

## Role of Incubation in Women Entrepreneurship Development in Pakistan

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**Abstract:** Business incubation is one of the implementation tools of government's strategy for facilitating women entrepreneurship development in Pakistan. Purpose of this study was to measure the importance and effectiveness of incubation services for women entrepreneurs in Pakistan. Study was carried out by using survey method. Tenants from a women specific incubator participated in this survey. Self-administered questionnaire measuring the importance and effectiveness of 34 incubation services was incorporated in this study. Results revealed that tenants perceived all the investigated incubation services very important for the success of their businesses. However, difference in perceived importance and perceived effectiveness, for majority of the incubation services, has been found.

**Key words:** Effectiveness, entrepreneurship, gender development, importance, incubation, Pakistan

### INTRODUCTION

Incubation, by definition, is a unique business support model that contains inbuilt capacity to contribute valuable interventions for enterprise creation and development (Eshun, 2009). The concept of incubation has achieved worldwide popularity for its efficacy in enabling a conducive environment for nurturing and supporting small and medium enterprises (OECD, 1997). A typical incubator stimulates creation and development of SMEs by providing physical work-space, shared office facilities, counseling, information, training, access to finance and professional services etc. at affordable prices (Lalkaka, 2001).

In Pakistan, women-owned businesses constitute merely 3% of the total enterprises (FBS, 2005). Research suggests that impediment pertaining to women entrepreneurship development in Pakistan is primarily embedded in lack of access to capital, land, business premises, information technology, training and agency assistance (Roomi and Parrott, 2008). Furthermore, goal of women entrepreneurship development can be reached by developing a coherent framework and undertaking collaborative initiative of government bodies, donor/int'l agencies, academia, financial institutions, chambers and business associations (Goheer and Development, 2003).

Women business incubation program in Pakistan aims to support and build capacity of women entrepreneurs in formation and initial periods of their businesses so that ventures get established and gain capability of operating independently. Although it is maiden initiative in Pakistan (Afaqi and Nadia, 2009),

business incubation has been practiced as a tool for women entrepreneurship development in various countries of the world (Scaramuzzi, 2002). In China, for example, Tianjin Women's Business Incubator has been set up under a joint project of UNDP, Australian and Chinese Governments. The program aims at promoting women's role in business for alleviation of poverty. Similarly in Jordan, business incubators have been established for assisting underprivileged women in income generation endeavors. The subject program is supported by Japanese Government and United Nations Development Fund for Women.

Incubators are growing in numbers, across the world, and so is the concern of their performance evaluation, among governments and other sponsors who continue to support them (Lalkaka, 2001). Systematic review of incubation literature, however, shows that incubation impact is surprisingly highly understudied area and thus represents wide scope for future research (Hackett and Dilts, 2004 b) The situation is not so different in case of Pakistan. There is acute paucity of research on effectiveness of incubation program. This study, indeed, is the first attempt to investigate effectiveness level of incubation services for women entrepreneurs in Pakistan. Whilst providing feed-back on incubation program in Pakistan, it draws implications for donor agencies, working for business development in Pakistan, in considering incubation approach as a potential tool for women entrepreneurship development in Pakistan.

**Effectiveness of incubation:** In broader sense, the term effectiveness of incubator connotes all the benefits and

satisfaction, which stake holders derive across the value chain, in relation to the resource incurred (Lalkaka, 2000). A typical incubator may involve large number of stake holders, including state authorities, local community, related universities, new start-ups, chambers and business associations, business development services provides, and donor/Int'l business development agencies. This diversity brings interests and compound inputs (resources for our purpose) to incubator and is fundamental feature of incubator-Incubation process. Access to multiple resources like easy approach to government departments, collaboration with universities, networking with industry and other incubators, provision of subsidized legal and other business development services etc. put forward a decisive part in winning performance of incubators (Peters *et al.*, 2004). Involvement of different stakeholders is therefore imperative for incubators. Given that all stakeholders have their own objectives and agendas behind lending support to incubator, effectiveness of incubator relates to the fulfillment of the respective objectives for each stake holder. Since different stakeholders have varied interests and objectives, it becomes a daunting task to develop a laid down criteria of measuring the success of incubators. For the same reason, as we shall see in the following review, study of literature reveals that there are no agreed benchmarks for measuring the effectiveness of incubators.

**Measuring effectiveness of incubators:** This study presents literature review in two sections. In the first section, an overview of wide-ranging studies on measuring incubator performance is described; whereas second part specifically consists of those studies which included value offered to tenants and their satisfaction as a benchmark to evaluate performance. It is pertinent to note that terms 'effectiveness, performance and evaluation' have been alternatively used in this paper.

**Section 1: Overview of research on measuring incubation performance:** Growing popularity of incubation model invited number of studies to explore and examine various facets of incubator-incubation process. The notion of incubator performance evaluation, however, is rooted in preliminary studies of incubators. Accordingly, we see that initial studies on incubators by Campbell and Allen (1987) and Allen and Weinberg (1988) concentrated on two indicators-rate of success of incubated businesses and new jobs created by them-for evaluation purposes. Following a rather broader prospective, Barse (1998) maintained that goals and objectives of incubators are valid and henceforth frequently used standards to gauge effectiveness. However, he also noted that this approach has limited researchers and sponsors to set benchmark for cross comparison of different type of incubators. While

studying University Technology Business Incubators, Mian (1997) attempted to determine effectiveness with three dimensional model:

- Program sustainability and growth
- Tenant survival and growth
- Contribution to the sponsoring university mission

He identified growth of rentable space, growth in tenant's sale, press coverage and number of incubator visitors as additional measures of effectiveness. Impact of business environment also became a consideration in incubator evaluation when Autio and Klofsten (1998) suggested that degree of fit between the needs of local market and services being offered by incubator is another applicable indicator of performance.

Bhabra-Remedios and Cornelius (2003) noted that economic agenda of sponsors has mostly been used as a measure of incubator evaluation and consequently theoretical considerations of research have remained limited to economic and financial models of incubator performance. They proposed that performance of new ventures, entering into, and graduating from that incubator, must also be tracked so that a comprehensive performance evaluation model be developed. Interestingly, a contradictory conclusion was made by Hackett and Dilts (2004b), who in purview of their systematic review of incubation research, concluded that incubation effectiveness studies have already been concentrated on incubatee success as a benchmark. Furthermore, drawing on option driven theory (Hackett and Dilts, 2004a), they proposed that in addition to the survival rate of incubatees, incubation effectiveness criteria should also include the ease and cost effective exist for those entrepreneurs who tend to close business.

**Section 2: Measuring effectiveness through perceived effectiveness and value to tenants:** Incubators vary in terms of their scope and sponsors. On the basis of missions, policies, services and performance Allen and McCluskey (1990) classified incubators in four discreet groups.

- For-profit property development incubators
- Non-profit development corporation incubators
- Academic incubators
- Business development for 'for-profit' seed capital incubators.

They proposed that incubators of each discrete group offer different level of value to its clients. Furthermore tenants obtain greatest value from those incubators that function as enterprise development programs. Value to tenants was also measured by Mian (1996) in his survey of tenant's perceptions regarding the usefulness of

services of University Technology Business Incubator. Lalkaka (2000) took a further step and suggested that satisfaction of tenants and other beneficiaries should continuously be measured so that timely corrective actions regarding functionality of incubators could be taken. He asserted that benefits obtained by tenants, sponsors and local community were criteria of effectiveness.

United Nation Development Program conducted performance evaluation of two Brazilian incubators(Lalkaka and Shaffer, 1999) . The variables studied in subject report included

- Role of incubator managements
- Analysis of financial viability and outreach
- Cost effectiveness and stakeholder satisfaction
- And performance evaluation by incubator tenants and graduates

Abduh *et al.* (2007b) investigated clients' satisfaction with business incubator services through a proposed framework. The subject framework calculates satisfaction/dissatisfaction of tenants with incubator services in terms of the mean difference between the importance of the service and the effectiveness of incubator management in providing the respective service, as perceived by the clients. Following the same framework, Lilai 2010 studied effectiveness and perceived value of business incubators from the perspective of start-ups in China. The study was aimed at providing insights into the perceived value and draw implications for future incubation programs in China.

**Rational and significance of the study:** Although handful studies are presented on incubation, measuring effectiveness of incubators remains understudied area(Hackett and Dilts, 2004b) . Likewise in Pakistan, despite the fact that business incubation is an important tool for Government of Pakistan to facilitate women entrepreneurship development, no study whatsoever has been conducted so far on incubation effectiveness, and role of incubators in women entrepreneurship development. Besides this gap, studying effectiveness of incubation in Pakistan becomes more important with the fact that government as well as international donor agencies consider incubation as a prospect strategy to develop businesses, especially women entrepreneurship, in Pakistan.

In this backdrop, purpose of the current study is to provide feed-back on aforementioned government strategy of incubator incubation in Pakistan. It also draws implications for donor agencies who might consider incubation approach of business development in Pakistan.

Incubation driven business support strategy has been adopted by number of donor agencies, including United Nations Industrial Development Organization, United Nations Development Fund, USAID, Turkish International Cooperation Agency, GTZ and German Association of Technology etc. in various parts of the world (Scaramuzzi, 2002). In case of Pakistan, a USAID sponsored program; Competitive Support Funded (CSF) has already suggested adaptation of incubator-incubation strategy. On grounds of a benchmarking study of SME support initiatives undertaken by regional developing countries, CSF proposed Ministry of Finance, Government of Pakistan to initiate preparatory work for taking on board relevant stake holders for adopting incubation approach of enterprise creation and support (Bayhan, 2006) . This study provides deliberations to donor agencies to envisage the prospects of incubation services in the field of women entrepreneurship development in Pakistan.

**Conceptual framework of the study:** As mentioned before, measuring incubator's effectiveness is a complex phenomenon. Various approaches such as goal approach, resource-based approach, and internal process approach etc. have been presented by scholars/practitioners to measure organization effectiveness. However these traditional approaches don't encompass all the necessary aspects of effectiveness measurement and thus present a limited view of this phenomenon ( Daft, 2001). In light of the shortcomings of above-mentioned approaches, a contingency effectiveness approach called "stakeholder approach" (also called the constituency approach)-acknowledging the presence of various constituencies in organization, and satisfaction of those constituencies as an indicator of organization's effectiveness/performance-has been presented (Anne, 1990). Because of the putative complexity and multidimensionality of effectiveness concept, stakeholder approach has gained enormous popularity among researchers(Kanter and Brinkerhoff, 1981)

Accordingly, this study incorporates "stakeholders approach" to measure the importance and effectiveness of incubation related facilities/services. Stakeholders approach asserts that all stakeholders should be studied to measure the effectiveness; however, this study has this limitation that it includes only the primary stakeholders (i.e. tenants). In doing so, it invites further researches to study other stakeholders and provide comprehensive feedback on incubation in Pakistan.

Furthermore, within the stakeholder perspective, the construct of this study incorporates the tenants' (clients) satisfaction in accordance with their perception about the importance/relevance of incubator's facilities/services for

their businesses. Since Women Business Incubation Center (WBIC) is the only initiative in Pakistan and no study so far has been conducted to see the appropriateness of facilities/services provided by this incubator, it seems of great importance to include the perception of incubates regarding the usefulness/importance of the facilities/services provided by this incubator. The incubator's model being adopted by the WBIC is largely based on the common facilities/services provided by all the incubators. Since no scientific effort was made to capture the contextual elements of women specific incubator in Pakistan, variance in terms of tenants' perception regarding the importance/relevance of WBIC's facilities/services can be expected. It is also pertinent to mention here that continuous feedback from tenants is required to take corrective measures to ensure the effective functioning of incubators (Lalkaka, 2000).

## METHODOLOGY

Study used quantitative method and survey design to measure the importance and effectiveness of women specific business incubation center in Pakistan. Self-administered questionnaire was used to collect data. Since the prime objective of this study was to study the effectiveness of women specific business incubators in Pakistan, only business incubators working exclusively for women were taken for participation. Women Business Incubation Center (WBIC) was the only incubator working exclusively for women in Pakistan. WBIC, at point of research, had 25 tenants. All the 25 registered tenants participated in this survey. Before the survey research's aim, objectives, and procedure were communicated to participants and a demonstration that how to fill up the questionnaire was given to ensure the accuracy and validity of data.

**Instrument:** As mentioned above, this study incorporates stakeholder approach to measure the effectiveness level of Women Business Incubation Center (WBIC) in delivering the promised facilities and services to its tenants. Thirty four types of individual facilities/services were identified from the literature provided by the WBIC's management, stating vision/mission, goals/objectives, and facilities/services offered by the incubator. All the facilities/services were grouped into five general categories namely infrastructural facilities (i.e. office, location, equipment etc.), marketing services (i.e. exploring markets, exhibitions etc.), training programs (i.e. marketing, management, business development skills), networking (i.e. chambers, associations etc.), and consultancy services (i.e. project development, legal/financial/technical services etc.). Complete list of

facilities and services containing 34 questions was discussed with and verified by the WBIC's management. Participants were asked to rate the importance of the listed facilities/services on the four point scale where 1 denotes "not at all important", 2 denotes "little important", 3 denotes "moderately important", and 4 denotes "very important". Similarly, effectiveness was rated on the same four point scale where 1 denotes "not at all effective", 2 denotes "little effective", 3 denotes "moderately effective", and 4 denotes "very effective". The similar type of four point rating scale has been used by various researchers in their studies of incubators effectiveness (Abduh *et al.*, 2007a; Allen and McCluskey, 1990; Mian, 1996).

**Data analysis and findings:** Data were analyzed by calculating and comparing the mean averages of tenants' perceptions regarding the importance of facilities/services for their businesses, and their perception about the effectiveness of WBIC in delivering those facilities/services. Cronbach's Alpha was used to see the reliability of data. Cronbach's alpha score of 0.84 showed the high reliability of data for further analyses. Composite means scores across five categories and individual mean score for individual facilities/services is calculated and presented separately.

**Infrastructural facilities:** Results, in terms of importance of the infrastructural facilities, show that tenants identify all the facilities provided by the incubator as very important (*Mean. 3.53*) for the success and effectiveness of their businesses as the composite mean score for this specific category is above 3 (Table 1). On the whole, among the five categories, tenants rate infrastructural facilities at fourth in terms of its importance for their businesses (Table 1). However, within this category, as Table 2 shows, with respect to the specific facilities tenants perceive that secure and hassle free workplace environment is the most important (*Mean. 3.70*) facility followed by the affordable office space (*Mean. 3.65*) and prime location/visibility (*3.62*).

Regarding the perception of tenants about the effectiveness of incubator in delivering the stated facilities, results show that generally tenants believe that incubator has been very effective (*Mean. 3.89*) in delivering the promised facilities to its tenants, with the highest composite mean score among all five categories (Table 1). However, with respect to individual facilities the secure and hassle free work environment is the factor which, according to respondents, incubator has delivered most effectively followed by the office space (*Mean. 3.90*), equipment (*3.90*), and shared facilities (*Mean. 3.86*) (Table 2).

Table 1: Composite mean scores across all categories

Facilities/services	N	Importance	Effectiveness
Infrastructural facilities	25	3.53	3.89
Marketing services	25	3.80	3.60
Training programs	25	3.62	3.52
Networking	25	3.60	3.30
Consultancy services	25	3.45	3.20

Table 2: Mean scores for importance and effectiveness of infrastructural facilities

Facilities	N	Importance	Effectiveness
Affordable office and infrastructural facilities	25	3.65	3.90
Prime location/visibility	25	3.62	3.85
Office equipment	25	3.36	3.90
Shared office facilities	25	3.35	3.86
Secure and hassle free workplace environment	25	3.70	3.95
Composite mean	25	3.53	3.89

Table 3: Mean scores for importance and effectiveness of marketing services

Marketing services	N	Importance	Effectiveness
Local as well as international market opportunities	25	3.85	3.49
Display centers	25	3.73	3.65
Participation in exhibitions/business fairs	25	3.84	3.65
Composite mean		3.80	3.60

Table 4: Mean scores for importance and effectiveness of training programs

Training programs	N	Importance	Effectiveness
Capacity building skills	25	3.45	3.56
Product development skills	25	3.62	3.45
Business management skills	25	3.55	3.34
Marketing skills	25	3.73	3.51
Customized training services	25	3.79	3.72
Composite mean		3.62	3.52

It is important to note that the composite mean score of level of effectiveness (Mean. 3.89) of incubator to provide facilities is substantially greater than the mean score of the perception of tenants regarding the importance of those facilities (Mean. 3.53). This difference is consistent (Table 1) across all the facilities within this category. However it is necessary to understand that this difference does not show the lesser importance of the facilities for the tenants (as mean value is greater than 3 on 4 point rating scale) instead this shows the incubator's management ability to provide those services beyond the expectations of its tenants.

**Marketing services:** Table 1 represents the overall perception of tenants regarding the importance of marketing related services for the success of their businesses (Mean. 3.80). Among the five, marketing services is the only category having the highest mean score in terms of its importance for tenants' businesses (Table 1). However, within the marketing related services category identification of new markets (Mean. 3.85) is the most important service followed by the participation in

exhibitions and business fairs (Mean. 3.84), and display centers (3.73) (Table 3).

Mean score of 3.60 shows the tenants' strong agreement with the incubator's effectiveness in delivering marketing related services to its tenants. However, as Table 3 shows, in terms of individual services incubator has provided services of display centers (Mean. 3.69) more effectively compared with participation in exhibitions and business fairs (Mean. 3.65) and identification of new markets (3.49) for the tenants.

The difference between the composite mean scores of the tenants' perception regarding importance of marketing services (Mean. 3.80) and effectiveness of incubator (Mean. 3.60) in delivering those services is also evident (Table 3). This difference is consistent across all the services within the marketing services category. However, it is pertinent to explain that the low mean score of tenants' perceived effectiveness than the perceived importance dimension does not reflect incubator's less ability to provide marketing services effectively (as mean score is above 3 on 4 point scale), instead it shows tenants' more faith in incubator's management capabilities to provide the same services even in a much better way than the current state.

**Training programs:** Composite means score in Table 4 shows the perception of tenants regarding the importance of training programs (Mean. 3.62) for the benefits of their businesses. Score of above 3 on the rating scale of 4 shows that tenants perceive training programs very useful for their businesses. Within the training category all the five capacity building and skills development related training programs are viewed as providing level of above 3 values on four point scale. However, as Table 4 shows, customized training is viewed as most important for tenants' business (Mean. 3.79) followed by the marketing skills development (3.73) and product development skills (3.62).

Regarding incubator's ability to deliver training related services, on the whole tenants perceive their incubator very effective (Mean. 3.52) in delivering training related services to its members. However, customized training services (Mean. 3.72), capacity building skills (Mean. 3.56), and marketing skills (3.51) are the respective categories where incubator, according to respondents, has delivered most effectively.

Like the previous categories, the difference between the composite mean scores of the tenants' perception regarding importance of training services (Mean. 3.62) and effectiveness of incubator (Mean. 3.52) in delivering those services is also evident (Table 4). However, as Table 4 shows, unlike the previous categories this difference is not consistent across all individual services within this category. For instance, in capacity building skills incubator has been more effective than tenants'

Table 5: Mean scores for importance and effectiveness of networking services

Networking	N	Importance	Effectiveness
Latest information on sectors, regulation, and exhibitions	25	3.64	3.36
Networking with chambers and associations	25	3.63	3.21
Information/updates on technological developments	25	3.52	3.35
Composite mean		3.60	3.30

Table 6: Mean scores for importance and effectiveness of consultancy services

Consultancy services	N	Importance	Effectiveness
Project identification	25	3.00	2.82
Project development	25	3.55	3.00
Business plan development	25	3.85	3.36
Developing marketing and management strategies	25	3.82	3.64
Designing brochures/ business cards/websites	25	3.64	3.45
Tax, company registration, contract designing	25	3.73	3.45
Managing cash or raising finance through banks	25	3.46	3.27
Using accounting software	25	2.55	2.36
Composite mean		3.45	3.20

ratings of perceived importance whereas, for rest of the services importance' score is greater than incubator's effectiveness. Given the fact that tenants have rated all the incubator's services above 3 on 4 point scale which mean a greater level of satisfaction with incubation services, the negative difference across various services however shows the tenants higher expectations from incubator to deliver on these services.

**Networking services:** Composite means score of tenants' perception regarding the importance of networking opportunities provided by incubator shows the very importance of such services (Mean. 3.6) in tenants' eyes (Table 5). Latest information regarding sectors, regulations, and exhibitions is viewed very important (Mean. 3.64) by tenants followed by the links with chambers and other business associations (Mean. 3.63).

Incubator has been viewed as very effective in delivering the networking related services (see Table 5) as tenants rated it above 3 on rating scale of 4. Within the category difference for individual services in terms of importance and effectiveness is consistent. However the higher means score of tenants' perception about the importance of networking related services than the incubator's level of effectiveness shows tenants' augmented expectations from incubator in providing these services with improved excellence.

**Consultancy services:** Table 6 represents the perception of tenants regarding the importance of consultancy related services for the success of their businesses (Mean. 3.45).

Within this category, according to tenants, consultancy in development of business plan (Mean. 3.85) is the most important service that incubator provides to its members followed by the development of marketing and management strategies (Mean. 3.82), and tax and registration related legal issues (Mean. 3.73).

Mean score of 3.60 shows the tenants' strong agreement with the incubator's effectiveness in delivering marketing related services to its tenants. However, as Table 3 shows, in terms of individual services incubator has provided services of display centers (Mean. 3.69) more effectively compared with participation in exhibitions and business fairs (Mean. 3.65) and identification of new markets (3.49) for the tenants.

The difference between the composite mean scores of the tenants' perception regarding importance of consultancy services (Mean. 3.45) and effectiveness of incubator (Mean. 3.20) in delivering those services is also evident (Table 6). This difference is consistent across all the services within the consultancy services category. However, it is pertinent to mention that the low mean score of tenants' perceived effectiveness than the importance dimension does not mean that incubator has failed to deliver these services effectively instead the variance lies within the domain of very effective which shows tenants' higher expectations from incubator in delivering these services more effectively.

## DISCUSSION

Primary aim of this study was to measure the importance and effectiveness of incubation related services for the women entrepreneurs in Pakistan. Stakeholder perspective is used for this study that includes the tenants' perception, one of the key stakeholders, to understand the nature of importance and effectiveness of incubation related facilities and services.

Since the mean values of all variables exceed 3.0, it shows the importance of all 34 facilities as well as services provided by the incubator for tenants' businesses. The reasons behind the tenants' higher rating of importance of incubator's facilities and services are understandable and generic as almost all the start-ups confront with deficiency of physical resources (i.e. capital, infrastructure etc.) as well as skills and abilities to manage their businesses successfully (Scarborough and Zimmerer, 2000; Terpstra and Olson, 1993; Van Auken, 1999). It is pertinent to mention here that all the female entrepreneurs are well aware of the current challenges of their businesses which are vital for the success of any business. This realization could be the reason of experience which they might have gained over a period of time, or because of the business education which they might have received from

institution, or because of the training which they might have taken from their business incubator. The finding of this study regarding the tenants' high perceived importance of incubation related facilities/services is consistent with the work of Abduh *et al.* (2007a) and Xu (2009) who in their empirical studies, conducted in Australia and China respectively, have found the similar results regarding the higher importance of investigated incubation related facilities/services. This similarity in results across different countries and cultures somehow confirms the universal need of small businesses for incubation related facilities/services. However, the difference in terms of degree of importance is evident in this study. Among the five general categories of facilities and services, marketing related services such as participation in exhibitions/business fairs, and identification of new market opportunities are viewed as the most important services provided by the incubator. Whereas infrastructural related facilities such as affordable office space, shared facilities, and office equipment are rated relatively as least important by the tenants in terms of their importance. The greater focus of tenants on marketing related services than the office related facilities show that women entrepreneurs in Pakistan are more aware of the need of marketing activities for the success of businesses in the current hyper competitive business era.

Regarding the perceived importance of individual facilities/services, tenants have viewed business plan development, identification of new markets, participation in exhibition/fairs, marketing/management strategies, and customized training programs for skills development as the most important services for their start-ups. It is pertinent to note that none of the above-mentioned services belong to infrastructural related facilities but to development related needs of the tenants' businesses. Compared with office related facilities, tenants' increased focus on the developmental needs of entrepreneurs and businesses is consistent with the Becker (1964) view that the most decisive factor of modern business's success is rooted in the human resources, not in the physical resources (Joseph, 2009). Similarly, from the above discussion it can easily be concluded that, in tenants' eyes, the distinguishing features for the success of their businesses relate to the availability/non-availability of developmental related services.

Regarding the effectiveness of incubator, tenants have shown their extended agreement with the incubator's effectiveness in delivering stated facilities/services. On the whole tenants hold favorable perception regarding the effectiveness of their incubator as the mean score for all the facilities/services is greater than 3 on the rating scale of 4. However, comparing the mean scores of all five categories it is interesting to note that office related facilities is the only category where mean score of

effectiveness exceeds the perceived importance of tenants. Possible reasons of this higher score could be incubator's better ability to facilitate its incubatees with state of the art facilities due to the government funding, or the impact of tenants' relatively perceived less importance of office related facilities on the rating of incubator's effectiveness. It is worth noting that none of the remaining four categories hold the same scoring as mean scores of incubator's effectiveness is lower than the mean scores of tenants' perceived importance for rest of the four categories. This negative difference between perceived importance and perceived effectiveness does not mean that incubator is not capable to manage development related services as the mean scores of both dimensions are high, instead it shows the tenants higher expectations from incubator for the increased level of services, probably by having more competent and professional managers, trainers, and/or consultants. For example marketing related services are undoubtedly critical especially for the survival and growth of small businesses however by inducting more competent and experienced marketing specialists incubation can enhance its effectiveness and can match its tenants' expectations.

Other than the office related facilities, among the remaining four categories, tenants have shown their least agreement with incubator's effectiveness in providing them with consultancy related services. However, this negative difference does not make much sense as the mean score of perceived importance of consultancy services is also lowest among the all five categories. The possible reason of tenants' low rating of consultancy services on both importance and effectiveness dimensions could be the paid nature of consultancy services or the little realization of the role of consultants in business's success. Networking is another category where tenants see their incubator less effective. They want to be more updated with latest information, and well connected with business related networks outside the incubator. However incubator can exceed its tenants expectations by linking its members with broader and relevant public as well as private networks (Lois *et al.*, 2004).

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#### **CONCLUSION**

The role of incubation in the development and sustainable growth of small and medium businesses is vital. This study's findings show female entrepreneurs are well aware of the contemporary challenges and needs of their businesses. Female entrepreneurs consider

incubation facilities/services very important for the success of their businesses. On the whole all the females are satisfied with their incubator in terms of providing them with various incubation related facilities/services. However, the gap between tenants' perception regarding the importance of incubator's facilities/services, and the incubator's effectiveness in delivering on those promised facilities/services highlights a slightly different picture. This gap doesn't portray the inability of incubator's management to deliver on those services instead it reflects the higher expectations of tenants from incubator's management to enhance their efficiency/effectiveness level since the competition and challenges faced by tenants' businesses have become more intense and severe.

### LIMITATIONS AND FUTURE RESEARCH

This study carries various limitations. Since in Pakistan there is only one incubator working specifically for women, small sample size of the study is unavoidable. This small sample size places question mark on the generalizability of the study's findings. The second limitation deals with the study of incubator's clients (tenants) only. Other stakeholders such as incubator's management, suppliers, government etc. could have been studied. However, this limitation highlights an opportunity for future research where more stakeholders can be studied. Comparative studies can be conducted by including other operational incubators in other countries as well as in Pakistan. Ex-tenants of incubators can also be studied to identify the impact of incubation on businesses survival and growth.

### REFERENCES

- Abduh, M., D.S. Clare, Q. Ali and T.B. Henry, 2007a. Investigating and classifying clients' satisfaction with business incubator services. *Managing Serv. Qual.*, 17(1): 74-91.
- Abduh, M., C. D'Souza, A. Quazi and H.T. Burley, 2007b. Investigating and classifying clients' satisfaction with business incubator services. *Managing Serv. Qual.*, 17(1): 74-91.
- Afaqi, J. and Nadia, 2009. SME Sector-Genesis, Challenges and Prospects. Small & Medium Enterprises Development Authority, Government of Pakistan.
- Allen, D.N. and R. McCluskey, 1990. Structure, policy, services and performance in the business incubator industry. *Entrep. Theory Pract.*, Winter: 61-78.
- Allen, D.N. and M.L. Weinberg, 1988. State investment in business incubators. *Public Admin. Quart.*, 12(2): 196-216.
- Anne, S.T., 1990. A multiple-constituency model of effectiveness: an empirical examination at the human resource subunit level. *Admin. Sci. Quart.*, 35: 458-483.
- Autio, E. and M. Klofsten, 1998. A Comparative Study of Two European Business Incubators. *J. Small Bus. Manage.*, 36: 30-43.
- Bayhan, A., 2006. Business Incubator Process: A Policy Tool for Entrepreneurship and Enterprise Development in a Knowledge-based Economy', Competitiveness Support Fund.
- Bearse, P., 1998. A question of evaluation: NBIA'S impact assessment of business incubators. *Econ. Dev. Quart.*, 12(4): 322.
- Becker, G., 1964. Human Capital. Columbia University Press, New York.
- Bhabra-Remedios, R. and B. Cornelius, 2003. Cracks in the Egg: Improving Performance Measures in Business Incubator Research.
- Campbell, C. and D.N. Allen, 1987. The small business incubator industry: Micro-level economic development. *Econ. Dev. Quart.*, 1(2): 178.
- Daft, R.L., 2001. *Essentials of Organization Theory & Design*. 2nd Edn., South-Western College Publishing, Thomson Learning.
- Eshun, Jr., J.P., 2009. Business incubation as strategy. *Bus. Strat. Series*, 10(3): 156-166.
- FBS, 2005. Economic Census of Pakistan.
- Goheer, N.A. and Development, ILOIPoBEtSE, 2003. Women Entrepreneurs in Pakistan: How to Improve their Bargaining Power. In Focus Programme on Boosting Employment through Small Enterprise Development, International Labour Office.
- Hackett, S.M. and D.M. Dilts, 2004a. A real options-driven theory of business incubation. *J. Technol. Transfer*, 29(1): 41-54.
- Hackett, S.M. and D.M. Dilts, 2004b. A systematic review of business incubation research. *J. Technol. Transfer*, 29(1): 55-82.
- Joseph, P.E.J., 2009. Business incubation as strategy. *Bus. Strat. Series*, 10(3): 156-166.
- Kanter, R.M. and D. Brinkerhoff, 1981. Organizational performance: Recent developments in measurement. *Annu. Rev. Sociol.*, 7: 321-349.
- Lalkaka, R., 2000. Assessing the Performance and Sustainability of Technology Business Incubators. New Economy and Entrepreneurial Business Creation in Mediterranean Countries, International Centre for Science and High Technology, Trieste, Italy.
- Lalkaka, R., 2001. Best Practices' in Business Incubation: Lessons (yet to be) Learned. International Conference on Business Centers: Actors for Economic & Social Development.

- Lalkaka, R. and D. Shaffer, 1999. Nurturing Entrepreneurs, Creating Enterprises: Technology Business Incubation in Brazil. pp: 2-3.
- Lilai, X., 2010. Business incubation in China: Effectiveness and perceived contributions to tenant enterprises. *Manage. Res. Rev.*, 33(1): 90-99.
- Lois, P., R. Mark and S. Malavika, 2004. The role of incubators in the entrepreneurial process. *J. Technol. Transfer*, 29(1): 83-91.
- Mian, S.A., 1996. Assessing value-added contributions of university technology business incubators to tenant firms. *Res. Policy*, 25(3): 325-335.
- Mian, S.A., 1997. Assessing and managing the university technology business incubator: an integrative framework. *J. Bus. Venturing*, 12(4): 251-285.
- OECD, 1997. *Technology Incubators: Nurturing Small Firms*. Organization for Economic Co-operation and Development, Paris.
- Peters, L., M. Rice and M. Sundararajan, 2004. The role of incubators in the entrepreneurial process. *J. Technol. Transfer*, 29(1): 83-91.
- Roomi, M.A. and G. Parrott, 2008. Barriers to development and progression of women entrepreneurs in Pakistan. *J. Entrepreneurship*, 17(1): 59.
- Scaramuzzi, E., 2002. *Incubators in Developing Countries: Status and Development Perspectives*. The World Bank, Washington DC.
- Scarborough, N.M. and T.W. Zimmerer, 2000. *Effective Small Business Management: An Entrepreneurial Approach*. 6th Edn., Prentice-Hall, Upper Saddle River, NJ.
- Terpstra, D.E and P.D Olson, 1993. Entrepreneurial start-up and growth: A classification of problems. *Entrep. Theory Pract.*, 17(3): 5-21.
- Van Auken, H.E., 1999. Obstacles to business launch. *J. Dev. Entrep.*, 4(2): 175-187.
- Xu, L., 2009. Business incubation in China: Effectiveness and perceived contributions to tenant enterprises. *Manage. Res. Rev.*, 33(1): 90-99.