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Resource-Based View, Innovative Orientation And Performance In Iran's Agricultural Advisory Services Corporations

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ABSTRACT

Background: The purpose of this paper was to investigate how firm-specific resources and innovation orientation of the firm may influence performance in agricultural advisory services corporation. **Objective:** It builds upon theoretical strands from the resource-based and entrepreneurship perspectives. Research within these fields indicates that these relationships might be dependent on the context within which the firm operates. **Results:** This study has developed and tested a model of resources-driven innovation activities that have impact on organisational performance, using a structured questionnaire. The model was tested on 300 usable responses from agricultural advisory services corporations in Iran**.** Hypotheses are developed to test the possible effect of resources (strategic vision, Dynamic capabilities, firm's external alliances, physical resources) on innovative orientation. Then, the mediating role innovative orientation effects on performance. **Conclusion:** This suggests that farm consultancy firms that engage in entrepreneurial efforts and activities enable firms to create, reconsider and apply their resources in more efficient ways and improving effectiveness and stakeholder satisfaction.

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INTRODUCTION

Agricultural Advisory Services (AAS) are synonymous with agricultural extension and the term is used for all different activities that provide information and services that are needed and demanded by farmers and other actors in agri-food systems and rural development(Anderson and Feder, 2004; Rivera and Cary,1997). In Iran, agricultural extension system, with a history of more than fifty years, has still not been able to reach and support all potential clientele (Hashemi and Hedjazi, 2011). Inefficient public organization, low access rural population with new methods and technologies of agriculture and financial crunches are some important problems of extension organizations in Iran (Karimi *et al*., 2011). Hence, to convert the subsistence of agriculture sector to modern agriculture, agricultural consultancy services in private network set up by agricultural ministry in 2007.

Agricultural advisory services corporations as agribusiness incubators can provide information and agricultural services through market research, new product testing, commercial demonstration project, distribution, and marketing activities. Increase in the availability of appropriate advice and information to agricultural producers and beneficiaries can provide opportunities for self-employment to agricultural graduates (in agriculture and allied activities) and increasing involvement in the planning and implementation of extension activities . AASC by agriculture graduates were launched with the support of the Iranian Agricultural Extension organization and Agricultural Engineering System Organization .Essentially, these service providers operate on a contractual bases with farmers' organizations and deliver their services by financing government and development partners (90% of turnover), and payment by farmers and other client (10% of turnover) (Ebrahimi, 2006).

They can assist with developing value chain structures, which facilitate linkages to market actors and public sectors. Moreover agricultural advisory services corporations (AASC) have played a vital role through strengthening technical skills of farmers and monitoring their activities in their farm (Ebrahimi, 2006).

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Therefore agricultural advisory services corporations need to develop managerial skills, new strategies and change capacity and properly restructure their resources to offer appropriate services which benefit the farmers and assure the viability of their agricultural enterprises in the context of emerging domestic and export market (Wongtschowski *et al*., 2013). However, revitalization and sustained performance of these firms are of great importance for their own survival and for sustaining economic development in rural communities (Hashemi and Hedjazi, 2011). One can say that the need to pursue entrepreneurship in an corporation like AASC has arisen from a variety of pressing problems including: technological changes, innovations, and improvements in creating a product or service that client wants (Brizek and Khan, 2012).

Contracting extension is one strategy to expand extension coverage and improve performance and impact. In other words importance of an effective agricultural consulting service is due to a direct effect on performance and effectiveness of consultancy services (Sundberg, 2005). This has led to decreased support and increased competition between a greater number and variety of providers of agricultural extension information and a drastic change in the quality of service provision and stakeholder satisfaction. Agricultural consulting can be combined with other techniques in the production process. These services need adequate access to credit facilities and product marketing, in order to increase production and improve farmer's performance (Smith & Munoz, 2002). Planning and long-term strategic goals need to distribute new products and services into rural areas (Kopicki *et al*., 2011).

This study is built upon theoretical insight from the resources-based view (RBV) and the innovative orientation (IO) perspective. In order to organizational success or survival they need restructure their resources, develop new strategies to offer appropriate services which benefit the farmers. The Resource-Based View (RBV) asserts that firms gain and sustain competitive advantages by deploying valuable resources and capabilities that are superior, scarce and inimitable (Grande *et al*., 2011). Innovative orientation can stimulate growth by renewing established firms through innovation and venturing activities. Three key dimensions—service innovation (offering consumers new services), process innovation (to find new process technologies), and organizational innovation (to make changes in the structures and processes of an organisation)—underlie Innovative orientation in corporation (Kuratko *et al*., 2005). Innovative orientation has various outcomes such as stakeholder satisfaction, new corporate strategies and improving internal process (Lumpkin and Dess, 2005). Kakati (2003) has discovered that corporate resource is the key factor in survival and development of new ventures. Various corporate resources support their business strategies and then obtain outstanding entrepreneurial performance. To resources – based theorists, the firms is a bundle of commitments to system, tangible and intangible resources all blanketed by firm resources (Simsek and Heavey, 2011). Knowledge is primarily embedded in employees and technical systems. This knowledge along with experiences and skills develop a strategic mindset to maintain ongoing business-wide innovation initiative (Kellermanns and Eddleston, 2006). This study is building on resources-based view that stimulate IO in agricultural firms and then IO 's influences on the performance. Therefore the purpose of this study is to help to increase knowledge through an empirical investigation of the relationship between resources, innovative orientation and performance in Agricultural advisory services corporations. The main contribution is two-fold. First of all firms of agricultural sector should be an interesting context for further insight into both the RBV and the concept of IO, and thus contribute to both fields. Second the consequences of IO are the field of improving quality of services and stakeholder satisfaction in agricultural sector.

In this study we use the term AASC. They all describe enterprises that offering advice or training on agricultural production. These corporations provide a package of soil and input testing facilities, agriculture input and machinery , marketing service ,ICT service ,financial service, market information, agricultural service and other consultancy services.

Review of Literature:

1. Resource-Based View (RBV) of the firm:

Resource-Based View (RBV) of the firm emphasizes resources that reside inside firms. In other words RBV conceptualizes the firm as a bundle of resources, where different resources vary in importance for generating added value to the firm. According to the RBV the firm's ability to build new competitive advantages and explore new markets depends on its available resources and its ability to develop both physical and human resources (Barney 1991, Grande *et al*., 2011).Core capabilities can simultaneously enhance and inhibit entrepreneurial efforts within a firms.

Applying the resources is thus as important as possessing them. Uneven access to physical assets such as natural resources and financial capital may give firms significant competitive advantage, but resource heterogeneity may also originate from how the firm structures, bundles and leverages its resources (Sirmon *et al*., 2007). Resources are not of much value in themselves. In order to create value the firms must also put their assets into use (Newbert, 2007). This means that value is created only when resources are manipulated, evaluated and deployed appropriately within the firm's environmental context (Sirmon *et al*., 2007). Different management of resources may therefore produce different outcomes in firms with similar resources and

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environmental conditions (Zott, 2003). Resources available to farm firms venturing into new value added projects include their personal skills, farm resources and assets (Alsos and Carter, 2006). Invest in key personnel and develop internal capabilities is essential to the AASC and develop strong partnerships with entities who are very best at what they do.

Grande *et al*., (2011) indicated farm firms perceiving themselves as possessing unique competence are likely to benefit from this competence both in short and in long run. However, it should also be noted that the firm's present resources may represent both limitations and possibilities with respect to available markets and attainable levels of profit. Farm firms may thus face resource limitations when their resource base does not fit their new venture, for instance the type of market, Below we discuss different types of resources that so far have been referred to as scarce or unevenly distributed among small agricultural firms in the literature.

1.1. Dynamic capabilities:

Labor resources are a firm's key resources for attaining advantages. Human capital focuses primarily on capabilities, knowledge, skills, and experience, all of which are embodied in and inseparable from the individual. Intellectual capital refers"to the knowledge and knowing capabilities of a social collectivity, such as an organization, intellectual community, or professional practice" (Dess *et al*., 2003). Access to Such intangible resources is essential to the AASC. In parallel to this Hashemi and Hedjazi (2011) and also Grande *et al*., (2011) claim that farm firms might give access specialized resources that are valuable for agricultural ventures. They found that higher competencies often gave a valuable and unique combination of resources that could not easily be copied by others. Therefore, firms with employees of high average cognitive ability relative to their competitors will also possess more valuable human capital resource (Mugera, 2012).Wang *et al*., (2012) claim that dynamic capabilities positively related to market opportunities. Dynamic capabilities, is defined as the ability of firms to integrate, build and reconfigure internal and external competences to address rapidly changing environments'' (Teece *et al*., 1997). From a dynamic view, organizational capabilities can be renewed so as to achieve congruence with a changing business environment (Teece *et al*., 1997). Knowledge, learning and social relationships are enablers of organizational capabilities renewal (Wang *et al*., 2012). The current literature suggests that dynamic capabilities are more important for organizations operating in uncertain environments (Wiklund and Shepherd, 2003). AAS providers themselves need a steady flow of advice, access to up-to-date knowhow and support to develop their capacities if they are to provide relevant services in dynamic market environments and maintain the quality of their services (Chipeta and Christoplos, 2008).

Wiklund and Shepherd (2003) report that entrepreneurial orientation enhances the relationship between knowledge-based resources, such as marketing capabilities and technology capabilities, and performance of small businesses .In fact, highly entrepreneurial-orientated firms are likely to make the most of their internal resources to create better performance. However, entrepreneurial orientation cannot stand alone. Highly entrepreneurial-orientated firms are limited in achieving better performance if there is no adequate amount of internal resources for them to utilize.

Hypothesis 1: Dynamic capabilities in farm firms is positively related to their innovative orientation.

1.2. Physical resources:

The second form of resources refers to assets in firms. Access to financial capital is necessary in order to initiate, operate, develop and facilitate growth within a business (Grande *et al*., 2011).

Lee *et al*., (2001) indicate that technology capabilities and financial resources are the key predictors for new ventures' performance and its innovative activities. Physical exposure are directly linked through much of finance theory, with higher risk being associated with higher financial exposure and lower risk with lower financial exposure (Grande *et al*., 2005). This means that access to financial capital is likely to be a critical resource for small firms and thus a source of innovation for those firms which have greater access to it than their competitors. Technical resources (e.g., agricultural equipment and facilities, IT systems) have also been found to positively affect innovation.

In other words resources and their availability for entrepreneurial activity are crucial dimensions for innovation .The availability of slack resources could encourage experimentation and risk-taking behaviours(Hornsby *et al*., 2002). lack of resources such as technical information and the like may lead to reduced commitment to assigned goals.

Hypothesis 2.The availability of physical resources in farm firms is positively related to their innovative orientation.

1.3. Strategic vision:

Today's environment with its fierce competition, rapid changes in markets and technologies, uncertainties about the future and ever increasing complexity are likely to present many crises and act as catalyst for change (Burns, 2008). The fundamental purpose of the RBT is to explain how a firm can deploy its internal resources to implement its business strategy. The mission statement defines the strategic intent of the firm and the

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operational goals stipulate how the firm expects to achieve its mission. To achieve competitive advantage, the mission statement and operational goals provide a road map for firms to deploy, develop, and manage their human resources. The statements focused on three main issues: increasing innovation, quality of services, and employee job satisfaction (Mugera, 2012). Strategic orientation describes what factors drive the creation of strategy (Urban, 2012). Entrepreneurship plays an important role in strategy formulation. Morris and Kuratko (2002) argue that the integration of entrepreneurship consists of two aspects. Firstly creativity and entrepreneurial are needed to develop a great strategy. Secondly a strategy for entrepreneurship and innovation should be developed for entrepreneurial activities to flourish. As part of a strategy the corporation should set clear innovation goals. Creating such a vision, Morris *et al*., (2008) are of the opinion that a good vision starts with a core ideology which includes the business's values and purpose. Complementing these values is the purpose, which is a source of guidance and inspiration to the business .The vision statement should actually mention creativity and innovation. The strategic vision thus serves to balance these needs, provide general guidance, direction and encouragement, y*et al*so providing the latitude necessary to promote entrepreneurial activity (Miles *et al*., 2000).

Hypothesis 3: strategic vision in farm firms is positively related to their innovative orientation.

2.4. External Network:

External networks are considered to be important assets for many firms. The use of networks may help firms to improve their access to information, resources and markets (Moreno and Casillas, 2007). From an innovation systems perspective innovation occurs in network-like structure of interaction and continuous learning assuring the participation of primary producers, processors, buyers, input providers, local leaders, government officers, local development programs and NGOs, educational institutions, and many other actors (Hartwich and Schidgger, 2010). Therefore the number of alliances may be essential for enhancing performance (Antoncic and Prodan, 2008). Also information acquired through networks can help firms to evaluate their existing resource base against opportunities and threats in environmental conditions and customer needs (Sirmon *et al*., 2007). Daane (2010) has argued about discover new opportunities for joint action and synergy in new networks and communication. This is supported by Blundel (2002) and Grande *et al*., (2011) investigated the network evolution of artisan firms finding networking activity to be an important factor in forming the development path of the agricultural firm.

Hypothesis 4. External networks are positively related to innovative orientation in farm firms.

2.5. Innovative orientation and performance and context:

The resource-based research on innovation is based on the fundamental premise that organizational resources and capabilities are those that underlie and determine a firm's capacity for innovation. Within this perspective, organizational resources (tangible and intangible) are taken to provide the input that in turn is combined and transformed by capabilities to produce innovative forms of competitive advantage. We suggest that such resources may serve as important sources to develop innovation and superior performance.

Innovative orientation (IO) has therefore emerged as an important concept and device for studying, describing and evaluating entrepreneurial efforts within existing firms. Lumpkin and Dess (1996) explain IO as 'processes, practices, and decision-making activities that lead to new entry', and further that it 'involves the intentions and actions of key players functioning in a dynamic generative process aimed at new-venture creation. entrepreneurial orientation has a direct and positive influence on business performance (Morris *et al*. ,2008).the innovation management literature highlights the importance of integrating product, process, and organisational innovation to successfully transfer new ideas and business opportunities into market success (Tidd *et al*., 2005). Innovation generates new product, process and organizational systems that the firms can apply for their activities. Product or service innovation is aimed at offering consumers new services. Process innovations aim to find new process technologies to make production cheaper or faster and also develop capacity to deliver effective advices to a group or individual (Tidd *et al*., 2005). Enterprises use new information and communication technologies to come near to customers and to their demands (Hertog,2000). IO is therefore used to characterize a set of related processes that include a variety of activities related to identification of new opportunities and subsequent investments in the resource base in firms (Alvarez and Busenitz, 2001). In short, IO is often described as the mindset of firms involved in the pursuit of new ventures (Rauch *et al*., 2004).

Organisational innovation refers to changes in the structures and processes of an organisation that result from implementing new managerial and working concepts and practices. In other words skills a company needs to develop successful organisational innovations. Systemic service delivery often directly related to the linkage between the service provider and its client. It refers to the internal organisational arrangements that have to be managed to allow service workers to perform their job properly, and to develop and offer innovative services (Tidd *et al*., 2005). The firm's behaviour concerning innovation impacts on the individual innovation performances of the firm and the whole sector.

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The performance of an innovation system can be defined in terms of the results that it achieves. Defined in terms of results, the innovative performance is the extent to which it meets specified targets (outputs) by mobilizing, processing and transforming resources (inputs) and the extent to which these outputs contribute to desired outcomes and impacts (Daane, 2010). Dess *et al*., (2003) argue that indicators of performance constructs including of customer satisfaction, improvement of internal processes, employee satisfaction and the organization's innovation and improvement activities. Kolodny *et al*., (2001) formulated a number of design effectiveness indicators that they see as essential for proper functioning of pure innovation intermediaries that target SMEs: (1) visibility and accessibility, (2) trustworthiness to SMEs, (3) access to appropriate sources of knowledge and information relevant to the innovation process, (4) credibility of the intermediary organization with these sources, (5) quick response to the requests of SMEs.

Some experts believe in innovative performance related to stakeholder groups (Dess *et al*., 2003). They argue that there are two groups of stakeholders. External stakeholder who define the firm's external environment (customer) and internal stakeholder who work "within the environment defined by the external stakeholders. Yau *et al*., (2007) measures customer and employee satisfaction by customer loyalty, contributions to local employment and income, employee retention and employee job satisfaction such as increased morale of employees, individual's satisfaction, collaboration and a creative working environment (Hayton, 2004). Also Ventures which incorporate innovation and risk-taking into their vision by relying on entrepreneurial strategies and actions, understand that innovation is at the core of an entrepreneurial organization (Urban, 2012). Innovativeness and risk-taking should be encouraged to enhance firm performance (Kuratko *et al*., 2005).

Hypothesis 5. The extent of Innovative orientation will be positively related to firm performance in terms of:

a. effectiveness of services
b. satisfaction of employers
c. satisfaction of clients

MATERIALS AND METHODS

The methodology will now be discussed in terms of the measurement instrument, data collection, the sample and data analysis.

Measurement instrument:

In this research, entrepreneurial orientation,

Resource-Based View (RBV) of the firm and performance elements was mostly measured through scales previously tested and used by other researchers. Perceptual measures were selected based on their congruence with the concepts under examination. Innovative orientation characteristics were assessed across three dimensions. Each of these variables was measured by a five-point Likert-type scale. Most items were derived from the literature. Innovation orientation was measured by selected items of service, process and organization innovation that included Service innovation was measured using 2- item (α=.72) adopted from Zahra (1993) and included offering new agricultural services and production to client and offering new knowledge to client . process innovation was measured by 3-item(α=.92) adopted from Tidd *et al*., (2005) and Hertog (2000) included using information and communication technology(ICT) for delivering services, enhancing employees' competencies for teaching of new technology in agriculture and investigation of firms for enhancing employees' competencies. organizational innovation was measured by 3-item(α=.87) adapted from Tidd *et al*., (2005) included of Documenting experiences of farmers and tacit knowledge of employees, Developing collaboration with public organization, Enhancing culture of teamwork in firms.

Resource-Based View (RBV) characteristics were assessed across four dimensions. Dynamic capability was measured by 4-item(α=.90) adopted from Zahra *et al*., (2006) included Searching new technology in areas where client want, Collaboration with organization research, Having inclination of firms to improve their skills and Access to skilled labor . Physical resources was measured by 4-item (α=.89) adapted from Lee *et al* (2001) including of access of financial resources, ICT, new technology in agriculture and access to information material. strategic vision was measured by a five-item scale (a=.79) from Sinkula *et al* (1997) included of Long-term goals in strategies of firms, Being committed members to missions, Encouraging creative and innovation behavior through venture 's vision Clearing performance goals by managers. External network (α=.87) was measured by 5-items developed by literature review and external network in AASC. Questions on external network discussed Having interaction with agricultural research centers, Having interaction with agricultural NGO, Having interaction with other AASC, Having interaction with Ministry of agriculture, Having interaction with farmers, Having interaction with organization of farmers.

Dependent variables—performance—were measured in terms of effectiveness of services and stakeholder satisfaction. To measure effectiveness of services in AASC we have used an 7-item scale(α=.90)adopted from Kolodny *et al* (2001) included of Facilitating access of clients to services, Decreasing cost of production for

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client, Enhancing knowledge and skill of client, Being Related advisory services to need of clients, Facilitating access to services for clients, Respecting members of firm to clients, Facilitating linkage clients with other agricultural organization, Engaging clients in agricultural extension program. satisfaction of members was measured by 7-item(α=.88) included of Electing as board of directions in firms equally, having good feelings of performing tasks in firms, satisfying of sharing incomes in firms, satisfying of approvals implement in firms, satisfying of offering agricultural advisory services to clients, satisfying of board of directions performance in firms, having job security in firms (Hayton, 2004) and satisfaction of client was measured by 4-item (α=.88) adopted from ,Yau *et al* (2007) included of customer loyalty to AASC, Client's trust to AASC, Increasing contract of client with advisors, Providing needs and expectation of clients.

Data collection, sample and data analysis:

The data were collected through personal interviews with 300 members of AASC in west of Iran as a part of the Network of agricultural advisory service corporations that has been established by ministry of agriculture. This is a governmental agency which aims to enhance entrepreneurship and create jobs for agricultural graduates and contracting for agricultural services. Sample selection was designed to represent the structure of the region following the stratified sampling principles in finite population. The population of firms was segmented by location of firms in the county among four provinces that there were in west. The number of firms in each county was calculated relative to the information contained in the Ministry of agriculture in each county. The distribution of responding firms by county is shown in Table 1. Companies that choose to not participate in the project were replaced with a similar (randomly chosen) company in the same geographic area. Interviews with the firm members occurred during April and May 2012.

Table 1: Distribution of the Sample

province	Number of county	Number of firm	Number of members
Kermansha	10	57	137
Hamedan	8	41	57
Ilam	7	46	68
Kordestan	6	41	57
Total	31	174	300

Forty-two percent of the sample consisted of board of directors. Eighty-one percent of respondents held bachelor degrees in agriculture and the average of experience in the agricultural ventures was 5 years. Since most of these farm businesses have few employees. The mean size of firms were between 6 to 10 people. However, by addressing the firm level we acknowledge the importance of resources and the potential of the farm as a business. These firms represent different types of agricultural advisory services as well as value added businesses related to farming and a farm property. Agricultural development services for improving farm business are typically Supplying of inputs (fertilizers, machinery and equipment) and providing services such as marketing service, ICT service, financial service, market information, farm management services. Table 2 shows the descriptive statistics and intercorrelations for the construct. Data analysis shows that correlation coefficients among constructs are significant at the 0.01 level.

RESULTS AND DISCUSSION

The constructs and their dimensions were tested by using confirmatory factor analysis. After the confirmatory factor analyses the number of items was reduced by forming construct dimension items as an average of the dimension items. The model was estimated by using structural equation modeling. The model included the hypothesized relationships and correlations among construct dimension items.

The resulting model goodness-of-fit indices indicated a moderately good model fit (NFI 0.97, NNFI 0.99, CFI 0.99, SRMR 0.05, RMSEA 0.05 GFI 0.78; despite the fact that the Goodness of Fit Index would increase to levels above the 0.90 threshold for a good model fit, all parameters important for the hypothesized relationships were kept in order to clearly demonstrate the results of hypotheses testing).

Hypothesis 1 indicates the relation between Dynamic capabilities and innovative orientation (a positive significant standardized coefficient of 0.26). Hypothesis 2 postulated the relationship between The availability of physical resources and innovative orientation. This hypothesis received full support (a positive significant standardized coefficient of 0.18). Hypothesis 3 postulated the relationship between strategic vision in farm firms and innovative orientation This hypothesis received full support (a positive significant standardized coefficient of 0.36). Hypothesis 4 postulated a positive association between the firm's external of alliances and the extent of innovative orientation (a positive significant standardized coefficient of 0.23). The Innovative orientation variance explained was 89%. Hypothesis 1 postulated the relationship between innovative orientation and organizational performance in terms of effectiveness (5a) and satisfaction of employee (5b) and satisfaction of

clients(5c) (positive and significant coefficients between innovative orientation and performance elements; effectiveness of services 0.87, satisfaction of employee 0.83, and satisfaction of clients 0.87)(Table 3).

Table 2: Means, standard deviation correlations among variables

Variable	1	2	3	4	5	6	7	8	9	10	11
1.Human resources	-										
2.Physical resources	.576**	-									
3.Strategic vision	.570**	.639**	-								
4.External Network	.653**	.614**	.642**	-							
5.Service innovation	.642**	.651**	.675**	.685**	-						
6.Process innovation	.645**	.706**	.665**	.706**	.748**	-					
7.Organizational innovation	.569**	.620**	.688**	.685**	.738**	.793**	-				
8.Risk-taking	.494**	.629**	.599**	.538**	.618**	.725**	.716**	-			
9.Effectiveness	.584**	.545**	.672**	.644**	.642**	.647**	.684**	.546**	-		
10.Employee satisfaction	.544**	.483**	.702**	.567**	.635**	.644**	.648**	.585**	.718**	-	
11.Client satisfaction	.607**	.537**	.671**	.607**	.662**	.657**	.690**	.595**	.759**	.740**	-
Mean	3.17	2.62	2.82	3.15	2.74	2.80	2.88	2.48	3.20	3.11	2.91
SD	.74	.78	.79	.76	.86	.77	.85	.85	.69	.77	.84

**. Correlation is significant at the 0.01 level

Table 3: Structural equations with total main effects

Predictors	Dependents			
	innovative orientation	effectiveness	satisfaction of employee	satisfaction of clients
Resource-Based View characteristics				
Dynamic capabilities	0.26**	*0.22***	*0.21***	*0.22***
physical resources	0.18**	*0.16***	*0.15***	*0.16***
strategic vision	0.36**	*0.32***	*0.30***	*0.32***
firm's external of alliances	0.23**	*0.20***	*0.19***	*0.20***
Innovative orientation		0.87	0.83	0.87
Error (direct)	0.11	0.32	0.38	0.32
R2 (direct)	0.89	0.68	0.62	0.68

** Coefficients significant at the 0.01 level (one-tailed).

Indirect effects are in italics:

The study offers some important contributions and implications. First, a model of resources-driven innovation orientation was developed and empirically tested. It showed the value of resources for the development innovation activities and consequential performance improvements. The model of resources-driven innovation orientation is the main contribution of this study. The theoretical implications of the model developed in this study are: (1) innovation orientation can be considered an important predictor of firm performance and shall be given stronger emphasis in future research in entrepreneurship in general and in corporate entrepreneurship in particular; On the basis of the findings based on the model estimations the study pinpoints the Resource-Based View characteristics of firms with the purpose of developing innovation orientation that may be the most beneficial for the performance of the firm. The most important resources in the development of innovation orientation were found: strategic vision, Dynamic capabilities, firm's external alliances, physical resources. In practice this means the following: in order to foster innovation orientation firms must improve of their resources. They may like to consider: (1) improving the strategic vision and orientation to deploy, develop, and plan for resources of firms (2) improving the dynamic capabilities to gain valuable and unique combinations of resources which could easily be copied by others. (3) improving external network to serve as an important source of information and resources to the firm and (4) access to physical resources is important for innovation orientation to reduce risks attached to new investments and new value creation activities within the firm. These resources characteristics can have some indirect effect on performance of firms.

Second, This study demonstrated that innovative orientation to be a good direct predictor of effectiveness of services, as well as satisfaction of employees and clients. AAS firms may benefit by improving their innovation

activities such as offering new knowledge and service to client, enhancing of employees' competencies for teaching and using of new technology in agriculture, investigation of firms for enhancing employees' competencies and developing new processes in firms.

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