

**A STUDY ON THE EFFECT AND RANKING OF PERSONALITY DIMENSIONS
ON ENTREPRENEURSHIP: A CASE OF IRANIAN AIRPORTS HOLDING
COMPANY**

Nazli Monajemzadeh, *n.monajemzadeh@amirzakria.com*
Amir Abolfazl Zakariaei, *info@amirzakaria.com*
Osama J. Butt, University of Toronto, E-mail: *o.butt@mail.utoronto.ca*

ABSTRACT

In today's world, entrepreneurship, and its usage is inevitable in organizations. Community changes and its conditions and needs, cause changes in the mission of the today organizations and shift them towards entrepreneurship. If employees are entrepreneurs, they will better understand economic opportunities to remain in the competition. Identifying the unique personality characteristics of entrepreneurs and effective factors on entrepreneurship growth in the community and organizations can be considered as the growth and development element, in various aspects of economic, cultural, social, and political statutes in the contemporary world. Thus, due to the role and importance of entrepreneurship and effectiveness of its individual features, this study tries to examine effect and ranking of personality dimensions from 341 people as the study sample out of 3,000 employees at Iranian Airport Holding Company. The research tools used in this study contain a questionnaire, while the reliability based on Cronbach's alpha coefficient equals to 0.78 within an acceptable range. This study is a descriptive-survey research extracted from a set of existing methods in descriptive statistics (Frequency Distribution Tables) and analysis (Multiple Linear Regression) using SPSS software. The research results show that the variables of personality dimensions impact on the entrepreneurial types of employees at Iranian Airports Holding Company, and its intensity is different. The personality dimension of extroversion has the greatest impact and neuroticism has no effect on entrepreneurship.

Key words: entrepreneurship, personality dimensions, personality dimensions of entrepreneurs

JEL Classifications codes: M39

1. INTRODUCTION

One of the dominant aspects be able to prepare business actors who are ready to compete in the global market is to have a high entrepreneurship orientation (Fairoz, Hirobumi and Tanaka, 2010:35). Companies where the actors have a high entrepreneurial orientation level show the courage to take risks, the ability to be innovative and proactive, and the ability to compete aggressively and independently that they are able to find new opportunities and enhance both the competition and performance advantages (Chen, Hsiung, Yien, Huang and Huang 2011:705). To be able to enter the international market, it is required for business actors to have high entrepreneurial orientation and to be willing to take risks, be proactive, active, independent and be able to compete aggressively (Ginting, 2015; Arian, Arian & Koparan, 2020).

Considering entrepreneurship in the business field has a high degree of importance. In order to explain the concept of entrepreneurship, various features, functions, and activities have been attributed to the entrepreneur. Separating the entrepreneurship from economic theories and expanding the role of entrepreneurs in economic development encouraged psychologists to examine the psychological characteristics of entrepreneurs when presenting theories based on personality characteristics, and differentiating entrepreneurial from non-entrepreneurial managers (Ahmadpur Dariani, 1999: 29-30, Mahdavi and Daryaei, 2017: 17).

Despite the variety of theories that have been advanced to assess the effect of personality on entrepreneurship, there is lack of a robust aspect of which personality dimensions effect on entrepreneurship. In this paper, the effect of each of the five personality dimensions on each of the five types of entrepreneurship in order to conclude logical results is investigated. This study has important scientific relevance since it fills a gap in research by including and

testing the general personality characteristics (the big five personality factors) together with entrepreneurship types in a model.

Key research objectives of the study are to develop and empirically test a model linking (through hypotheses) general personality characteristics of entrepreneurs (the big five personality factors) and entrepreneurship types. More specifically key research objectives reflected in the structure of the paper are the following: (a) To develop a conceptual model (with hypotheses) of entrepreneurs' personality. (b) To collect data on the model elements and control variables. (c) To test the model hypotheses using methods of quantitative analysis. (d) To present and discuss the findings of the model. (e) To present contributions and implications of the study.

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1. Entrepreneurship

Entrepreneurship is "the capacity and willingness to develop, organize and manage a business venture along with any of its risks in order to make a profit. The most obvious example of entrepreneurship is the starting of new businesses" (Business Dictionary, 2017). An entrepreneurial cycle is commonly referred to as having the following phases: opportunity identification and evaluation, resource gathering, start-up and growth. Creativity and innovativeness are critical during opportunity identification, evaluation and start-up phases while other characteristics, for example leadership, confidence, and ability to manage new resources are very important in the latter stages (Doboli et al, 2010; Shaw & Sorensen, 2019). Entrepreneurship seems to be assumed in education institutions as a synonym of people having the ability to create business in order to generate wealth, to achieve economic growth and as a solution to the unemployment of its graduates (Gutiérrez and Baquero, 2017; Shepard, Williams & Zhao, 2019).

2.1.1. Types of Entrepreneurship

Reviewing the entrepreneurship literature, we find that the discussion on entrepreneurship divisions during different eras has a remarkable evolution, so that a new variety of entrepreneurship has emerged in different periods. Depending on the degree of entrepreneurial activity, Juneja developed a global model of public sector entrepreneurship around the following five entrepreneurial types: 1) administrative entrepreneurship, 2) opportunistic entrepreneurship, 3) acquisitive entrepreneurship, 4) incubative entrepreneurship 5) initiative entrepreneurship (Juneja, 1990:85, Prokopenko and Pavlin, 1991, Sadler, 1999).

2.1.1.1. Administrative entrepreneurship

Here the development of new products, processes and techniques, or the upgrade and improvement of existing ones has high priority and is attempted as a joint venture between scientific-technical personnel and managers/administrators (Joint ventures are developed between technical and managerial personnel). The culture values innovation. Management is geared to securing resources and facilities and technicians are rewarded for trying out new ideas. The culture values innovation rather than bureaucratic status. The administration begins to show faith and offers sanction, support and involvement.

2.1.1.2. Opportunistic entrepreneurship

This approach emphasizes scanning and surveillance of both internal and external innovative technological development to identify opportunities. The involvement of a "product champion" is generally an indication of an opportunistic approach to internal entrepreneurship. Opportunistic entrepreneurs are recognized with a high level of education and a wide variety of work experiences.

2.1.1.3. Acquisitive entrepreneurship

In this case, entrepreneurship is exercised innovation through the acquisition of technical capabilities of other companies through collaboration, contracts and consultancy, in order to gain access to innovative technological developments.

2.1.1.4. Incubative entrepreneurship

This requires the creation of semi-autonomous units within existing enterprises to think up, initiate and nurture new ventures. As an incubator for innovative high-risk business endeavours, semi-autonomous units strengthen internal entrepreneurship.

2.1.1.5. Initiative entrepreneurship

In this approach the innovation is limited to imitation and to simple modification of existing processes e.g. in packaging, design (Juneja, 1990:85, Prokopenko and Pavlin, 1991, Sadler, 1999).

2.2. Personality dimensions

Personality usually refers to that which is unique about a person; the characteristics that distinguish people. Character refer to a cognitive process that influences intentions and attitude. Personality implies predictability about how a person will act or react under different circumstances (Owoseni, 2011, Russo, AlTurki, Rago, Proietti, Chausse', Monteleone, Scognamiglio, Monteleone and Nigro, 2017:3). Personality is a valid predictor of employee job performance, as demonstrated extensively by criterion-related validity studies (Franziska, Gorkan and Reece, 2014).

Personality is a topic often handled by researchers. A personality trait is composed of a set of emotional qualities that characterize and define each individual. As each individual has a

complicated personality, it is difficult to absolutely understand individuals. Attributes of individuals help to understand them. This is where personality becomes an important factor because it has different attributes. Physical attributes of individuals and also their thoughts, emotions, behaviors, habits, demands and attitudes differ substantially (Günel, 2010, Jr, Portugal, Alves, Arruda-Sanchez, Rao, Volchan, Pereira, Oliveira and Mourao-Miranda, 2017). Individual differences are evident in the way that people feel, behave and react, as expressed by personality characteristics (Russo, AlTurki, Rago, Proietti, Chausse', Monteleone, Scognamiglio, Monteleone and Nigro, 2017:4).

2.2.1. Big-Five Model of personality

Personality psychologists have many views regarding the structure and concepts of personality. Generally, researchers agree that there are five robust factors of personality that can serve as a meaningful taxonomy for classifying personality attributes (Goldberg, 1992). It is broadly suggested that the Big-Five personality traits predict essential differences in observed actions and reactions (McCrae and Costa, 1999). The Big-Five personality traits shape respective characteristic adaptations, which are a result of dynamic entrepreneur-environment interactions (Cantner, Rainer and Wilfling, 2011). The big five consist of the following traits extroversion, neuroticism, openness, agreeableness, and conscientiousness (Goldberg, 1992, Nielsen, Glasø and Einarsen, 2017, Jr, Portugal, Alves, Arruda-Sanchez, Rao, Volchan, Pereira, Oliveira and Mourao-Miranda, 2017, Ismatullina and Voronin, 2017, Amponsah-Tawiah and Annor, 2017).

- A. Extraversion: Extraversion characterizes people as outgoing, talkative, sociable, and assertive. In addition, extroverts are cheerful, energetic and optimistic (McShane and Glinow, 2010). A higher extraversion contributes to processing characteristic adaptations that are helpful in team and dyadic interactions (Mount, Barrick and Stewart, 1998).

- B. Agreeableness: Some agreeableness items may form one group, such as cooperative, helpful, patient, cordial, friendly, trustful and diplomatic, whereas traits, such as combative, harsh, bossy, demanding, domineering, manipulative, rude and ruthless may form the other group (Goldberg, 1990). Agreeableness may help to gain personal adjustments that in part arrange transformational leadership (Bono and Judge, 2004), which possibly enhances work motivation, job satisfaction and the fulfilment of staff member needs (Judge and Bono, 2000). Individuals with a high level of dispositional agreeableness approve failure impressions (Kibler Mandl, Kautonen and Berger, 2017).
- C. Conscientiousness: This is a tendency to show self-discipline, act dutifully and aim for achievement (Adenuga, 2013). Conscientiousness refers to people who are careful, dependable, and self-disciplined. In contrast, people with low conscientiousness tend to be careless, less thorough, more disorganized, and even irresponsible (McShane and Glinow, 2010). Conscientiousness is attributed to a socially assessed impulse control that facilitates goal- and task-oriented behaviours. Typical traits of this factor are thinking before acting, delaying gratification, following norms and rules, and planning, organizing, and prioritizing tasks (John and Srivastava, 1999). Conscientiousness was a positive predictor of work satisfaction (Kuok, 2017).
- D. Neurotic: The common traits related with this factor include being anxious, depressed, angry, embarrassed, emotional, worried, and insecure. (Ma'amora, Achima, Yunusa, Hashima and Haqueeb, 2016). Neuroticism means appealing emotions that reason stress. (Yekea and Semerciözb, 2016). Neuroticism was a negative predictor of work satisfaction (Kuok, 2017).
- E. Openness to experience: This dimension is the most complex as it generally refers to the extent to which people are imaginative, creative, curious, and aesthetically sensitive (McShane and Glinow, 2010). Openness is a personality trait. Individuals with a high

level of openness to experience enjoy trying new things (Oganisjana and Laizans, 2015). People with high scores in openness are more motivated to participate in different kinds of intellectual activities (Ismatullina and Voronin, 2017).

2.3. The personality dimensions of entrepreneurs

Entrepreneurship is based on the personality of the entrepreneur (Baum, Frese, Baron and Katz, 2007). Because of the centrality of the person – entrepreneur – to entrepreneurship, different personal characteristics of an entrepreneur have been investigated in past research (Antoncic, 2009). Newer reviews and evaluations of entrepreneurship personality research (Baum, Frese, Baron and Katz, 2007, Rauch, Frese and Baron, 2007, Chell, 2008) suggest that personality traits of entrepreneurs may be important for entrepreneurship. In particular, insufficient attention to entrepreneurship research has been given to the general personality traits, such as the big five personality factors (Antoncic, Bratkovic, Singh and De Noble, 2008). The early-life leadership dimension is significantly associated with a higher likelihood of becoming an entrepreneur and being more successful as an entrepreneur (Viinikainen, Heineck, Böckerman, Hintsanen, Raitakari and Pehkonen, 2017; Fernandez-Serrano, Martinez-roman, & Romero, 2019).

Although some researchers think that entrepreneurs are born with some special genetic factors and they found a high degree of heritability associated with entrepreneurial behaviours (Nicolaou and Shane, 2009, Nicolaou, Shane, Cherkas, Hunkin and Spector, 2008), others (Rauch, Frese and Baron, 2007, Zhao and Seibert, 2006, Stewart and Roth, 2001; Krisnaresanti et al., 2020) believe that entrepreneurship can be taught, and they have focused on the personality aspects of entrepreneurship (locus of control, self-efficacy, state vs. action orientation, regulatory focus, risk taking, self-confidence and so on) (Boz and Ergeneli, 2014). Entrepreneurial behaviour is a type of planned behaviour (Bird, 1988, Miranda, Chamorro-

Meraa and Rubio, 2017).

The big five model provides a general framework for examining the effects of personality traits on the tendency to become an entrepreneur. Recent meta-analytic evidence has shown that the big five personality traits affect the odds of becoming an entrepreneur (Zhao and Seibert, 2006, Rauch, Frese and Baron, 2007). Extraverted entrepreneurs that manage innovative firms are possibly less prone to fail because of interpersonal problems (Cantner, Rainer and Wilfling, 2011). Agreeableness is an important factor for social interaction, a person with great agreeableness as a trait develops good interpersonal relationships, and blends into a group faster. This encourages team cohesiveness and effectiveness due to positive emotionality in interpersonal situations (Panaccio and Vandenberghe, 2012). Neuroticism (the reverse of emotional stability) may be negatively related to entrepreneurship activities and orientations (Singh and De Noble, 2003, Antoncic, 2009). Neuroticism is likely to cultivate interpersonal problems. Efficient team decisions might be thus hampered by neurotic entrepreneurial team members, resulting in failure (Cantner, Rainer and Wilfling, 2011). Research on the relationship between entrepreneurship and personality found openness a significant factor (Howard and Howard, 1995, Singh and De Noble, 2003, Antoncic, 2009). Openness may help to shape characteristic adaptations that empower innovative entrepreneurs to gain a better understanding of foreign markets (Shaffer, Harrison, Gregersen, Harrison, Black and Ferzandi, 2006).

According to previous surveys, Cantner et al found evidence that agreeable entrepreneurs have a lower probability of failing at all times from the startup of their firms. In contrast, conscientiousness increases the failure hazard rate at the time of launching a firm, even if this effect diminishes over time. Neuroticism, openness, and extraversion are seemingly not related to the hazard of entrepreneurial failure in highly innovative industries (Cantner, Rainer and

Wilfling, 2011).

In other research by Zhao et al, agreeable people are less likely to start businesses because people with this trait are less likely to pursue their own self-interest, drive difficult bargains, or use others to achieve their objectives (Zhao and Seibert, 2006).

Locke et al in 2007 discovered entrepreneurs need to be high on conscientiousness since they need to be organized and deliberate to achieve their goals. They also need to be persistent and put in the hard work necessary to overcome obstacles, like the failure to obtain financing or cost overruns, associated with the venturing process (Locke and Baum, 2007).

Rauch and Frese realized that people who are emotionally stable are more likely to start their own businesses than people who are neurotic because entrepreneurs need a high tolerance to stress to cope with the hard work, significant risks, social isolation, pressure, insecurity, and personal financial difficulties that come from starting their own businesses (Rauch and Frese, 2007). This study model is an integration of the Five Factor Model of personality and the entrepreneurship types of Juneja's pattern.

3. THE HYPOTHESES AND CONCEPTUAL MODEL

The research hypotheses are as follows:

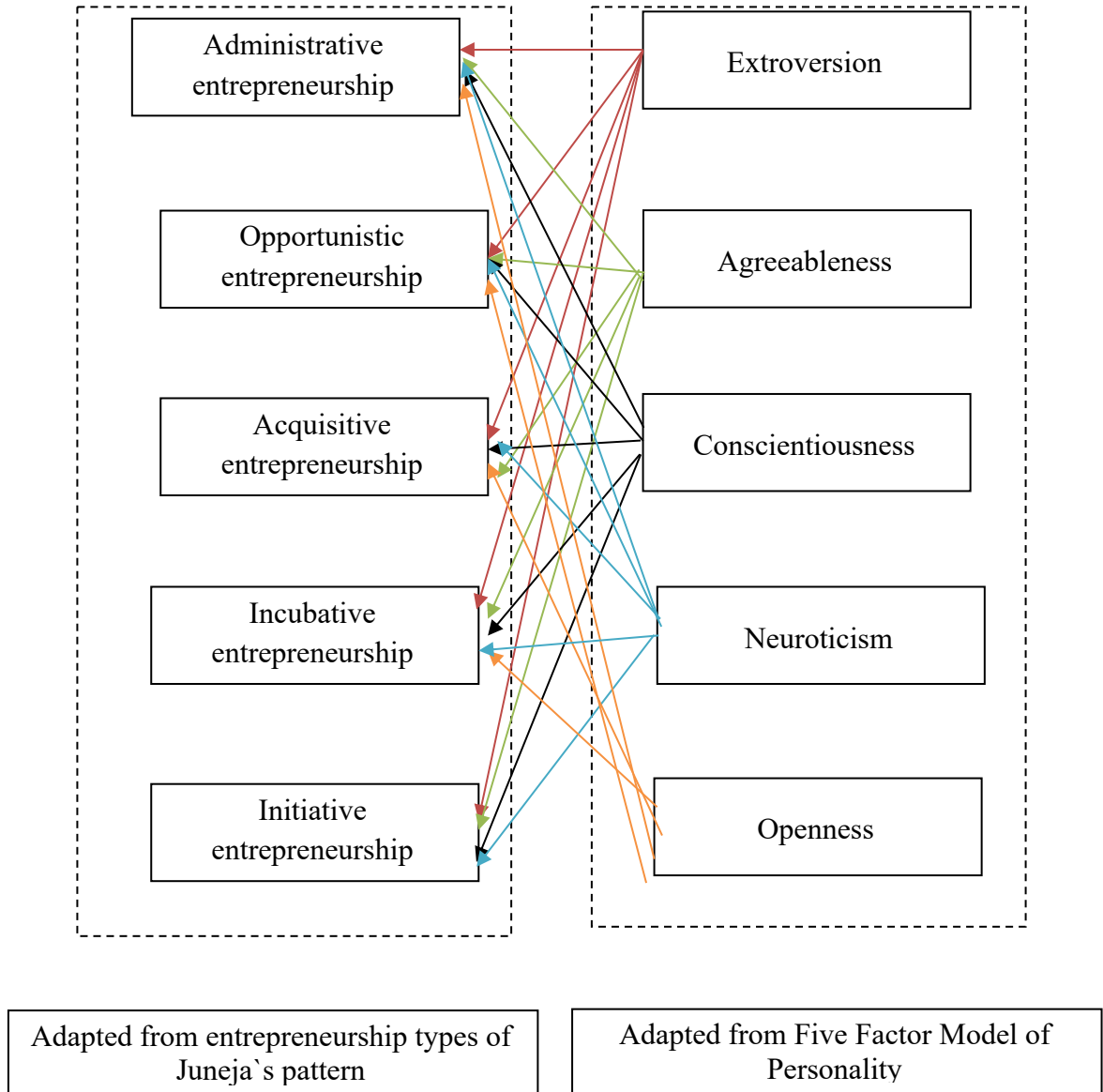
- Hypotheses 1: Extroversion affects administrative entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 2: Agreeableness affects administrative entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 3: Conscientiousness affects administrative entrepreneurship of the employees in Iranian Airports Holding Company.

- Hypotheses 4: Neuroticism affects administrative entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 5: Openness affects administrative entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 6: Extroversion affects opportunistic entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 7: Agreeableness affects opportunistic entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 8: Conscientiousness affects opportunistic entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 9: Neuroticism affects opportunistic entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 10: Openness affects opportunistic entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 11: Extroversion affects acquisitive entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 12: Agreeableness affects acquisitive entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 13: Conscientiousness affects acquisitive entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 14: Neuroticism affects acquisitive entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 15: Openness affects acquisitive entrepreneurship of the employees in Iranian Airports Holding Company.

- Hypotheses 16: Extroversion affects incubative entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 17: Agreeableness affects incubative entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 18: Conscientiousness affects incubative entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 19: Neuroticism affects incubative entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 20: Openness affects incubative entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 21: Extroversion affects initiative entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 22: Agreeableness affects initiative entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 23: Conscientiousness affects initiative entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 24: Neuroticism affects initiative entrepreneurship of the employees in Iranian Airports Holding Company.
- Hypotheses 25: Openness affects initiative entrepreneurship of the employees in Iranian Airports Holding Company.

The study model is an integration of the Five Factor Model of personality and the entrepreneurship types of Juneja's pattern.

Figure 1. Conceptual Model



4. DATA AND EMPIRICAL METHODS

4.1. Sample and data selection

Samples of this study, were selected randomly among the employees in Iranian Airports Holding Company. In order to collect data for research, we used two methods; the library method (Internet, books, articles, thesis and reports) and the field survey method (questionnaire). After coordinating with the management of Iranian Airports Holding Company, and justifying the primary respondents, researchers made the questionnaire available for staff and collected them after the meeting. According to the obtained data, the total staff in Iranian Airports Holding Company is 3000, including all employees, managers, professionals, and experts in different fields of duty. Therefore, according to Cochran's Formula and Krejcie & Morgan Tables, the sample size for this study should be 341 employees.

To determine the validity of the questionnaire, we used comments from professors, experts, and consultants. We provided and set the final questionnaire over four stages; determining the variables, components, and grouping, finalizing the variables and components, preparing the primary questionnaire, and finally surveying the experts.

To determine the reliability of the measurement tools, we used internal consistency with Cronbach's Alpha coefficient measuring devices. The questionnaire of the current study has reliability because the measured Cronbach's Alpha coefficient for the research's questionnaire is 0.78 and is acceptable.

4.2. Methodology

Based on the information obtained from the questionnaires, we used the Multiple Linear Regression Analysis to analyze the effect and ranking of personality dimensions on

entrepreneurship types. If the classification of research is based on goals, this research is known as applied research, if the classification of research is based on the nature and methods to be considered, the research methodology is descriptive and non-experimental research (field survey), for the purpose of the visual, actual and regular description of a position. The research tools used in this study contain a questionnaire, while the reliability based on Cronbach's alpha coefficient is 0.78 and within an acceptable range (Nunnally & Bernstein, 1978 p. 218). In this study, personality dimensions are considered as independent variables, and the entrepreneurship types are dependent variables. This study is a descriptive-survey research extracted from a set of existing methods in descriptive statistics (Frequency Distribution Tables) and analysis (Multiple Linear Regression) using SPSS software.

5. RESULTS

Data sets collected from distributed questionnaires, after collecting, sorting and processing data, and using the software SPSS, the results of the study hypotheses are shown in Table 1.

- Extroversion is ranked in the highest influence of entrepreneurship types.
- Conscientiousness is ranked in the second influence of entrepreneurship types.
- Opportunistic and acquired entrepreneurship are the most interesting types for the staff at Iranian Airports Holding Company.
- Innovative entrepreneurship is the least interesting for the employees.
- The highest personality dimensions among the staff of Iranian Airport Holding Company pertain to conscientiousness, agreeableness and openness to experience.

Table1. Multiple Linear Regression Analysis OF personality on entrepreneurship types with the hypotheses status.

| Hypotheses Status | Sig. | T value | Beta | Standard Error | Personality Dimensions | Entrepreneurship Types |
|-------------------|------|---------|-----------|----------------|------------------------|--|
| confirmed | .00 | 4.050 | .220 | .051 | Extroversion | Administrative Entrepreneurship |
| confirmed | .02 | 2.268 | .125 | .060 | Agreeableness | |
| confirmed | .01 | 2.545 | .139 | .062 | Conscientiousness | |
| failed | .93 | -.079 | - .004 | .034 | Neuroticism | |
| failed | .13 | -1.510 | - .082 | .071 | Openness | |
| confirmed | .00 | 3.930 | .215 | .080 | Extroversion | Opportunistic Entrepreneurship |
| confirmed | .03 | 2.103 | .117 | .095 | Agreeableness | |
| confirmed | .04 | 2.039 | .112 | .098 | Conscientiousness | |
| failed | .85 | .182 | .010 | .053 | Neuroticism | |
| failed | .51 | -.652 | - .036 | .112 | Openness | |
| confirmed | .04 | 2.016 | .110 | .066 | Extroversion | Acquisitive Entrepreneurship |
| confirmed | .05 | 1.933 | .108 | .079 | Agreeableness | |
| confirmed | .00 | 3.472 | .192 | .082 | Conscientiousness | |
| failed | .28 | -1.068 | - .058 | .044 | Neuroticism | |
| confirmed | .01 | -2.599 | - .143 | .093 | Openness | |
| confirmed | .00 | 3.231 | .178 | .055 | Extroversion | Incubative Entrepreneurship |
| confirmed | .05 | 1.932 | .109 | .066 | Agreeableness | |
| confirmed | .03 | 2.121 | .118 | .068 | Conscientiousness | |
| failed | .90 | -.125 | - .007 | .037 | Neuroticism | |
| confirmed | .03 | -2.100 | - .116 | .078 | Openness | |
| confirmed | .00 | 3.346 | .184 | .055 | Extroversion | Initiative Entrepreneurship |
| confirmed | .00 | 3.074 | .172 | .065 | Agreeableness | |
| failed | .16 | 1.408 | .078 | .068 | Conscientiousness | |
| failed | .40 | .839 | .046 | .037 | Neuroticism | |
| confirmed | .04 | -1.978 | - .109 | .077 | Openness | |

As you can see in Table 1, in general, 17 hypotheses out of 25 available hypotheses are confirmed, which it means personality dimensions affect entrepreneurship. It can be concluded that personality dimensions effect on entrepreneurship types.

It is possible to rank the personality dimensions upon types of entrepreneurship as shown in Table 2:

Table2. Ranking each of the personality dimensions on entrepreneurship

| Entrepreneurship | administrative entrepreneurship | opportunistic entrepreneurship | acquisitive entrepreneurship | incubative entrepreneurship | initiative entrepreneurship |
|-------------------|---------------------------------|--------------------------------|------------------------------|-----------------------------|-----------------------------|
| Extroversion | 1 | 1 | 3 | 1 | 1 |
| Agreeableness | 3 | 2 | 4 | 4 | 2 |
| Conscientiousness | 2 | 3 | 1 | 2 | - |
| Neuroticism | - | - | - | - | - |
| Openness | - | - | 2 | 3 | 3 |

6. DISCUSSION

The results show there is a significant relationship between personality dimensions and entrepreneurship types. However, personality dimensions do not equally affect entrepreneurship types, which it will be mentioned below.

6.1. Personality dimensions that influence the entrepreneurship types are as follows:

- The total personality dimensions affect total types of entrepreneurship.
- Personality dimensions influence:
 - Administrative entrepreneurship: extroversion, agreeableness and conscientiousness
 - Opportunistic entrepreneurship: extroversion, agreeableness and conscientiousness
 - Acquisitive entrepreneurship: extroversion, agreeableness, conscientiousness and openness
 - Incubative entrepreneurship: extroversion, agreeableness, conscientiousness and openness
 - Initiative entrepreneurial: extroversion, agreeableness and openness
- Each personality dimensions impact specific entrepreneurship types:
 - Extroversion: impacts on all types of entrepreneurship as detailed.
 - Agreeableness: impacts on all types of entrepreneurship as detailed.
 - Conscientiousness: impacts on administrative, opportunistic, acquisitive, and incubative entrepreneurship.
 - Openness: impacts on acquisitive, incubative, and initiative.
 - Neuroticism: impacts on no entrepreneurship types.

6.2. Comparison of the mean response to "completely agree" and "agree" on the types of entrepreneurship

- The highest percentage of "completely agree" and "agree" on the types of entrepreneurship belongs to acquisitive entrepreneurship (46.15%) opportunistic entrepreneurship (46.05%), administrative entrepreneurship (40.55%), incubative entrepreneurship (35.35%) and initiative entrepreneurship (31.5%)

6.3. Comparison of the mean response to "completely agree" and "agree" in the personality dimensions

- The highest percentage of "completely agree" and "agree" on personality dimensions belongs to respectively conscientiousness, (30.35%), agreeableness (30.1%), openness to experience (27.8%) and extroversion (20.7%). It should be noted that neuroticism should be reversed that it has the concept of emotional stability, therefore, "completely agree" and "agree" on it is (22.5%).

6.4. Proportion between establishing entrepreneurship and personality factors based on findings

- Research shows that, to establish types of entrepreneurship in the organization, emphasize on extroversion is very important. Creating the necessary condition for extroversion expression by creating the suggestion and criticism system, respecting others ideas, exploiting the different personnel for decision-making, and determining the functional roles of personnel help to strengthen the personality of extroversion, and make it effective in entrepreneurship.
- Research shows that, to establish types of entrepreneurship in the organization, emphasis on agreeableness is very important. Team building and using different people on a team, team motivation, relying on each individual's work and suggestions, and encouraging self-control strengthen this component of personality, leading to entrepreneurship in the organization.
- The findings suggest that strengthening conscientiousness will lead to entrepreneurship. To promote conscientiousness in individuals, developing specific and certain objectives, supporting individuals, delegating authority, and giving responsibilities to all workers will be effective, leading to entrepreneurship.

- The study results show that there is a relationship between the personality component of openness to experience and entrepreneurship. To internalize it in personnel, creating a circumstance for thinking, relaxation, and emphasis on staff's comments and ideas is necessary.
- According to the results of the research, avoiding arousing the personality factor of neuroticism in individuals is effective in establishing entrepreneurship, for example, not creating insecurity, tension, annoyance, and so on.

7. CONCLUSION

The survey results show that most of the employees in Iranian Airports Holding Company tend to Acquisitive Entrepreneurship. This is the type of entrepreneurship that is acquired from the technical skills of other firms through collaborating, consulting, and contracting with them. The second ranked type places Opportunistic Entrepreneurship that it means a type of entrepreneurship that evaluates and develops the domestic and foreign technology-based innovations. Therefore, these two types of entrepreneurships need a personality common to both types of entrepreneurship, and includes extroversion, conscientiousness, and agreeableness. Of course, openness to experience is also a personality dimension affecting the acquisitive entrepreneurship. Respectively, administrative entrepreneurship, incubative entrepreneurship, and initiative entrepreneurial are ranked further for the employees' desires toward entrepreneurship types. According to the research findings, the personality dimensions of conscientiousness and agreeableness are more pronounced in Airports' employees than the other personality dimensions, and in the entrepreneurship fields, opportunistic, and acquisitive entrepreneurship potentially exist.

7.1. In general, the following results are considered from this research:

- To focus on the development of new services, processes and methods, it is better to emphasize the personality dimensions of extroversion, conscientiousness and agreeableness.
- To increase and develop technology-based innovation, it is recommended to highlight the personality dimensions of extroversion, conscientiousness and agreeableness.
- To emulate other firms or to exploit through consultation and collaboration with other firms, it is recommended to focus on the personality dimensions of conscientiousness, openness to experience, extroversion and agreeableness.
- To create a semi-autonomous unit within a firm or to create a "thought room" in the form of sub-units of a firm, it can help to boost the personality dimensions extroversion, conscientiousness, openness to experience and agreeableness.
- To make simple changes by imitating other firms, it can help to rely on the personality dimensions of extroversion, agreeableness and openness to experience.

7.2. Due to the desires of employees to entrepreneurship types, as well as the staff personality, the following suggestions are considered:

Based on the experience gained in the current research and consultation with experts in the field of entrepreneurship and personality, we propose the following suggestions for those who are interested in this field:

- Study other personality dimensions and entrepreneurship types.
- Correspond the entrepreneurship with the micro strategy of firm
- Look at the impact of entrepreneurship on performing the strategy
- Understand the relationship between organizational culture and entrepreneurship

REFERENCE

1. Adenuga, R.(2013)," *entrepreneurship*", *European Journal of Business and Social Sciences*, Vol. 1, No. 12, pp 48-58
2. Ahmadpour Dariani, M, (1999). "Entrepreneurship, definitions, models and theories", Tahrans: Pardis.
3. Ahmadi, A, Darvish, H, (2012). "Principles of Entrepreneurship", Tahrans: Payame Nour.
4. Arikan, A, Arikan, I, & Koparan, I (2020). "Creation opportunities: entrepreneurial curiosity, generative cognition, and knightian uncertainty," *Academy of Management Review*, 45:4, 808-824.
5. Amponsah-Tawiah, K., Annor, F. (2017). "Do Personality and Organizational Politics Predict Workplace Victimization? A Study among Ghanaian Employees", *Safety and Health at Work* 8, 72-76.
6. Antoncic, B. (2009). "The Entrepreneur's General Personality Traits and Technological Developments", *World Academy of Science, Engineering and Technology* 53.
7. Antoncic, B., Bratkovic, T., Singh, G., and De Noble, A. F. (2008). "The big five personality factors, gender, and entrepreneurship: Evidence from Slovenia", *Annual Meeting Proceedings (Academy of Management)*, Anaheim, CA, pp. 80–81.
8. Baum, J. R., Frese, M., Baron, R. A., and Katz, J. A. (2007). "Entrepreneurship as an area of psychology study: An introduction", *Psychology of Entrepreneurship*, Mahwah, NJ: Lawrence Erlbaum Associates Inc, pp. 1–18.
9. Bird, B. J. (1988). "Implementing entrepreneurial ideas: The case for intention", *Academy of Management Review*, 13(3), 442–453.
10. Bono, J. E., Judge, T. A. (2004). "Personality and Transformational and Transactional Leadership: A Meta-Analysis", *Journal of Applied Psychology*, Vol. 89 (No. 4), pp. 901-910.
11. Boz, A., Ergeneli, A. (2014). "Women entrepreneurs' personality characteristics and parents' parenting style profile in Turkey", *science direct, Procedia - Social and Behavioral Sciences* 109, P.92 – 97.
12. Business Dictionary, 2017. Website of BusinessDictionary.com. Retrieved from <http://www.businessdictionary.com/>
13. Cantner, U., Rainer, K., Wilfling, S. (2011). "Which Big-Five personality traits drive entrepreneurial failure in highly innovative industries?", Paper presented at the DIME Final Conference, Maastricht.
14. Chell, E. (2008). "The Entrepreneurial Personality: A Social Construction". New York, NY: Routledge.
15. Chen, K., Hsiung, J., Yien, M., Huang, K.P., Huang, C.J. (2011). "Performance and Its Link to Entrepreneurial Behavior". *American Journal of American Sciences*, 8 (7): 703-707
16. Doboli, S., Kamberova, G. L., Impagliazzo, J., Xiang F. u, Currie, E. H., (2010). "A model of entrepreneurship education for computer science and computer engineering students", Paper presented at 40th ASEE/IEEE Frontiers in Education Conference. Oct. 27 - 30, 2010, Washington, DC.
17. Fairouz, F., Hirobumi, M., Tanaka, Y. (2010). "Entrepreneurial Orientation and Business Performance of SME of Hambantota District SriLanka", *Asian Social Science*, 6(3).

18. Fernandez-Serrano, J., Martinez-Roman, J. & Romero, I. (2019). "The entrepreneur in the regional innovation system. A comparative study for high-and low-income regions," *Entrepreneurship & Regional Development*, 31:5-6, 337-356.
19. Franziska, L., Gorkan, A., Reece, A. (2014), "The relationship between the *entrepreneurial personality and the Big Five personality traits*", *Personality and Individual Differences* 63 , 58–63
20. Ginting, G. (2015). "*Open Innovation Model: Empowering Entrepreneurial Orientation and Utilizing Network Resources as Determinant for Internationalization Performance of Small Medium Agroindustry*", *science direct, Agriculture and Agricultural Science Procedia* 3, P.56 – 61.
21. Goldberg, L. R. (1990). "*An alternative description of personality: The big five factor structure*", *Journal of Personality and Social Psychology*, vol. 59, pp. 1216–1229.
22. Goldberg, L. R. (1992). "*The development of markers for the Big-Five factor structure*", *Psychological Assessment*, 4, 26-42.
23. Günel, Ö. D., (2010), "*İşletmelerde Yıldırma Olgusu ve Yıldırma Mağdurlarının Kişilik Özelliklerine İlişkin Bir Araştırma*", *Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 12 (3), pp. 37-65.
24. Gutiérrez, J.G., Baquero, J. (2017). "*New cross-proposal entrepreneurship and innovation in educational programs in third level (tertiary) education*", *science direct, Contaduría y Administración* 62, P. 239–261.
25. Howard, P. J., Howard, J. M. (1995). "*The Big Five Quickstart: An Introduction to the Five Factor Model of Personality for Human Resource Professionals*". Charlotte, NC: Center for Applied Cognitive Studies.
26. Ismatullina, V., Voronin, I. (2017). "*Gender differences in the relationships between Big Five personality traits and intelligence*", *7th International Conference on Intercultural Education "Education, Health and ICT for a Transcultural World"*, EDUHEM, Almeria, Spain.
27. John, O. P., Srivastava, S. (1999). "*The Big Five trait taxonomy: History, measurement, and theoretical perspectives*", In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research*, pp. 102–138. New York: Guilford Press.
28. Jr, O. F., Portugal, L. C. L., Alves, R., Arruda-Sanchez, T., Rao, A., Volchan, E., Pereira, M., Oliveira, L., Mourao-Miranda, J. (2017). "*Decoding negative affect personality trait from patterns of brain activation to threat stimuli*", *NeuroImage* 145, 337–345.
29. Judge, T. A., Bono, J. E. (2000). "*Five-factor model of personality and transformational leadership*", *Journal of Applied Psychology*, Vol. 85, pp. 751–765.
30. Juneja, J. (1990). "*Entrepreneurship in public enterprises*", Paper prepared for ICPE and ILO, pp 85. Mimeo.
31. Kibler, E., Mandl, Ch., Kautonen, T., Berger, E. (2017). "*Attributes of legitimate venture failure impressions*", *Journal of Business Venturing* 32, 145–161.
32. Kuok, A. (2017). "*Insights for management among non-gaming industries: Employees' dissonance in a casino dominant economy*", *Journal of Work and Organizational Psychology* 33, 33–39.
33. Krinaresanti, A., Julialevu, K., Naufalin, L., & Dinanti, A. (2020). "Analysis of entrepreneurship education in creating new entrepreneurs," *International Journal of Entrepreneurial Knowledge*, 2:8, 67-76.
34. Locke, E., Baum, R. (2007). "*Entrepreneurial motivation*", *The Psychology of Entrepreneurship*, Mahwah, NJ: Erlbaum, 41-65.

35. Ma'amora, H., Achima, N., Yunusa, N., Hashima, N., Haqueeb, A., (2016). "*The Influence of Personality Traits towards Quality Pledge*", Science direct, Procedia Economics and Finance 37, P. 73 – 79.
36. Mahdavi, G., Daryaei, A. A. (2017). "*Attitude toward business environment of auditing, corporate governance and balance between auditing and marketing*", Contaduría y Administración, CYA-151, P.1-22.
37. McShane and Glinow V., (2010). "*Organizational Behavior*", McGraw-Hill, 5th edition.
38. McCrae, R., Costa, P. T. (1999). "A Five-Factor Theory of Personality", In L. A. Pervin and O. P. John (Ed.), *Handbook of Personality*, 2nd Edition, pp,139-153.
39. Mirandaa, F.J., Chamorro-Meraa, A., Rubio, S. (2017). "*Academic entrepreneurship in Spanish universities: An analysis of the determinants of entrepreneurial intention*", European Research on Management and Business Economics 23, 113–122.
40. Mount, M. K., Barrick, M. R., Stewart, G. L. (1998). "Five Factor Model of Personality and Performance in Jobs Involving Interpersonal Interactions". *Human Performance*, Vol. 11 (No. 2), pp. 145-165.
41. Nielsen, M. B., Glasø, L., Einarsen, S. (2017). "*Exposure to workplace harassment and the Five Factor Model of personality: A meta-analysis*", *Personality and Individual Differences* 104, 195–206.
42. Nicolaou, N., & Shane, S. (2009). "*Can Genetic Factors Influence The Likelihood of Engaging In Entrepreneurial Activity?*" *Journal of Business Venturing*, 24,1–22.
43. Nunnally, J., & Bernstein, I. (1978). *Psychometric Theory*, McGraw Hill Inc., NY
44. Nicolaou, N., Shane, S., Cherkas, L., Hunkin, J., & Spector, T. D. (2008). "*Is The Tendency to Engage In Entrepreneurship Genetic?*" *Management Science*, 54,167–179.
45. Oganisjana, K., Laizans, T. (2015). "*Opportunity-oriented problem-based learning for enhancing entrepreneurship of university students*", science direct, Procedia - Social and Behavioral Sciences 213, P.135 – 141.
46. Owoseni, O. (2011). "*An examination of the Impact of selected personality traits on the innovative behaviour of entrepreneurs in Nigeria*". *International Business and Management*, 3(2)112-121
47. Panaccio, A., and Vandenberghe, C. (2012). "*Five-factor model of personality and organizational commitment: The mediating role of positive and negative affective states*", *Journal of Vocational Behavior* 80 (2012), 647–658.
48. Prokopenko, J., Pavlin, I. (1991). "*Entrepreneurship development in public enterprises*", International Labour Office, Geneva. Management Development Series, No. 29.
49. Rauch, A., Frese, M. (2007). "*Let's Put The Person Back Into Entrepreneurship Research: A Meta-Analysis on The Relationship Between Business Owners' Personality Traits, Business Creation and Success*", *European Journal of Work & Organizational Psychology*, 16,353–385.
50. Rauch, A., Frese, M., Baron, R. A. (2007). "*Born to be an entrepreneur? Revisiting the personality approach to entrepreneurship*", *Psychology of Entrepreneurship*, Mahwah, NJ: Lawrence Erlbaum Associates Inc., pp. 41–65.
51. Russo, V., AlTurki, A., Rago, A., Proietti, R., Chausse', G., Monteleone, A. M., Scognamiglio, P., Monteleone, P., Nigro, G. (2017). "*Temperament and character personality dimensions in nitrate-tilt-induced vasovagal syncope patients*", *Hellenic Journal of Cardiology*, p.1-6.
52. Sadler, R. J. (1999). "*Corporate entrepreneurship and government business enterprises: the pre-paradigmatic dance of the chameleon*", PhD thesis, Southern Cross University, Lismore, NSW.

53. Shepard, D, Williams, T, & Zhao, E. (2019). "A Framework for exploring the degree of hybridity in entrepreneurship." *Academy of Management Perspectives*, 33:4, 491 – 512.
54. Sekliuckienea, J., Kisieliusb, E. (2015). " *Development of social entrepreneurship initiatives: a theoretical framework*", *Procedia - Social and Behavioral Sciences* 213,1015 – 1019.
55. Shaw, K, Sorensen, A. (2019). "*The Productivity Advantage of Serial Entrepreneurs,*" *ILR Review*, Oct., 1225-1261.
56. Shaffer, M. A., Harrison, D. A., Gregersen, H., Harrison, D. A., Black, J. A., Ferzandi, L. A. (2006). "*You Can Take it With You: Individual Differences and Expatriate Effectiveness*", *Journal of Applied Psychology*, Vol. 91 (No. 1), pp. 109-125.
57. Singh, G., De Noble, A. F. (2003). "*Views on self-employment and personality: An exploratory study*", *Journal of Developmental Entrepreneurship*, vol. 8, no. 3, pp. 265–281.
58. Stewart, W. H., Jr., & Roth, P. L. (2001). "*Risk Propensity Differences Between Entrepreneurs and Managers: A Meta-Analytic Review*", *Journal of Applied Psychology*, 86, 145–153.
59. Viinikainen, J., Heineck, G., Böckerman, P., Hintsanen, M., Raitakari, O., Pehkonen, J. (2017). "*Born entrepreneurs? Adolescents' personality characteristics and entrepreneurship in adulthood*", *Journal of Business Venturing Insights*, Volume 8, Pages 9-12.
60. Yekea, S., Semerciözb, F. (2016). "*Relationships between personality traits, cultural intelligence and intercultural communication competence*", *science direct, Procedia - Social and Behavioral Sciences* 235, P. 313 – 319.
61. Zhao, H., & Seibert, S. E. (2006). "*The Big Five Personality Dimensions and Entrepreneurial Status: A Meta-Analytical Review*", *Journal of Applied Psychology*, 91, 259–271.