The influence of religious leaders in agricultural educational programmes:
applying the theory of planned behavior

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Abstract: In recent years, we see religion playing a leading role in some communities, and an important factor in people’s lives. Iran is dominated by the Muslim religion and the character of the country is strongly marked by Islam. In rural areas, where the majority of the population resides, religious leaders are considered as opinion makers. Therefore, identifying those behaviours is important. The theory of planned behaviour is a

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model that has been used to understand behavioural beliefs and to provide a framework for using those beliefs as intervention targets. The aim of this study was to determine the behaviour of religious leaders participating in agricultural educational programmes (AEPs) in Iran. A survey research approach was chosen to collect data from 260 religious leaders selected using a random simple sampling method. Multiple regression analysis was used to predict the variables effect on behaviour. The findings revealed that religious leaders have high intention to participate in AEPs. The results also provided an expanded understanding of the factors that shaped these religious leaders behaviour towards participation in AEPs and the implications of these findings are discussed.

Keywords: religion; agriculture; Iran.


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1 Introduction

Agriculture is a key industry that contributes to the development of Iran’s economy. Like in many other countries, in Iran, agriculture is one of the most important economic sectors and covers a noticeably high percentage of production and employment. It accounts for more than 1/4 of GNP, 1/4 of employment, more than 4/5 of the domestic supply of food, 1/3 of non-oil exports (excluding carpet exports), and provides 9/10 of the raw material demand of national industries. Horticulture and agronomy are of great importance in Iranian agriculture. These two sub-sectors account for more than 1/2 of the total added value of Iranian agriculture (excluding fodder crops). Its share in Iranian GDP has increased from 14.5% in 1978 to 25.7% in 1997 (Karbasioun, 2007). The agriculture sector had been one of the main priorities in the National Development Plans during the last decade. Recent statistics on annual cultivated areas (Iranian Agriculture Statistic, 1996–1997) showed that these cultivated areas account for about 14 million hectares (M/H). Many years ago, when agricultural sciences were introduced to Iranian, the newly graduated agricultural engineers tried to transmit their skills to farmers who had learnt traditional farming from their fathers and grandfathers. Although, at first they thought this would be easy there was resistance in accepting new technologies. They believed that the power of their hands was more reliable than the skills of young engineers. Nevertheless, this new generation developed a better future for the farmers, a world with more crops per drop, in which machines would replace work force and animal power (Akbari et al., 2008). But, there was not an actual relationship forged between farmers and scientists until a group of agricultural engineers started to communicate with ethnic farmers in a relationship based on equity and equality, by getting all stakeholders to participate in creating special links between different kinds of knowledge. This group was called the ‘agricultural extension engineers’ (Shaban Ali-Fami, 2003). The first extension work took place in 1949 and at that time, the government contributed considerably to the formation of a public extension sector (Malek-Mohammadi, 1999). The experience has proved that, because of the unequal distribution of extension centres in the country, farmers have no appropriate access to these centres (Akbari et al., 2008). In addition, Iran is a Muslim country in which the religious leaders have a strong position among the population and can play a significant and positive role in conflict resolution and in post-conflict situations in rural areas. These local leaders can play an important role in agricultural extension and education in order to achieve agricultural and rural development goals. Opinion leadership is considered as the ability to influence others’ knowledge and attitudes (Chatman, 1987; Valente and Davis, 1999). Such leadership may be informal rather than formal. In this case, many scholars believe that opinion leaders tend to have higher social status than their followers (Bandura, 1986) and have been
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developed in several fields. Gibbons et al. (1980) mentioned the effective role of prominent leaders as a source of information and innovation for rural people. The results of Feder and Savastano (2006) showed that opinion leaders have been more successful than others in the transfer of knowledge of agricultural integrated pest management for example. The research findings of Williams (2005) showed the important position of opinion leaders among farmers, both male and female, but varies based on the degree of influence (number of nominations). 39% were qualified as opinion leaders based on their influence, but the strong opinion leaders were found to be between 6% and 10%. Researchers realised that an opinion leader in one area is unlikely to be one in another unrelated area. However, people in general, talk most often to others like themselves, implying homophonic relationships.

Religious leaders are trusted and respected in communities throughout the world. In many parts of Asia and the Middle East, people turn to them for guidance on family and personal matters, including decisions about health (e.g., HIV/AIDS prevention), education, livelihoods, roles in civic society, agriculture and so on. Religious leaders, along with their well-established networks of volunteers and community groups, have the potential to promote sustainable positive changes in the social norms, attitudes, and behaviours aligned with development. In Iran, the religious leaders, because of having characteristics including the ability to influence others, acceptance by the people, ability to convey their beliefs and comments transparently, vast knowledge and awareness, self-confidence, etc., are in a position to help the agricultural extension and education programmes. In addition to this potential, the various occasions such as the month of Ramadan and Muharram, are good opportunities for motivating people about agriculture. Taking these opportunities, accompanied by prior study and planning as a complement to the activities done by the agriculture and natural resources activists, is an important step to achieve development goals in agricultural areas of the country.

There are about 12,000 religious leaders in Iran, out of whom 2,000 are involved in the agricultural and natural resources field, and almost 380 are involved part time (Vali-Faghhi, 2009) and it is crucial to measure the attitude, intention and behaviour of religious leaders toward participation in agricultural education. Therefore, the main purpose of this study was to analyse this matrix in religious leaders participating in AEPs in Iran.

2 Literature review and conceptual framework

Religion and economics have had a tenuous relationship. On the one hand, scholars dating back at least to Adam Smith and Max Weber have argued that religion plays a fundamental role in shaping economics. On the other hand, only little attention has recently been given as to how and why religion might influence economics.

The omission of religion as a determinant of economic activity is startling, given the recent suggestion by Iannaccone (1998, p.1492) that “the economics of religion will eventually bury two myths – that of homo economics as a cold creature with neither need nor capacity for piety, and that of homo religious as a benighted throwback to pre-rational times.”

Moreover, as Phelps (2006) argues, “Values and attitudes are as much a part of the economy as institutions and policies are. Some impede, others enable.” Recent studies
suggest the existence of a relationship between religion and economic performance (Barro and McCleary, 2003; McCleary and Barro, 2006; Guisa et al., 2006). Barro and McCleary (2003), analysing data from 59, mostly developed, countries find that Hinduism, Islam, Orthodox Christianity, and Protestantism are negatively associated with per capita income growth relative to Catholicism, while Sala-i-Martin et al. (2004), in a larger sample of 88 countries, obtain the result that Islam, and in some specifications, Confucianism, are positively associated with per capita income growth relative to an excluded category apparently consisting of everyone except the Confucians, the Muslims, Buddhists, Protestants, Hindus, Catholics, and Orthodox Christians (Noland, 2005).

Religion and development is a linking of essential themes that has been neglected until recently (Nkamleu, 2007). Weber was the first one who identified the significant role of religion in social change. He went as far as to state that the Protestant reformation triggered a mental revolution that made possible the advent of modern capitalism (Guiseo et al., 2003). Almost a century after Weber’s seminal work, the importance of religion in explaining the prosperity of nations seems to be experiencing a rebirth. There are several studies on the effects of religion on economic outcomes. Religion seems to affect wages (Chiswick, 1983), school attendance (Freeman, 1986), health (Ellison, 1991), and criminal behaviour (Evans, 1995).

The history of the employment of a religious workforce in educating rural people goes back to churches. Churches educated people from the beginning of their foundation. From 1789, the attention toward religious education grew and for this purpose, night schools were founded for the education of adults. As well from the early of 19th century, adult educational activities, creation of religious foundations, collective movements, and creation of numerous associations in different fields with the purpose of motivating the cooperative spirit among people evolved as another part of church activities (Fox, 2003).

For instance, in China, the first promotional activities in the education of adults were started by some private and religious institutions in the 1920s [Reddy (2011) quoted from FAO and UNDP (1980)].

In his study, Titmus (1989) with a review of adult education in different countries such as Egypt, China and India, evaluated the role of religion and religious people in delivering such education to people. He also stated that delivering education to adults in the Islamic countries is underpinned by appropriately organised education systems for delivering such education in the form of Quran classes (Maktab) and schools. Quran classes (Maktab) and schools were among the places in which adult education was delivered to religious people (Merriam and Brockett, 2007). Fox (2003) with a review of existing literature in this area for about four decades from 1960s to early 2000s has studied the activities of churches. Fox’s study suggested that the churches of the early 1960s have been aware of their responsibilities towards career guidance. The audience for these programmes was diverse and included children, students, youth, adults and women.

According to Pesonen and Vesala (2006), participation of churches and their members in activities relevant to rural development has three dimensions: personal, participative and spiritual. In the personal dimension, the rural members of churches communicate with other people in the village who have similar views. The participative dimension includes participation of church members in village meetings and cooperation with the village councils and institutions. In the spiritual dimension, churches play their role by creating hope toward the future and motivating rural people to work for a better life. These religious leaders can be considered as important opinion leaders. They can
change the barriers and accelerate the acceptance process of innovations (Valente and Davis, 1999).

Nkamleu (2007) investigated the relationship between religious beliefs and agricultural growth in Africa. Empirical analyses were undertaken using panel data of a representative sample of 26 countries, covering the period 1970 to 2000. The countries analysed were classified into three groups: countries with a majority of Christian believers, those with a majority of Muslims and those where there are more who follow indigenous beliefs. Results generally indicated the effect of religious on agricultural growth. The observation of the evolution of the agricultural production showed that countries that were predominantly Muslim had realised a better improvement of their agricultural production during the study period. Also positive association was evidenced between the degree of Christianity and the growth of total factor productivity, mainly due to relatively better technological progress in those countries. These results are in accordance with perspectives in which classic religions influence traits that enhance agricultural performance, particularly through technological progress.

In the study of Jewish rabbis by Sokhey and Djupe (2006), they argue that local religious leaders offer a more nuanced message than that promulgated by Jewish lobbying organisations such as AIPAC, perhaps stating some variation in community opinion on US policies in the Middle East.

3 Theory of planned behaviour

The theory of planned behaviour (TPB) is a revision of the theory of reasoned action (TRA) (Ajzen and Fishbein, 1975, 1980), which is designed to explain almost any human behaviour and has proved to be successful in explaining and predicting human behaviour through various application contexts (Davis et al., 1989). The TPB is known as a framework to understand the effect of subjective norms, attitude, and perceived behavioural control on the intention to engage in behaviour of interests (Pawlak and Malinauskas, 2008). While behavioural prediction is dependent upon numerous factors, the TPB argues that the immediate precursor to behaviour is the behavioural intention, which in turn is antecedent by:

1 the extent to which individuals have a favourable attitude toward the behaviour
2 individuals’ perceptions of the conventions and norms about the behaviour (i.e., subjective norms)
3 the extent to which the individual perception of the behaviour at hand is under his or her personal control (perceived behavioural control).

The theory, in general terms, assumes that these three conceptually independent variables influence behavioural engagement indirectly via intentions. Intention is seen as a summary of all the pros and cons a person takes into account when deliberately reasoning whether he/she should perform a behavioural option or not.

The TPB has been applied to a wide range of behavioural fields including those that relate to agricultural and human issues (Beedell and Rehman, 2000; Bernat and Roschewitz, 2005; Hattam, 2006; Karami and Mansoorabadi, 2007; Tajeddini, 2007). Most empirical applications of the TPB try to explain or predict newly introduced
behaviour (Armitage and Conner, 2001, Tajeddini, 2009; Tajeddini and Trueman, 2008). However, little knowledge exists between the religious leaders’ behavioural beliefs and the participation in AEPs. Based on above discussion, we formulate the following hypotheses:

H1 A positive relationship exists between the religious leaders’ behavioural beliefs and their attitudes towards participation in AEPs.

H2 A positive relationship exists between the religious leaders’ subjective beliefs and their subjective norms toward participation in AEPs.

H3 A positive relationship exists between the religious leaders’ beliefs control (existence of problems) and Perceived behaviour control in AEPs.

H4 A positive relationship exists between the religious leaders’ attitude toward agriculture and natural resources extension and education and their intention for participation in AEPs.

H5 A positive relationship exists between the religious leaders’ subjective norms and their intention for participation in AEPs.

H6 A positive relationship exists between the religious leaders perceived behaviour control (self-efficacy) and their intention for participation in AEPs.

H7 A positive relationship exists between the religious leader’s intention and their participation in AEPs.

H8 A positive relationship exists between the religious leaders subjective norms to agriculture and natural resources extension and education and their perceived behaviour control (self-efficiency).

Figure 1 Theoretical framework

Source: Adopted from Ajzen (1991)
4 Methods

This study was conducted in Iran, a country that is located in the Middle East, and is bordering the Gulf of Oman and the Persian Gulf in the South and the Caspian Sea in the North. It covers an area of 1.648 million square kilometres (636,296 square miles) and is neighbour with Iraq, sharing a border of 1,458 kilometres (906 miles). The research method used was descriptive and it was carried out through a survey method. The population of the study consisted of all religious leaders in selected provinces (N = 2,000) (Vali-Faghan, 2009) (Table 1). Using simple random sampling method, about 260 religious leaders were selected as research sample. Data were collected using a structured questionnaire. To evaluate the validity of the instrument, the questionnaire was assessed by an Agricultural Extension and Education academic professor in Tarbiat Modares University and experts in Forests, Ranges and Watershed Management Organization. To measure the internal reliability (consistency) of the items, Cronbach’s alpha coefficients were determined (above 0.8), indicating high internal consistency (attitude = 0.91, subjective norm = 0.91, PBC = 0.88, intention = 0.8, perceived behaviour = 0.91).

The TPB was applied as the theoretical framework of this study. The items in the questionnaire were assembled and analysed based on the literature review. The 65-item instrument utilised in this research elicited responses, directly and indirectly, based on the constructs of the model, as well as external factors for profiling the religious leader’s age, gender, background, and the like. Twenty questions were designed based on the TPB on a seven point Likert type scale (1 = strongly agree to 7 = strongly disagree) to collect data. Attitude was measured by eight statements. Six behavioural belief questions and five outcome evaluation questions were constructed. Subjective norms were also measured directly and indirectly. The questions were used to determine the respondent’s perception of social pressure regarding participation in AEPs. Eight questions elicited the indirect measure for subjective norms, and four normative belief, and motivation to comply, type questions were used to create an index for indirect measurement. In addition, perceived behavioural control was also measured directly and indirectly. Five questions were designed to create the index for perceived behavioural control, measuring the respondent’s evaluation in participating in education programmes. In addition, the survey included several questions designed to determine what would motivate religious leaders to participate in educational programs. Moreover, five questions asked the respondents’ perceived behaviour and five questions measured their knowledge about agriculture. Finally, intention was measured using nine statements followed by two statements measuring behaviour.

In this research, descriptive analyses (i.e., mean and standard deviation) and inferential statistics (i.e., Spearman’s correlation, multiple regression and F-test) were used to analyse the collected data. Data were analysed using SPSS13 software.
Table 1  Frequency distribution of respondents, Iran (2008)

<table>
<thead>
<tr>
<th>Provinces</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kermanshah</td>
<td>48</td>
<td>18.5</td>
</tr>
<tr>
<td>Khorasan</td>
<td>88</td>
<td>33.8</td>
</tr>
<tr>
<td>Ilam</td>
<td>44</td>
<td>16.9</td>
</tr>
<tr>
<td>Qazvin</td>
<td>45</td>
<td>17.3</td>
</tr>
<tr>
<td>Yazd</td>
<td>35</td>
<td>13.5</td>
</tr>
<tr>
<td>Total</td>
<td>260</td>
<td>100</td>
</tr>
</tbody>
</table>

5 Results and discussion

5.1 Demographic characteristics of the religious leaders

The highest frequency of respondents was related to 31–40 years old category. The mean age of respondents was 34 years with maximum 73 and minimum 20 years. Among the target respondents, 92.7% were married and 7% were single. The religious leaders have an average of 10 years of propagation with an average of 8 years of propagation in rural areas. The religious leaders had spent an average of 75 days a year in rural areas. The religious leader’s first priority for propagation is rural areas and the last priority for them is nomadic tribe regions (referred to as Ashayer in Persian). About 74.1% of the religious leaders have agricultural experience and only 26% of them have no agricultural experience. The religious leaders were interested in work with farmers; advertising in rural and nomadic areas and living in villages is ranked at very high and high average levels respectively. The level of religious leader’s knowledge and information regarding agriculture is ranked very high and it is very low in familiarity with activities of Agriculture Ministry and its affiliated organisations and their level of knowledge is very high in comparison with friends; however, it is very low in comparison with an agriculture expert. About 71% of the religious leaders expressed the importance of agriculture and natural resources at very high level. The first priority of educational needs for the religious leaders was familiarity with the process of local organisations formation, such as agriculture and natural resources cooperatives; the second priority was the familiarity with an agricultural expert’s tasks and skills and the third priority was the importance of agriculture from the viewpoint of ‘Quran’ and traditions and narratives. The last priority in educational needs was the familiarity with some occasions such as agriculture administrative week and tree planting day. In the area of issues and problems facing the religious leaders participating in AEPs, the lack of clear guidelines and standards for these types of education, the lack of enough support of agriculture and natural resources propagation programmes by seminary and the lack of monitoring and evaluation systems are the first, second and third priorities of problems respectively.
Table 2
Correlation matrix between research variables

<table>
<thead>
<tr>
<th>Structures</th>
<th>Behavioural beliefs</th>
<th>Subjective beliefs</th>
<th>Beliefs control</th>
<th>Subjective norms</th>
<th>Attitude toward behaviour</th>
<th>Perceived behaviour control</th>
<th>Intention</th>
<th>Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural beliefs</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjective beliefs</td>
<td>0.890</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beliefs control</td>
<td>0.190</td>
<td>0.220</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude toward behaviour</td>
<td>0.694</td>
<td>0.618</td>
<td>0.132</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjective norms</td>
<td>0.720</td>
<td>0.809</td>
<td>0.178</td>
<td>0.500</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived behaviour control</td>
<td>0.546</td>
<td>0.611</td>
<td>0.123</td>
<td>0.377</td>
<td>0.756</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intention</td>
<td>0.641</td>
<td>0.691</td>
<td>0.145</td>
<td>0.536</td>
<td>0.809</td>
<td>0.853</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Behaviour</td>
<td>0.498</td>
<td>0.537</td>
<td>0.113</td>
<td>0.416</td>
<td>0.628</td>
<td>0.662</td>
<td>0.777</td>
<td>1</td>
</tr>
</tbody>
</table>
5.2 Inferential statistics

The correlation matrix among research variables is shown in Table 2. Based on the results, a positive relationship exists between the religious leader’s behavioural beliefs and their attitude towards AEPs. In other words, the religious leaders’ knowledge about the results and consequences of their acts for farmers lead to more favourable attitude toward participation in agriculture programmes.

A positive relationship exists between the religious leader’s subjective beliefs and their subjective norms toward agricultural education. In other words, if there is a positive view from responsible institutions about the religious leaders’ participation in AEPs, it will lead to an increase in the religious leaders’ prestige, villagers and community’s positive view and will improve the religious leaders’ popularity.

A positive relationship exists between the religious leader’s attitudes and their intention toward AEPs. In other words, if religious leaders have a positive view towards agriculture and receive a sense of satisfaction from the participation in these programmes, they will show more tendencies for participation in these programmes and they will be more willing to proselytise agricultural activities in different opportunities.

A positive relationship exists between existing subjective norms and the religious leader’s intention toward participation in AEPs. In other words, if rural communities’ trends and norms support propagation and educational programmes offered by the religious leaders, it will increase the religious leaders’ motivation for participation in these programmes.

A positive relationship exists between the religious leaders perceived behaviour control (self-efficiency) and their intention toward AEPs. In other words, if the religious leaders feel that they have enough ability to provide agricultural education and they have the ability to communicate with farmers and rural people, their intent to participate in these programmes will increase.

Attitude toward behaviour, subjective norms and perceived behaviour control has an effect on the religious leaders’ intention to participate in extension and education programmes. In other words, a positive relationship exists between these three variables and the religious leaders’ intention. Moreover, if the religious leaders have a positive attitude towards agriculture, that participation in providing these programmes provides social acceptance and feel that they have the necessary capabilities for participation in such programmes, all of these factors will encourage the religious leaders to participate in AEPs.

A positive relationship appears to exist between a religious leader’s intention and their behaviour (participation in AEPs). In other words, if religious leaders show a firm intention for participation in AEPs, it will lead them to participate actively in these programmes, in spite of the problems and limitations that may exist along the way.

A positive relationship also appears to exist between existing subjective norms regarding the participation of religious leaders in AEPs and their perceived behaviour control (self-efficiency). Furthermore, if there is a positive view between the people and rural community about the religious leader’s participation in AEPs, it may assist the religious leaders to believe in their ability to participate in these programmes.

In this study, only one result was significant enough to suggest a negative relationship between beliefs control (problems) and the religious leaders perceived behaviour control about agricultural education. Additionally, it was assumed that various cultural and
social, financial and family problems might decrease the religious leader’s participation in AEPs (Table 2).

The results of research hypotheses testing are listed in Table 3. By considering the table, except hypothesis number 3, other research hypotheses are significant.

Table 3 The results of research relational hypotheses testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: A positive relationship exists between the religious leaders behavioural beliefs and their attitudes towards participation in AEPs.</td>
<td>Supported</td>
</tr>
<tr>
<td>H2: A positive relationship exists between the religious leaders subjective beliefs and their subjective norms toward participation in AEPs</td>
<td>Supported</td>
</tr>
<tr>
<td>H3: A positive relationship exists between the religious leaders beliefs control (existence of problems) and Perceived behaviour control in AEPs</td>
<td>Rejected</td>
</tr>
<tr>
<td>H4: A positive relationship exists between the religious leaders’ attitude toward agriculture and natural resources extension and education and their intention for participation in AEPs.</td>
<td>Supported</td>
</tr>
<tr>
<td>H5: A positive relationship exists between the religious leaders’ subjective norms and their intention for participation in AEPs.</td>
<td>Supported</td>
</tr>
<tr>
<td>H6: A positive relationship exists between the religious leaders perceived behaviour control (self-efficacy) and their intention for participation in AEPs</td>
<td>Supported</td>
</tr>
<tr>
<td>H7: A positive relationship exists between the religious leaders intention and their participation in AEPs</td>
<td>Supported</td>
</tr>
<tr>
<td>H8: A positive relationship exists between the religious leaders subjective norms to agriculture and natural resources extension and education and their perceived behaviour control (self-efficiency).</td>
<td>Supported</td>
</tr>
</tbody>
</table>

The results of the multivariate linear regression, as illustrated in Table 4, indicated that 59.7% ($R^2 = 0.597$) of the variance in the religious leaders behaviour toward participation in AEPs could be explained by three variables of intention, behavioural beliefs and subjective beliefs. The intention variable influences directly the religious leader’s participation however; the other two variables indirectly influence the religious leaders’ participation in AEPs.

Table 4 Multi variable regression of effective factors on the religious leader’s behaviour for participation in AEPs

<table>
<thead>
<tr>
<th>Step</th>
<th>Independent variables</th>
<th>B</th>
<th>SEB</th>
<th>Beta</th>
<th>T</th>
<th>Sig</th>
<th>$R^2$</th>
<th>R</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intention</td>
<td>0.198</td>
<td>0.011</td>
<td>0.743</td>
<td>17.85</td>
<td>0.000</td>
<td>0.551</td>
<td>0.553</td>
<td>318.65</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>0.669</td>
<td>0.587</td>
<td></td>
<td>1.138</td>
<td>0.256</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Intention</td>
<td>0.162</td>
<td>0.013</td>
<td>0.607</td>
<td>12.76</td>
<td>0.000</td>
<td>0.592</td>
<td>0.595</td>
<td>188.8</td>
</tr>
<tr>
<td></td>
<td>Behavioural beliefs</td>
<td>0.119</td>
<td>0.023</td>
<td>0.247</td>
<td>5.19</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>–1.498</td>
<td>0.698</td>
<td>–2.14</td>
<td>0.033</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Intention</td>
<td>0.153</td>
<td>0.013</td>
<td>0.573</td>
<td>11.45</td>
<td>0.000</td>
<td>0.597</td>
<td>0.602</td>
<td>128.91</td>
</tr>
<tr>
<td></td>
<td>Behavioural beliefs</td>
<td>0.087</td>
<td>0.027</td>
<td>0.181</td>
<td>3.18</td>
<td>0.002</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subjective beliefs</td>
<td>0.089</td>
<td>0.042</td>
<td>0.122</td>
<td>2.09</td>
<td>0.038</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>–1.95</td>
<td>0.728</td>
<td>–2.68</td>
<td>0.008</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Based on the results for Beta, the intention variable is a more important variable in predicting the religious leader’s behaviour toward participation in AEPs. Based on the B-value, we propose that a regression equation can be written as follows:

$$Y = -1.95 + 0.153(X_1) + 0.087(X_2) + 0.089(X_3)$$

Utilising one-way analysis of variance, there were not significant differences for intention to participate in AEPs among different provinces ($F = 1.6$, $Sig = 0.174$), but Table 5 showed that there were differences for behaviour of the religious leaders for participation in AEPs among different provinces. The result of Duncan test showed that these differences were between Kermanshah and Qazvin, Yazd and Khorasan, Ilam and Qazvin and Yazd and Qazvin provinces.

Table 5 The differences among between the different provinces regarding the behaviour of the religious leaders toward participation in AEPs

<table>
<thead>
<tr>
<th></th>
<th>First group</th>
<th>Mean</th>
<th>Second group</th>
<th>Mean</th>
<th>Mean’s difference</th>
<th>Standard error</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kermanshah</td>
<td>11.5</td>
<td>Qazvin 9.84</td>
<td>1.65</td>
<td>1.65</td>
<td>0.01**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yazd</td>
<td>12.05</td>
<td>Khorasan 10.47</td>
<td>1.57</td>
<td>1.57</td>
<td>0.011**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ilam</td>
<td>11.2</td>
<td>Qazvin 9.84</td>
<td>1.36</td>
<td>1.36</td>
<td>0.038*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yazd</td>
<td>12.05</td>
<td>Qazvin 9.84</td>
<td>2.21</td>
<td>0.692</td>
<td>0.002**</td>
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<td></td>
</tr>
</tbody>
</table>

Notes: **Significance at 1% level; *significance at 5% level

6 Conclusions and recommendations

Iran is a Muslim country and has a high potential for developing its agricultural sectors, in addition, the religious leaders have a high socio-economic status among the population and especially farmers. Therefore, the main purpose of this study was to investigate the participation of religious leaders as a new paradigm for developing AEPs in Iran.

In the last section of this paper, by considering the results, some recommendations for better and more benefits from the religious leaders participation in AEPs are recommended. Based on the research results, the level of religious leader’s familiarity with duties and activities of the Ministry of Agriculture and affiliated organisations has been evaluated at very low level. Having enough information about the Agriculture Ministry’s job description and related subsystems is necessary for the benefit of religious leaders in AEPs. Therefore, in this regard, it seems necessary to hold seminars and meetings for religious leaders and publishing brochures and publications associated with the introduction of Agriculture Ministry and its affiliated organisations. According to the religious leaders’ educational needs, familiarity with the process of building local organisations such as agricultural and natural resources cooperatives is the first priority, familiarity with an agriculture expert’s duties and skills is the second priority and the importance of agriculture in the view of ‘Quran’ and tradition and narratives is the third priority for religious leaders’ educational needs. Fortunately, in recent years, some good efforts in the field of agriculture from the perspective of ‘Quran’ have been made, especially in the form of publication of books and journals through the Agriculture
The influence of religious leaders in agricultural educational programmes

Ministry and Forests, Ranges and Watershed Management Organization. Moreover, we can conclude that religious leader’s technical and programme specific information should be upgraded. As the results show, religious leaders themselves have the intention in the field of obtaining information about agriculture. Thus, coordination for participation in classes and courses in the field of agriculture is one of the important strategies for improvement of religious leaders’ technical ability. The providing of necessary conditions for religious leaders to be members in agriculture and natural resources cooperatives or building special cooperative organisations for religious leaders will help the sustainability of these cooperatives and is one of the methods that motivates and encourages religious leaders towards participating in cultural activities and agricultural education. The results from prioritising of problems facing agriculture and natural resources propagation programmes from the religious leader’s perspective shows that a lack of clear guidelines and standards for agriculture propagation programmes, a lack of adequate support for these programmes and a lack of monitoring and evaluation systems were the three priorities to support those facing problems in the field. Using religious leaders potential and abilities in agriculture education requires special guidelines and instructions. Therefore, in order to prevent scattered works and for the improvement of propagation and educational programmes performance, it is recommended that representation institutions of the supreme leader in collaboration with deputy and relevant departments in the Agriculture Ministry publish guidelines for participation of religious leaders in AEPs. In this case, coordination with the agencies and some sub systems, which are involved in providing AEPs, is necessary to prevent overlap of duties and interference. We suggest that support methods and monitoring and evaluation systems also be specified in these instructions.

The research results show that religious leaders who have agricultural experience are more willing to participate in AEPs in comparison with those who do not have agricultural experience. Therefore, it is suggested that these people should be promoted in the first stage for development of agriculture propagation programmes and at later stages other religious leaders be included after gaining further experience and more familiarity through work related training programmes. Based on another part of our research results, there are significant differences between intention and behaviour of religious leaders who have a high level of knowledge in the field of agriculture and people who have lower levels of knowledge. In other words, religious leaders who have higher knowledge about agriculture have more intention for participation in AEPs. Therefore, it is recommended that the technical and specific abilities of Religious leaders be improved in different ways such as holding conferences and seminars, preparation and publishing of special technical agriculture publications for religious leaders and providing for the participation of religious leaders in special in-service courses for agriculture experts. Based on research results, there are significant differences between different provinces in terms of religious leader’s behaviour to participate in AEPs. The rate of religious leader’s behaviour for participation in AEPs in the provinces of Yazd, Kermanshah, Ilam, Khorasan and Qazvin has achieved the highest score, respectively. In this regard, it is suggested that the experience of successful provinces with respect to religious leader’s participation be used. Exchange of experience between the different provinces through meetings between them at local and national conferences is recommended.
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References


