

Decision Behavior of Farmers' on Adoption of Price Risk Management: Structure Equation Modeling Approach

Dr. Ch Shankar

Associate Professor of Finance, Koneru Lakshmaiah Education Foundation, (Deemed to be) University, Hyderabad.

Email: chshankar_123987@gmail.com

ABSTRACT

The purpose of this paper is to examine the interrelationships among the extracted constructs of Farmers' Decision Behavior (FB), Farmers' Attitude (FA), and Farmers' Objective (FO), Economic Freedom (EF), Market Orientation (MO). The conceptual framework is developed based on previous studies and behavioral theories. To address a lack of comprehensive evaluation of farmers' decision behavior, this study extracted the dimensions of decision behavior and used them in the structural model. The conceptual model is tested using a structural equation modeling approach using the maximum likelihood estimation technique. A sample of 409 cotton farmers' from Telangana state, India was used to test the hypothesized relationships among the constructs. The key findings of this study reveal that FA has the most important construct on FB (FB→FA). The next important construct was found to be the EF (FB→EF). The relationship between FO, MO, and FB and FB, MO was revealed to be significant (FA→FO) (FA→MO) (FA→EF) (FO→EF) (FB→FO) (FB→MO) (FO→MO) (MO→EF). This study reveals the fact that the (FO→EF) was not significant and the research enables the design of new methods and concentrated areas to achieve higher adoption rates in risk management practices by farmers.

Keywords

Farmers' Behavior, Farmers' Attitude, Price Risk Behavior, Exploratory Factor Analysis (EFA), Measurement model, Structural equation modeling (SEM).

Article Received: 10 August 2020, Revised: 25 October 2020, Accepted: 18 November 2020

Introduction

Agriculture is the backbone for most counties; however, the agriculture sector often faces many challenges. The risk and uncertainty in financial gain variations play an imperative role in farming. The foremost of the developing countries like India weren't properly introduced the organized risk management tools and techniques to cut back the financial gain variations.

Risk is an indispensable however manageable component in farming. Incomes and earnings from Agriculture will differ widely from year to year because of unpredicted climate, diseases, and different marketplace circumstances. Once the unfavorable deviations happen in agriculture it considerably cut back financial gain within the short-run, therefore may be severe repercussions within the nonattendance of viable danger administration apparatuses. Particularly just in the event of creating nations that have remained thing subordinate with an oversized extent of ward populace it gets to be critical to overseeing backend and value risk. The farm decisions in agriculture are typically taken by individual persons solely. The choices primarily rely on 2 styles of factors; internal factors and external factors. the internal factors were divided into 2 sorts 1st farmers perspective connected variables and second farmers objective connected variables, wherever because the external issue conjointly divided into 2 sorts 1st Infrastructural variables and Government/legislative connected variables, most of the studies targeted on farmers behavior, their investigator targeted one divisor that's economic variable.

Decision-making beneath uncertainty, markedly in agriculture is predicted to vary across regions, nations, farming systems and people supported their expectations

and risk-bearing ability, attitudes, (Hazell and Norton, 1986). Additionally, farmers' decisions towards risks and uncertainty, and their response could vary from farmer to farmer due to distinction in preference and perception of risks.

Components

Farmers Decision Behavior

The studies related to farmer's behavior and the motives for farmer's behavior are not new (Ashby, 1926) (Gasson, 1973). A series of psychological concepts and social constructs together linked with the behavior of a human being (Fishbein&Manfredo, 1975). However, there is several studies have been considered the farmers' behavior and attitude towards their decision making (Westmacott& Worthington, 1984) (MacDonald, 1984). "The other studies like Theory Reasoned Action (TRA) and Theory Planned Behavior (TPB) to investigate the farmer's behavior". (Gunn et al, 2008) (Ellis-Iversen et al., 2010). These theories help to predict individual behavior means intention and engage the behavior. The intention represents the individual orientation behavior and it reflects the motivations towards the individual behavior. "In the agriculture sector, some studies have been proved that the attitude was the important predictor of farmers behavior" (Thompson & Panayiotopoulos, 1999) (Garforth et al., 2004) (Wolff, 2012).

Risk Attitude

The general characteristics of farmers are attitude and motivation directly affects the decision making of the farmers and farmers more influenced by practice and implemented for what they familiar with (Casal et al., 2007). The general farmers' attitudes identify risk-averse, innovative, diversification, and satisfaction towards farming, but most of the studies outcome on attitude studies are maximizing the profits. A person's intention/decision is based essentially based on two factors the attitude towards a particular behavior and the person's perception of the social pressure on him. The social pressure motivates for a particular behavior whereas the attitude is a belief about the outcome of the behavior (Ajzen, 1981) "Attitude towards risk is an important and major element in the decision-making process related to the farm. It is suggested by many economic analysts despite in an uncertain environment but most of the farmers are risk disinclined and slow to adjust the unproved ideas" (Guerin, 1994). "The risk aversion includes loathing of debt; this may be a drawback of innovation and adoption of new technology in the farms". (Driver & Onwana, 1956). "It is the result that participating in risk management tools like taking insurance, hedging, enterprise diversification, contract selling, and off-farm work. The descriptive studies of farmer's attitude towards risk have been recognized that succession of farming, the attitude of sustainability, and off-farm employment is the vital facts about risk aversion (Salamon & Davis-Brown, 1986).

Farming Objective

The Farmers objective or farming objectives studies in different viewpoints; job satisfaction, financial requirements, quality of life, and social status in society, etc., but most of the researchers concentrated on management objectives and goals. It is assumed by different researchers' peoples are having the ability to think about the future it means goal-oriented and people self-motivated (Locke & Bryan, 1969) (Bingswanger, 1980). The values are classified into four types Economic Values, Social Values, Expressive Values, and Intrinsic values, and the farm values are classified into two types economic factor related and job satisfaction (Gasson, 1973). The highest-rated objective of farmers was making sufficient profits, and the second-rated objective was being a good farmer (Robinson, 1983). "There are some researchers who focus on why farmers participating in farming. They ranked intrinsic values on top, job satisfaction is important for most of the farmers whereas the successful farmers rated to economic outcomes and economic values". (Casebow, 1951)(Gasson, 1973)(Gilmor, 1956)(Illbery, 1955 a & b). "The job satisfaction reflects on farm business, but some commercial farmers were concentrated on economic values, most of the small and medium farmers prefer for intrinsic values that is job satisfaction". (Casebow, 1951) (Gasson, 1973)(Gilmor, 1986)(Illbery, 1955a).

Market Orientation

Most of the researchers study the market orientation and performance relationship (Cano et al., 2004) (Ahmet et al., 2005). Identify the emerging markets institutional subsystem and compare this subsystem with the high-income markets, according to him the socio-economic, regulative, and cultural factors influence the market orientation. However, the government and legislative experts are having less influence on markets it creates several institutional gaps (Rivera-Santos & Rufin, 2012). The market participant develops and maintains by using their network relationships and experiences, the nonprofit organizations and non-profit government institutions generally try to fill these gaps. Some of the cultural institutions also acted as the regulatory institutions, these institutions may fill the regulatory gaps (De Soto, 2000).

Economic Freedom

"Generally the economic freedom index measures the individuals free to engaging voluntary transactions and the rightly acquired properties. Economic freedom is not an easy task to measure because it involved quality as well as quantity elements". (Chris Doucouliagos, Mehmet Ali Ulubasoglu, 2006). Consequently, subjective and imprecision are inevitable in measuring economic freedom. In economic freedom, there are many variables were included; the rule of law, regulations, and low taxes and government interference, etc, these variables positively influence the total productivity. The growth is related to economic freedom variables.

Research Methodology

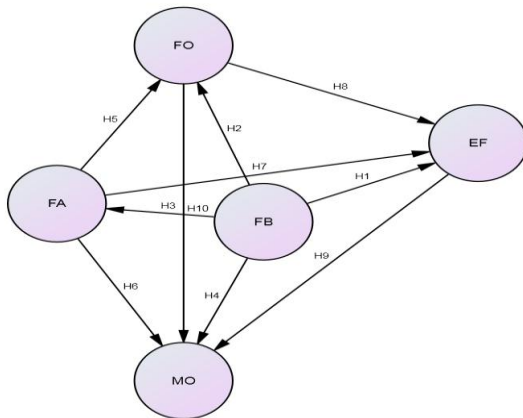
Research Objectives

1. To develop a theoretical model by identifying the variables and factors which measure the farmer's decision behavior (FB).
2. To confirm and test the identified variables and factors by developing a measurement model.
3. To examine the direct and indirect relationships between Farmers' decision behavior (FB), farmers' Attitude (FA), farmers' objective (FO), Economic Freedom (EF), and Market Orientation (MO).

Theoretical Framework and Hypothesis

The study focuses on identifying the key characteristics that might influence the farmer's risk-related decision behavior of using risk management tools. In most hedging theories *Risk Attitude* plays an important role in decisions to engage risk management techniques. (Ashby, 1926) (Gasson, 1973). "The concept of *Farming objectives* concentrated from an assortment of perspectives, ranging from examinations of estimations of job satisfaction, status and, quality of life issues to more concrete management goals and specific objectives". (Bingswanger, 1980) (Locke & Bryan, 1969) Locke et al., 1981). The farmer's efforts to obtain information about price and volume traded in the market are a central element of their *Market Orientation* about the

market. If the farmers are more aware of market conditions, it has expected them to use risk management tools. “The recent finding in many studies shows there is an increase in the degree of freedom of action when participants have *Economic Freedom*”. (Joost M.E. Pennings, 2001)



- H₁: Farmers' Decision Behavior (FB) has a significant relationship with Economic Freedom (EF)
 H₂: Farmers' Decision Behavior (FB) has a significant relationship with Farming Objectives (FO)
 H₃: Farmers' Decision Behavior (FB) has a significant relationship with Farmer's Attitude (FA)
 H₄: Farmers' Decision Behavior (FB) has a significant relationship with Market Orientation (MO)
 H₅: Farmers' Decision Attitude (FA) has a significant relationship with Farming Objectives (FO)
 H₆: Farmers' Attitude (FA) has a significant relationship with Market Orientation (MO)
 H₇: Farmers' Attitude (FA) has a significant relationship with Economic Freedom (EF)
 H₈: Farming Objectives (FO) has a significant relationship with Economic Freedom (EF)
 H₉: Economic Freedom (EF) has a significant relationship with Market Orientation (MO)
 H₁₀: Economic Freedom (EF) has a significant relationship with Perceived Risk Exposure (MO)

Data Analysis

Sample

A total of 409 farmer's responses were collected for the survey from Telangana State, India. The sample consists of 37.2 percent marginal, 26.2 small, 23.7, semi medium, 10.3 medium, and 2.7 large farmers.

Analysis

EFA for the theoretical factor structure

- EFA was used for the farmer's decision behavior measures to extract the dimensions of a farmer's decision behavior (FB).
- PCA with VR method was used in the analysis.

- Four factors were extracted based on an eigenvalue greater than 1.
- KMO measure of 0.806.
- Bartlett's test showing significant.
- Reliability 0.827 as shown by Cronbach's α .

CFA for Farmers Decision Behavior measurement model

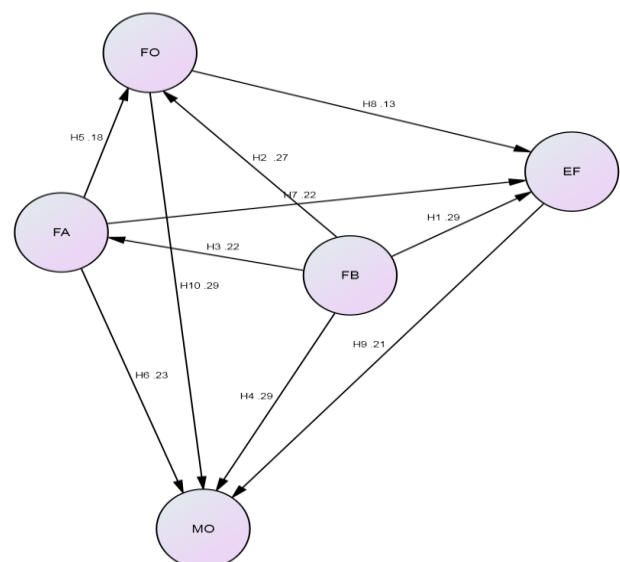
- CFA was conducted using AMOS 20.
- Four extracted FDB dimensions, Farmers' Attitude (FA), Farmers' objectives (FO), Market Orientation (MO), Economic Freedom (EF), and Farmers' behavior measure with multi-items scales using AMOS 20.

Structural Equation Modeling (SEM)

“The estimation of the model was carried out in two stages, as recommended by Anderson & Gerbing (1988) and Hair et al., (2008). In the first stage, the measurement model is estimated, and in the second this same model is fixed, to estimate the structural model. The logic behind this reasoning, according to the mentioned authors, is that the reliability of the indicators is better represented in two stages, avoiding interaction between the measurement and structural models”. (Alves&Raposo 2007).

- The model identified five factors.
- Each item has a non-zero loading.
- The five factors are correlated.
- The error terms associated with each item measurements are uncorrelated

Structure Equation Modeling for Farmers' Decision Behavior



Results of Hypotheses Testing

Ten hypotheses framed from the above basic model. The model fuses all the hypothesized relationships among the latent constructs.

Testing of these hypotheses

Hypothesis	C.R.	P	Results
H ₁ : Farmers' Behavior (FB) has a significant relationship with Economic Freedom (EF)	4.826	***	Accepted
H ₂ : Farmers' Behavior (FB) has a significant relationship with Farming Objectives (OB)	4.231	***	Accepted
H ₃ : Farmers' Behavior (FB) has a significant relationship with Farmer's Attitude (FA)	3.838	***	Accepted
H ₄ : Farmers' Behavior (FB) has a significant relationship with Market Orientation (MO)	4.735	***	Accepted
H ₅ : Farmers' Attitude (FA) has a significant relationship with Farming Objectives (OB)	3.161	0.002	Accepted
H ₆ : Farmers' Attitude (FA) has a significant relationship with Market Orientation (MO)	4.153	***	Accepted
H ₇ : Farmers' Attitude (FA) has a significant relationship with Economic Freedom (EF)	4.052	***	Accepted
H ₈ : Farming Objectives (OB) has a significant relationship with Economic Freedom (EF)	2.243	0.025	Rejected
H ₉ : Economic Freedom (OB) has a significant relationship with Market Orientation (MO)	4.766	***	Accepted
H ₁₀ : Economic Freedom (EF) has a significant relationship with Perceived Risk Exposure (MO)	3.792	***	Accepted

Findings**Theoretical implications**

1. From a hypothetical perspective, this examination makes a significant commitment to the growing body of literature. This investigation shows the impact of every individual FDB measurement on other relevant variables, i.e. on Farmers' Attitude, Farmers' Objective, Market Orientation, Economic Freedom, and their interrelationships among themselves along with their influence on decision behavior. Less previous studies have focused on individual dimensions of Farmers Decision Behavior and their effects on other variables.
2. A very little amount of research has been investigated the relationships between Farmers' decision

behavior, farmers' attitude, farmers' objective, market orientation, and economic freedom. However, these studies did not examine the individual effects of each farmer's decision behavior dimension on other variables such as economic freedom, market orientation. The previous studies did not examine which FB dimension is the most important factor in influencing other variables. Also, the previous literature did not address priority levels and importance in farmers in price risk management participation.

3. The relative importance of farmer's decision behavior measurement in combination with other variables such as farmers' attitude, farmers' objective, market orientation, and economic freedom can differ among dissimilar circumstances due to social and ecological variances and hence undertakes importance in the Indian situation since a very few studies have been done in the Indian context.

4. The significance of behavior and attitude has been broadly examined and explored in literature; examination has proposed the coordinated basic model that researches the forerunners and result variables of farmer's decision behavior. This examination proposed a coordinated basic model that explores the synchronous impacts of farmers' decision behavior dimensions on farmers' attitude, farmers' objective, market orientation, and economic freedom to completely understand the related effects simultaneously.

Managerial implications

There is a need to increase the farmer's participation level in price risk management. The study highlighted influenced dimensions of farmers' decision behavior. These findings confirm and expand existing knowledge for farmers' decision behavior. The conceptualization of decision behavior suggests that the overall farmers' decision behavior will increase by improving these dimensions. The results help policymakers to better recognize the factors contributing to decision behavior, so that they can provide better policies that enhance the participation of farmers in price risk management. This study has identified four farmers' risk behavior dimensions.

Conclusion

The motivation behind this paper is to examine the interrelationships among the constructs of farmer's attitude, farmer's objective, market orientation, and economic freedom and its effects on farmers' decision behavior in Telangana State, India. A sum of 409 complete usable responses obtained for the final data analysis.

The applied system showed an excellent fit to the real data and a reasonable degree of variance is explained by the constructs used in the structural model thus, exhibiting high practical significance.

This investigation further adds to the body of literature by considering important variables such as Farmer's Attitude and farmer's objective and its effects on farmers' decision behavior in the integrated model thus raises the predictive power of the model.

Although a set number of writing is accessible on farmer's attitude, farmers' behavior, market orientation, and economic freedom, no other studies have focused on

individual dimensions of farmer's decision behavior and their simultaneous effects on participation proportion.

This examination adds to the body of knowledge by providing a conceptual framework which gives an experimental knowledge into the interrelationship among the constructs of farmers' attitude, farmers' objective, market orientation, and economic freedom and its effects on farmers' decision behavior. The theoretical model created and tried in this paper will go about as a kind of perspective in framing policies for farmers' participating in price risk management.

Limitations and scope for future research work

The current research adds to the current body of knowledge, it has a few restrictions. First, relates to the generalization of the findings. The study utilized only a 409 sample size for this study this is limited to describe the full decision behavior of farmers in the Indian context.

The current examination might be extended to different states in India and different contexts. Second, the theoretical structure created in this paper can also be tried in different sectors which can be the scope or additional future examination work. Third, the impact of FB measurements could change between various classes of farmers like large landholders, Medium landholders, semi medium, and small and holders. The impact of various classes of farmers has been neglected. Therefore, future research work could also consider taking these aspects into considerations. Fourth, FB measurements embraced in this examination work considered just a predetermined number of things future exploration could consider receiving more number of things in the farmers' decision behavior dimensions. In conclusion, future exploration work may need to consolidate the impact of directing factors in the proposed conceptual model. The distending farmers' differential behaviors in the impact of moderating variables can also be the area of future research work.

References

- [1] Ahmet H. Kirca, SatishJayachandran, & William O. Bearden (2005) "Market Orientation: A Meta-Analytic Review and Assessment of Its Antecedents and Impact on Performance" *Journal of Marketing* Vol. 69 (April 2005), 24–41
- [2] Ajzen, I. (1981). The theory of planned behavior. *Organizational Behaviour and Human Decision Process* 50, 179–211.
- [3] Alves, H., & Raposo, M. (2007). "Conceptual Model of Student Satisfaction in Higher Education". *Total Quality Management & Business Excellence*, 18(5), 571-588.
- [4] Anderson. C, David W. Gerbing (1988). "Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach" the American Psychological Association, Inc Vol. 103, No. 3, 411-423
- [5] Ashby, A. W. (1926). "Human motives in farming". *Welsh Journal of Agriculture* 2, 5–14.
- [6] Bingswanger, H. P. (1980). "Attitudes towards risk: Experimental measurements in rural India". *American Journal of Agricultural Economics*, 62, 395–407.
- [7] Cano, Cynthia Rodriguez, Francois A. Carrillat, and Fernando Jaramillo (2004). "Meta-Analysis of the Relationship between Market Orientation and Business Performance: Evidence from Five Continents," *International Journal of Research in Marketing*, 21, 179-200.
- [8] Casal, J., De Manuel, A., Mateu, E., Martín, M., (2007). "Biosecurity measures on swine farms in Spain: perceptions by farmers and their relationship to current on-farm measures". *Prev. Vet. Med.* 82, 138–150.
- [9] Casebow, A. (1981). "Human motives in farming". *Journal of Agric cultural Economics*, 24, 119–123.
- [10] De Soto, (2000). "What is Left of de Soto's Ideas?". *International Federation of Surveyors Article of the Month* – August 2012.
- [11] Driver, H. C., & Onwona, S. O. (1986). "Profiles in management and performance for assessment on information needs". *Canadian Journal of Agricultural Economics*, 34, pp155–176.
- [12] Ellis-Iversen, J., Cook, A.J., Watson, E., Nielen, M., Larkin, L., Wooldridge, M., Hogeveen, H., (2010). "Perceptions, circumstances, and motivators that influence the implementation of zoonotic control programs on cattle farms". *Prev. Vet. Med.* 93, pp 276–285.
- [13] Fishbein, M., and Ajzen, I. (1975). "Belief, attitude, intention, and behavior: An introduction to theory and research". Reading, Mass.: Addison- Wesley.

- [14] Garforth, C., Rehman, T., McKemey, K., Tranter, R., Cooke, R., Yates, C., Park, J., Dorward, P., (2004). "Improving the design of knowledge transfer strategies by understanding farmer attitudes and behavior". *J. FarmManage.* 12.pp 17–32.
- [15] Gasson, R. (1973). "The goals and values of Farmers". *Journal of Agricultural Economics* 24.pp 521–542.
- [16] Gilmor, D. A. (1986). "Behavioural studies in agriculture: Goals, values, and enterprise choice". *Irish Journal of Agricultural Economics and Rural Sociology*, 11.pp 19–33.
- [17] Guerin, B. (1994) "What Do People Think About the Risks of Driving? Implications for Traffic Safety Interventions". *Journal of Applied Social Psychology*, 24: 994–1021. doi:10.1111/j.1559-1816.1994.tb02370.x
- [18] Gunn, G.J., Heffernan, C., Hall, M., McLeod, A., Hovi, M. (2008). "Measuring and comparing constraints to improved biosecurity amongst GB farmers, veterinarians, and the auxiliary industries". *Prev. Vet. Med.* 84,310–323.
- [19] Hair, J. F. Jr., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2008). "Multivariate Data Analysis. (6th ed.)". Pearson Prentice Hall, India.
- [20] Hazell and Norton (1986). "Mathematical Programming for Economic Analysis in Agriculture". Macmillan Publishing Company
- [21] Ilbery, B. (1985a). "Agricultural geography: a social and economic analysis". Oxford, UK: Oxford Univ. Press.
- [22] Ilbery, B. (1985b). "Horticultural decline in the Vale of Evesham, U.K., 1950–1980. Factors affecting the structure of horticulture in the Vale of Evesham, U.K.: A behavioral interpretation". *Journal of Rural Studies*, 1, 2–120.
- [23] Lee, W. F., Boehlje, M. D., Nelson, A. G., & Murray, W. G. (1988). "Risk management strategies". *Agricultural finance* (pp. 226–238). Ceres Town, IA: Iowa State University.
- [24] Locke, E. A., & Bryan, J. F. (1969). "The directing function of goals in task performance". *Organisational Behaviour and Human Performance*, 4, 35–42.
- [25] Locke, E. A., Shaw, K. N., Saari, L. M., & Latham, G. P. (1981). "Goal setting and task performance 1969–80". *Psychological Bulletin*, 90, 125–152
- [26] Pile, S. (1991). "Securing the future: "Survival strategies" amongst Somerset dairy farmers". *Sociologia Ruralis*, 25, 255–274.
- [27] Rivera-Santos, M., Rufin, C. (2010). "Global Village vs. Small Town: Understanding Networks at the Base of the Pyramid". *International Business Review*, 19, 126–139.
- [28] Robinson, M. A. (1983). "Including the human aspect within farm business appraisal". *Agricultural Manpower*, 7, 12–16.
- [29] Salamon, S., & Davis-Brown, K. (1986). "Middle-range farmers persisting through the agricultural crisis". *Rural Sociology*, 51, 503–512.
- [30] Thompson, K.E., Panayiotopoulos, P. (1999). "Predicting behavioral intention in a small business context". *J. Market. Pract.* 5, pp 89–96.
- [31] Westmacott, R., and Worthington, T. (1984). "Agricultural Landscapes: A Second Look". Cheltenham: Countryside Commission.
- [32] Wolff, C. (2012). "Validation of the Nordic Disease Recording Systems for Dairy Cattle". *Acta Universitatis Agriculturae Sueciae*.

Appendix

Table I: Exploratory Factor Analysis Results

Factor	Factor items	Factor loading	Eigenvalue	Cumulative % of variance explained	Cronbach's α
	FO1: I carry on farming because the tradition is important to me	0.845			
Farmers' Objective (FO)	FO2: would like to leave the land in a better condition than I found it	0.847	4.349	26.358	0.832
	FO3: Making money isn't everything. Farming has advantages far beyond the profit to be made from the sale of produce.	0.877			
	EF1: I would like to update the farm but feel I can't because of financial pressures.	0.919			
Economic Freedom (EF)	EF2: I think owning a farm must be seen as a long term investment.	0.871	2.456	45.703	0.900
	EF3: I don't like to make high-risk decisions about the farm.	0.918			
	MO1: I rely on my knowledge and experience to make farm decisions.	0.909			
Market Orientation (MO)	MO2: I have been farming for a long time and there is not much I don't know about farming.	0.865	2.142	64.827	0.895
	MO3: Increasing the asset value or net worth of the farm is very important to me.	0.906			
	FA1: A marketing pool nets me a higher price than I can get myself.	0.941			
Farmers' Attitude (FA)	FA2: I prefer to use other means of risk management rather than hedging	0.905	1.744	82.328	0.945
	FA3: I believe that market timing strategies can increase revenues.	0.889			
	FA4: This may not be the best farm around but there is no real need to change.	0.93			

Table II: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.806
Bartlett's Test of Sphericity	Approx. Chi-Square	3734.125
	df	78
	Sig.	0.000

Table III: Confirmatory factor analysis results for Farmers' Decision Behavior constructs

Factor	Factor items	Standardized loadings	Estimates	CR value) (t-value)	p-value
Farmers' Objective (FO)	FO1	0.78	0.780	14.821	***
	FO2	0.79	0.791	14.922	***
	FO3	0.80	0.803		
Economic Freedom (EF)	EF1	0.91	0.907	24.256	***
	EF2	0.80	0.796	20.365	***
	EF3	0.90	0.900		
Market Orientation (MO)	MO1	0.88	0.881	23.150	***
	MO2	0.79	0.794	20.110	***
	MO3	0.90	0.910		
Farmers' Attitude (FA)	FA1	0.95	0.950	36.454	***
	FA2	0.87	0.871	28.204	***
	FA3	0.85	0.852	26.669	***
	FA4	0.93	0.930		
Note: $\chi^2=148.99$, $p<.0000$, $df=94$), other GOF indices were in the acceptable range. Goodness of fit index (GFI)=0.958, adjusted goodness of fit index (AGFI)=0.939, root mean square error of approximation (RMSEA)=0.038, Tucker-Lewis index (TLI)=0.983, comparative fit index (CFI)=0.987 and normed fit index (NFI)=0.965. ***Indicates all p-values are highly significant $p<0.000$					