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Enabling Intrapreneurship: An Emerging Economy Perspective

RESEARCH PAPER

Enabling Intrapreneurship: An Emerging Economy Perspective

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ABSTRACT

PURPOSE: The major purpose of this study was to understand and explore intrapreneurship in Qatar, in particular, to investigate the outcomes and prerequisites for intrapreneurship in government, semi-government, and private organisations.

DESIGN/METHODOLOGY/APPROACH: The study was conducted in two phases. In the first phase, a questionnaire-based survey was conducted. The study sample included 110 employees working in governmental, semi-governmental and private organisations. Data analyses (i.e., correlations and *t*-test) were conducted to outline the differences amongst various groups. In the second phase a hierarchy-based model was developed to rank the barriers that affected intrapreneurship using Interpretive Structural Modeling (ISM).

FINDINGS: The results showed a significant positive correlation between the prerequisites and outcomes of intrapreneurship. The public sector had a lack of support for intrapreneurship compared with the private sector. The results also showed a significant relationship between intrapreneurship and perceived customer satisfaction and intrapreneurship and job satisfaction. The hierarchy-based model helped to identify the most important barriers that could be considered as root causes for the limited growth of intrapreneurship.

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PRACTICAL IMPLICATIONS: The outcomes of this study can be used effectively by organisations to develop suitable plans to promote intrapreneurship leading to improved entrepreneurial behaviour.

ORIGINALITY/VALUE: This is the first study on intrapreneurship in Qatar and the Gulf countries. Furthermore, the research utilised a mixed method approach not previously used in intrapreneurship studies.

KEYWORDS: *Intrapreneurship; Qatar; Interpretive Structural Modeling; Intrapreneurship Barriers; Intrapreneurship Outcomes*

INTRODUCTION

Sharma and Chrisman (1999) identified intrapreneurship as a process where individuals working within an organisation create a new organisation or innovate within that organisation. The definition of intrapreneurship has since evolved to mean organisational entrepreneurship by which employees develop and create new products or services. Workers accomplish this by working independently or collaborating in groups (Burström and Wilson, 2015). Intrapreneurs are responsible for the research on their intrapreneurial ideas, saving the company money compared to spending it on marketing research. Furthermore, due to intrapreneurial activity, organisations get the opportunity to expand their product lines. This increases product differentiation and profitability (Kenney and Mujtaba, 2007). There are three modes of intrapreneurial processes, analytical, intuitive and political. In the analytical mode, the focus is on using proven solutions to solve problems while in the intuitive mode intrapreneurs focus on original ideas and prototypes. In the political mode, intrapreneurs focus on incremental organisational change (Janczak and Boiteux, 2007).

When the environment is creative and the management encourages novel ideas, organisations can develop employee skills and reduce the turnover percentage (Kenney and Mujtaba, 2007). In addition, some organisations allow their employees the time and resources to work on their ideas. This was the case with the creation of Gmail, one of the most famous examples of intrapreneurship. Google allowed its employees to devote 20% of their scheduled work time to work on personal projects related to the company. As a result, Paul Buchheit launched the idea of Gmail in April 2004: today, Gmail is one of the most widely-used email platforms in the world. Another example of intrapreneurship is that of Ken Kutaragi, a junior employee at Sony. Kutaragi started to enhance Nintendo and developed the idea of creating the PlayStation, which is now one of the world's most recognisable brands. In another example, 3M allowed its employees to dedicate 15% of their work time to developing new projects. One of these projects, the Post-It Note, developed by Spencer Silver, became one of the most frequently used items in offices and is sold at almost every office supply store around the world (Deeb, 2016).

These examples prove that intrapreneurship is a key factor for innovation, sustainability, profitability, and low turnover. Currently, Qatar is investing in creating an environment of innovation; this is ranked very high on the agenda of its leaders (Gulf Times, 2019). It is understood that innovation is the key to developing a non-oil economy, and intrapreneurship is a mechanism to stimulate employees to participate in the process of innovation. Therefore, the major objectives of this study are:

- to explore the concept of intrapreneurship in organisations in Qatar;
- to understand the variables affecting the prerequisites and outcomes of intrapreneurship;
- to examine customer and employee satisfaction in relation to intrapreneurship;
- to develop a relationship model for barriers to intrapreneurship in Qatar.

The remainder of the paper is structured as follows. The next section presents the literature review, followed by a depiction of the research methodology used to acquire the primary data, specifically giving an explanation of the questionnaire study and ISM methodology. The following section presents the results and the research findings, with a discussion of the implementation of the ISM model in the context of this research in the penultimate section. The final section presents the conclusions that are composed of a summary of the findings, recommendations, limitations, and scope for future research.

LITERATURE REVIEW

Defining Intrapreneurship

Intrapreneurship is defined as the actions of individuals within organisations that lead to the innovation of products, processes, or services (Gapp and Fisher, 2007; Merrill *et al.*, 2008). Antoncic (2007) defined intrapreneurship as a process by which individuals inside an organisation acquire opportunities using the resources they control. It exists where large businesses enable employees to demonstrate entrepreneurial behaviour to benefit the organisation.

Intrapreneurship means entrepreneurship within an existing organisation: it also means creating new organisations within the same organisation. Intrapreneurship started with a focus on entrepreneurial individuals inside corporations. The concept was later broadened to include entrepreneurial characteristics at the organisational level (Antoncic and Hisrich, 2003). The intrapreneurial process can exist in any firm regardless of its size. It is intended not only to create new business ventures but also to develop new products, technologies, services, competitive postures, and administration techniques.

Woo (2018) mentioned that intrapreneurship is not a new concept. In fact, it is entrepreneurship established and embraced by existing employees. Intrapreneurs (mostly employees) are people who get involved in creating new businesses within established firms and can be middle managers, CEOs, top managers, or operational managers (Ma *et al.*, 2016). Entrepreneurial individuals in an existing organisation are referred to as intrapreneurs as they have the ability to identify opportunities and use organisational resources to satisfy new needs. In addition, intrapreneurs develop business plans, procure required resources, and are key players in managing the organisation (Altinay, 2005). Intrapreneurs do not simply undertake initiatives that add value to their organisation; they also motivate other employees of the organisation to think innovatively (Janczak and Boiteux, 2007).

Intrapreneurship and Entrepreneurship

Intrapreneurship is an entrepreneurial activity developed and executed by employees and managers. The reward goes to the organisation, and the risk is taken by the company (Hartmann, 2018):

because the organisation's resources are used, there is less risk for the intrapreneur. Intrapreneurs only manage the business as they do not have ownership (Seshradi and Tripathy, 2006). The advantages of intrapreneurship are that employees will have higher morale, enjoy better access to financial resources, and will be able to get help from their colleagues at work (Parker, 2011). In addition, they can get access to information from various technological and personal sources. The disadvantages of intrapreneurship include discredit for failure, lack of recognition, blocked promotion and reduced incentives (Felicio *et al.*, 2012).

Entrepreneurship is a process that entails starting up a business that is developed by an entrepreneur who has the motivation and capacity to gain the rewards as well as assume the risks in order to achieve economic success (Shane *et al.*, 2003). The advantages of entrepreneurship are that entrepreneurs have personal freedom and satisfaction, make their own decisions, and keep the financial rewards (Parker, 2011). On the other hand, the disadvantages are that they bear the financial risk, and face the competition alone (Bruyat and Julien, 2001).

Intrapreneurship Traits

Intrapreneurs are risk-taking visionaries who have high aspirations for achievement (Ma *et al.*, 2016). The intrapreneurial process is not just about having the idea but also making it work for the organisation (Harms, 2015). The primary driver for intrapreneurship is economic stability. Both social needs and changing customers encourage organisations to participate in intrapreneurial activities (Berzin *et al.*, 2016).

Woo (2018) conducted a study on four Korean firms with a total of 473 employees. He examined the impact of personality traits on intrapreneurship through career adaptability. The results showed that career adaptability facilitated the relationship between intrapreneurship and openness and intrapreneurship and conscientiousness (two of the big five entrepreneurial personality dimensions). In general, Japan's economic system is an intrapreneurial system: it has a high degree of stability and is driven by large organisations (Lechevalier *et al.*, 2014). Therefore, competence and the ability to detect business opportunities, in addition to influencing intrapreneurial behaviour, are essential to developing an intrapreneur (Urbano *et al.*, 2013).

North (2015) selected a sample of 248 industrialists to identify the key attributes of individual intrapreneurship; she concluded that three of the big five entrepreneurship personality traits (i.e., neuroticism, extraversion, and openness) were significant. De Jong *et al.* (2011) conducted a study of 189 employees in a Dutch company. They measured employee intrapreneurial behaviour in relation to proactive personality, job specific items, and demographics. The results showed that the most important variable was the proactive personality.

Intrapreneurship Purpose

The major purpose of intrapreneurship is to improve an organisation's performance and macro-economic development (Merrill *et al.*, 2008). Molina and Callahan (2009) developed a model

of intrapreneurship in which both the organisation and the environment nurtured intrapreneurship. Intrapreneurship enhanced the firm's capacity to revitalise its business, innovate, adapt to internal and external changes and enhance its performance (Skarmeas *et al.*, 2016). Burström and Wilson (2015) suggested that organisations should support intrapreneurial activities since organisational support and individual competencies are the core ingredients of intrapreneurship. Heinonen and Korvela (2014) stated that intrapreneurship was crucial to organisations' survival, growth, profitability, and renewal. Vargas-Halabi *et al.* (2017) validated a scale to measure intrapreneurial competencies. Using a linear regression model, their research showed that employee attributes of proactivity, flexibility, drive, risk-taking, and opportunity promotion are related to intrapreneurial competencies. Therefore, intrapreneurial competency was related to employee disposition to contribute to innovative development and create new businesses for the organisation.

Organisational Need for Effective Intrapreneurship

A study by Rigtering and Weitzel (2013) indicated the importance of trust in managers as an influence on intrapreneurial behaviour. In order to have successful intrapreneurship, managers should mentor their employees and help them achieve the organisational goals. Managers should encourage employees who demonstrate new ideas, and the organisation should develop innovation and creativity among its employees. Innovation is the core of intrapreneurship and is considered a mechanism to revive the organisation. According to Morris and Kuratko (2002), organisations should develop effective reward systems to motivate their employees for intrapreneurship. Therefore, a reward system should be applied in which financial and other incentives are provided for innovative employees (Urban and Wood, 2015). Further, research indicates that organisational hierarchical structure plays a great role in intrapreneurial ventures (Alam *et al.*, 2020). To facilitate intrapreneurship, established companies need to experiment with new organisational structures that enable innovation (Morris and Kuratko, 2002).

Rivera's (2017) market study in the USA showed that many organisations do not have the human resource capabilities that are required to establish new growth. Instead, managers only focus on their current work without ever looking forward to improving their knowledge and experience by considering new ventures. Research shows that managers' personalities and attitudes are key factors driving intrapreneurial activities within an organisation (Bouchard and Basso, 2011). Therefore, organisations need intrapreneurial leaders who have the relevant knowledge and appropriate skills. In particular, skills related to problem solving and process implementation should be developed for both the employees and the managers. Felicio *et al.*'s (2012) study of 217 medium-sized Portuguese companies supported a positive relationship between intrapreneurship, job satisfaction, and growth.

A study by Gapp and Fisher (2007) showed that developing an intrapreneurial leader requires a three-phase model of innovation. This model focuses on the relationships between product development, service delivery, and management of intrapreneurship-focused teams. The model discusses effective team-building and highlights the association between product and service as a

platform for effective innovation. The outcome of the study showed that intrapreneurial teams lack a balanced mix of knowledge, innovation, and management; however, when this issue is addressed, the result is effective intrapreneurial teamwork.

Encouraging and Facilitating Intrapreneurship

Employees should be provided with a specified time during which they can develop new business-innovative ideas with the support of their managers. Entrepreneurial activities tend to consume resources, so financial resources have to be ready and easily available (Feyzbakhsh *et al.*, 2008). Organisations must create competition between their employees in order to get others involved and at the same time generate more innovative ideas (Wagner, 2012). Alpkhan *et al.* (2010) conducted a study of 184 Turkish manufacturing companies that showed that organisations should establish a suitable internal environment for intrapreneurship by allocating time, decentralising decision-making and providing incentives and rewards. Whitney (2018) revealed that organisations should apply appropriate project management tools to manage the risks of intrapreneurial activities and to mentor their employees. According to Khazanchi *et al.* (2007), for a firm to be innovative, it must form its organisational culture to achieve the goal of constant innovation. An organisational culture that encourages creativity, innovation and entrepreneurship (Benitez-Amado *et al.*, 2010) is a major determinant of intrapreneurship.

Potential Elements and Outcomes of Intrapreneurship

Heinonen and Korvela (2014) conducted a study to discuss the concept of intrapreneurship, specifically the outcomes and prerequisites. Correlation analysis was conducted to study the relationship between the potential prerequisites and outcomes of intrapreneurship. The results showed a positive correlation between the prerequisites and outcomes. Figure 1 shows the intrapreneurship prerequisites, outcomes, and phenomena. Organisational environment is an important factor influencing intrapreneurship. In particular, organisational culture affects risk taking, innovation, creativity, learning, and change management. Moreover, the organisational environment impacts work division and power utilisation.

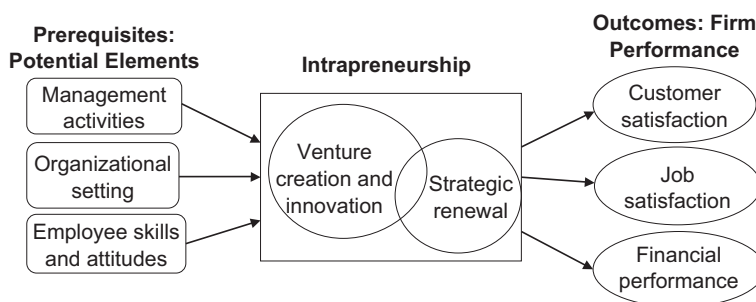


Figure 1: Intrapreneurship Prerequisites and Outcomes

Source: Heinonen and Korvela, 2014

Research Hypotheses

To evaluate the research objectives of this study, the following hypotheses were proposed:

- H_1 : There is a significant and positive relationship between intrapreneurship prerequisites and outcomes.
- H_2 : There is a difference between public sector organisations and private sector organisations in Qatar with regard to intrapreneurship.
- H_3 : Intrapreneurship has a positive influence on perceived customer satisfaction.
- H_4 : Intrapreneurship has a positive influence on job satisfaction.

Barriers to Intrapreneurship

Barriers are variables that negatively affect a phenomenon. In the present study, barriers to intrapreneurship are extracted from the literature and discussed below.

Internal Resistance: This refers to resistance on the part of management and/or employees. It occurs when they disregard or resist the idea of innovation (Bridge *et al.*, 1998). Individuals sometimes refuse to change, as they have already put their efforts into their assigned job (Devarajan *et al.*, 2006). Moerdyk and Fone (1987) mentioned three main factors that affect resistance, self-interest, personality and persuasion. Hill (2003) stated that another reason to resist change is the potential alteration of the existing power structure in the future.

Lack of Training: Lack of training is another obstacle that employees face, especially when there is an opportunity for them to become intrapreneurs. This can be overcome by giving them training in creative thinking and teaching them strategic project management (Zimmerman, 2010).

Organisation Policies: Robert (1998) mentioned that within the organisation there are some policies that act as an obstacle for intrapreneurs to develop. These may act as bias against younger employees to mentor new projects and cause difficulty in providing financial support and sponsorship.

Lack of Required Support: Whitney (2018) argued that intrapreneurs could be perceived as a threat to managers. This tends to constrict the amount of required support.

Inflexibility: The organisation may be reluctant to enter a new and unfamiliar market. They may fear the risk of failing (Salarzehi and Forouharfar, 2011; McDermott and O'Connor, 2002).

Lack of Incentive: McDermott and O'Connor (2002) stated that there are organisations that do not provide rewards for intrapreneurs, even though employees see them as an incentive to develop and find new ideas. Moreover, not compensating intrapreneurs' ideas acts as a barrier to intrapreneurship.

Static Nature of the Organisation: It is hard to get support from organisations if they only pursue low-risk opportunities (McDermott and O'Connor, 2002). Whitney (2018) mentioned that innovative projects are risky compared to non-innovative projects as they are difficult to maintain financially and psychologically.

Lack of Financial Resources: Hoskisson *et al.* (1993) stated that lack of financial resources within organisations affects support for innovations as well as intrapreneurship.

Lack of Intrapreneurial Talent: Fry (1993) mentioned that lack of intrapreneurial talent is a barrier since it is difficult for non-intrapreneurs to work on innovative projects and drive them to success.

Culture: Meng and Roberts (2011) stated that culture is a major issue in organisations where an individual might be blamed for the failure of a project that they have proposed.

Regulatory Barriers: Regulatory barriers include government regulations and policies for evaluating and undertaking innovation (Michalski, 2006). When the government has certain regulations that affect intrapreneurship, companies will be reluctant to allow intrapreneurial activity. Political factors (such as stability, currency status and legal restrictions) constitute another regulatory barrier and are a major issue to consider (Michalski, 2006).

Market Forces: Market forces are composed of market sales, population demographics, industry structure, and barriers to entry (Piatier, 2004).

METHODOLOGY

The research was conducted in two phases. The first phase focused on three objectives and utilised a questionnaire-based survey. In the second phase, the last objective of the research was achieved utilising an Interpretive Structural Modeling (ISM) approach.

Research Questionnaire

This research involved primary data collected through an online questionnaire. The questionnaire's purpose was to measure the intrapreneurship level of organisations in Qatar and to find the correlation between the potential prerequisites and outcomes of intrapreneurship. The questionnaire was composed of two parts. The first part collected demographic information. The second part measured intrapreneurship on a scale from one to five, and was composed of two sub-parts; the potential prerequisites of intrapreneurship, and potential outcomes of intrapreneurship. The potential prerequisites of intrapreneurship contained seven variables: measuring encouragement by management and organisation, individual motivation, transparency and openness, individual capability, working environment, innovation encouragement, and development. The potential elements of intrapreneurship included the following variables: job satisfaction, perceived customer satisfaction, and external satisfaction in work.

Validity and Reliability

The questions were taken from previously published papers and the final questionnaire was reviewed by two academics and two managers. To measure the reliability of the measures, Cronbach's alpha was calculated (Laerd Statistics, 2019). The value of Cronbach's alpha was more than was 0.97, indicating a high level of internal consistency for the measures used.

Sample and Data Collection

Data were collected from the employees who work in governmental, private, and semi-governmental organisations in Qatar. The survey instrument was distributed using Qualtrics software to 300 possible respondents in Qatar, of which 114 were returned. A total of 4 incomplete questionnaires were excluded, leading to a final sample of 110 responses yielding a response rate of 27.5%.

Interpretive Structural Modeling (ISM) Methodology

In this research, ISM methodology (Warfield, 1974; Sage, 1977) was used to determine the relationship and link between the barriers affecting intrapreneurship. An ISM model is developed based on the effect direction of each variable. First, the barriers are identified, then each relationship is represented by A, V, O, and X, based on the effect direction as shown in the SSIM table. Each letter is then converted to binary numbers, either 0 or 1. The next step is to establish the transitivity matrix followed by the final reachability matrix that computes the driving power and dependence power. Finally, the level of each barrier is determined; this leads to the structural model.

RESULTS

Survey Results

Table 1 shows the demographic analysis of the study in which there are seven variables and each variable measures a certain demographic aspect. The first variable is gender, where 28% are males and 72% are females. The second variable depicts that 46% of the sample are Qatari and 54% are non-Qatari. Moreover, the level of education is divided into four levels: high school, undergraduate degree, graduate degree, and any additional qualification. The study showed that half the sample (50%) holds a graduate degree, 28% hold an undergraduate degree, and finally PhDs represent 14% of the sample. The least represented is high school, at only 8% of the sample. This shows that the sample is highly educated and therefore will show a good combination of answers related to intrapreneurship. The age group demographics showed that the largest group is between 36 and 46 years of age, representing 39% of the sample. This is similar to the 25-35 year age group that constitutes 38%. The age group 47-57 years represents 16% of the data, and age 58 or above represents 5%. The age group 18-25 is the lowest, representing only 2%. This shows that the majority of the employees are relatively young, suggesting that there is time for intrapreneurship to be developed in organisations in Qatar. The study sample shows that the largest group has 11-15 years of experience, representing 26%, and the next largest group has more than 20 years of working experience at 21% of the sample. Workers with 16-20 years represent 19%, those with 5-10 years represent 17%, and the last group has less than five years of working experience at 16% of the sample. It can be concluded that the employees who participated in this questionnaire are knowledgeable and experienced in their working environment.

Table 1: Demographic Variables of Study Sample

Variable		Frequency	Percentage
Gender	Male	31	28.18%
	Female	79	71.82%
Nationality	Qatari	51	46.36%
	Non-Qatari	59	53.64%
Level of Education	High school	9	8.18%
	Undergraduate degree	31	28.18%
	Graduate degree	55	50.00%
	Any additional qualification	15	13.64%
Age	18-25	2	1.82%
	25-35	42	38.18%
	36-46	43	39.09%
	47-57	18	16.36%
	58 or above	5	4.55%
Years of Experience	Less than 5 years	18	16.36%
	5-10	19	17.27%
	11-15	29	26.36%
	16-20	21	19.09%
	More than 20 years	23	20.91%
Job Level	Staff	43	39.09%
	First Level Management	13	11.82%
	Middle Level Management	35	31.82%
	Executive Management	19	17.27%
Type of Organisation	Private	52	47.27%
	Government	38	34.55%
	Semi-government	20	18.18%

Source: Constructed by authors

Job level is another variable that is important to intrapreneurship, where 39% of the employees are staff, 32% are middle-level management, 17% are executive management and 12% are first-line management. The middle and executive management are well represented; the possibility of implementing intrapreneurship can be increased as their levels of authority within their organisations are high. This indicates that the job level is also diversified in this research. The types of organisations are private, governmental, and semi-governmental organisations. Most of the participants (47%) work in private organisations, 35% work in the government sector, and 18% work in the semi-government sector.

Analysis of the Questionnaire Based Study

The empirical study includes the means for each of the potential prerequisites and outcomes of intrapreneurship, and they are ranked based on the variable with the higher mean. In addition, a statistical analysis using SPSS software was conducted in this study to analyse the variables and test the hypotheses using correlation coefficient and an independent sample *t*-test. The study depicted the means of each variable where the highest mean in the potential prerequisites is the development variable (with a mean of 4.2), and the lowest mean is the innovation encouragement variable (with a mean of 3.48). The mean potential outcomes of intrapreneurship are in the range 3.74 to 3.96. It can be shown that the mean of the sample size of 110 represents a majority of positive answers, whether they agree or strongly agree for both potential prerequisites and outcomes of intrapreneurship.

To test the validity of the data and to find the relationship between the prerequisites and outcomes of intrapreneurship, the Pearson correlation coefficient is calculated. Table 2 shows that all correlation results between the prerequisites and outcomes of intrapreneurship are significant at the 0.01 level two-tailed, which indicates that there is a relationship between them. However, from Table 2, it can be deduced that the highest correlation is 0.78, i.e., between the prerequisite transparency and openness and the intrapreneurship outcome job satisfaction; it is a strong and positive correlation. The lowest positive correlation is 0.364; this is a weak correlation between the intrapreneurship prerequisite of individual motivation and the intrapreneurship outcome of external satisfaction in work.

Table 2: Pearson's Correlation between the Prerequisites and Outcomes of Intrapreneurship

	Job Satisfaction	Perceived Customer Satisfaction	External Satisfaction in Work
Encouragement by management and organisation	0.675**	0.592**	0.569**
Individual motivation	0.552**	0.402**	0.364**
Transparency and openness	0.780**	0.664**	0.680**
Individual capability	0.740**	0.602**	0.549**
Working environment	0.748**	0.608**	0.701**
Innovation encouragement	0.694**	0.624**	0.684**
Development	0.763**	0.721**	0.670**

**Level of Significance 1%

Source: Constructed by authors

Hypothesis Testing

The first null hypothesis states that there is no significant correlation between intrapreneurship prerequisites and outcomes. By using the Pearson's correlation coefficient in Table 2, it can be concluded that there is a significant correlation between the intrapreneurship prerequisites and outcomes. The *p*-value is less than 5%, and there is significant correlation between the

intrapreneurship prerequisites and outcomes; therefore the null hypothesis is strongly rejected. The correlation is positive for all variables and it is a strong correlation for most of the variables since the correlation is between 0.6 and 0.8.

The second null hypothesis states that there is no difference among public sector organisations and private sector organisations in Qatar with regard to intrapreneurship. To evaluate this hypothesis, the independent sample *t*-test was conducted since there were two groups: the private sector and the public sector. The intrapreneurship variable was calculated in two steps. The first step was composed of computing the total answers to all questions under each variable. The second step was to sum up all the variables, including both the prerequisite and outcome variables to get the intrapreneurship. The independent variable is the type of organisation, either private or public, and the dependent variable is the intrapreneurship.

By performing the independent sample *t*-test shown in Table 3, the following variables are statistically significant since they are less than 5%: encouragement by management and organisation (0.024), individual motivation (0.012), and individual capability (0.038). These three variables have higher means in the private sector compared to the public sector as provided in Table 4. For instance, the mean of encouragement by management and organisation for private organisations is 37.88; this is higher compared to the mean of public organisations at 33.79. The mean of individual motivation for private organisations is 21.7308; this is higher compared to the mean of public organisations at 19.74. Finally, the mean of individual capability for private organisations is 20.13, and is higher compared to the mean of 18.45 of public organisations. To conclude, the null hypothesis is rejected since there are significant differences among public sector organisations as compared to private organisations with regard to intrapreneurship.

Table 3: Results of Independent Sample T-Test

Independent Samples Test							
		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Encouragement by management and organisation	Equal variances assumed	0.167	0.684	2.298	88	0.024	4.09514
Individual motivation	Equal variances assumed	0.075	0.785	2.561	88	0.012	1.99393
Transparency and openness	Equal variances assumed	0.937	0.336	0.694	88	0.490	0.73381
Individual capability	Equal variances assumed	0.114	0.736	2.103	88	0.038	1.68725
Working environment	Equal variances assumed	0.434	0.512	0.276	88	0.783	0.29960
Innovation encouragement	Equal variances assumed	0.007	0.935	0.220	88	0.827	0.18522

(continued)

Table 3: Results of Independent Sample T-Test (continued)

Independent Samples Test							
		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
Development	Equal variances assumed	0.029	0.864	0.517	88	0.606	0.25506
Job satisfaction	Equal variances assumed	1.231	0.270	1.525	88	0.131	1.54656
Perceived customer satisfaction	Equal variances assumed	0.001	0.974	-0.659	88	0.512	-0.68927
External satisfaction in work	Equal variances assumed	2.345	0.129	-0.057	88	0.954	-0.02126

Source: Constructed by authors

Table 4: Results of Group Statistics

Group Statistics					
	Type of Organisation	N	Mean	Std. Deviation	Std. Error Mean
Encouragement by management and organisation	Private	52	37.8846	8.19769	1.13681
	Government	38	33.7895	8.55241	1.38738
Individual motivation	Private	52	21.7308	3.62516	0.50272
	Government	38	19.7368	3.68110	0.59715
Transparency and openness	Private	52	21.8654	5.16788	0.71666
	Government	38	21.1316	4.65090	0.75448
Individual capability	Private	52	20.1346	3.52598	0.48896
	Government	38	18.4474	4.05834	0.65835
Working environment	Private	52	26.1154	5.15886	0.71541
	Government	38	25.8158	4.98026	0.80790
Innovation encouragement	Private	52	17.7115	3.89236	0.53977
	Government	38	17.5263	4.02517	0.65297
Development	Private	52	12.8077	2.35179	0.32613
	Government	38	12.5526	2.25049	0.36508
Job satisfaction	Private	52	24.7308	4.88742	0.67776
	Government	38	23.1842	4.55510	0.73893
Perceived customer satisfaction	Private	52	25.9423	4.66700	0.64720
	Government	38	26.6316	5.20613	0.84455
External satisfaction in work	Private	52	7.5577	1.83018	0.25380
	Government	38	7.5789	1.60458	0.26030

Source: Constructed by authors

The third null hypothesis states that intrapreneurship does not positively influence the perceived customer satisfaction, while the alternative hypothesis states that intrapreneurship positively influences the perceived customer satisfaction. To test this hypothesis, the Pearson correlation test was conducted to measure the correlation between intrapreneurship and perceived customer satisfaction. The results in Table 5 show that the correlation between intrapreneurship and perceived customer satisfaction is significant at 0.01 level and the correlation is 0.777; this is a strong and positive correlation. The p -value is less than 5% and the correlation is significant, strong, and positive so the null hypothesis is rejected.

Table 5: Pearson's Correlation between Intrapreneurship and Perceived Customer Satisfaction

		Correlations	
		Perceived Customer Satisfaction	Intrapreneurship
Perceived customer satisfaction	Pearson Correlation	1	0.777**
	Sig. (2-tailed)		0.000
	N	110	110.0

****Correlation is significant at the 0.01 level (2-tailed)**

Source: Constructed by authors

The fourth null hypothesis states that intrapreneurship does not positively influence job satisfaction, whereas the alternative hypothesis states that intrapreneurship positively influences job satisfaction. Table 6 shows that the correlation test was conducted to measure the correlation between job satisfaction and intrapreneurship: the correlation is significant at the 0.01 level. In addition, the correlation between intrapreneurship and job satisfaction is 0.872; this is a very strong positive correlation since it is higher than 0.8. Also, the p -value is less than 5% and there is a very strong positive significant correlation. We can therefore reject the null hypothesis.

Table 6: Pearson's Correlation between Intrapreneurship and Job Satisfaction

		Correlations	
		Job Satisfaction	Intrapreneurship
Job satisfaction	Pearson Correlation	1	0.872**
	Sig. (2-tailed)		0.000
	N	110.0	110.0

****Correlation is significant at the 0.01 level (2-tailed)**

Source: Constructed by authors

ISM Model Analysis

The Interpretive Structural Modeling (ISM) approach is a methodology used to identify relationships between different items that define a specific issue, whereby a set of direct and indirect linked elements are structured into an inclusive systematic model (Valmohammadi and Dashti, 2016). It starts with

recognising the variables that are stated as either (i) or (j) (these are the risks or barriers around a certain issue) and then depicting the interrelationship between each one of them through four different aspects. The four aspects demonstrate the relationship between each barrier through the structural self-interaction matrix (SSIM). Within this matrix, (V) means that the variable barrier (i) leads to variable (j), (A) means that the variable barrier (j) leads to variable (i), (X) means that the variable barrier (i) leads to variable (j) and vice versa, and (O) means that there is no relationship between the variables (i) and (j). The SSIM is then converted to a reachability matrix (RM) that has two steps. The initial step is the reachability matrix, where the (V) and (X) are converted to binary number one (1), and (A) and (O) are converted to the binary number zero (0). In the next step, the initial reachability matrix is converted to a transitivity matrix. The transitivity matrix means that if variable (A) is related to (B) and (B) is related to (C), then (A) is certainly related to (C) (Jabeen *et al.*, 2018).

The final reachability matrix includes the summation of each row to get the driving power as well as the sum of each column to get the dependence power. The level partitions are then derived from the final reachability matrix where the reachability set includes the factor itself and another factor that it may affect. The antecedent set includes the factor itself and another factor that may impact it. Another column is derived that is composed of the intersection of these sets for all the different factors (Faisal *et al.*, 2019). The top level in the ISM hierarchy is determined where the factors in the reachability and intersection set have the same occupy level. When it is recognised, the barriers are removed from the other barriers. The process is repeated to determine the next level until each level is found. When each level is determined, the ISM model can be developed (Faisal and Khan, 2016). In this research, the ISM model is applied to the barriers that stand as an obstacle to intrapreneurship. Each barrier defined in the literature review section is presented below in Table 7.

Table 7: Intrapreneurship Barriers

Barrier Number	Barrier
B1	Internal Resistance
B2	Lack of Training
B3	Organisation Policies
B4	Lack of Required Support
B5	Inflexibility
B6	Lack of Incentive
B7	Lack of Financial Resources
B8	Static Nature of Organisation
B9	Lack of Intrapreneurial Talent
B10	Culture
B11	Regulatory Barriers
B12	Market Forces

Source: Constructed by authors

The relationship between each barrier is shown below in Table 8 in the structural self-interaction matrix. For instance, each relationship is presented by a letter, where (V) shows that internal resistance (B1) leads to inflexibility (B5).

Table 8: Structural Self-Interaction Matrix (SSIM)

	B12	B11	B10	B9	B8	B7	B6	B5	B4	B3	B2	B1
B1	V	A	A	A	V	X	A	V	X	A	V	–
B2	O	A	A	A	V	A	A	X	A	A	–	
B3	V	X	X	V	V	V	V	V	V	–		
B4	V	A	A	A	V	X	A	V	–			
B5	X	A	A	A	X	A	A	–				
B6	V	X	A	O	V	A	–					
B7	V	A	A	A	V	–						
B8	X	A	A	A	–							
B9	V	A	A	–								
B10	V	X	–									
B11	V	–										
B12	–											

Source: Constructed by authors

SSIM is converted to reachability matrix where (V), (X) and (A) are converted to binary number one (1), (O) is converted to the binary number zero (0). Further, transitivities were considered; for instance, there is no relationship between lack of incentive (B6) and lack of intrapreneurial talent (B9) where it is represented by the letter (O). Then, the relationship between internal resistance (B1) and lack of financial resources (B6) is (A), and the relationship between internal resistance (B1) and lack of intrapreneurial talent (B9) is also (A). Consequently, if variable (B6) is related to (B1) and (B1) is related to (B9), then (B6) is certainly related to (B9). The final reachability matrix is provided in Table 9 where the summation of each column is shown in the dependence power and the summation of each row is included in the driving power.

Table 9: Final Reachability Matrix

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	Driving Power
B1	1	1	0	1	1	0	1	1	0	0	0	1	7
B2	0	1	0	0	1	0	0	1	0	0	0	0	3
B3	1	1	1	1	1	1	1	1	1	1	1	1	12
B4	1	1	0	1	1	0	1	1	0	0	0	1	7

(continued)

Table 9: Final Reachability Matrix (continued)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	Driving Power
B5	0	1	0	0	1	0	0	1	0	0	0	1	4
B6	1	1	0	1	1	1	1	1	1*	0	1	1	9
B7	1	1	0	1	1	0	1	1	0	0	0	1	7
B8	0	1	0	0	1	0	0	1	0	0	0	1	4
B9	1	1	0	1	1	0	1	1	1	0	0	1	8
B10	1	1	1	1	1	1	1	1	1	1	1	1	12
B11	1	1	1	1	1	1	1	1	1	1	1	1	12
B12	0	0	0	0	1	0	0	1	0	0	0	1	3
Dependence Power	8	11	3	8	12	4	8	12	4	3	4	11	

*Indicates transitive relationship

Source: Constructed by authors

Using Table 9, an intersection of antecedent set and reachability set is developed. Once this is completed for all the elements, an analysis is done to find out the element for which the entries of the intersection set and the reachability are identical. This element(s) would be considered as the topmost element(s) in the hierarchy and would then be removed from the reachability set and the antecedent set of all the remaining elements. This iterative process is continued until the levels of all the variables under study are identified. The results are shown in Table 10.

Table 10: Level Partitions Iteration i to iv

	Reachability Set	Antecedent Set	Intersection	Level
B1	1,4,2,5,7,8,12	1,3,4,6,7,9,10,11	1,4,7	2
B2	2,5,8	1,2,3,4,5,6,7,8,9,10,11	2,5,8	1
B3	1,2,3,4,5,6,7,8,9,10,11,12	3,10,11	3,10,11	4
B4	1,2,4,5,7,8,12	1,3,4,6,7,9,10,11	1,4,7	2
B5	2,5,8,12	1,2,3,4,5,6,7,8,9,10,11,12	2,5,8,12	1
B6	1,2,4,5,6,7,8,11,12	3,6,10,11	6,11	3
B7	1,2,4,5,7,8,12	1,3,4,6,7,9,10,11	1,4,7	2
B8	2,5,8,12	1,2,3,4,5,6,7,8,9,10,11,12	2,5,8,12	1
B9	1,2,4,5,7,8,9,12	3,9,10,11	9	3
B10	1,2,3,4,5,6,7,8,9,10,11,12	3,10,11	3,10,11	4
B11	1,2,3,4,5,6,7,8,9,10,11,12	3,6,10,11	3,6,10,11	4
B12	5,8,12	1,2,3,4,5,6,7,8,9,10,11,12	5,8,12	1

Source: Constructed by authors

The ISM model in Figure 2 shows different levels of barriers that affect intrapreneurship. The first level includes four barriers: lack of training, inflexibility, static nature of organisation, and market forces. The second level is composed of three barriers: internal resistance, lack of required support, and lack of financial resources. The third level includes two barriers: lack of incentive and lack of intrapreneurial talent. Finally, the fourth level of variables includes organisation policies, culture, and regulatory barriers; these represent the dominant barriers that affect intrapreneurship. Each barrier is categorised on a certain level depending on its driving power and dependence. The barriers at the bottom of the model are of a strategic nature and should be given utmost importance by the management. In the current study, these include organisational policies, culture and regulatory barriers.

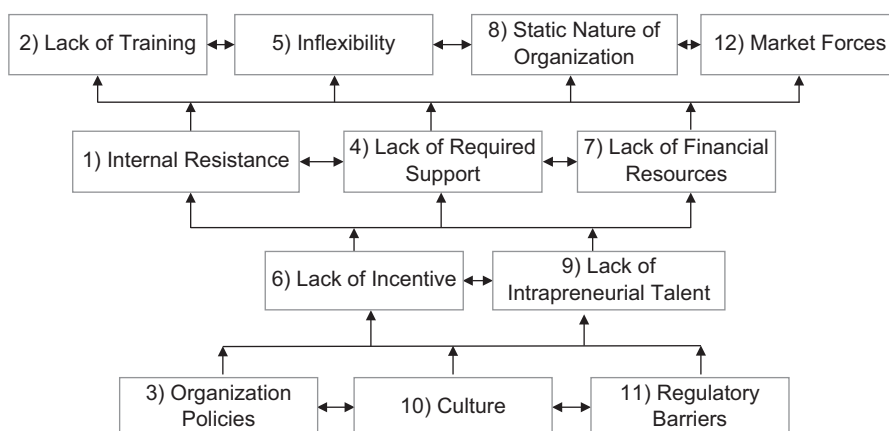


Figure 2: ISM Model for the Barriers Affecting Intrapreneurship

Source: Constructed by authors

DISCUSSION AND CONCLUSIONS

From the analysis of the results, it can be concluded that intrapreneurship is currently not a popular concept in organisations in Qatar; however, the perceived level of effect of the potential prerequisites and outcomes of intrapreneurship varies in organisations in Qatar. Moreover, the potential prerequisites show a positive effect on intrapreneurship in Qatar where development has had a high effect compared to other prerequisites. Results indicate that there is a significant positive correlation between the prerequisites and outcomes of intrapreneurship. The majority of the intrapreneurship variables have a strong positive correlation; this confirms the results found in the study conducted by Heinonen and Korvela (2014).

Intrapreneurial employees are the foundation for innovation and the subsequent competitive advantage of firms (Guerrero and Peña-Legazkue, 2013). However, the study found that public sector organisations have a lack of intrapreneurship focus as compared to private organisations,

especially in the variables individual motivation and individual capability. This might be because of the diverse background of employees. In addition, it has been shown that the level of managerial encouragement to employees is higher in public organisations compared to private organisations. The results in this study are similar to the study conducted by Sadler (2000), where he mentioned that there is a lack of intrapreneurship in the public sector compared to the private sector.

The outcomes of intrapreneurship in Qatar showed a high score of job satisfaction, suggesting that employees are satisfied in their work and are enthusiastic to bring new ideas to their organisations. There is a very strong positive correlation between intrapreneurship and job satisfaction, proving that when intrapreneurship is practiced in Qatar then the level of job satisfaction will increase subsequently. This supports the study of Antoncic and Antoncic (2011) and Felicio *et al.* (2012) that studied the relationships between intrapreneurship, job satisfaction, and growth. External satisfaction at work measures the favourable work atmosphere and workload, and the results show that employees in Qatar have a favourable atmosphere and can handle a higher workload in the case of intrapreneurship. Finally, the level of customer satisfaction, as well as employee satisfaction, was examined through correlation in which the results were statistically significant. This had a strong positive correlation between intrapreneurship level and employee satisfaction as well as customer satisfaction.

Intrapreneurial behaviour within an organisation often means departing from the usual way of doing things and challenging confirmed habits. The present study also found positive relationships between risk taking, flexibility and intrapreneurship. Previous studies by Antoncic and Hisrich (2003) and Vargas-Halabí *et al.* (2017) support these results. Woo (2018) found that the openness trait is related to intrapreneurship. In addition, North (2015) measured the correlation between teamwork and openness in relation to intrapreneurship and found it to be 99% statistically significant. Results of the present study also demonstrate that openness had a significant correlation with intrapreneurship.

Organisations in Qatar would gain numerous benefits from implementing intrapreneurship in their organisations. Intrapreneurship is a key for innovation, growth, and change where the organisations have the possibility to gain benefits. Moreover, when organisations implement intrapreneurship, employees will be engaged and committed to their workplace. Leadership skills will be developed in the organisations. Questionnaire results show that employees have the potential prerequisites of intrapreneurship and that they are ready and have the expertise to try implementing it in their organisations. Job satisfaction had a very strong positive correlation with intrapreneurship, and this suggests that organisations in Qatar can increase the level of job satisfaction of their employees through implementing intrapreneurship at their workplace.

Practical Implications of Research

Felicio *et al.* (2012) confirm that intrapreneurship influences organisational performance and results of the present study show that management support plays a key role in motivating intrapreneurship. Thereby, managers in Qatari organisations are required to develop traits of transformational leadership (Moriano *et al.*, 2014), provide easy access to resources and facilitate organisational

empowerment. A major finding of the study is the confirmation of a positive relationship between intrapreneurship and customer satisfaction. This result requires managers to create effective reward systems, experiment with new organisational structures that are more flat and flexible (McAdam and McClelland, 2002), and provide strategic autonomy to encourage creativity and innovation (Benitez-Amado *et al.*, 2010). The ISM model developed in this research indicates that lack of training is a key barrier; it might be possible that employees possess skills to grow as intrapreneurs but did not really understand how to approach this path (Feyzbakhsh *et al.*, 2008). Therefore, organisations in Qatar need to develop programmes focused on training employees to pursue intrapreneurship. Finally, managers need to appreciate that intrapreneurial activities of their employees would result not only in job satisfaction for employees but also market gains for the organisations.

LIMITATIONS AND SCOPE FOR FUTURE RESEARCH

Similar to other research, this study has some limitations. First is the small sample size that might limit the generalisability of results. Second, intrapreneurship is a broad concept, so it is difficult to narrow the concept and measure it in only two aspects, prerequisites and outcomes. Further, results cannot be compared in similar settings as there is a lack of studies on intrapreneurship in Middle East countries. Finally, the ISM model developed in the study has not been statistically validated. However, although research on intrapreneurship has been conducted in various settings, the literature does not report much in the case of emerging economies (Antonicic and Hisrich, 2000), in particular, in Gulf countries such as Qatar. Therefore this study can be considered among the first in the area of intrapreneurship in Gulf countries.

The future extensions for this study would be to use a larger sample size leading to better generalisability and realistic understanding of the concept of intrapreneurship from an emerging economy perspective. In addition, multiple case studies could be conducted to get deeper insight about intrapreneurship in a variety of organisations. Finally, the ISM model could be validated by using structural equation modeling utilising Smart-PLS software. Additionally, ISM is mainly dependent on the judgement of experts; this may be biased as some significant barriers may be missed. Future research could be taken-up to re-establish the model using Total Interpretive Structural Modelling (TISM) that could help for a greater degree of conceptualisation of related barriers and theory building.

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