

Nº 34

# AD-MINISTER

UNIVERSIDAD EAFIT · MEDELLÍN · COLOMBIA · JANUARY - JUNE 2019 · ISSN 1692-0279 · E-ISSN: 2256-4322

TAHER ROSHANDEL  
ARBATANI

HIROKO KAWAMORITA

SAEID GHANBARY

PEJMAN EBRAHIMI

JEL: M00, M10, O10

DOI: [10.17230/ad-minister.34.2](https://doi.org/10.17230/ad-minister.34.2)  
[www.eafit.edu.co/ad-minister](http://www.eafit.edu.co/ad-minister)



UNIVERSIDAD  
**EAFIT**<sup>®</sup>

# MODELLING MEDIA ENTREPRENEURSHIP IN SOCIAL MEDIA: SEM AND MLP-ANN APPROACH

MODELADO DE LA INICIATIVA EMPRESARIAL DE MEDIOS EN LAS REDES SOCIALES: ENFOQUE SEM Y MLP-ANN

TAHER ROSHANDEL ARBATANI<sup>1</sup>

HIROKO KAWAMORITA<sup>2</sup>

SAEID GHANBARY<sup>3</sup>

PEJMAN EBRAHIMI<sup>4</sup>

JEL: M00, M10, O10

RECEIVED: 10/11/2018

MODIFIED: 20/01/2019

ACCEPTED: 15/05/2019

DOI: 10.17230/ad-minister.34.2  
www.eafit.edu.co/ad-minister

## ABSTRACT

The present paper addresses the need for a quantitative model for media entrepreneurship. In a framework of social media entrepreneurship that is presented by Khajeheian (2013), 23 factors are introduced and categorized in five groups. Four groups of enterprise, resources, strategy and product are controllable and infrastructure is the uncontrollable group. In the current research, these groups are considered as variables and factors are used as measures. In a survey 305 Iranian students responded a questionnaire. SEM and MLP-ANN used for analysis. Results show that resources are on the highest rank, strategy and infrastructure are placed as 2nd and 3rd and enterprise and product placed at the lowest rank. This model can be used as a foundation for developing more quantitative researches in the subject of media entrepreneurship.

## KEYWORDS

Media entrepreneurship, social media, digital startup, entrepreneurial action, SEM

## RESUMEN

El presente documento aborda la necesidad de un modelo cuantitativo para el emprendimiento de medios. En el marco del emprendimiento en redes sociales presentado por Khajeheian (2013), se introducen y

1 A full-professor of media management in University of Tehran. At the time of writing this article he acts as the vice-president of Farhangian University. His main areas of interest are media management, media policy, qualitative research methods. Professor Roshandel Arbatani has published several books and many articles in English and Persian. ORCID: <https://orcid.org/0000-0002-7826-9208>. Email: [arbatani@ut.ac.ir](mailto:arbatani@ut.ac.ir)

2 A Lecturer of Entrepreneurship at Ondokuz Mayıs University. Her research interests include Entrepreneurship Development, Entrepreneurial University, HE systems and Social Entrepreneurship. She is also an Entrepreneurship Development / International Credit Mobility Coordinator at the International Relation's Office, responsible for creating and implementing institutional projects. In addition, she has been working on national and international applied research projects in the field of Entrepreneurship Education and Social Entrepreneurship. She has studied and worked in different countries for over 20 years including UK, Italy, Iran, Jordan, Turkey and Maldives. She is also a consultant, providing expert advice on internationalisation strategy at ICID. ORCID: <https://orcid.org/0000-0002-8253-7340>. Email: [hirokokesim@gmail.com](mailto:hirokokesim@gmail.com)

3 Iranian researcher in media management. He has earned a M.A. in media management at Allameh Tabataba'i University of faculty of communication. His areas of interest include media economics, media branding and resilience of media organizations. He is the author of the book resilience Iranian news agencies in natural disasters. Also, Ghanbary has worked as a journalist in Iranian news agencies. ORCID: <https://orcid.org/0000-0002-6689-8488>. Email: [s.ghanbary@atu.ac.ir](mailto:s.ghanbary@atu.ac.ir)

4 A researcher and expert in statistical analysis softwares and member of Iran's Elite, moreover he is educator and expert in statistical analysis and econometrics as his main areas of interest. He has Master of Business Administration from Islamic Azad university of Rasht, Iran. He is author of papers published by Springer and Elsevier publishers on green entrepreneurship, green innovation, SMEs performance, Social Media. Ebrahimi is also author of these books: relationship marketing, loyalty of sports fans, entrepreneurship and factors affecting it, risk management and insurance, the bases of management in the organization, the bases of modern banking, Guilds and resistive economy and statistical analysis with PLS-R. ORCID: <https://orcid.org/0000-0003-0125-3707>. Email: [pejman.ebrahimi77@gmail.com](mailto:pejman.ebrahimi77@gmail.com)

Taher Roshandel Arbatani · Hiroko Kawamorita · Saeid Ghanbary · Pejman Ebrahimi  
Modelling Media Entrepreneurship in Social Media: SEM and MLP-ANN Approach

---

categorizan 23 factores en cinco grupos. Cuatro grupos de empresa, recursos, estrategia y producto son los controlables y la infraestructura es el grupo incontrolable. En la investigación actual, estos grupos se consideran como variables y los factores se utilizan como medidas. En una encuesta, 305 estudiantes iraníes respondieron un cuestionario. Las metodologías SEM (modelo de ecuaciones estructurales) y MLP-ANN (red neuronal artificial basada en el perceptrón multicapa) utilizados para el análisis. Los resultados muestran que los recursos están en la posición más alto, la estrategia y la infraestructura se ubican en el segundo y tercer lugar, y la empresa y el producto en el más bajo. Este modelo se puede utilizar como base para desarrollar más investigaciones cuantitativas en el tema del emprendimiento de medios.

## PALABRAS CLAVE

Emprendimiento de medios, emprendimiento de redes sociales, acción empresarial, SEM, MLP-ANN

## INTRODUCTION

Entrepreneurship is important in the national and global economies today so that, it main engine of economic growth and prosperity (Boufaden, 2013; Dutta, Roy, & Sobel, 2009). Small and medium-sized enterprises (SMEs) in the European Union account for 99 % of the total employment (European Commission, 2016) and In the United States, small entrepreneurs have created employment between 2.5 million and 4.7 million each year from 1994 to 2015 (bls, 2016). Khajeheian (2014) the effective role of entrepreneurship in developing countries has attracted attention; Iran is one of these countries. In recent years, entrepreneurship has increased in Iran. World statistics show In 2018, Iran ranked 72 with an increase of 13 in the world's 137 countries (Acs et al, 2018). Although the census points out that growth is in Iran but these show Iran's unfavorable position, part of this is due to government policy. Accordingly, one of Iran's researches identifies the gap between government-related entrepreneurship programs in Iran with global indicators of increasing levels of government-led entrepreneurship activities, such as reforming government policies and laws for the success of Iranian entrepreneurs (Modaresi & Davodi, 2015). Statistics showed In 2015 Of the nascent Iranian entrepreneurs who entered the entrepreneurial world in the last three years, 7 % reached the stage of stability; also 4 % went out of their businesses this year (IRNA, 2016) Therefore, it is felt that entrepreneurship in Iran needs a model But we don't have this kind of model. This study seeks to provide a model for the success of media entrepreneurship in Iran. Media entrepreneurship is important because, in the era of knowledge economy, media industries can become the engine of economic development (Hollifield, 2003: 101). In this research, based on the framework Khajeheian (2013) the success factors of media entrepreneurs are modeled in an entrepreneurial way. We first identify the relationship between the variables by using our structural equations modeling, and then the accuracy of the proposed model is determined according to the mentioned framework, and the importance of the factors of this model, is determined. This research, on the one hand, has led to a strengthening of media entrepreneurship literature, whose weakness was emphasized by Khajehian (2017) and on the other hand, innovation is in the methodology.

## LITERATURE ON MEDIA ENTREPRENEURSHIP

In 1971, the first research on entrepreneurship and media by looking at the field of music was published (Peterson & Berger, 1971) but until 2000, there are not many articles on the subject; however, the third millennium is a beginning of interest in research on entrepreneurship and media (Hang & Van Weezel, 2007). However, what is now clear is that entrepreneurship and media have a mutual impact on each other. (Hang & Van Weezel, 2007; Khajeheian, 2013; Khajeheian & Roshandel Arbatani, 2011). On one hand, the media can promote entrepreneurship and on the one hand, entrepreneurship phenomena heavily impact media industries as long as they, in their very nature, fall into the culture and creative industries (Hang & Van Weezel, 2007) however, our focus in this research is on the impact of entrepreneurship in the media industry, which is considered media entrepreneurship. Media entrepreneurship is still nascent. Achtenhagen (2008: 124) wrote: "As the area of media entrepreneurship is still a young and undeveloped field, this phenomenon is poorly understood" and now too some researchers still believe there is no significant improvement on media entrepreneurship (Khajeheian, 2017: 92). Of course media entrepreneurship is defined by some researchers. According to Hoag and Seo (2005: 3) media entrepreneurship is the creation and ownership of a small media company or media organization that creates at least one innovation in the business market. Khajeheian & Roshandel Arbatani (2011) the media entrepreneurship defines the use of limited resources by small media companies to take advantage of opportunities in a particular marketplace. But the most complete definition seems to be this definition: "Media entrepreneurship is taking the risk to exploit opportunities (creation/ discovery) by innovative use of (radical/incremental/imitative) resources (ownership/control) in transform of an idea into activities to offer value (creation/delivery) in a media form (content/platform/user data) that meets the need of a specific portion of market (businesses or consumers), either in an individual effort or by creation of new venture or entrepreneurial managing of an existing organizational entity and to earn benefit (money/attention/favorite behavior) from one of the sources that is willing to pay for (direct consumers, advertisers, data demanders or any customer of generated information of consumers)" (Khajeheian, 2017: 102). Companies the media seeks to explore new ways of using their current resources to create emerging revenue paths and increase company assets (Dutta, Roy, & Sobel, 2009).

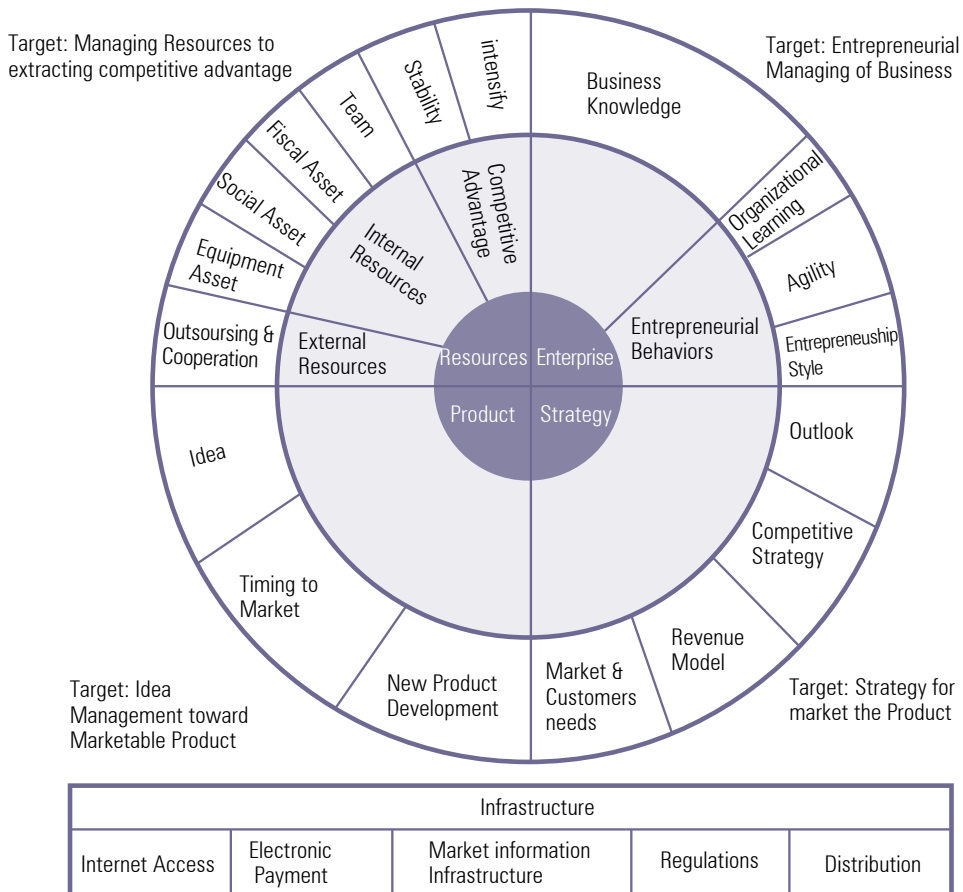
Indeed, the emerging media industry is created with the presence of entrepreneurs who take the risk of introducing and presenting media products in response to available opportunities. According to Hang (2016), some of the opportunities include online business opportunities, online gaming business opportunities, digital TV business opportunities, and business opportunity and joint venture. However, an entrepreneurial act that we know about establishing a media company or production and the marketing of a new product/ service is impossible only with taking advantage of opportunities. Achtenhagen (2017) also says research shows media companies have never been successful and have not really been entrepreneurs. Based on

research, it seems that the main reason for this is the focus of media entrepreneurs on some aspects and the neglect of other dimensions of success (Khajeheian, 2013; Taheri & Roshandel Arbatani, 2018)

### CONCEPTUAL MODEL

The framework that presented by Khajeheian (2013) provides a basis to model the social media entrepreneurship. In his framework, 23 factors are categorized in four categories of controllable, including enterprise, product resources and strategy; and one category of uncontrollable, namely infrastructures. The framework is depicted as a wheel on a ground. The wheel represents four controllable categories that ideally are balanced; the ground is the infrastructure category that facilitates (downward slope) or slow down (upward slope) rolling of this wheel. Figure 1 depicts this framework.

Figure 1: The framework of media entrepreneurial in social media context (Khajeheian, 2013)

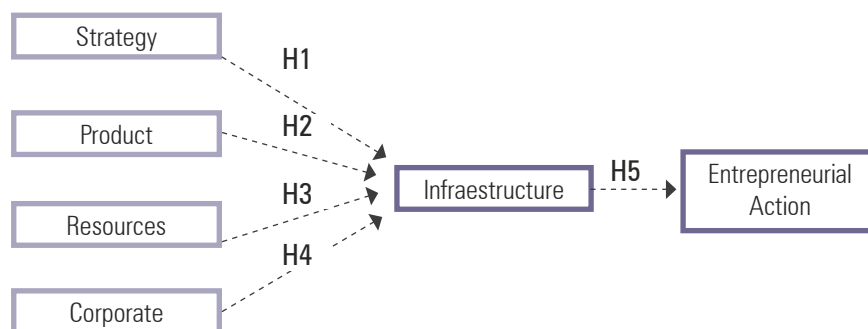


Source: Khajeheian, Datis. (2013). New venture creation in social media platform; Towards a framework for media entrepreneurship. In Handbook of social media management (pp. 125-142). Springer

To model the social media entrepreneurship, the authors uses four controllable categories as independent variables, and infrastructure category as intermediate variable. Figure 2 depicts the conceptual model. The research hypotheses are developed as following:

- H1: Strategy positively effects on Infrastructure.
- H2: Product positively effects on Infrastructure.
- H3: Resources positively effects on Infrastructure.
- H4: Corporate positively effects on Infrastructure.
- H5: Infrastructure positively effects on Entrepreneurial action.

Figure 2: The Conceptual Framework of Research



## METHODOLOGY

The survey is a flexible research approach used to investigate a wide range of topics (Mathers, Fox, & Hunn, 2007). The present research is a survey research. according to Glasow (2005), in survey research, independent and dependent variables are determined in the study and before the survey, a model is designed to determine the relationships between variables by the researcher.

### Sampling

The research population consisted of students and graduates of entrepreneurship and media of Iranian universities. The reason for choosing this statistical community was their close relationship with the subject of research as well as their identification as potential and actual entrepreneurs. The sample number plays an important role in the estimation and interpretation of the structural equation modeling results. Although a small sample is not recommended, but even with 50 samples, it is possible to conclude, but it is recommended that the sample size be 100 (Share Pour 2001), so in this study, considering this consideration, 305 individuals as samples Research was selected. Overall, the statistics of the participants in this study were summarized in Table 1. As you can see, the greatest contributors to this study were men. Undergraduate also contributed 38.2% more than others. Meanwhile, between the ages of 18 and 22, 37.3% were the most contributing. Of the surveyed

individuals, 77.7% stated their entrepreneurship intention, indicating that the right partners were selected.

Table 1: Participants' contributions to research on gender, academic education, age, etc.

	selection switch	Percentage	Number of persons
Age	18-22	37.3%	114
	23-27	28.8%	88
	28-32	17.2%	53
	33-37	10.8%	33
	38 up	5.9%	18
Gender	Female	38.6 %	118
	Male	61.6%	188
Academic education	Undergraduate	38.2%	117
	Graduate	24.8%	76
	Masters student	17%	52
	Masters	11.8%	36
	Ph.D. student	4.2%	13
Entrepreneurial intention	P.H.D	3.9%	12
	Sure	22.5%	69
	Perhaps	55.2%	169
	I do not know	12.1%	37
Entrepreneurship history	No	10.1%	31
	Yes	12.1%	37
	No	87.9%	269

### Data Collection

Often employ the questionnaire as a tool for data collection in surveys (Mathers, Fox, & Hunn, 2007). In this study, the questionnaire was used to collect data. The distributed questionnaire was designed via researcher based on the model of Khajehian (2013) and the questionnaire was shared with people through online social media. Questionnaire items are rated with 5 option Likert scale (5 = Extremely and 1 = Very low). The researchers tried to make this questionnaire understandable for everyone, as a questionnaire will be ineffective if it is not designed in a manner easily understood.

### Reliability and validity

In the first step, assess the measurement model was done. The reliability of questionnaire evaluated by Cronbach's alpha, Dillon-Goldstein's rho and check the first and second eigenvalue of the indicators' correlation matrix (Table 2). Some researchers suggest 0.7 and above as the favourable point for Cronbach's alpha (Ebrahimi et al., 2018a; Khajeheian and Ebrahimi, 2020) and DG rho (Sanchez, 2013; Hair et al., 2014; Ebrahimi et al., 2019). As the value of these coefficients is higher than 0.7, the reliability of research means is confirmed. The first eigenvalue should be much more larger than 1 whereas the second eigenvalue should be smaller than 1 (Sanchez, 2013: 57). Accordingly, according to Table 1, the reliability of the research can be confirmed.

Also, the convergent validity method was used to determine validity. According to Henseler et al. (2015) the measurement models, according to outer loadings and the AVE index. In order to examine the convergent validity, due reflective measurement model, the values of AVE (Block Communalities) have been investigated. Some researchers have pointed out that a higher value of 0.5 indicates the validity of convergence models (Hair et al., 2014; Ebrahimi & Mirbargkar, 2017; Ebrahimi et al., 2018b). As shown in Table 1, the AVE index for the five research variables is higher than 0.5, so we can say that the convergence models is validity. The researchers did not linger on the AVE index for validation, and the convergent validity of the model was examined with respect to outer loadings. Since some researchers consider the value of over 0.4 for outer loadings to be a convergence validity (Hair et al., 2006; Hair et al., 2014; Ebrahimi et al., 2017), according to the data in Table 1, the validity of the measurement model is confirmed.



Table 2: Measurement models and measures

Factors and items	Outer loadings	AVE (Block_Community)	C.alpha	DG.rho	Eig.1st	Eig.2nd
<b>Strategy</b>						
(SD=0.738, M=4.024)		0.543	0.789	0.856	2.720	0.725
Q 1	0.745					
Q 2	0.783					
Q 3	0.684					
Q 4	0.781					
Q 5	0.686					
<b>Product</b>						
(SD=0.833, M=4.012)		0.671	0.756	0.860	2.020	0.521
Q 6	0.791					
Q 7	0.831					
Q 8	0.835					
<b>Resources</b>						
(SD=0.774, M=3.883)		0.527	0.819	0.869	3.160	0.754
Q 9	0.705					
Q10	0.644					
Q11	0.777					
Q12	0.767					
Q13	0.684					
Q14	0.769					
<b>Corporate</b>						
(SD=0.793, M=3.859)		0.597	0.775	0.856	2.390	0.653
Q15	0.730					
Q16	0.798					
Q17	0.800					
Q18	0.760					
<b>Infrastructure</b>						
(SD=0.777, M=3.910)		0.573	0.812	0.870	2.870	0.761
Q19	0.757					
Q20	0.637					
Q21	0.786					
Q22	0.813					
Q23	0.780					

Note: C.alpha, Cronbach's alpha; DG.rho, Dillon-Goldstein's rho; eig.1st, first eigen value; eig.2nd, second eigen value; AVE, average of variance extracted; SD, Standard deviation; M, Mean.

Discriminant Validity was assessed at the construct level by HTMT, as it has been shown in Table 3 Values less than 0.9 are considered favorable for this index (Henseler et al, 2015).

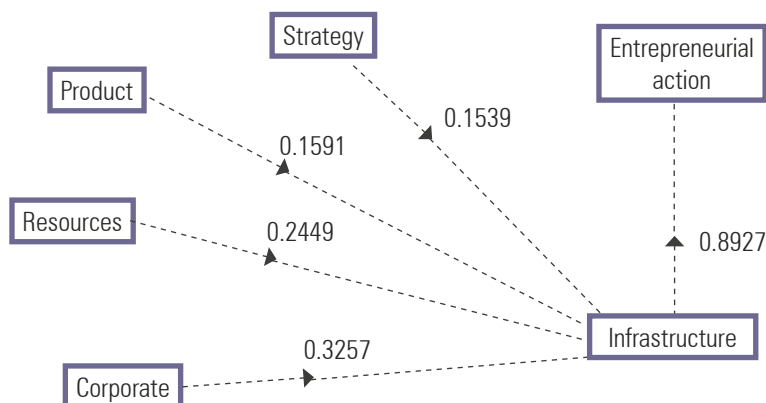
Table 3: Discriminant validity by Heterotrait-Monotrait Ratio (HTMT)

Variables	Strategy	Product	Resources	Corporate	Infrastructure	Entrepreneurial action
Strategy						
Product	0.848					
Resources	0.847	0.835				
Corporate	0.875	0.798	0.856			
Infrastructure	0.844	0.804	0.868	0.892		
Entrepreneurial action	0.869	0.804	0.875	0.853	0.828	

## ANALYSIS AND FINDINGS

After confirm the reflective measurement models in the first step, in the second step, using the SEM approach with the help of the software packages Plspm and Matrixpls in R software to evaluate the structural model and test the hypotheses. The main reason for using this approach is, firstly, the focus of the study on the prediction of the relationship between independent variables and the dependent variable, and secondly, the model presented in this study was designed exploratory with a previous study of previous research. Software output is calculated after the conceptual model of the research (fig 3).

Figure 3: Software Output Conceptual Model Software Research



The structural model test was performed based on the Inner model.  $R^2$  indicates the amount of variance in the endogenous latent variable explained by its independent latent variables. The value of  $R^2$  is presented only for the intrinsic variables of the model and its exogenous structures are equal to zero. The greater the  $R^2$  value of the intrinsic structures of the model, the better the fit of the model. As shown in Table 4, the coefficient of  $R^2$  for the Infrastructure variable is equal to 61.4 and is equal to 79.7 for the entrepreneurial action variable. Moreover, "Mean\_Redundancy" is the amount of variance in an endogenous construct explained by its independent latent variables. In other words, it reflects the ability of a set of independent latent variables to explain variation in the dependent latent variable. High redundancy means high ability to predict (Sanchez, 2013: 68).

GoF is an indicator used for general fitting that controls both measurement and structural models. GoF can be used a global criterion that helps us to evaluate the performance of the model in both the inner and the outer models. The higher value of GoF is better (Sanchez, 2013: 80) and in this research the value of GoF is 0.600 and its acceptable good.

Table 4: Assessment of structural inner model indicators

Variable	$R^2$	Mean_ Redundancy	Model fit
Strategy	-	0.000	GoF= 0.600
Product	-	0.000	
Resources	-	0.000	
Corporate	-	0.000	
Infrastructure	61.4%	0.352	
Entrepreneurial action	79.7%	0.374	

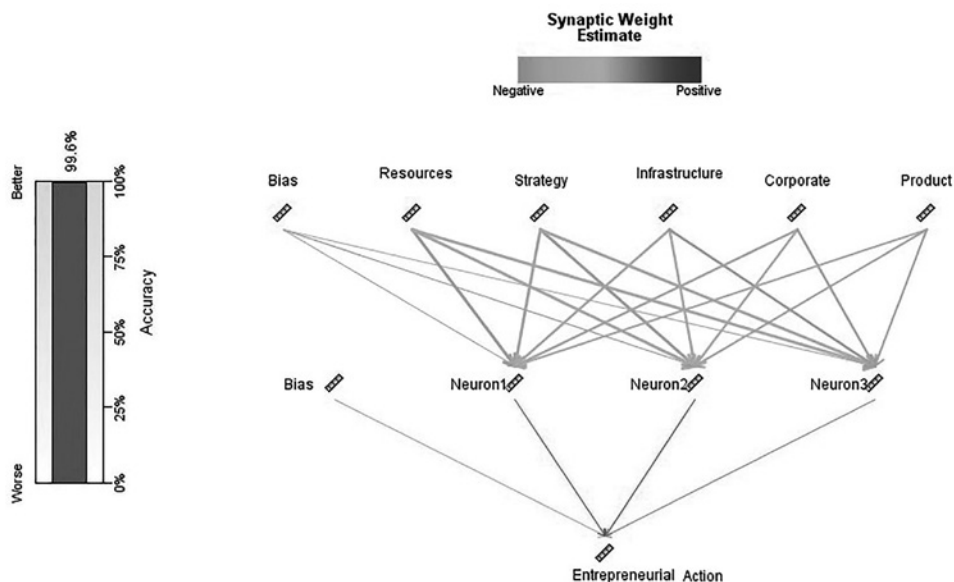
In order to test the research hypotheses, direct effects were evaluated. According to the results of Table (5), it can be stated that all research hypotheses have been supported. Actually the bootstrap confidence interval (95%) provided by the percentiles 0.025 and 0.975. This is especially important for the path coefficients. As you can see from the table (5), bootstrap intervals for the path coefficients of hypothesis do not contain the zero. Hence we say that these coefficients are significant at a 5% confidence level.

Table 5: Results of research hypotheses

Hypotheses	Direct effect	Std. error	Low CL	High CL	Decision
H1	0.154	0.058	0.050	0.277	Supported
H2	0.159	0.048	0.059	0.242	Supported
H3	0.245	0.066	0.118	0.372	Supported
H4	0.326	0.061	0.208	0.446	Supported
H5	0.893	0.013	0.870	0.919	Supported

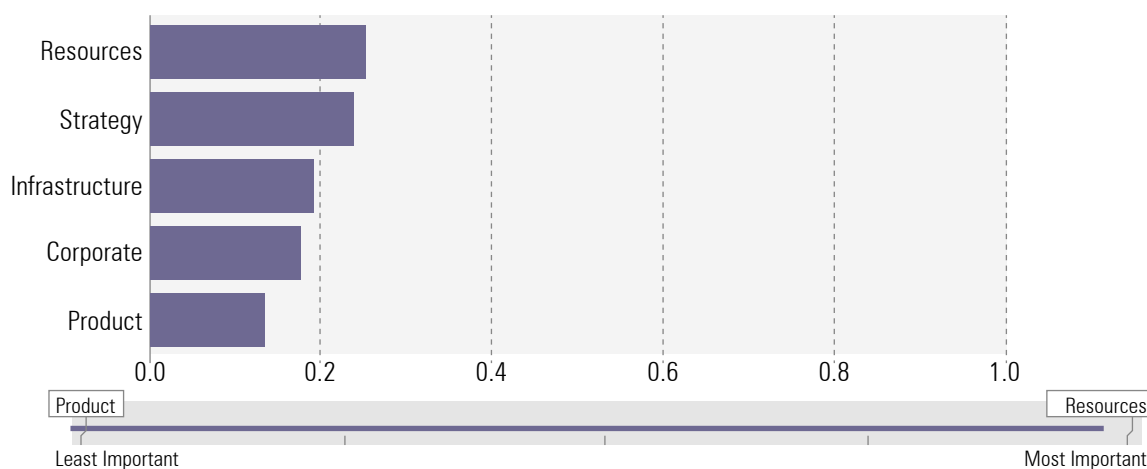
In the final part of this study, the accuracy of the model was examined and the importance of its factors was determined. By focusing on the Multilayer Perceptron (MLP) Artificial Neural Network (ANN), design items and accuracy were 99.6% complete in model analysis. Also, in line with SEM results, relationships have been evaluated as Synaptic weight estimation, which tracks positively to the ultimate target of entrepreneurial action.

Figure 4: MLP-ANN analysis output and accuracy



Also, with precision in the MLP-ANN output, we find that the resource variable has the highest importance in the proposed model. Also, the strategy variable is then of great importance. Of course, it is important to note that all the predictors have a positive effect and, in their own place, have an important role in explaining the entrepreneurial action (fig5).

Figure 5: Predictor's importance in MLP-ANN analysis



## DISCUSSION

The study of media entrepreneurship has grown in recent years, and various studies have been done in this regard (Hoag & Compaine, 2006; Hoag, 2008; Achtenhagen, 2008; Goyanes, 2015; Girişimciliği, 2018; Achtenhagen, 2017; Tokbaeva, 2019; Khajeheian, 2019; Girija, 2019; Hossain, 2019) So that "the practice of media management is becoming entrepreneurial" (Will, Brüntje & Gossel, 2016). The aim of this research was to model media entrepreneurship in social media platforms. Entrepreneurship in media provides policy strategies for promoting new entry and more independent media voices (Hoag, 2008). Findings show that fewer than 10 percent of sample of this study, who are 305 students from the fields of entrepreneurship, media management and business, are not intended to do an entrepreneurial action, and 77 percent of them are willing to involve in entrepreneurial activities. Considering the age of sample, findings confirm Zaheer et al (2018) that attention to media entrepreneurship has a positive relationship with education level and their intention to earn income from social media. They also confirm Tsourvakas and Riskos (2018) that entrepreneurial orientation in the students of journalism has been increased. On the other side, findings of this article contradict with Goyanes (2015), that discussed students of communication in Spain

lack entrepreneurial orientation, and therefore it is predictable that they prefer employment in traditional media over entrepreneurship and self-employment. Thus, based on findings of the current research, it can be concluded that Iranian students prefer entrepreneurial actions more than being employed in public or private media organizations.

Two major phases conducted in this research. First was assessment of model based on the research framework and test of hypotheses. Second phase was to importance of items in research model. Five hypotheses tested and confirmed. Based on the model, infrastructure ranked as the strongest variable of research in predicting entrepreneurial action in social media by 0.892 and then accordingly, enterprise, product, resource and strategy are the most effective variables. On the other hand, accordingly, resources, strategy, infrastructure, enterprise and product are the most important variables in entrepreneurial action in social media platforms.

It shows resources are the most important factor in media entrepreneurship, emphasizing Alvarez and Busenitz (2001) theory of resource based entrepreneurship. Ireland et.al. (2009) considers strategic management of resources essential to increase entrepreneurial actions. Resource classification systems are provided in a variety of ways, but Chan-Olmsted (2006) considers resources knowledge-based and property-based. Khajeheian (2013) in self framework argues that resources include competitive advantage, internal resources and external resources; The competitive advantage include of competitive stability and intensify, internal resources include the team, fiscal asset, equipment asset and social capital, and the external sources include of cooperation and outsourcing. Though the classification is different but For example equipment asset is property-based resource but team is knowledge-based which Chan-Olmsted points to. Importance of this variable shows that a media entrepreneur needs to identify the competitive advantage and how to use internal and external resources to exploit this.

Equipment and fiscal asset as part of domestic resources It has recently been claimed that the digital revolution and disruptive technologies has minimized the need for equipment and fiscal asset (Kong 2008; Khajeheian, Friedrichsen & Mödinger, 2018). Despite the minimal need for financial resources and equipment, social capital as part of the internal resources is a maximum component because "social capital enhances entrepreneurship" (Dana & Light, 2012) and it is an important factor in success of entrepreneurs and Media businesses (Casson & Giusta, 2007; Tsurvakas & Riskos, 2018). The importance of social capital is such that some researchers consider it to be effective in internationalizing companies (Gonzalez-Perez, Velez-Ocampo & Herrera-Cano, 2018). Also, The social network of an entrepreneur as his social capital can be helpful in various phases of business, including the identification of ideas, employment, product distribution, increasing customers, marketing, etc (Tajeddin, Emami & Rastgar, 2018).

The team's and human resources impact on entrepreneurship has also been seen in research; team trends have an impact on entrepreneurial orientation and entrepreneurial action (Makhdoom, Li & Asim, 2019). In media organizations, group productivity is more important than performing individual tasks (Sylvie et al., 2009) and The behavior of team members has been seen as a factor affecting media companies (Dal Zotto & Kranenburg, 2008). "core competitiveness of a company significantly depends on the strategic allocation of human resources and the related policies" (Huang, Huang & Tzeng, 2016) so it can be inferred that the team's value as agents for discovering and creating opportunities it's a lot.

Brawn et al (2001) emphasize on the control of resources and argue that outsourcing allows entrepreneurs to act flexible and agile and to act successfully; This indicates the importance of outsourcing and cooperation. One of the respondents of this research is a media entrepreneur that used telegram social platform to exchange research materials, but in spite of identification of a niche market, because of lack of sufficient staff to response the demand, failed. It confirms Girişimciliği (2018) that argues an entrepreneur needs to use external resources. All in all, resources are yet a fundamental need for entrepreneurial action.

Strategy has introduced as the second important variable in social media entrepreneurship. Albarran believes "Strategic management is concerned with developing the tools and techniques to analyze industries and competitors and developing strategies to gain competitive advantage." According Daidj (2018) A Strategic Approach at Two Levels include External and Internal. What is discussed in strategy is the need customers, revenue model, competitive model and outlook refer than at by Picard (2011) in the form of media economics concepts and by kung (2008) in the framework of strategic media management concepts and Includes both levels. The Outlook is as a part of the strategy one and it has been named a dignified key force on the media company (Dal Zatto & Kranenburg, 2008). Also, a media entrepreneur must for survival, looking for customer retention, build relationships with them and keep them loyal (Gladysz, Khajeheian & Lashkari, 2018) because In the age of disruptive technologies, it's harder to keep a customer harder (Tamaddoni et al, 2017). In the case of the revenue model, According Tsourvakas & Riskos (2018) shows that For the electronic media business, a multiple income resource strategy is not necessary for success, so for media entrepreneurial action on the social network, it can be said that having a primary revenue model is sufficient."A firm can develop a revenue model based on subscription costs and fees (customer side), advertising (often used in media and entertainment), sponsoring revenues, revenue sharing (with other firms), and commis-sions and transaction cuts from provided services, and by simply selling a product" (Daidj, 2018).

In recent decades the concept of strategy is intertwined in entrepreneurship, and on the same basis strategic media entrepreneurship has been attracted new research interest (Hasenpusch & Baumann, 2017; Horst & Murschetz, 2019).

Strategic media entrepreneurship is “coexistence or combination of opportunity-seeking and advantage-seeking behaviors” (Horst & Murschetz, 2019). There are two points of view about the opportunity; the perspective of the creation of the opportunity and the perspective of the discovery of opportunity (Will, Brüntje & Gossel, 2016). strategic media entrepreneurship seems to seek to discover the opportunity As Hindle and Klyver (2007) sees the opportunity search activity as the first phase of entrepreneurship. According Horst and Murschetz (2019) strategic media entrepreneurship the company has a better performance; Media strategic entrepreneurship seems to require “dynamic capabilities” management because Oliver (2016) claims “dynamic capabilities” as the most complex component of media company compliance with the highly complex environment of corporate performance. Dynamic capabilities management leads to a strategic renewal of the media as a process in entrepreneurship. Hang (2018) say “strategic renewal leads only to the reconfiguration of existing business within a corporate setting”. Strategic renewal is usually based on the identification of new opportunities, and much of it is based on imitative innovation; Khajeheian (2013) referred to imitative innovation as a way of success of entrepreneurial media action in Iran. Although the importance of strategy is at a very short distance after resources, without strategy, entrepreneurship is not possible.

Infrastructures ranked as the third variable. Based on the framework, legal infrastructures, internet access, payment, market information, and distribution are the main factors of infrastructure. Goyanes (2015) argues that entrepreneurial perception from the infrastructures may lead to increased intention to entrepreneurship and Turker and Sonmez (2009) emphasize on the importance of infrastructure on entrepreneurship intention. The Internet is recognized as an essential infrastructure for the media's entrepreneurial action on social networks; kung (2008) say Internet and digitization are an opportunity for media companies to move to new areas and Berthod, Huyskens and Loebbecke (2007) talk about Internet entrepreneurship. Hajmohammadi (2018) stress that internet is a source for Iranian entrepreneurs to offer new services, such as internet taxies, delivering services, e-payments and many different services. In fact, with the growth of the Internet and access to social networks, digital entrepreneurship has been intensified (Nambisan, 2017; Labafi, 2017). According to Sylvie et.al. (2009) Laws and regulations are highly complex in the media industry; media entrepreneurs claim that freedom of business activity is limited by rules and regulations (Rebouças, 2018) so many of researchers stress on the importance of policy for fostering of media entrepreneurship and discuss that government must reduce regulations to facilitate entrepreneurship (Rebouças, 2018; Safari, 2018; Khajeheian, 2014, 2016; Doyle, 2013). The market information system was referred to as part of the infrastructure; market information is both informally and informally gathered. Some companies now operate in the field of market intelligence collection and sell it to applicants, which we call the formal collection of market



information. But another part of collecting market information can be done through social media networks because The social media are inexpensive sources and of market intelligence and source customer's voice (Safari, 2018).

Enterprise and product placed at the last ranks, with a considerable distance with strategy and resources. The Enterprise includes business knowledge, agility, organizational learning, and entrepreneurial style. Some researchers emphasize that business knowledge effects on the success of business (De Clercq & Arenius, 2006; Fernandes et.al, 2017; Labafi et al, 2018). The knowledge structure provides an opportunity to identify and design value (Emami & Naderi, 2018). Also, the product includes the strength of the idea, the timing of the product presentation and the development of product skills. Albarran (2006) says the product is the most important thing to distinguish media from other companies. Media products usually include nonmaterial element and a material element And since they are considered talent goods (Medina, Sánchez-Tabernero & Arrese, 2016) without strong ideas are taken into consideration. Tsourvakas & Riskos (2018) argues that idea is the cornerstone of entrepreneurship and must be considered as a critical success factor. Ifedube (2013) stress on the entrepreneur's ability to recognize the idea that fits with opportunity. Kong (2008) writes: The first patterns of media success indicated the increase in the production of products, because the basic assumption of the system was that "a good idea is finally taken into consideration." Although this success system is now outdated, it shows that a good idea is a prerequisite for success, and successful entrepreneurial action needs a good idea (Emami & Khajeheian, 2019). According to Huyskens & Loebbecke (2007) Consider the idea of product and service as a driver of entrepreneurial success. Although the idea is referred to as an opportunity and is referred to as the first step in the creation of a business (Salamzadeh & Kirby, 2017) , one can actually see the idea in the heart of opportunities. Finding an idea is a product development issue (Yousefikhah, 2017; Moradi-abadi et al, 2017). An entrepreneur who does not dominate product development skills may fail, as product development involves a process that begins with identifying needs and continues to grow in satisfactory sales. That's why it is emphasized that product development skills are taught for entrepreneurship (Silva, Henriques & Carvalho, 2009). All at all, It can be concluded that access to social media and low-risk possibility of offering a product or service based on social media is the reason to rank these two important factor lower than former variables.

## CONCLUSION AND SUGGESTIONS

This research contributes in development of media entrepreneurship by modeling of this concept for the first time (as far as a thorough search of databases shows). The authors hope that this model will be used by entrepreneurs as well as policymakers to develop media entrepreneurship (Khajeheian, 2016). It suggests that policy makers must pay enough attention to infrastructures and to invest sufficiently on internet, payments, and communication infrastructures and also to reduce the bureaucracy and regulations. It also concluded that entrepreneurs must

balance their investment of all four categories of media entrepreneurship factors and to not overlook one in cost of others.

The authors suggest the future researchers to conduct new researches to develop measures for evaluating the success of media entrepreneurship in each of these classes. Also they suggest the researchers to work on development of more advance models that cover all 23 factors of the framework and to provide more detailed explanation of how these factors impact successful media entrepreneurship.

Another suggestion is to conduct a new research to re-explore the framework of Khajeheian (2013) and to understand if new trends and disruptive technologies have changed some factors of the framework.

## REFERENCES

- Achtenhagen, L. (2008). Understanding entrepreneurship in traditional media. *Journal of Media Business Studies*, 5(1), 123-142.
- Achtenhagen, L. (2017). *Media Entrepreneurship—Taking Stock and Moving Forward*.
- Acs, Z.; Szerb, L.; Lafuente, E.; & Lloyd, A. (2018). *The Global Entrepreneurship Index 2018*.
- Albarran, A. B. (2006). Historical trends and patterns in media management research. In *Handbook of media management and economics* (pp. 16-34). Routledge.
- Alvarez, S.; & Busenitz, L. (2001). *The Entrepreneurship of Resource-Based Theory* (Vol. 27).
- Berthod, O., Huyskens, C., & Loebbecke, C. (2007, March). New media entrepreneurship: success drivers of user-community-driven internet ventures. In *JOMBS Workshop* (Vol. 23).
- bls. (2016, April 28). Entrepreneurship and the U.S. Economy. Retrieved April 02, 2019, from <https://www.bls.gov/bdm/entrepreneurship/entrepreneurship.htm>
- Boufaden, N. (2013). *Entrepreneurship and Business Growth*.
- Brown, T. E., Davidsson, P., & Wiklund, J. (2001), "An operationalization of Stevenson's conceptualization of entrepreneurship as opportunity-based firm behavior", *Strategic Management Journal*, No 22, pp 953–968.
- Casson, M., & Giusta, M. D. (2007). Entrepreneurship and social capital: Analysing the impact of social networks on entrepreneurial activity from a rational action perspective. *International Small Business Journal*, 25(3), 220–244.
- Caves, R. E. (2000). *Creative industries: Contracts between art and commerce*. Harvard University Press.

- Chan-Olmsted, S. M. (2006). *Competitive strategy for media firms: Strategic and brand management in changing media markets*. Routledge.
- Daidj, N. (2018). The Evolution of Strategic Management Concepts. In *Handbook of Media Management and Economics* (pp. 111-129). Routledge
- Dana, L. P., & Light, I. (2012). Toward a theory of social capital in entrepreneurship. *International Journal of Social Sciences*, 1(1), 35-54.
- De Clercq, D; & Arenius, P. (2006). *The Role of Knowledge in Business Start-Up Activity* (Vol. 24).
- Doyle, G. (2013). Innovation in the use of digital infrastructures. In T. Storsul & A. H. Krumsvik (Eds.), *Media innovations: A multidisciplinary study of change* (p. 111). Goteborg: NORDICOM.
- Dutta, N; Roy, S; & Sobel, R. (2009). *Does a Free Press Nurture Entrepreneurship?* Department of Economics, West Virginia University.
- Ebrahimi, P, & Mirbargkar, S.M. (2017). Green entrepreneurship and green innovation for SME development in market turbulence. *Eurasian Business Review*, 7(2), 203-228.
- Ebrahimi, P, Ahmadi, M., Gholampour, A., & Alipour, H. R. (2019). CRM Performance and Development of Media Entrepreneurship in Digital, Social Media and Mobile Commerce. *International Journal of Emerging Markets*, Doi: 10.1108/IJOEM-11-2018-0588
- Ebrahimi, P, Chamanzamin, M. R., Roohbakhsh, N., Shaygan, J. (2017). Transformational and transactional leadership: Which one is more effective in the education of employees' creativity? Considering the moderating role of learning orientation and leader gender. *International Journal of Organizational Leadership*, 6(1), 137-156.
- Ebrahimi, P, Shafiee, B., Gholampour, A., & Yousefi, L. (2018a). Impact of Organizational Innovation, Learning Orientation and Entrepreneurship on SME Performance: The Moderating Role of Market Turbulence and ICT. In: Khajeheian, D., Friedrichsen, M., & Modinger, W. (Eds), *Competitiveness in Emerging Markets*(pp.447-480). Berlin: Springer.
- Ebrahimi, P, Shirsavar, H.R.A., Forootani, F., & Roohbakhsh, N, Ebrahimi, KH. (2018b). Entrepreneurship and SMEs Performance: Studying the Mediating Role of Innovation and the Moderating Role of Firm Size. In: Khajeheian, D., Friedrichsen, M., & Modinger, W. (Eds), *Competitiveness in Emerging Markets*(pp.481-501). Berlin: Springer.
- Emami, A., & Naderi, N. (2018). Impact of Situation in the Study of Gender Entrepreneurship and Opportunity Evaluation: An Analysis of Risk Disposition. In *Competitiveness in Emerging Markets* (pp. 427-445). Springer, Cham.

- Emami, A., & Khajeheian, D. (2019). Social Norms and Entrepreneurial Action: The Mediating Role of Opportunity Confidence. *Sustainability*, 11(1), 158.
- European Commission. (2016, July 5). Entrepreneurship and Small and medium-sized enterprises (SMEs). Retrieved April 03, 2019, from [https://ec.europa.eu/growth/smes\\_en](https://ec.europa.eu/growth/smes_en)
- Fernandes, C; Ferreira, J; Raposo, M; Hernández, R; & Diaz-Casero, J C C. (2017). Knowledge and entrepreneurship creation: what is the connection? *World Journal of Entrepreneurship, Management and Sustainable Development*, 13(1), 2-15. <https://doi.org/10.1108/WJEMSD-11-2016-0052>
- Girija, S. (2019). Political Economy of Media Entrepreneurship: Commercialization and Commodification in a Digital News Media Enterprise. *Journal of Media Management and Entrepreneurship (JMME)*, 1(1), 27-39.
- Girişimciliği, S. M (2018). SOCIAL MEDIA ENTREPRENEURSHIP. *İçtimaiyat Sosyal Bilimler Dergisi*, (2) 1, 9-17
- Gladysz, S., Khajeheian, D., & Lashkari, S. (2018). War of Attrition in Polish Video-Games Printing Press: Customer Retention to Survive Printing Press in the Age of Digital Communication Technologies. In *Competitiveness in Emerging Markets* (pp. 75-91). Springer, Cham.
- Glasow, P A. (2005). *Fundamentals of survey research methodology*. Retrieved January, 18, 2013.
- Gonzalez-Perez, M. A., Velez-Ocampo, J., & Herrera-Cano, C. (2018). Entrepreneurs' Features Affecting the Internationalisation of Service SMEs. *Entrepreneurial Business and Economics Review*, 6(2), 9-28.
- Goyanes, M. (2015). Factors Affecting the Entrepreneurial Intention of Students Pursuing Journalism and Media Studies: Evidence from Spain. *International Journal on Media Management*, 17(2), 109-126.
- Hair, J.F., Black, W. C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2006). *Multivariate data analysis* (6th ed.). Upper Saddle River, NJ: Pearson/Prentice Hall.
- Hair, J.F., Hult, G.T.M., Ringle, C.M., & Sarstedt, M. (2014). *A Primer on Partial Least Squares Structural Equation Modelling (PLS-SEM)*, 2nd ed., Sage, Thousand Oaks, CA.
- Hajmohammadi, A. (2018). Competitive Capabilities in Film Distribution Market: The Case of Filimo. In *Competitiveness in Emerging*
- Hang, M. (2018). Media Entrepreneurship. In *Handbook of Media Management and Economics* (pp. 259-272). Routledge.
- Hang, M. (2016). *Media Corporate Entrepreneurship: Theories and Case*. Springer.

- Hang, M; & Van Weezel, A. (2007). Media and entrepreneurship: A survey of the literature relating both concepts. *Journal of Media Business Studies*, 4(1), 51-70.
- Hasenpusch, T. C. & Baumann, S. (2017) Strategic Media Venturing: Corporate Venture Capital Approaches of TIME Incumbents, *International Journal on Media Management*, 19:1, 77-100, DOI: 10.1080/14241277.2017.1280040
- Henseler, J., Ringle, C.M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modelling. *Journal of the Academy of Marketing Science*, 43(1), 115-135.
- Hoag, A. (2008). Measuring media entrepreneurship. *The International Journal on Media Management*, 10(2), 74-80.
- Hoag, A., & Compaine, B. (2006). Media entrepreneurship in the era of big media: Prospects for new entrants. *Frontiers of Entrepreneurship Research*, 26(19), 6.
- Hoag, A & Seo, S. (2005). Media entrepreneurship: Definition, theory and context. Presented at the NCTA Academic Seminar, San Francisco.
- Horst, S. O., & Murschetz, P. C. (2019). Strategic Media Entrepreneurship: Theory development and problematization. *Journal of Media Management and Entrepreneurship (JMME)*, 1(1), 1-26.
- Hossain, S. F. A. (2019). Social Networking and Its Role in Media Entrepreneurship: Evaluating the Use of Mobile Phones in the Context of Online Shopping—A Review. *Journal of Media Management and Entrepreneurship (JMME)*, 1(1), 73-86.
- Huang, K. W., Huang, J. H., & Tzeng, G. H. (2016). New hybrid multiple attribute decision-making model for improving competence sets: Enhancing a company's core competitiveness. *Sustainability*, 8(2), 175.
- Ifeduba, E. (2013). Media entrepreneurship in Nigeria: A study of new patterns, orientations and coping strategies. *Covenant Journal of Communication*, 1(2).
- Ireland, R. D., Covin, J. G., & Kuratko, D. F. (2009). Conceptualizing Corporate Entrepreneurship Strategy. *Entrepreneurship Theory and Practice*, 33(1), 19–46. <https://doi.org/10.1111/j.1540-6520.2008.00279.x>
- IRNA. (2016). Iran's 23rd rank in emerging entrepreneurship. Retrieved from <http://www.irna.ir/fa/News/82510596> (in Persian)
- Khajeheian, D (2019). Inaugural Issue of *Journal of Media Management and Entrepreneurship*. *Journal of Media Management and Entrepreneurship (JMME)*.

- Khajeheian, D., & Ebrahimi, P. (2020). Media branding and value co-creation: effect of user participation in social media of newsmedia on attitudinal and behavioural loyalty. *European Journal of International Management*, Doi: 10.1504/EJIM.2020.10020735
- Khajeheian, D., Friedrichsen, M., & Mödinger, W. (2018). An Introduction to Competitiveness in Fast Changing Business Environment. In *Competitiveness in Emerging Markets* (pp. 3-11). Springer, Cham.
- Khajeheian, D. (2013). New venture creation in social media platform; Towards a framework for media entrepreneurship. In *Handbook of social media management* (pp. 125-142). Springer.
- Khajeheian, D. (2014). A perspective on media entrepreneurship policy: Globalization of knowledge and the opportunities for developing economies. *Journal of Globalization Studies*, 5(2).
- Khajeheian, D. (2017). Media entrepreneurship: A consensual definition. *AD-minister*, (30), 91-113.
- Khajeheian, D. (2016). Telecommunication Policy: Communication Act Update. *Global Media Journal-Canadian Edition*, 9(1), 135-141.
- Khajeheian, D.; & Roshandel Arbatani, T. (2011). Remediation of Media Markets toward Media Entrepreneurship, how recession reconstructed media industry. Presented at the European Media Management education Association Conference. Moscow.
- Kraus, S; Roesel, D; Fink, M; & Reschke, C. (2006). Strategic Entrepreneurship: The Role of Strategic Planning and Marketing in SMEs.
- Küng, L. (2008). *Strategic management in the media: Theory to practice*. Sage.
- Labafi, S., & Williams, I. (2018). Competitiveness of Small Media Firms. In *Competitiveness in Emerging Markets* (pp. 263-282). Springer, Cham.
- Labafi, S. (2017). Knowledge hiding as an obstacle of innovation in organizations a qualitative study of software industry. *AD-minister*, (30), 131-148.
- Labafi, S., Khajeheian, D., & Williams, I. (2018). Impact of Media Richness on Reduction of Knowledge-Hiding Behavior in Enterprises. In *Evaluating Media Richness in Organizational Learning* (pp. 135-148). IGI global.
- Makhdoom, H. U. R., Li, C., & Asim, S. (2019). Diffusion of innovation through individual and collective entrepreneurship: An empirical investigation in SMEs. *Asia Pacific Journal of Innovation and Entrepreneurship*.

- Mathers, N; Fox, N; & Hunn, A. (2007). Surveys and questionnaires. The NIHR RDS for the East Midlands/ Yorkshire & the Humber.
- Medina, M., Sánchez-Tabernero, A., & Arrese, Á. (2016). Contents as products in media markets. In *Managing media firms and industries* (pp. 243-259). Springer, Cham.
- Modaresi, Z. & Ddavodi, A. (2015). An Evaluation of Global Entrepreneurship Monitor Indicators in Iran (2008-2012). *Quarterly Journal of fiscal and economic policies*, 2(8), 125-146. (in Persian)
- Moradi-abadi, A., Moradi-abadi, A. & Jafari, A. (2017). Innovation acceptance and customer satisfaction. A survey on tax information systems. *AD-minister*, (30), 149-171.
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), 242–266.
- Nambisan, S. (2017). Digital Entrepreneurship: Toward a Digital Technology Perspective of Entrepreneurship. *Entrepreneurship Theory and Practice*, 41(6), 1029–1055. doi:10.1111/etap.12254
- Oliver, J. (2016). Dynamic media management capabilities: a case study. In *Managing Media Firms and Industries* (pp. 293-308). Springer, Cham.
- Peterson, R.A. & Berger, D. G. (1971). Entrepreneurship in organizations: Evidence from the popular music industry. *Administrative science quarterly*, 97-106.(in persian)
- Picard, R. G. (2011). *The economics and financing of media companies*. Fordham Univ Press.
- Rebouças, E. (2018). Lobbying Groups in Communications and Media Policies in Brazil. In *Competitiveness in Emerging Markets* (pp. 175-186). Springer, Cham.
- Safari, F. (2018). Restrictions and Legal Challenges for Foreign Investment in the Media Market in Iran. In *Competitiveness in Emerging Markets* (pp. 187-209). Springer, Cham.
- Salamzadeh, A., & Kirby, D. A. (2017). New venture creation: How start-ups grow?. *AD-minister*, (30), 9-29.
- Sanchez, G. (2013). *PLS Path Modeling with R*, Trowchez Editions. Berkeley, 2013.
- Share Pour, M. (2001). Structural equation modeling (SEM):: Meet applications LISREL program (LISREL) in Social Research. *Journal of Social Sciences*, 8(13.14), 204-231. (in Persian)
- Silva, A., Henriques, E., & Carvalho, A. (2009). Creativity enhancement in a product development course through entrepreneurship learning and intellectual property awareness. *European Journal of Engineering Education*, 34(1), 63-75.

- Sylvie, G., Jan Wicks, L., Hollifield, C. A., Lacy, S., & Ardyth Sohn, B. (2009). *Media management: A casebook approach*. Routledge.
- Taheri, A; & Roshandel Arbatani, T. (2018). Presenting the Supportive Model of Governmental Media Entrepreneurship in Iran (Studying Computer Games). *Entrepreneurship Development*, 10(4), 615-634. <https://doi.org/10.22059/jed.2018.250682.652463> (in Persian)
- Tajeddin, M., Emami, A., & Rastgar, A. A. (2018). Social Networks of Immigrant Entrepreneurs in Media Industry: The Case of Iranian Immigrants in Canada. In *Competitiveness in Emerging Markets* (pp. 123-144). Springer, Cham.
- Tamaddoni, A., Stakhovych, S., & Ewing, M. (2017). The impact of personalised incentives on the pro-tability of customer retention campaigns. *Journal of Marketing Management*, 33, 1–21.
- Tsourvakas, G., & Riskos, K. (2018). Emergent Success Factors for Entrepreneurial E-media Companies. *Journal of Entrepreneurship and Innovation in Emerging Economies*, 4(2), 101-120.
- Turker, D., & Sonmez Selçuk, S. (2009). Which factors affect entrepreneurial intention of university students?. *Journal of European industrial training*, 33(2), 142-159.
- Will, A., Brüntje, D., & Gossel, B. (2016). Entrepreneurial venturing and media management. In *Managing media firms and industries* (pp. 189-206). Springer, Cham.
- Yousefikhah, S. (2017). Sociology of innovation: Social construction of technology perspective. *AD-minister*, (30), 31-43.
- Zaheer, H., Breyer, Y., Dumay, J., & Enjeti, M. (2018). Straight from the horse's mouth: Founders' perspectives on achieving traction' in digital start-ups. *Computers in Human Behavior*. doi:10.1016/j.chb.2018.03.002