

The Role of Sustainable Livelihoods Assets on Environmental Behavior of Paddy Farmers in Koochesfahan County, Northern Iran

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Introduction: Sustainable agriculture allow for sustainable livelihoods. Livelihoods are compatible with the environment when livelihoods increase and protect livelihood assets. Human behavior contributes to the major threats to the Earth’s environment (Oskamp, 2000). Eco-friendly behavior can reduce these threats. Farmer’s environmental behavior is very important because farmer’s life and livelihoods depend on natural resource and environment. Also, livelihoods strategy can be defined as a portfolio of activities and choices that people make to achieve their livelihood goals, including productive activities, investment strategies, reproductive choices and etc. (Adato and Meinzen-Dick, 2002; DFID, 1999; Ellis, 1998). These choices are reflected in the way that people use their assets and as such are an important part of household behavior, while determining well-being.

Purpose: The main purpose of this study was to investigate the role of sustainable livelihood assets on environmental behavior of paddy farmers in Koochesfahan County by the PLS approach, as well as the unified sustainable livelihoods approach (SLA). The sustainable livelihoods approach is a useful way to think about how to reduce poverty in stable situations and some writers have sought to apply it to refugee livelihoods (Hansen, 2000; Kibreab, 2001). The SLA approach contains five capitals (physical capital, human capital, financials capital, social capital, natural capital).

Design/methodology/approach: The statistical population was composed of all 16037 paddy farmers of Koochesfahan County, based on limitation of structural equation modeling in determining sample size, 130 of them were chosen as a sample.

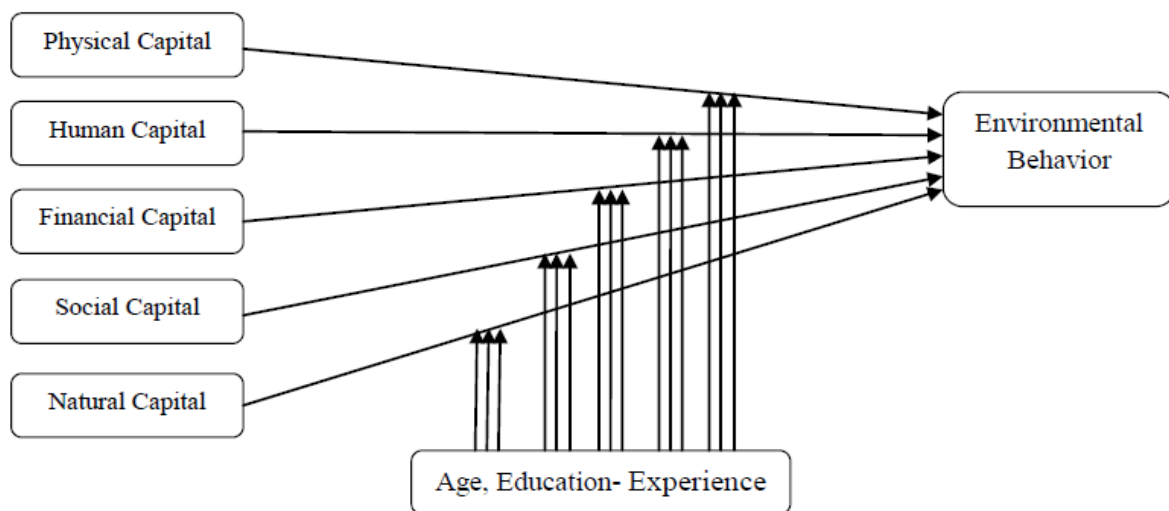


Figure1: The theoretical framework of UTAUT

The research tool was a researcher-made questionnaire that included 35 indicators for five capitals and 9 indicators for environmental behavior. To obtain validity of questionnaire; content, face, convergent and discriminant validity were used. Furthermore, to ensure the reliability of the questionnaire; principal component analysis, Cronbach’s alpha, Dillon-Goldstein’s f and reagent stability were used. To accomplish analysis of data, SPSS_{V19} and

SmartPLS_{V3} software were used in descriptive and inferential statistics. As for testing hypothesis, structural equation model (SEM) and partial least squares (PLS) that focus on reagent variance were used.

Findings: It was revealed that there was significant relationship between financial capital and environmental behavior, social capital and environmental behavior, natural capital and environmental behavior. Among all moderators (Age, Experience and Education) just education significantly moderates the relationship between social capital and environmental behavior. Other moderators have shown no evidence of any significant interactions (Table 1). Model explains 96 percent of environmental behavioral variance among paddy farmers.

PLS Final Results :1Table

Path	SD & STERR	Path Coefficients	t Statistic IO/STERRI	p-values	Reliability & Validity	Remarks
PHY ->EB	0.085	0.055	0.647	0.518	Y	Not significant
PHY ->EB *Age	-	0.014	0.067	0.946	Y	Not significant
PHY ->EB *Education	-	0.058	0.360	0.719	Y	Not significant
PHY ->EB * Experience	-	0.036	0.165	0.869	Y	Not significant
H ->EB	0.101	0.116	1.144	0.253	Y	Not significant
H ->EB *Age	-	0.037	0.160	0.873	Y	Not significant
H ->EB * Education	-	0.144	1.051	0.294	Y	Not significant
H ->EB * Experience	-	0.062	0.268	0.789	Y	Not significant
F ->EB	0.029	-0.065	2.217	0.027	Y	significant
F ->EB *Age	-	0.003	0.059	0.953	Y	Not significant
F ->EB * Education	-	0.006	0.097	0.923	Y	Not significant
F ->EB * Experience	-	0.014	0.241	0.810	Y	Not significant
S ->EB	0.084	0.811	9.673	0.000	Y	significant
S ->EB *Age	-	0.043	0.178	0.859	Y	Not significant
S ->EB * Education	-	-0.264	1.962	0.048	Y	significant
S ->EB * Experience	-	-0.042	0.187	0.851	Y	Not significant
N -> EB	0.029	0.078	2.695	0.007	Y	Significant
N ->EB *Age	-	0.003	0.069	0.945	Y	Not significant
N ->EB * Education	-	0.010	0.228	0.820	Y	Not significant
N ->EB * Experience	-	0.001	0.027	0.978	Y	Not significant

References

- Adato, M., Meinzen-Dick, R. (2002). Assessing the Impact of Agricultural Research on Poverty Using the Sustainable Livelihoods Framework. International Food Policy Research Institute (IFPRI), Washington DC. EPTD Discussion Paper 89/FCND Discussion Paper 128.
- Babbington, A. (1999). Capitals and Capabilities: A Framework for Analyzing Peasant Viability, Rural Livelihoods and Poverty. *World Development*, 27(12): 2021-2044.
- DFID. (1999). Sustainable Livelihoods Guidance Sheets, Department for International Development, UK. Available at http://www.livelihoods.org/info/guidance_sheets_pdfs/section2.pdf
- Ellis, F. (1998). Household Strategies and Rural Livelihood Diversification. *Journal of Development Studies*, 35(1), 1–38.
- Hansen, A. (2000). Dependency and Spontaneity in Refugee Livelihoods. Paper presented at the Rose Marie Rogers seminar Series on Refugees and Forced Migration, Fletcher School of Law and Diplomacy, Tufts University, Boston: November.
- Kibreab, G. (2001). Displaced Communities and the Reconstruction of Livelihoods in Eritrea. United Nation University, World Institute for Development Economics Research, discussion paper, No.2001/23.

Kibreab, G. (2001). Displacement, Loss and Constraints on (Re)-construction of Sustainable Livelihoods. Paper prepared for workshop, Cornell University: November.

Oskamp, S. (2000). Psychological Contributions to Achieving an Ecologically Sustainable Future for Humanity. *Journal of Social Issues*, 56(3), 373-390.