

# Promoting Climate-Smart Agricultural (CSA) Technologies: Extension and Behavioral Intention

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## INTRODUCTION

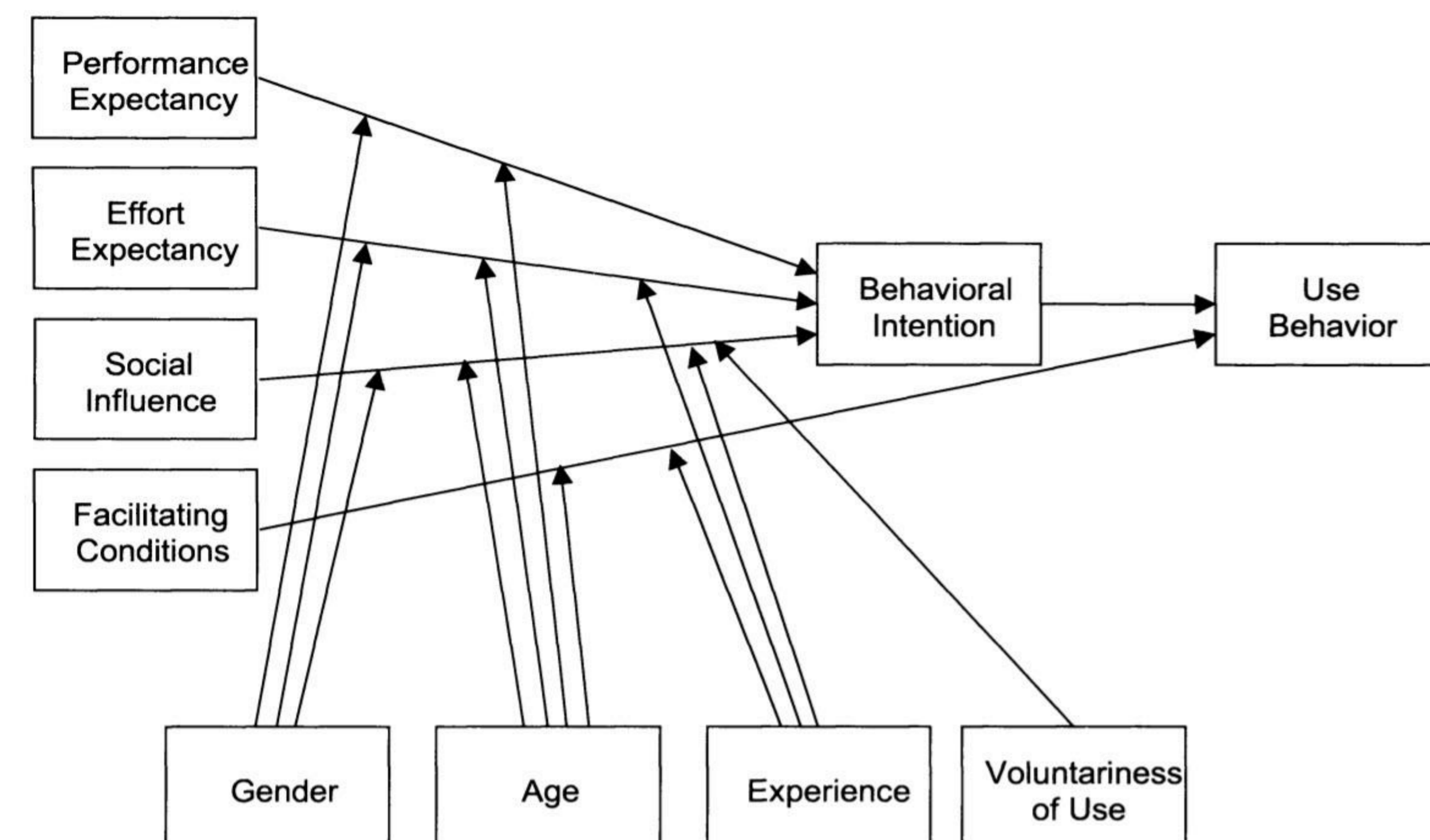
Priority 2 of the American Association for Agricultural Education's National Research Agenda called for inquiries to investigate new technology adoption decisions (Lindner et al., 2016).

Adoption of CSA technologies is necessary to adapt (Balafoutis et al., 2017) to climate extremes and provide food security.

The adoption of CSA technologies depends on farmers and the Extension dissemination of the innovation's advantages (Mikwamba et al., 2021; Wynn et al., 2013).

## THEORETICAL FRAMEWORK

Venkatesh et al.'s (2003) Unified Theory of Acceptance and Use of Technology (UTAUT) Model.



### Hypothesis:

PE, EE, SI, and FC have an effect on the behavioral intention of Extension professionals to promote CSA technologies in their Extension program.

## PURPOSE

To understand the extent of Extension agents familiar with the given CSA definition and the factors determining Extension professionals' intention to promote CSA technologies.

## METHODOLOGY

Data: Survey design followed Dillman et al.'s (2014) tailed design method

Target population: Agricultural Extension professionals in California

Sample size:  $n = 308$ ; Response rate = 10.7 %

## RESULTS

Multiple Linear Regression Analysis ( $R^2 = .74$ )

Construct	Coefficient	Standard Coefficient	95% Confidence Interval	T-value	P-value
Constant	1.105		.491-1.720	3.684	.00*
PE	.378	.493	.198-.558	4.300	.00*
EE	-.232	-4.167	-.433- -.030	-2.357	.03*
FC	.417	.499	.215-.619	4.223	.00*
SI	.221	3.981	.020-.421	2.256	.03*

Note\*.  $p < .05$ .

## CONCLUSIONS

◆ Negative relationship between behavioral intention and effort expectancy (EE).

◆ The fewer barriers agricultural Extension professionals have to increase their competence in CSA technologies, the more willing they are to promote these innovations.

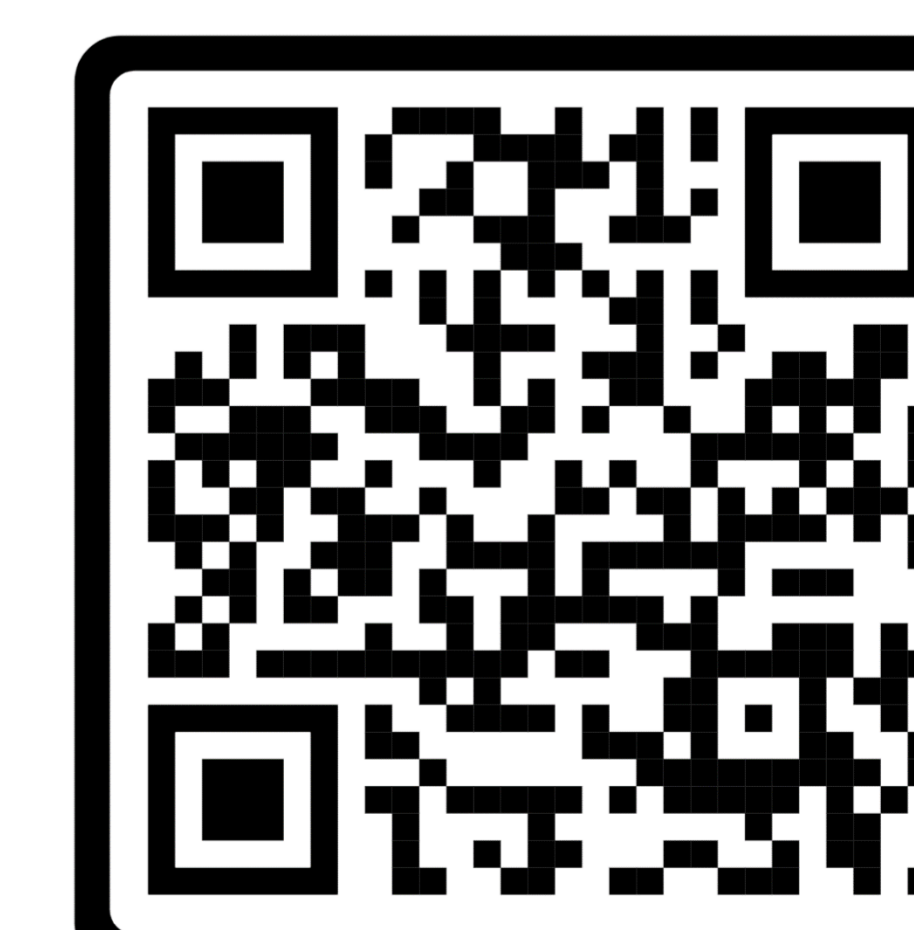
## IMPLICATIONS / RECOMMENDATIONS

◆ Extension professionals are more likely to promote CSA technologies when it is easy for them to gain technology competencies (Lee et al., 2021).

◆ Communicating CSA's effort expectancy and low complexity should be included in agricultural Extension professionals' development to improve CSA adoption.

◆ California Extension workers need professional development from agricultural program leaders and the program development unit in performance expectancy (PE), effort expectancy (EE), facilitating conditions (FC), and social influence (SI) as each variable forecasted behavioral intention to promote CSAs for farmer adoption.

FULL  
ABSTRACT



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