The information I acquire through ICT is relevant to sustainable agriculture.	1 (strongly disagree) to 7 (strongly agree)
Mediating	Knowledge acquisition for sustainable practices	Ease of knowledge application (SDG 12)	I can easily apply the knowledge acquired through ICT to my practices.	1 (strongly disagree) to 7 (strongly agree)
Mediating	Knowledge acquisition for sustainable practices	Peer sharing (SDG 17)	ICT enables me to share sustainable practices knowledge with my peers.	1 (strongly disagree) to 7 (strongly agree)
Mediating	Knowledge acquisition for sustainable practices	Awareness of SDG impacts (SDG 13, SDG 15)	The knowledge I acquire through ICT enhances my awareness of environmental and sustainability impacts.	1 (strongly disagree) to 7 (strongly agree)
Mediating	Knowledge acquisition for sustainable practices	Effectiveness of learning (SDG 4)	I find ICT effective for learning about sustainable practices.	1 (strongly disagree) to 7 (strongly agree)

Source: authors' own work.

Table 2

VIF

	VIF
Access to knowledge resources (SDG 4, SDG 13)	4.442
Advanced ICT skills (SDG 4)	2.089
Availability (SDG 9)	3.086
Awareness of SDG impacts (SDG 13, SDG 15)	4.301
Basic ICT skills (SDG 4)	1.300
Contribution to SDG 12	4.093
Contribution to SDG 2	2.083
Cost effectiveness (SDG 17)	3.370
Ease of knowledge application (SDG 12)	4.327
Ease of learning (SDG 4)	2.399
Effectiveness of learning (SDG 4)	1.444
Impact on sustainability goals (SDG 2, 12)	4.149
Peer sharing (SDG 17)	4.563
Peer support (SDG 17)	2.177
Relevance of information (SDG 2)	3.956
Reliability (SDG 9)	4.073
SDG 15 impact assessment	2.589
SDG awareness and practice alignment (SDG 13)	4.998
Self-efficacy in ICT (SDG 4)	3.000
Technical support availability (SDG 17)	4.267
Training opportunities (SDG 8)	2.480

Source: authors' own work.

Table 3

Fornell and Larcker Criterion

	Access to ICT infrastructure	**ICT literacy**	**Knowledge acquisition for sustainable practices**	**Sustainable agripreneurial innovation adoption**
Access to ICT infrastructure	0.918			
ICT literacy	0.466	0.783		
Knowledge acquisition for sustainable practices	0.348	0.420	0.863	
Sustainable agripreneurial innovation adoption	0.388	0.388	0.451	0.888

Source: authors' own work.

Table 4

Cross Loading

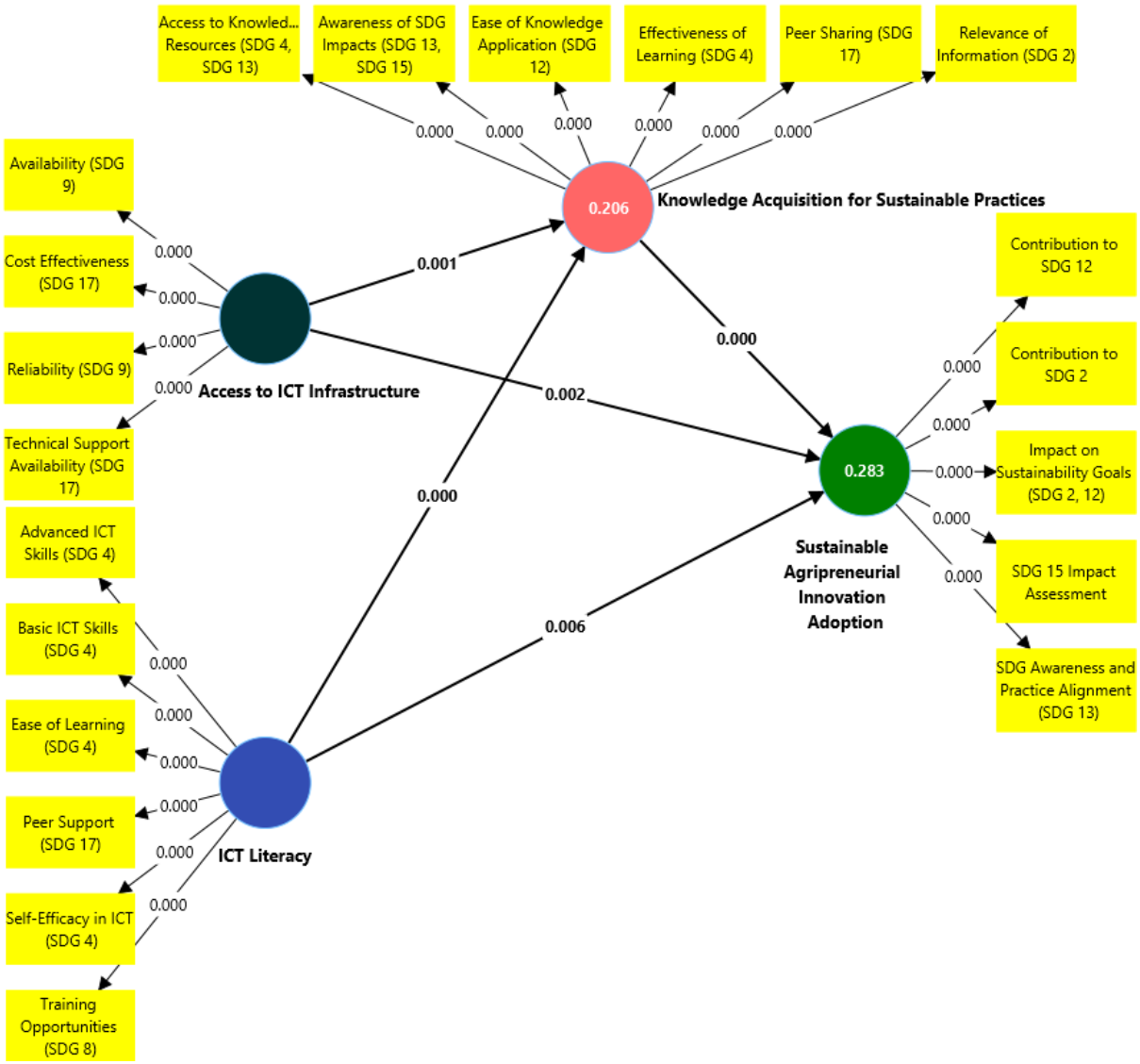
	Access to ICT infrastructure	**ICT literacy**	**Knowledge acquisition for sustainable practices**	**Sustainable agripreneurial innovation adoption**
Access to knowledge resources (SDG 4, SDG 13)	0.353	0.351	0.911	0.388
Advanced ICT skills (SDG 4)	0.242	0.772	0.239	0.183
Availability (SDG 9)	0.900	0.393	0.359	0.359
Awareness of SDG impacts (SDG 13, SDG 15)	0.264	0.328	0.895	0.329
Basic ICT skills (SDG 4)	0.549	0.640	0.384	0.358
Contribution to SDG 12	0.282	0.382	0.344	0.918
Contribution to SDG 2	0.535	0.376	0.401	0.837

Cost effectiveness (SDG 17)	0.904	0.446	0.269	0.372
Ease of knowledge application (SDG 12)	0.321	0.407	0.915	0.400
Ease of learning (SDG 4)	0.343	0.831	0.329	0.309
Effectiveness of learning (SDG 4)	0.254	0.347	0.628	0.379
Impact on sustainability goals (SDG 2, 12)	0.291	0.330	0.354	0.903
Peer sharing (SDG 17)	0.262	0.330	0.907	0.385
Peer support (SDG 17)	0.299	0.768	0.317	0.356
Relevance of information (SDG 2)	0.324	0.390	0.883	0.429
Reliability (SDG 9)	0.920	0.402	0.316	0.331
SDG 15 impact assessment	0.251	0.294	0.495	0.859
SDG awareness and practice alignment (SDG 13)	0.312	0.329	0.389	0.922
Self-efficacy in ICT (SDG 4)	0.357	0.845	0.314	0.287
Technical support availability (SDG 17)	0.946	0.471	0.326	0.362
Training opportunities (SDG 8)	0.309	0.827	0.335	0.254

Source: authors' own work.

Figure 1

Bootstrapping of Conceptual Model



Source: authors' own work.

Table 5

Confidence Interval

	Original sample (O)	Sample mean (M)	2.5%	97.5%
Access to ICT infrastructure -> Knowledge acquisition for sustainable practices	0.194	0.194	0.078	0.306
Access to ICT infrastructure -> Sustainable agripreneurial innovation adoption	0.205	0.207	0.074	0.339
ICT literacy -> Knowledge acquisition for sustainable practices	0.330	0.333	0.220	0.439
ICT literacy -> Sustainable agripreneurial innovation adoption	0.161	0.161	0.046	0.277
Knowledge acquisition for sustainable practices -> Sustainable agripreneurial innovation adoption	0.312	0.313	0.197	0.421

Source: authors' own work.

Table 6

Outer Loadings

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	*T* statistics (|O/STDEV|)	*P* values
Access to knowledge resources (SDG 4, SDG 13) <- Knowledge acquisition for sustainable practices	0.911	0.911	0.011	80.992	0.000
Advanced ICT skills (SDG 4) <- ICT Literacy	0.772	0.769	0.028	27.785	0.000
Availability (SDG 9) <- access to ICT infrastructure	0.900	0.900	0.011	78.422	0.000
Awareness of SDG impacts (SDG 13, SDG 15) <- Knowledge acquisition for sustainable practices	0.895	0.894	0.013	68.959	0.000
Basic ICT skills (SDG 4) <- ICT literacy	0.640	0.639	0.039	16.453	0.000
Contribution to SDG 12 <- Sustainable agripreneurial innovation adoption	0.918	0.917	0.011	82.782	0.000

Contribution to SDG 2 <- Sustainable agripreneurial innovation adoption	0.837	0.836	0.020	41.668	0.000
Cost effectiveness (SDG 17) <- Access to ICT infrastructure	0.904	0.903	0.012	74.133	0.000
Ease of Knowledge Application (SDG 12) <- Knowledge acquisition for Sustainable Practices	0.915	0.914	0.009	98.954	0.000
Ease of learning (SDG 4) <- ICT literacy	0.831	0.831	0.017	48.205	0.000
Effectiveness of learning (SDG 4) <- Knowledge acquisition for sustainable practices	0.628	0.627	0.045	14.052	0.000
Impact on sustainability goals (SDG 2, 12) <- Sustainable agripreneurial innovation adoption	0.903	0.902	0.011	79.054	0.000
Peer sharing (SDG 17) <- Knowledge acquisition for sustainable practices	0.907	0.907	0.009	97.121	0.000
Peer support (SDG 17) <- ICT literacy	0.768	0.767	0.030	25.944	0.000
Relevance of information (SDG 2) <- Knowledge acquisition for sustainable practices	0.883	0.883	0.012	74.455	0.000
Reliability (SDG 9) <- Access to ICT infrastructure	0.920	0.920	0.009	103.080	0.000
SDG 15 impact assessment <- Sustainable agripreneurial innovation adoption	0.859	0.858	0.019	45.064	0.000
SDG awareness and practice alignment (SDG 13) <- Sustainable agripreneurial innovation adoption	0.922	0.921	0.010	90.941	0.000
Self-efficacy in ICT (SDG 4) <- ICT literacy	0.845	0.844	0.018	45.868	0.000

Technical support availability (SDG 17) <- Access to ICT infrastructure	0.946	0.945	0.006	170.136	0.000
Training opportunities (SDG 8) <- ICT literacy	0.827	0.826	0.019	43.639	0.000

Source: authors' own work.

Table 7

Outer Weights

	Original sample (O)	**Sample mean (M)**	**Standard deviation (STDEV)**	***T* statistics (|O/STDEV|)**	***P* values**
Access to knowledge Resources (SDG 4, SDG 13) <- Knowledge acquisition for sustainable practices	0.200	0.199	0.010	20.271	0.000
Advanced ICT skills (SDG 4) <- ICT literacy	0.149	0.148	0.020	7.513	0.000
Availability (SDG 9) <- Access to ICT infrastructure	0.290	0.290	0.014	20.051	0.000
Awareness of SDG impacts (SDG 13, SDG 15) <- Knowledge acquisition for sustainable practices	0.171	0.171	0.011	15.148	0.000
Basic ICT skills (SDG 4) <- ICT literacy	0.261	0.261	0.026	9.922	0.000
Contribution to SDG 12 <- Sustainable agripreneurial innovation adoption	0.207	0.207	0.011	19.102	0.000
Contribution to SDG 2 <- Sustainable agripreneurial innovation adoption	0.270	0.270	0.022	12.425	0.000
Cost effectiveness (SDG 17) <- Access to ICT infrastructure	0.261	0.261	0.016	16.345	0.000
Ease of knowledge application (SDG 12) <- Knowledge acquisition for sustainable practices	0.209	0.209	0.008	25.564	0.000
Ease of learning (SDG 4) <- ICT literacy	0.224	0.225	0.017	13.540	0.000

Effectiveness of learning (SDG 4) <- Knowledge acquisition for sustainable practices	0.186	0.186	0.018	10.304	0.000
Impact on sustainability goals (SDG 2, 12) <- Sustainable agripreneurial innovation adoption	0.204	0.204	0.010	20.859	0.000
peer sharing (SDG 17) <- Knowledge acquisition for sustainable practices	0.185	0.185	0.009	20.944	0.000
Peer support (SDG 17) <- ICT literacy	0.236	0.236	0.023	10.336	0.000
Relevance of information (SDG 2) <- Knowledge acquisition for sustainable practices	0.214	0.214	0.011	18.778	0.000
Reliability (SDG 9) <- Access to ICT infrastructure	0.261	0.261	0.011	24.735	0.000
SDG 15 impact assessment <- Sustainable agripreneurial innovation adoption	0.232	0.232	0.017	13.745	0.000
SDG awareness and practice alignment (SDG 13) <- Sustainable agripreneurial innovation adoption	0.218	0.218	0.009	23.127	0.000
Self-efficacy in ICT (SDG 4) <- ICT literacy	0.211	0.212	0.017	12.494	0.000
Technical support availability (SDG 17) <- Access to ICT infrastructure	0.278	0.278	0.011	24.524	0.000
Training opportunities (SDG 8) <- ICT literacy	0.208	0.208	0.018	11.688	0.000

Source: authors' own work.